In 2024, TotalEnergies celebrates 100 years!

Pioneers for 100 years

Form 20-F 2023

TotalEnergies

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 20-F

(Mark One)

☐ REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2023

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from ______ to ______

OR

☐ SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
Date of event requiring this shell company report

Commission file number: 1-10888

TotalEnergies SE

(Exact Name of Registrant as Specified in Its Charter)
N/A
(Translation of Registrant's name into English)

Republic of France

(Jurisdiction of Incorporation or Organization)
2, place Jean Millier
La Défense 6
92400 Courbevoie
France
(Address of Principal Executive Offices)

Jean-Pierre Sbraire
Chief Financial Officer
TotalEnergies SE
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La Défense 6
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(Name, Telephone, Email and/or Facsimile Number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Shares		**New York Stock Exchange***
American Depositary Shares	**TTE**	**New York Stock Exchange**

* Not for trading, but only in connection with the registration of American Depositary Shares, pursuant to the requirements of the Securities and Exchange Commission.

Securities registered or to be registered pursuant to Section 12(g) of the Act.

None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.
2,412,251,835 Shares, par value €2.50 each, as of December 31, 2023

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☑ No ☐

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes ☐ No ☑

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or an emerging growth company. See the definitions of "large accelerated filer", "accelerated filer", and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☑	Accelerated filer ☐	Non-accelerated filer ☐
		Emerging growth company ☐

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C.7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP ☐	International Financial Reporting Standards as issued by the International Accounting Standards Board ☑	Other ☐

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17 ☐ Item 18 ☐

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☑

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BASIS OF PRESENTATION

References in this annual report on Form 20-F (this "Annual Report" or this "document") to pages and sections of the "Universal Registration Document 2023" are references only to those pages and sections of TotalEnergies' Universal Registration Document for the year ended December 31, 2023 attached in Exhibit 15.1 to this Annual Report and forming a part hereof. Other than as expressly provided herein, the Universal Registration Document 2023 is not incorporated herein by reference.

TotalEnergies' Consolidated Financial Statements on pages F-9 to F-13 are prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) and IFRS as adopted by the European Union (EU) as of December 31, 2023.

In addition, this Annual Report and the Universal Registration Document 2023 contain certain measures that are not defined by generally accepted accounting principles (GAAP) such as IFRS. TotalEnergies' management uses these financial measures, along with the most directly comparable GAAP financial measures, in evaluating TotalEnergies' operating performance. TotalEnergies believes that presentation of this information, along with comparable GAAP measures, is useful to investors because it allows investors to understand the primary method used by management to evaluate performance on a meaningful basis. Non-GAAP financial measures should not be considered in isolation from, or as a substitute for, financial information presented in compliance with GAAP. Non-GAAP financial measures as reported by TotalEnergies may not be comparable with similarly titled amounts reported by other companies.

STATEMENTS REGARDING COMPETITIVE POSITION

Unless otherwise indicated, statements made in "Item 4. Information on the Company" referring to TotalEnergies' competitive position are based on TotalEnergies' estimates, and in some cases rely on a range of sources, including investment analysts' reports, independent market studies and TotalEnergies' internal assessments of market share based on publicly available information about the financial results and performance of market participants.

ADDITIONAL INFORMATION

This Annual Report reports information primarily regarding TotalEnergies' business, operations and financial information relating to the fiscal year ended December 31, 2023. For more recent updates regarding TotalEnergies, you may inspect any reports, statements or other information TotalEnergies files with the United States Securities and Exchange Commission ("SEC"). All of its SEC filings made after December 31, 2001 are available to the public at the SEC website at http://www.sec.gov and from certain commercial document retrieval services. See also "Item 10. - 10.7 Documents on display".

No material on the TotalEnergies website (https://totalenergies.com/) forms any part of this Annual Report. References in this Annual Report to documents on the TotalEnergies website are included as an aid to the location of such documents and such documents are not incorporated by reference. References to websites and the Sustainability & Climate – 2024 Progress Report contained in this Annual Report (including all exhibits hereto) are provided for reference only; the information contained on the referenced websites or in the Sustainability & Climate – 2024 Progress Report is not incorporated by reference in this Annual Report.

CERTAIN TERMS, ABBREVIATIONS AND CONVERSION TABLE

For the meanings of certain terms used in this document, as well as certain abbreviations and a conversion table, refer to the "Glossary" starting on page 651 of the Universal Registration Document 2023, incorporated herein by reference. The terms "TotalEnergies", "TotalEnergies company" the "Company", "we", "us" or "our" as used in this document refer to TotalEnergies SE collectively with all of its direct and indirect consolidated companies located in or outside of France. The term "Corporation" as used in this document exclusively refers to TotalEnergies SE, which is the parent company.

CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

TotalEnergies has made certain forward-looking statements (including within the meaning of the Private Securities Litigation Reform Act of 1995) in this document and in the documents referred to in, or incorporated by reference into, this Annual Report. This document may contain forward-looking statements including within the meaning of the Private Securities Litigation Reform Act of 1995, notably with respect to the financial condition, results of operations, business activities and strategy of TotalEnergies. This document may also contain statements regarding the perspectives, objectives, areas of improvement and goals of TotalEnergies, including with respect to climate change and carbon neutrality (net zero emissions). An ambition expresses an outcome desired by TotalEnergies, it being specified that the means to be deployed do not depend solely on TotalEnergies. These forward-looking statements may generally be identified by the use of the future or conditional tense or forward-looking words such as "will", "should", "could", "would", "may", "likely", "might", "envisions", "intends", "anticipates", "believes", "considers", "plans", "expects", "thinks", "targets", "aims" or similar terminology. Such forward-looking statements included in this document are based on economic data, estimates and assumptions prepared in a given economic, competitive and regulatory environment and considered to be reasonable by TotalEnergies as of the date of this document.

These forward-looking statements are not historical data and should not be interpreted as assurances that the perspectives, objectives or goals announced will be achieved. They may prove to be inaccurate in the future, and may evolve or be modified with a significant difference between the actual results and those initially estimated, due to the uncertainties notably related to the economic, financial, competitive and regulatory environment, or due to the occurrence of risk factors, such as, notably, the price fluctuations in crude oil and natural gas, the evolution of the demand and price of petroleum products, the changes in production results and reserves estimates, the ability to achieve cost reductions and operating efficiencies without unduly disrupting business operations, changes in laws and regulations including those related to the environment and climate, currency fluctuations, technological innovations, meteorological conditions and events, as well as socio-demographic, economic and political developments, changes in market conditions, loss of market share and changes in consumer preferences, or pandemics such as COVID-19. Additionally, certain financial information is based on estimates particularly in the assessment of the recoverable value of assets and potential impairments of assets relating thereto.

Readers are cautioned not to consider forward-looking statements as accurate, but as an expression of the Company’s views only as of the date this document is published. TotalEnergies SE and its subsidiaries have no obligation, make no commitment and expressly disclaim any responsibility to investors or any stakeholder to update or revise, particularly as a result of new information or future events, any forward-looking information or statement, objectives or trends contained in this document. In addition, the Company has not verified, and is under no obligation to verify any third-party data contained in this document or used in the estimates and assumptions or, more generally, forward-looking statements published in this document.

For additional factors, you should read the information set forth under “Item 3. - 3.1 Risk Factors”, “Item 4. Information on the Company”, “Item 5. Operating and Financial Review and Prospects” and “Item 11. Quantitative and Qualitative Disclosures about Market Risk”.

Additionally, the developments of environmental and climate change-related issues in this document are based on various frameworks and the interests of various stakeholders which are subject to evolve independently of our will. Moreover, our disclosures on such issues, including climate-related disclosures, may include information that is not necessarily "material" under US securities laws for SEC reporting purposes or under applicable securities law.

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

3.1 Risk factors

TotalEnergies conducts its business in a constantly changing environment and is exposed to risks that, if they were to occur, could have a material adverse effect on its business, financial condition, reputation, outlook, or the price of financial instruments issued by TotalEnergies SE. Point 3.1 of chapter 3 of the Universal Registration Document 2023 (starting on page 130), incorporated herein by reference, presents the significant risk factors specific to TotalEnergies, to which it believes it is exposed as of the filing date of this Annual Report.

For additional information on the risks to which TotalEnergies believes it is exposed as of the filing date of this Annual Report, along with its approaches to managing certain of these risks, please refer to “Item 5. Operating and financial review and prospects” and “Item 11. Quantitative and qualitative disclosures about market risk”, as well as points 3.2, 3.3 and 3.6 of chapter 3 (starting on pages 140, 144 and 153, respectively) of the Universal Registration Document 2023, incorporated herein by reference.

ITEM 4. INFORMATION ON THE COMPANY

The following information providing an integrated overview of TotalEnergies from the Universal Registration Document 2023 is incorporated herein by reference:

- presentation of TotalEnergies and its governance (points 1.1.1 and 1.8 of chapter 1, starting on pages 6 and 41 respectively);
- its strategy and ambition (points 1.2 and 1.3 of chapter 1, starting on page 14);
- history, employees, integrated business model, industrial assets and geographic presence (points 1.1.2, 1.1.3, and 1.7.1-1.7.4 of chapter 1, starting on pages 10, 12 and 37 respectively);
- an overview of its sustainability-linked commitments, investment policy, R&D and dialogue with stakeholders (points 1.4, 1.5, 1.6 and 1.7.5 of chapter 1, starting on pages 27, 31, 34 and 40 respectively); and
- organizational structure (point 1.8.3 of chapter 1, starting on page 44).

The following information providing an overview of TotalEnergies’ businesses and activities from the Universal Registration Document 2023 is incorporated herein by reference:

- information concerning TotalEnergies’ principal capital expenditures and divestitures (point 1.5 of chapter 1, starting on page 31). See also “Item 5. Operating and financial review and prospects”;
- business overview for fiscal year 2023 (points 2.1 to 2.6 of chapter 2, starting on page 70); and
- geographical breakdown of TotalEnergies’ sales, property, plants and equipment, intangible assets and capital expenditures over the past three years (Note 4 to the Consolidated Financial Statements, on page F-31).

The following other information from the Universal Registration Document 2023 is incorporated herein by reference:

- countries under economic sanctions (point 3.2 of chapter 3, starting on page 140);
- insurance and risk management (point 3.4 of chapter 3, starting on page 151);
- non-financial performance and additional reporting information (points 5.1 to 5.11 of chapter 5 and chapter 11, starting on page 274 and 615 respectively); and
- investor relations (point 6.6 of chapter 6, starting on page 404).

See also “Additional Information” of this Annual Report.

ITEM 4A. UNRESOLVED STAFF COMMENTS

None.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

This section is an analysis of the financial performance and of significant trends that may affect TotalEnergies' future performance and it should be read in conjunction with the Consolidated Financial Statements and the Notes thereto starting on page F-9. The Consolidated Financial Statements and the Notes thereto are prepared in accordance with IFRS as issued by the IASB and IFRS as adopted by the EU.

This section contains forward-looking statements that are subject to risks and uncertainties. For a list of important factors that could cause actual results to differ materially from those expressed in the forward-looking statements, see "Cautionary Statement Concerning Forward-Looking Statements" starting on page ii.

For information on the invasion of Ukraine by Russia and the situation of the Company at March 29, 2024, refer to Item 5. – 5.6 starting on page 23.

5.1 Overview

TotalEnergies' results are affected by a variety of factors, including changes in crude oil and natural gas prices and refining and marketing margins, all generally expressed in dollars, as well as changes in exchange rates, particularly the value of the euro compared to the dollar. Higher crude oil and natural gas prices generally have a positive effect on the income of TotalEnergies because the Exploration & Production segment's oil and gas business and the Integrated LNG and downstream gas business are positively impacted by the resulting increase in revenues. Lower crude oil and natural gas prices generally have a corresponding negative effect. The effect of changes in crude oil prices on the activities of TotalEnergies' Refining & Chemicals and Marketing & Services segments (Downstream) depends upon the speed at which the prices of refined petroleum products adjust to reflect such changes. TotalEnergies' results are also significantly affected by the costs of its activities, in particular those related to exploration and production, and by the outcome of its strategic decisions with respect to cost reduction efforts. In addition, TotalEnergies' results are affected by general economic and political conditions and changes in governmental laws and regulations, as well as by the impact of decisions by OPEC+ on production levels. For more information, refer to "Item 3. – 3.1 Risk factors".

In an uncertain environment, TotalEnergies' balanced transition strategy, which combines growth in Oil & Gas, in particular in Integrated LNG and Integrated Power, delivered strong results in 2023, in line with its objectives.

In 2023, TotalEnergies reported net income of $21.4 billion and adjusted net income[1] of $23.2 billion. TotalEnergies reported cash flow from operating activities of $40.7 billion and cash flow from operations excluding working capital (CFFO)[1] of $35.9 billion. TotalEnergies achieved top tier 20% return on equity (ROE) and 19% return on average capital employed (ROACE)[1]. In 2023, TotalEnergies cash flow used in investing activities was $(16.5) billion and net investment[1] was $16.8 billion, including 35% for low-carbon energies, mainly in power. Ordinary dividends increased by 7.1% and TotalEnergies completed $9 billion in buybacks of its shares, of which $1.5 billion was linked to the disposal of its Canadian assets. TotalEnergies further reduced net debt, achieving 5% gearing[1], including a $5 billion positive contribution of working capital. Payout[1] increased to an attractive 46.0% in 2023. In addition, TotalEnergies promoted balanced profit sharing with its employees around the world and in particular in France (average 5% wage increase[2], value sharing bonus[2] of at least €2,000 and support for employees in their energy transition[3]) and with its customers through rebates in France (€1.99 per liter price cap and renewal of the rebate on gas and power prices to private customers).

In 2023, Oil & Gas business production increased 2% year-on-year (excluding Novatek), driven by strong LNG production growth of 9%. In 2023, the Exploration & Production segment generated strong adjusted net operating income of $10.9 billion, cash flow from operating activities of $18.5 billion and cash flow from operations excluding working capital (CFFO) of $19.1 billion. TotalEnergies' exploration successes continued in Namibia, Suriname, and Nigeria. The Company reports a reserves replacement ratio of 141% in 2023 and a proved reserves life index of 12 years as of December 31, 2023, demonstrating the strength of its project portfolio.

In 2023, Integrated LNG generated annual adjusted net operating income of $6.2 billion, cash flow from operating activities of $8.4 billion and cash flow from operations excluding working capital (CFFO) of $7.3 billion, which is lower than the exceptional results in 2022 but higher than 2021 thanks to growth in its portfolio.

In 2023, Integrated Power cash flow from operating activities was $3.6 billion and cash flow from operations excluding working capital (CFFO) was $2.2 billion, which is more than twice the 2022 cash flow from operations excluding working capital (CFFO). Integrated Power achieved a ROACE[1] of 9.8% in 2023, demonstrating the relevance of the Company's integrated business model. TotalEnergies announced several acquisitions in 2023, further enhancing its Integrated Power business model in the US and in Europe: 1.5 GW of flexible CCGT[4] capacity in Texas and a renewable energy aggregator (9 GW) and a battery storage developer (2 GW) in Germany.

In 2023, Downstream (Refining & Chemicals and Marketing & Services) adjusted net operating income was $6.1 billion, cash flow from operating activities was $9.9 billion and cash flow from operations excluding working capital (CFFO) was $8.2 billion, supported by good availability in Europe and still attractive refining margins, although lower compared to historic levels in 2022.

In view of the structural cash flow growth and share buybacks executed in 2023 (5.9% of the share capital), the Board of Directors will propose at the Shareholders' Meeting to be held on May 24, 2024, the distribution of a final 2023 dividend of €0.79/share, resulting in an increase of 7.1% for the ordinary 2023 dividend, compared to the ordinary 2022 dividend, to €3.01/share. Furthermore, the Board of Directors confirmed a shareholder return policy for 2024, which will combine an increase in interim dividends of 6.8% to €0.79/share and $2 billion of share buybacks in the first quarter of 2024, which will remain the base level for quarterly buybacks in the current environment.

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1 Adjusted net income, cash flow from operations excluding working capital (CFFO), capital employed, net investment, gearing, payout and ROACE are non-GAAP financial measures. Refer to the "Glossary" starting on page 651 of the Universal Registration Document 2023 for the definitions and further information on Non-GAAP measures (alternative performance measures). The reconciliation tables for the non-GAAP financial measures are set forth under "Item 5 – 5.3 Adjusted Items and Reconciliation of non-GAAP financial measures" starting on page 15.

2 Applicable to employees covered by the Common Corpus of Employee Relations Agreement (SSC) i.e., around 14,000 employees in France.

3 Applicable to employees of all fully owned companies in France and of companies in which TotalEnergies holds more that 50% in France, subject to agreement by their governing bodies.

4 Combined-cycle gas turbine (CCGT) power plants.

Outlook

At the start of 2024, Brent prices are navigating around $80/b in an uncertain economic environment. Oil markets are facing geopolitical tensions in the Middle East on one hand and non-OPEC production growth balanced by OPEC+ policy on the other hand. According to the IEA, global oil demand is anticipated to grow 1.2 Mb/d in 2024, which is in line with the average annual demand growth rate during 2000-2023 of 1.2%/yr.

LNG markets should remain in tension due to very limited LNG capacity additions expected in 2024 (2%) and growing demand thanks to lower LNG prices. TotalEnergies expects LNG sales above 40 Mt over the year. Given the evolution of oil and gas prices in recent months and the lag effect on price formulas, TotalEnergies anticipates that its average LNG selling price should be stable around $10/Mbtu in the first quarter 2024.

First quarter 2024 expected hydrocarbon production should be above 2.4 Mboe/d due to the start-up of Mero 2 in Brazil and the disposals of Canadian upstream assets, effective during fourth quarter 2023. For 2024, TotalEnergies anticipates hydrocarbon production will grow 2% compared to 2023 excluding Canada. Production will benefit from several additional project start-ups, including Tyra in Denmark and Anchor in the US.

Full-year refining utilization rate is expected to increase to above 85% in 2024 with no major turnarounds planned.

Confident in the strong fundamentals of the Company, which celebrates its 100 year anniversary in 2024, the Board of Directors confirmed a shareholder return policy for 2024, which will combine an increase in interim dividends of 6.8% to €0.79/share and $2 billion of share buybacks in the first quarter of 2024, in line with the following cash flow allocation priorities:

- a sustainable ordinary dividend through cycles, that was not cut during the Covid crisis, and whose increase is supported by underlying cash flow growth,
- investments to support of a strategy balanced between the various energies,
- maintaining a strong balance sheet,
- buybacks to share surplus cash flow generated at high prices.

5.2 Results 2023-2021

5.2.1 TotalEnergies:

As of and for the year ended December 31 (in millions of dollars, except per share data)	2023	2022	2021
Sales	237,128	280,999	205,863
Net income (TotalEnergies share)	21,384	20,526	16,032
Adjusted EBITDA (1)	50,030	71,578	42,302
Adjusted net operating income (2) from business segments	25,107	38,475	20,209
Exploration & Production	10,942	17,479	10,439
Integrated LNG	6,200	11,169	5,591
Integrated Power	1,853	975	652
Refining & Chemicals	4,654	7,302	1,909
Marketing & Services	1,458	1,550	1,618
Adjusted net income (1) (TotalEnergies share)	23,176	36,197	18,060
Fully-diluted earnings per shares ($)	8.67	7.85	5.92
Fully-diluted weighted-average shares (millions)	2,434	2,572	2,647
Cash flow used in investing activities	(16,454)	(15,116)	(13,656)
Organic investments (1)	18,126	11,852	12,675
Net acquisitions (1)	(1,289)	4,451	632
Net investments (1)	16,837	16,303	13,307
Cash flow from operating activities	40,679	47,367	30,410
Cash flow from operations excluding working capital (CFFO) (1)	35,946	45,729	29,140
Debt Adjusted Cash Flow (DACF) (1)	36,451	47,025	30,660

(1) Adjusted EBITDA, adjusted net income, organic investments, net acquisitions, net investments, cash flow from operations excluding working capital (CFFO) and debt adjusted cash flow (DACF) are non-GAAP financial measures. Refer to the "Glossary" starting on page 651 of the Universal Registration Document 2023 for the definitions and further information on Non-GAAP measures (alternative performance measures). The reconciliation tables for the non-GAAP financial measures are set forth under "Item 5. – 5.3 Adjusted Items and Reconciliation of non-GAAP financial measures" starting on page 15.
(2) Detail of adjustment items shown in the business segment information. See "Item 5.- 5.2.2 Business segment reporting" below for further details.

Market environment parameters	2023	2022	2021
Brent *($/b)*	82.6	101.3	70.9
Henry Hub *($/Mbtu)*(1)	2.7	6.5	3.7
NBP *($/Mbtu)*(2)	12.6	32.4	16.4
JKM *($/Mbtu)*(3)	13.8	33.8	18.5
Average price of liquids *($/b)* (4), (5)	76.2	91.3	65.0
Average price of gas *($/Mbtu)* (4), (5)	6.64	13.15	6.60
Average price of LNG *($/Mbtu)* (4), (6)	10.76	15.90	8.80

(1) Henry Hub (HH), a pipeline located in Erath, Louisiana, USA, serves as the official delivery point for New York Mercantile Exchange (NYMEX) futures contracts. It is widely used as a price reference for natural gas markets in North America. The hub is operated by Sabine Pipe Line LLC and is connected to four intrastate and nine interstate pipelines, including the Transcontinental, Acadian and Sabine pipelines.
(2) NBP (National Balancing Point) is a virtual natural gas trading point in the United Kingdom for transferring rights in respect of physical gas and which is widely used as a price benchmark for the natural gas markets in Europe. NBP is operated by National Grid Gas plc, the operator of the UK transmission network.
(3) JKM (Japan-Korea Marker) measures the prices of spot liquid natural gas (LNG) trades in Asia. It is based on prices reported in spot market trades and/or bids and offers collected after the close of the Asian trading day at 16:30 Singapore time.
(4) Does not include oil, gas and LNG trading activities, respectively.
(5) Sales in $ / Sales in volume for consolidated affiliates.
(6) Sales in $ / Sales in volume for consolidated and equity affiliates.

Hydrocarbon production(1)	2023	2022	2021
Hydrocarbon production (kboe/d)	2,483	2,765	2,819
Oil (including bitumen) (kb/d)	1,388	1,307	1,274
Gas (including condensates and associated NGL) (kboe/d)	1,095	1,458	1,545
Hydrocarbon production (kboe/d)	2,483	2,765	2,819
Liquids (kb/d)	1,550	1,519	1,500
Gas (Mcf/d)	5,028	6,759	7,203
Hydrocarbon production excluding Novatek (kboe/d)	2,483	2,437	2,508

(1) TotalEnergies production = Exploration & Production production + Integrated LNG production.

Return on equity (ROE) as of and for the year ended December 31 (in millions of dollars)	2023	2022	2021
Consolidated net income	21,510	21,044	16,366
Adjusted net income	23,450	36,657	18,391
Average adjusted shareholders' equity	115,006	112,831	108,504
Return on equity (ROE)	**20.4%**	**32.5%**	**16.9%**

Return on average capital employed (ROACE) as of and for the year ended December 31 (in millions of dollars)	2023	2022	2021
Consolidated net income	21,510	21,044	16,366
Adjusted net operating income	24,684	38,212	19,766
Average capital employed	130,517	135,312	142,215
ROACE	**18.9%**	**28.2%**	**13.9%**

For a discussion of TotalEnergies' proved reserves, refer to point 2.1.1 of chapter 2 of the Universal Registration Document 2023 (starting on page 71), incorporated herein by reference. See also point 9.1 of chapter 9 of the Universal Registration Document 2023 (starting on page 536), incorporated herein by reference, for additional information on proved reserves, including tables showing changes in proved reserves by region.

2023 vs. 2022

In terms of market environment parameters:

- the Brent price decreased by 18% to $82.6/b on average in 2023 from $101.3/b on average in 2022;
- TotalEnergies' average liquids price realization[5] decreased by 17% to $76.2/b in 2023 from $91.3/b in 2022;
- TotalEnergies' average gas price realization[6] decreased by 50% to $6.64/Mbtu in 2023 from $13.15/Mbtu in 2022;
- TotalEnergies' average LNG price realization[7] decreased by 32% to $10.76/Mbtu in 2023 from $15.90/Mbtu in 2022.

Hydrocarbon production was 2,483 kboe/d in 2023, up 2% compared to 2,437 kboe/d in 2022 (excluding Novatek), comprised of:

- +4% due to start-ups and ramp-ups, including Johan Sverdrup Phase 2 in Norway, Mero 1 in Brazil, Ikike in Nigeria, Block 10 in Oman, and Absheron in Azerbaijan,
- +1% due to improved security conditions in Nigeria and Libya,
- +1% due to lower planned maintenance and unplanned shutdowns, including at the Kashagan field in Kazakhstan,
- -1% portfolio effect, related to the end of the Bongkot operating licenses in Thailand, exit from Termokarstovoye in Russia, disposal of the Canadian oil sands assets and effective withdrawal from Myanmar, partially offset by the entries in the producing fields of SARB Umm Lulu in the United Arab Emirates, of Sépia and Atapu in Brazil, of Ratawi in Iraq, and the increased participation in the Waha concessions in Libya,
- -3% due to the natural field decline.

The euro-dollar exchange rate averaged $1.0813/€ in 2023, compared to $1.0530/€ in 2022.

Net income (TotalEnergies share) was $21,384 million in the full-year 2023, an increase of 4% compared to $20,526 million in the full-year 2022.

Adjusted net income (TotalEnergies share) was $23,176 million in the full-year 2023 compared to $36,197 million in the full-year 2022, mainly due to lower oil prices and refining margins.

Adjustments to net income were $(1,792) million in the full-year 2023, consisting mainly of:

- $2.0 billion gain on asset sales, including the sale of the Company's retail network in Germany and our Canadian assets,
- $(2.2) billion related to asset impairments, primarily related to upstream assets in Kenya and upstream mature assets in Congo, as well as Al Shaheen in Qatar for timing effect of taxes, the Yunlin offshore wind project in Taiwan, divestment projects of Naphtachimie to INEOS and the Natref refinery in South Africa, as well as client portfolios related to goodwill from gas & power marketing activities in Belgium, Spain, and France,
- $(0.7) billion in inventory effects and effects of changes in fair value,
- $(0.9) billion in other adjustments, notably the revaluation of Total Eren's previously held equity interest, the devaluation of the Argentine peso, the CCGT Infra-Marginal Income Contribution in France and the exceptional European solidarity contribution.

TotalEnergies SE bought back, in 2023, 144,700,577 TotalEnergies SE shares on the market, i.e., 6.00% of the share capital as of December 31, 2023, of which 142,569,920 for cancellation and, in 2022, 140,207,743 TotalEnergies SE shares on the market, i.e., 5.35% of the share capital as of December 31, 2022, of which 128,869,261 for cancellation. See also "Item 5. - 5.4.3 Shareholders' equity", below.

Fully-diluted earnings per share was $8.67 in 2023 compared to $7.85 in 2022.

Acquisitions were:

- $6,428 million in 2023, primarily related to Integrated Power, including the creation of a new joint venture with Adani Green Energy Limited in India and the acquisition of 50% of Rönesans Enerji in Turkey, as well as the acquisition of the remaining 70.4% of Total Eren, a 20% interest in the SARB and Umm Lulu concession in the United Arab Emirates, the acquisition of a 6.25% stake in the NFE LNG project and 9.375% in NFS LNG project in Qatar, and a 34% stake in a joint venture with Casa dos Ventos in Brazil.

Divestments were:

- $7,717 million in 2023, primarily related to the sale of the Company's Canadian assets to ConocoPhillips and Suncor and the retail network in Germany to Alimentation Couche-Tard, as well as the sale of a 40% interest in Block 20 in Angola and a partial farm down in an offshore wind project off the coast of New York and New Jersey in the US.

TotalEnergies' cash flow from operating activities was $40,679 million in the full-year 2023, a decrease of 14% compared to $47,367 million in the full-year 2022.

5 Sales in $ / Sales in volume for consolidated affiliates.
6.Sales in $ / Sales in volume for consolidated affiliates.
7.Sales in $ / Sales in volume for consolidated and equity affiliates.

TotalEnergies' cash flow used in investing activities was $(16,454) million in the full-year 2023 compared to $(15,116) million in the full-year 2022.

TotalEnergies' cash flow from operations excluding working capital (CFFO) was $35,946 million in the full-year 2023, a decrease of 21% compared to $45,729 million in the full-year 2022.

For the full-year 2023, TotalEnergies' cash flow from operating activities was $40,679 million and the cash flow from operations excluding working capital (CFFO) was $35,946 million, which reflects positive variation from a working capital release of $4.8 billion, of which around $2 billion was related to exceptional fiscal debt variations that were mainly due to the change of the gas and power price cap compensation system in France and the disposal of the Company's German retail network to Alimentation Couche-Tard.

The change in working capital was a decrease of $6,091 million for the full-year 2023 in accordance with IFRS. The difference of $1,358 million between IFRS and replacement cost method corresponds to the following adjustments: (i) the pre-tax inventory valuation effect of $714 million, (ii) plus the mark-to-market effect of Integrated LNG's and Integrated Power's contracts of $565 million, (iii) plus the capital gains from the renewables project sale of $81 million and (iv) less the organic loan repayments from equity affiliates of $2 million.

The change in working capital, as determined using the replacement cost method excluding the mark-to-market effect of Integrated LNG and Integrated Power's contracts, including capital gain from renewable project sales and including organic loan repayment from equity affiliates, was a decrease of $4,733 million for the full-year 2023, compared to a decrease of $1,638 million for the full-year 2022.

TotalEnergies' net cash flow[8] was $19,109 million in 2023 compared to $29,426 million in 2022, reflecting the $9,783 million decrease in cash flow from operations excluding working capital (CFFO) and the $534 million increase in net investments to $16,837 million in 2023.

See also "Item 5. - 5.4 Liquidity and Capital Resources" below.

2022 vs. 2021

In terms of market environment parameters:

- the Brent price increased by 43% to $101.3/b on average in 2022 from $70.9/b on average in 2021;
- TotalEnergies' average liquids price realization[9] increased by 41% to $91.3/b in 2022 from $65.0/b in 2021;
- TotalEnergies' average gas price realization[10] increased by 99% to $13.15/Mbtu in 2022 from $6.60/Mbtu in 2021;
- TotalEnergies' average LNG price realization[11] increased by 81% to $15.90/Mbtu in 2022 from $8.80/Mbtu in 2021.

Hydrocarbon production was 2,765 kboe/d in 2022, down 2% year-on-year, comprised of:

- +3% due to start-ups and ramp-ups, notably CLOV Phase 2 and Zinia Phase 2 in Angola, Mero 1 in Brazil and Ikike in Nigeria,
- +2% due to the increase in OPEC+ production quotas,
- -3% portfolio effect, notably related to the end of the operating licenses for Qatargas 1 and Bongkot North in Thailand, as well as the effective withdrawal from Myanmar, the exit from Termokarstovoye and Kharyaga in Russia, partially offset by the entry into the Sépia and Atapu producing fields in Brazil,
- -1% due to security-related production cuts in Libya and Nigeria,
- -1% due to price effect,
- -2% due to the natural decline of the fields.

The euro-dollar exchange rate averaged $1.0530/€ in 2022, compared to $1.1827/€ in 2021.

Net income (TotalEnergies share) increased to $20,526 million in 2022 compared to $16,032 million in 2021.

In 2022, total adjustments to net income (TotalEnergies share), which include the after-tax inventory effect, special items and the impact of changes in fair value, had an impact of $(15,671) million, comprised of $(15,743) million for impairments including $(15.7) billion for impairments and exceptional provisions, including $(14.8) billion in related to Russia and $(1.0) billion related to the withdrawal from the North Platte project in the United States, $(1.7) billion related to the impacts of the European Solidarity Contribution, of the Energy Profits Levy in the United Kingdom on deferred tax, and of the electricity generation infra-marginal income contribution in France, $1.4 billion capital gain on the partial sale of SunPower shares and the revaluation of the retained and consolidated share using the equity method and $1.1 billion of fair value change effects. For a detailed overview of adjustment items for 2022, refer to Note 3 to the Consolidated Financial Statements (starting on page F-23). In 2021, total adjustments to net income (TotalEnergies share), which include the after-tax inventory effect, special items and the impact of changes in fair value, had an impact of $(2,028) million, comprised of $(910) million for impairments (including $(305) million for the withdrawal of TotalEnergies from Myanmar and the $(89) million impairment related to the end of the Qatargas 1 contract) and $(170) million for the loss on the sale of TotalEnergies' interest in Yucal Placer in Venezuela, as well as notably the $(1,379) million loss on the sale of TotalEnergies' interest in Petrocedeño[12] to PDVSA in Venezuela and the $(177) million loss on the Utica sale in the United States, restructuring charges related to the voluntary departure plan in France and Belgium, and a positive inventory effect of $1,495 million for the year 2021.

Total income taxes in 2022 amounted to $(22,242) million, 2.3 times greater than $(9,587) million in 2021. For further detail on income taxes, refer to Note 11 to the Consolidated Financial Statements (starting on page F-58).

TotalEnergies SE bought back, in 2022, 140,207,743 TotalEnergies SE shares on the market, i.e., 5.35% of the share capital as of December 31, 2022, of which 128,869,261 million for cancellation and, in 2021, 37,306,005 TotalEnergies SE shares on the market, i.e., 1.4% of the share capital as of December 31, 2021, of which 30,665,526 for cancellation. See also "Item 5. - 5.4.3 Shareholders' equity", below.

Fully-diluted earnings per share was $7.85 in 2022 compared to $5.92 in 2021.

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8 Net cash flow is a non-GAAP financial measures. Refer to the "Glossary" starting on page 651 of the Universal Registration Document 2023 for the definitions and further information on Non-GAAP measures (alternative performance measures). The reconciliation tables for the non-GAAP financial measures are set forth under "Item 5. – 5.3 Adjusted Items and Reconciliation of non-GAAP financial measures" starting on page 15.

9 Sales in $ / Sales in volume for consolidated affiliates.

10 Sales in $ / Sales in volume for consolidated affiliates.

11 Sales in $ / Sales in volume for consolidated and equity affiliates.

12 Sale of TotalEnergies' interest in Petrocedeño S.A. to Corporación Venezolana de Petróleo (CVP), an affiliate of Petróleos de Venezuela (PDVSA).

Finalized asset sales amounted to:

- $1,421 million in 2022, including farm-downs in the Integrated Power business and the disposal of TotalEnergies' interests in Block 14 in Angola, as well as SunPower's disposal of its Enphase shares, the partial disposal of the Landivisiau power generation plant in France, the sale of TotalEnergies' interest in the Sarsang field in Iraq, and an additional payment related to the 2020 sale of interests in the CA1 offshore block in Brunei; and
- $2,652 million in 2021, including the sale of TotalEnergies' interests in 7 mature non-operated offshore fields and the Cap Lopez oil terminal in Gabon and the sale of a 30% interest in TRAPIL in France as well as the payment by GIP of more than $750 million as part of the tolling agreement for the infrastructure of the Gladstone LNG project in Australia, the sale in France of a 50% interest in a portfolio of renewable projects with a total capacity of 285 MW (100%), the sale of the 10% stake in onshore block OML 17 in Nigeria, the price supplement related to the sale of Block CA1 in Brunei, the sale of the Lindsey refinery in the United Kingdom, the sale of interests in the TBG pipeline in Brazil, the sale of shares in Clean Energy Fuels Corp. (NASDAQ: CLNE)[13], and the sale of its interests in Tellurian Inc. (NASDAQ: TELL) in the United States.

Finalized acquisitions[14] amounted to:

- $5,872 million for the full-year 2022, including the acquisition of an additional 4.08% of the Waha concessions in Libya as well as payments related to the award of the Atapu and Sépia production sharing contracts in Brazil, the acquisition of an interest in Clearway Energy Group and the bonus related to the New York Bight offshore wind concession in the United States.
- $3,284 million for the full-year 2021, including the acquisition of Blue Raven Solar by SunPower in the United States as well as notably the acquisition of a 20% interest for $2 billion in Adani Green Energy Limited, the renewable project developer in India, the acquisition of Fonroche Biogaz in France, the interest in the Yunlin wind project in Taiwan and the 10% increase in its interest in the Lapa block in Brazil.

TotalEnergies' cash flow from operating activities in 2022 was $47,367 million, an increase of 56% compared to $30,410 million in 2021.

In 2022, the change in working capital was a decrease of $1,191 million in accordance with IFRS. The difference of $447 million between IFRS and replacement cost method corresponds to the following adjustments: (i) the pre-tax inventory valuation effect of $501 million, (ii) plus the mark-to-market effect of iGRP's contracts of $1,640 million, (iii) less the capital gains from renewables project sale of $64 million and (iv) less the organic loan repayments from equity affiliates of $1,630 million.

The change in working capital as determined using the replacement cost method[15] excluding the mark-to-market effect of iGRP's contracts, including capital gain from renewable project sales (effective first quarter 2020) and including organic loan repayment from equity affiliates was a decrease of $1,638 million in 2022, compared to a decrease of $1,270 million in 2021.

TotalEnergies' cash flow used in investing activities in 2022 was $(15,116) million compared to $(13,656) million in 2021.

Cash flow from operations excluding working capital (CFFO) totaled $45,729 million in 2022, an increase of 57% compared to $29,140 million in 2021. Debt adjusted cash flow (DACF) totaled $47,025 million in 2022, an increase of 53% compared to $30,660 million in 2021.

TotalEnergies' net cash flow totaled $29,426 million in 2022 compared to $15,833 million in 2021, reflecting the $16.6 billion increase in cash flow from operations excluding working capital (CFFO) and the $3.0 billion increase in net investments to $16,303 million in 2022.

5.2.2 Business segment reporting

Financial information by business segment is reported in accordance with the internal reporting system and shows internal segment information that is used to manage and measure the performance of TotalEnergies and which is reviewed by the main operational decision-making body of TotalEnergies, namely the Executive Committee.

Management presents adjusted financial indicators to assist investors in better understanding, in conjunction with the Company's financial results presented in accordance with IFRS, the economic performance of the Company. Adjustment items are of three types: inventory valuation effect, effect of changes in fair value, and special items.

Inventory valuation effect: in accordance with IAS 2, TotalEnergies values inventories of petroleum products in its financial statements according to the First-In, First-Out (FIFO) method and other inventories using the weighted-average cost method. Under the FIFO method, the cost of inventory is based on the historic cost of acquisition or manufacture rather than the current replacement cost. In volatile energy markets, this can have a significant distorting effect on the reported income. Accordingly, the adjusted results of the Refining & Chemicals and Marketing & Services segments are presented according to the replacement cost method. This method is used to assess the segments' performance and facilitate the comparability of the segments' performance with those of its main competitors. In the replacement cost method, which approximates the Last-In, First-Out (LIFO) method, the variation of inventory values in the statement of income is, depending on the nature of the inventory, determined using either the month-end prices differential between one period and another or the average prices of the period rather than the historical value. The inventory valuation effect is the difference between the results under the FIFO and the replacement cost methods.

Effect of changes in fair value: the effect of changes in fair value presented as an adjustment item reflects, for trading inventories and storage contracts, differences between internal measures of performance used by TotalEnergies' Executive Committee and the accounting for these transactions under IFRS. IFRS requires that trading inventories be recorded at their fair value using period-end spot prices. In order to best reflect the management of economic exposure through derivative transactions, internal indicators used to measure performance include valuations of trading inventories based on forward prices. TotalEnergies, in its trading activities, enters into storage contracts, whose future effects are recorded at fair value in TotalEnergies' internal economic performance. IFRS precludes recognition of this fair value effect. Furthermore, TotalEnergies enters into derivative instruments to risk manage certain operational contracts or assets. Under IFRS, these derivatives are recorded at fair value while the underlying operational transactions are recorded as they occur. Internal indicators defer the fair value on derivatives to match with the transaction occurrence.

13 As at December 31, 2021, TotalEnergies held an interest of 19.09% in Clean Energy Fuels Corp., an American company listed on NASDAQ and based in California.
14 Acquisitions net of operations with non-controlling interests.
15 For information on the replacement cost method, refer to Note 3 to the Consolidated Financial Statements (starting on page F-23).

Special items: due to their unusual nature or particular significance, certain transactions qualifying as "special items" are excluded from the business segment figures. In general, special items relate to transactions that are significant, infrequent or unusual. However, in certain instances, transactions such as restructuring costs or assets disposals, which are not considered to be representative of the normal course of business, may qualify as special items although they may have occurred in prior years or are likely to occur in following years.

TotalEnergies measures performance at the segment level on the basis of Adjusted net operating income. Adjusted net operating income comprises operating income of the relevant segment after deducting the amortization and the depreciation of intangible assets other than mineral interest, translation adjustments and gains or losses on the sale of assets, as well as all other income and expenses related to capital employed (dividends from nonconsolidated companies, income from equity affiliates and capitalized interest expenses) and after income taxes applicable to the above, excluding the effect of the adjustments describe below.

The income and expenses not included in net operating income adjusted that are included in net income TotalEnergies share are interest expenses related to net financial debt, after applicable income taxes (net cost of net debt), non-controlling interests, and the adjusted items.

The operational profit and assets are broken down by business segment prior to the consolidation and inter-segment adjustments.

Sales prices between business segments approximate market prices.

The profitable growth in the LNG and power integrated value chains are two of the key axes of TotalEnergies' strategy.

In order to give more visibility to these businesses, the Board of Directors has decided that from the first quarter of 2023, Integrated LNG and Integrated Power results, previously grouped in the Integrated Gas, Renewables & Power (iGRP) segment, would be reported separately as two segments.

A new reporting structure for the business segments' financial information has been put in place, effective January 1, 2023. It is based on the following five business segments:

- An Exploration & Production segment that encompasses the activities of exploration and production of oil and natural gas, conducted in about 50 countries;
- An Integrated LNG segment covering the integrated gas chain (including upstream and midstream LNG activities) as well as biogas, hydrogen and gas trading activities;
- An Integrated Power segment covering generation, storage, electricity trading and B2B-B2C distribution of gas and electricity;
- A Refining & Chemicals segment constituting a major industrial hub comprising the activities of refining, petrochemicals and specialty chemicals. This segment also includes the activities of oil supply, trading and marine shipping;
- Marketing & Services segment including the global activities of supply and marketing in the field of petroleum products.

In addition, the Corporate segment includes holdings operating and financial activities.

This new segment reporting has been prepared in accordance with IFRS 8 and according to the same principles as the internal reporting followed by TotalEnergies' Executive Committee.

For the Integrated LNG and Integrated Power segments, the principles for the preparation of this segment information are as follows:

- The management of balance sheet positions (including margin calls) related to centralized markets access for LNG, gas and power activities since 2022 has been fully included in the Integrated LNG segment.
- Effects of changes in the fair value of gas and LNG positions are allocated to the operating income of Integrated LNG segment.
- Effects of changes in the fair value of power positions are allocated to the operating income of Integrated Power segment.

Due to the change in the Company's internal organizational structure affecting the composition of the business segments, the segment reporting data for the years 2021 and 2022 has been retrospectively revised.

5.2.2.1 Exploration & Production segment

Hydrocarbon production	**2023**	**2022**	**2021**
EP *(kboe/d)*	2,034	2,296	2,290
Liquids *(kb/d)**	1,492	1,466	1,437
Gas *(Mcf/d)*	2,900	4,492	4,662
EP excluding novatek (kboe/d)	2,034	2,025	2,026

Results (in millions of dollars except effective tax rate)	**2023**	**2022**	**2021**
Adjusted net operating income(1)	10,942	17,479	10,439
including adjusted income from equity affiliates	539	1,335	1,230
Effective tax rate(2)	50.0%	50.8%	45.2%
Cash flow used in investing activities	7,260	9,839	6,382
Organic investments	10,232	7,507	6,690
Net acquisitions	(2,706)	2,520	(167)
Net investments	7,526	10,027	6,523
Cash flow from operating activities	18,531	27,654	22,009
Cash flow from operations excluding working capital (CFFO)	19,126	26,080	18,717

(1) Adjusted for special items, inventory valuation effect and the effect of changes in fair value. See Note 3 to the Consolidated Financial Statements (starting on page F-23).
(2) Effective tax rate = (tax on adjusted net operating income) / (adjusted net operating income – income from equity affiliates – dividends received from investments – impairment of goodwill + tax on adjusted net operating income).

2023 vs. 2022

Exploration & Production (EP) adjusted net operating income was $10,942 million in full-year 2023, down 37% compared to $17,479 million for the full-year 2022, mainly due to lower oil and gas prices.

Adjusted net operating income for the Exploration & Production segment excludes special items.

For the full-year 2023, the exclusion of special items had a positive impact of $1,036 million on the segment's adjusted net operating income, compared to a positive impact of $12,371 million for the full-year 2022.

The segment's cash flow from operating activities was $18,531 million in full-year 2023, down 33% compared to $27,654 million in the full-year 2022.

The segment's cash flow from operations excluding working capital (CFFO) was $19,126 million in full-year 2023, down 27% compared to $26,080 million for the full-year 2022, mainly due to lower oil and gas prices.

For additional information on the EP segment's capital expenditures, refer to point 1.6 (starting on page 34) of chapter 1 and point 2.1.2 (on page 72) of chapter 2 of the Universal Registration Document 2023, incorporated herein by reference. See also "Item 5. - 5.4 Liquidity and Capital Resources", below.

2022 vs. 2021

EP adjusted net operating income was $17,479 million in 2022, an increase of 67% compared to 2021, due to higher oil and gas prices.

Adjusted net operating income for the EP segment excludes special items.

For the full-year 2022, the exclusion of special items had a positive impact of $12,371 million in 2022 on the segment's adjusted net operating income, compared to a positive impact of $2,395 million in 2021. The effective tax rate increased from 45.2% in 2021 to 50.8% in 2022.

For the full-year 2022, the segment's cash flow from operating activities was $27,654 million, an increase of 26% compared to $22,009 million in 2021.

For the full-year 2022, the segment's cash flow from operations excluding working capital (CFFO) was $26,080 million, an increase of 39% compared to $18,717 million in 2021, due to higher oil and gas prices.

5.2.2.2 Integrated LNG segment

Hydrocarbon production for LNG	2023	2022	2021
Integrated LNG (kboe/d)	449	469	529
Liquids (kb/d)	58	53	63
Gas (Mcf/d)	2,128	2,267	2,541
Integrated LNG excluding Novatek (kboe/d)	449	413	483

Liquefied Natural Gas (in Mt)	2023	2022	2021
Overall LNG sales	44.3	48.1	42.0
Incl. Sales from equity production*	15.2	17.0	17.4
Incl. Sales by TotalEnergies from equity production and third party purchases	40.1	42.8	35.1

* The Company's equity production may be sold by TotalEnergies or by the joint ventures.

Results (in millions of dollars)	2023	2022	2021
Adjusted net operating income(1)	6,200	11,169	5,591
including adjusted income from equity affiliates	2,103	5,637	2,659
Cash flow used in investing activities	3,120	(1,052)	1,292
Organic investments	2,063	519	2,061
Net acquisitions	1,096	(47)	(910)
Net investments	3,159	472	1,151
Cash flow from operating activities	8,442	9,604	(2,765)
Cash flow from operations excluding working capital (CFFO)	7,293	9,784	5,404

(1) Adjusted for special items, inventory valuation effect and the effect of changes in fair value. See Note 3 to the Consolidated Financial Statements (starting on page F-23).

2023 vs. 2022

For full-year 2023, hydrocarbon production for LNG (excluding Novatek) was up 9% compared to full-year 2022 due to increased supply to NLNG in Nigeria and higher availability of Ichthys LNG in Australia and Snøvhit in Norway.

For full-year 2023, LNG sales were down 8% compared to full-year 2022, mainly due to lower spot volumes related to lower demand in Europe as a result of a milder winter weather and high inventories.

Integrated LNG adjusted net operating income was $6,200 million in the full-year 2023, a decrease of 37% year-on-year (excluding Novatek), mainly due to the exceptional environment in 2022 linked to the energy crisis in Europe resulting from the Russia-Ukraine conflict.

Adjusted net operating income for the Integrated LNG segment excludes special items and the impact of changes in fair value.

For the full-year 2023, the exclusion of special items and the impact of changes in fair value had a positive impact of $798 million on the segment's adjusted net operating income, compared to a positive impact of $4,580 million for the full-year 2022.

The segment's cash flow from operating activities was $8,442 million in the full-year 2023, a decrease of 12% compared to $9,604 million in the full-year 2022.

The segment's cash flow from operations excluding working capital (CFFO) was $7,293 million in full-year 2023, a decrease of 25% compared to $9,784 million in full-year 2022 (excluding Novatek), mainly due to lower LNG prices that were partially offset by high margins captured in 2022 on LNG cargoes delivered in 2023.

For information on the segment's investments, refer to point 1.6 of chapter 1 of the Universal Registration Document 2023 (starting on page 34), incorporated herein by reference. See also "Item 5. - 5.4 Liquidity and Capital Resources" below.

2022 vs. 2021

Integrated LNG adjusted net operating income was $11,169 million in the full-year 2022, an increase of 100% compared to $5,591 million in 2021, due to its integrated LNG portfolio, in particular its regasification capacity in Europe, which positioned it to capture the benefit of the favorable pricing environment, and due to the growth of the Integrated Power business.

Adjusted net operating income for the Integrated LNG segment excludes special items and the impact of changes in fair value.

For the full-year 2022, the exclusion of special items and changes in fair value had a positive impact of $4,580 million on the segment's adjusted net operating income, compared to a positive impact of $53 million in 2021.

For the full-year 2022, the segment's cash flow from operating activities was $9,604 million compared to $(2,765) million in the full-year 2021.

For the full-year 2022, the segment's cash flow from operations excluding working capital (CFFO) was $9,784 million, an increase of 81% compared to $5,404 million in the full-year 2021, for the same reasons as adjusted net operating income.

5.2.2.3 Integrated Power segment

Integrated Power	2023	2022	2021
Net power production (TWh) (1)	33.4	33.2	21.2
o/w power production from renewables	18.9	10.4	6.8
o/w power production from gas flexible capacities	14.5	22.8	14.4
Portfolio of power generation net installed capacity (GW) (2)	17.3	12.0	9.2
o/w renewables	13.0	7.7	5.1
o/w gas flexible capacities	4.3	4.3	4.1
Portfolio of renewable power generation gross capacity (GW) (2), (3)	80.1	69.0	43.0
o/w installed capacity	22.4	16.8	10.3
Clients power – BtB and BtC (Million) (2)	5.9	6.1	6.1
Clients gas – BtB and BtC (Million) (2)	2.8	2.7	2.7
Sales power – BtB and BtC (TWh)	52.1	55.3	56.6
Sales gas – BtB and BtC (TWh)	100.9	96.3	101.2

(1) Solar, wind, hydroelectric and gas flexible capacities.
(2) End of period data.
(3) Includes 20% of Adani Green Energy Ltd's gross capacity effective in the first quarter of 2021, 50% of Clearway Energy Group's gross capacity effective in the third quarter of 2022 and 49% of Casa dos Ventos' gross capacity effective in the first quarter of 2023.

Results (in millions of dollars)	2023	2022	2021
Adjusted net operating income(1)	1,853	975	652
including adjusted income from equity affiliates	137	201	37
Cash flow used in investing activities	4,836	4,100	3,699
Organic investments	2,582	1,385	1,280
Net acquisitions	2,363	2,136	2,075
Net investments	4,945	3,521	3,355
Cash flow from operating activities	3,573	66	3,592
Cash flow from operations excluding working capital (CFFO)	2,152	970	720

(1) Adjusted for special items, inventory valuation effect and the effect of changes in fair value. See Note 3 to the Consolidated Financial Statements (starting on page F-23).

2023 vs. 2022

For the full-year 2023, net power production was 33.4 TWh, an increase of 1% compared to 33.2 TWh in the full-year 2022, as lower generation from flexible capacity, whose utilization rate was exceptional in 2022 due to the energy crisis in Europe, was more than compensated by growing electricity generation from renewables that is related to the integration of 100% of Total Eren and contribution from Clearway in the US and Casa dos Ventos in Brazil.

For the full-year 2023, gross installed renewable power generation capacity was 22.4 GW, an increase of 33% compared to 16.8 GW in the full-year 2022. Gross installed renewable capacity grew by nearly 6 GW in the full-year 2023.

Integrated Power adjusted net operating income was $1,853 million in the full-year 2023, an increase of 90% compared to $975 million in the full-year 2022, demonstrating the performance of its integrated business model along the power value chain: renewables, CCGT, trading, and B2B & B2C marketing.

Adjusted net operating income for the Integrated Power segment excludes special items and the impact of changes in fair value.

For the full-year 2023, the exclusion of special items and the impact of changes in fair value had a positive impact of $173 million on the segment's adjusted net operating income, compared to a negative impact of $2,070 million for the full-year 2022.

The segment's cash flow from operating activities was $3,573 million in the full-year 2023, 54.1 times higher compared to $66 million in the full-year 2022.

The segment's cash flow from operations excluding working capital (CFFO) was $2,152 million in 2023, 2.2 times higher compared to $970 million in the full-year 2022, with all the segments of the value chain contributing to growth.

2022 vs. 2021

Gross installed renewable electricity generation capacity reached 16.8 GW at year-end 2022, up 6.5 GW year-on-year, including nearly 4 GW from the acquisition of 50% of Clearway Energy Group in the United States and 0.8 GW from the start-up of the Al Kharsaah photovoltaic project in Qatar.

TotalEnergies continued to implement its strategy of integrating the electricity and gas chain in Europe. Net electricity generation stood at 33.2 TWh in 2022, an increase of 57% compared to 2021, due to higher utilization rates of flexible power plants (CCGT) as well as a 53% increase in generation from renewable sources. The portfolio of power customers exceeded 6 million at year-end 2022.

Integrated Power adjusted net operating income was $975 million in the full-year 2022, an increase of 49% compared to $652 million in the full-year 2021.

Adjusted net operating income for the Integrated Power segment excludes special items and the impact of changes in fair value.

For the full-year 2022, the exclusion of special items and the impact of changes in fair value had a negative impact of $2,070 million on the segment's adjusted net operating income, compared to a positive impact of $692 million in the full-year 2021.

The segment's cash flow from operating activities was $66 million in the full-year 2022, 55.2 times lower compared to $3,592 million in the full-year 2021.

The segment's cash flow from operations excluding working capital (CFFO) was $970 million in the full-year 2022, an increase of 35% compared to $720 million in the full-year 2021.

5.2.2.4 Downstream (Refining & Chemicals and Marketing & Services segments)

Results (in millions of dollars)	2023	2022	2021
Adjusted net operating income(1)	6,112	8,852	3,527
Cash flow used in investing activities	1,094	2,141	2,213
Organic investments	3,105	2,354	2,576
Net acquisitions	(2,042)	(159)	(368)
Net investments	1,063	2,195	2,208
Cash flow from operating activities	9,914	11,787	8,806
Cash flow from operations excluding working capital (CFFO)	8,171	10,069	5,502

(1) Adjusted for special items, inventory valuation effect and the effect of changes in fair value. See Note 3 to the Consolidated Financial Statements (starting on page F-23).

A. Refining & Chemicals segment

Refinery throughput and utilization rates*	2023	2022	2021
Total refinery throughput *(kb/d)*	1,436	1,472	1,180
France	414	348	190
Rest of Europe	592	623	568
Rest of world	431	501	423
Utilization rates based on crude only**	81%	82%	64%

* Includes refineries in Africa reported in the Marketing & Services segment.
** Based on distillation capacity at the beginning of the year.

Petrochemicals production and utilization rate	2023	2022	2021
Monomers* (kt)	4,896	5,005	5,775
Polymers (kt)	4,130	4,549	4,938
Steam cracker utilization rate**	69%	76%	90%

* Olefins.
** Based on olefins production from steam crackers and their treatment capacity at the start of the year.

Results (in millions of dollars)	2023	2022	2021
Adjusted net operating income(1)	4,654	7,302	1,909
Cash flow used in investing activities	1,953	1,177	1,290
Organic investments	2,040	1,319	1,502
Net acquisitions	(118)	(38)	(217)
Net investments	1,922	1,281	1,285
Cash flow from operating activities	7,957	8,663	6,473
Cash flow from operations excluding working capital (CFFO)	5,853	7,704	2,946

(1) Adjusted for special items, inventory valuation effect and the effect of changes in fair value. See Note 3 to the Consolidated Financial Statements (starting on page F-23).

2023 vs. 2022

Refining throughput decreased 2% in 2023 compared to 2022, mainly due to a slightly lower refinery utilization rate reflecting the major turnaround schedule of the year.

Monomers production decreased 2% in 2023 compared to 2022 and polymers production decreased 9% in 2023 compared to 2022, due to weak demand for chemicals mainly in Europe impacting steam cracker utilization rate. The decrease in Monomers production was partially compensated by the ramp up of ethane cracker unit in Port Arthur in the US.

Refining & Chemicals adjusted net operating income was $4,654 million in the full-year 2023, a decrease of 36% year-on-year, due to the decrease in refining margins and refining throughput.

Adjusted net operating income for the Refining & Chemicals segment excludes any after-tax inventory valuation effect and special items.

For the full-year 2023, the exclusion of the inventory valuation effect had a positive impact of $586 million on the segment's adjusted net operating income, compared to a negative impact of $337 million for the full-year 2022.

For the full-year 2023, the exclusion of special items had a positive impact of $689 million on the segment's adjusted net operating income, compared to a positive impact of $990 million for the full-year 2022.

The segment's cash flow from operating activities was $7,957 million in the full-year 2023, a decrease of 8% compared to $8,663 million in the full-year 2022.

The segment's cash flow from operations excluding working capital (CFFO) was $5,853 million in the full-year 2023, a decrease of 24% compared to $7,704 million in the full-year 2022, due to lower refining margins, turnarounds at Satorp in Saudi Arabia, the Port Arthur refinery in the US and at the Antwerp refinery in Belgium and weak petrochemical demand, particularly in Europe, which was partially offset by dividends received from equity affiliates during the fourth quarter of 2023.

For information on the Refining & Chemicals segment's investments, refer to point 1.6 of chapter 1 of the Universal Registration Document 2023 (starting on page 34), incorporated herein by reference. See also "Item 5. - 5.4 Liquidity and Capital Resources" below.

2022 vs. 2021

Refinery throughput increased by 25% in 2022 compared to 2021 due to the increase in the utilization rate of refineries.

Monomer production decreased 13% in 2022 compared to 2021, after the very strong post-COVID-19 increase observed in 2021. Polymer production decreased 8% in 2022 compared to 2021 for the same reason that monomer production decreased.

Refining & Chemicals adjusted net operating income was $7,302 million in the full-year 2022, 3.8 times higher than $1,909 million in the full-year 2021, due to high refining margins in Europe and the United States and higher refinery utilization rates.

Adjusted net operating income for the Refining & Chemicals segment excludes any after-tax inventory valuation effect and special items.

For the full-year 2022, the exclusion of the inventory valuation effect had a negative impact of $336 million on the segment's adjusted net operating income, compared to a negative impact of $1,296 million for the full-year 2021.

For the full-year 2022, the exclusion of special items had a positive impact of $989 million on the segment's adjusted net operating income, compared to a positive impact of $191 million for the full-year 2021.

The segments cash flow from operating activities was $8,663 million in the full-year 2022, an increase of 34% compared to $6,473 million in the full-year 2021.

The segment's cash flow from operations excluding working capital (CFFO) was $7,704 million in the full-year 2022, 2.6 times higher compared to $2,946 million in the full-year 2021 due to higher refining margins and throughput.

B. Marketing & Services segment

Petroleum product sales (kb/d)*	2023	2022	2021
Total Marketing & Services sales	1,375	1,468	1,503
Europe	776	824	826
Rest of world	599	644	677

* Excludes trading and bulk Refining sales.

Results (in millions of dollars)	2023	2022	2021
Adjusted net operating income(1)	1,458	1,550	1,618
Cash flow used in investing activities	(859)	964	923
Organic investments	1,065	1,035	1,074
Net acquisitions	(1,924)	(121)	(151)
Net investments	(859)	914	923
Cash flow from operating activities	1,957	3,124	2,333
Cash flow from operations excluding working capital (CFFO)	2,318	2,365	2,556

(1) Adjusted for special items, inventory valuation effect and the effect of changes in fair value. See Note 3 to the Consolidated Financial Statements (starting on page F-23).

2023 vs. 2022

Marketing & Services adjusted net operating income was $1,458 million in the full-year 2023, a decrease of 6% compared to $1,550 million in the full-year 2022, due to lower sales.

Adjusted net operating income for the Marketing & Services segment excludes any after-tax inventory valuation effect and special items.

For the full-year 2023, the exclusion of the inventory valuation effect had a positive impact of $108 million on the segment's adjusted net operating income, compared to a negative impact of $194 million in the full-year 2022.

For the full-year 2023, the exclusion of special items had a negative impact of $1,408 million on the segment's adjusted net operating income, compared to a positive impact of $188 million for the full-year 2022.

The segment's cash flow from operating activities was $1,957 million in the full-year 2023, a decrease of 37% compared to $3,124 million in the full-year 2022.

The segment's cash flow from operations excluding working capital (CFFO) was $2,318 million in the full-year 2023, a decrease of 2% compared to $2,365 million in the full-year 2022.

For information on the Marketing & Services segment's investments, refer to point 1.6 of chapter 1 of the Universal Registration Document 2023 (starting on page 34), incorporated herein by reference. See also "Item 5. - 5.4 Liquidity and Capital Resources", below.

2022 vs. 2021

Marketing & Services adjusted net operating income was $1,550 million in the full-year 2022, a decrease of 4% compared to $1,618 million in the full-year 2021, mainly impacted by the evolution of the €/$ exchange rate.

Adjusted net operating income for the Marketing & Services segment excludes any after-tax inventory valuation effect and special items.

For the full-year 2022, the exclusion of the inventory valuation effect had a negative impact of $194 million on the segment's adjusted net operating income, compared to a negative impact of $236 million for the full-year 2021.

For the full-year 2022, the exclusion of special items had a positive impact of $188 million on the segment's adjusted net operating income, compared to a positive impact of $125 million for the full-year 2021.

The segment's cash flow from operating activities was $3,124 million in the full-year 2022, an increase of 34% compared to $2,333 million in the full-year 2021.

The segment's cash flow from operations excluding working capital (CFFO) was $2,365 million in the full-year 2022, a decrease of 7% compared to $2,556 million in the full-year 2021.

5.3 Adjusted Items and Reconciliation of non-GAAP financial measures

A. Adjustment items to net income (TotalEnergies share)

in millions of dollars	2023	2022	2021
Net income (TotalEnergies share)	**21,384**	**20,526**	**16,032**
Special items affecting net income (TotalEnergies share)	(1,105)	(17,310)	(3,329)
Gain (loss) on asset sales	2,047	1,391	(1,726)
Restructuring charges	(56)	(42)	(308)
Impairments	(2,166)	(15,743)	(910)
Other*	(930)	(2,916)	(385)
After-tax inventory effect : FIFO vs. replacement cost	(699)	501	1,495
Effect of changes in fair value	12	1,138	(194)
Total adjustments affecting net income	**(1,792)**	**(15,671)**	**2,028**
Adjusted net income (TotalEnergies share)	**23,176**	**36,197**	**18,060**

* Other adjustment items for net income for the year amounted to $(930) million including $388 million of revaluation of Total Eren's previously held equity interest and $(1,318) million mainly due to the impact of the European solidarity contribution and of the Electricity Generation Infra-Marginal Income Contribution in France and of the devaluation of the Argentine peso.

B. Reconciliation of consolidated net income to adjusted net operating income

in millions of dollars	2023	2022	2021
Consolidated net income (a)	**21,510**	**21,044**	**16,366**
Net cost of net debt (b)	(1,108)	(1,278)	(1,350)
Special items affecting net operating income	(1,384)	(17,559)	(3,388)
Gain (loss) on asset sales	2,047	1,450	(1,726)
Restructuring charges	(56)	(55)	(315)
Impairments	(2,297)	(15,759)	(932)
Other	(1,078)	(3,195)	(415)
After-tax inventory effect : FIFO vs. replacement cost	(694)	531	1,532
Effect of changes in fair value	12	1,138	(194)
Total adjustments affecting net operating income (c)	**(2,066)**	**(15,890)**	**(2,050)**
Adjusted net operating income (a - b - c)	**24,684**	**38,212**	**19,766**

C. Reconciliation of net income (TotalEnergies share) to adjusted EBITDA

in millions of dollars	2023	2022	2021
Net income - TotalEnergies share	**21,384**	**20,526**	**16,032**
Less: adjustment items to net income (TotalEnergies share)	1,792	15,671	2,028
Adjusted net income - TotalEnergies share	**23,176**	**36,197**	**18,060**
Adjusted items			
Add: non-controlling interests	274	460	331
Add: income taxes	12,939	20,565	9,211
Add: depreciation, depletion and impairment of tangible assets and mineral interests	12,012	12,316	12,735
Add: amortization and impairment of intangible assets	394	400	401
Add: financial interest on debt	2,820	2,386	1,904
Less: financial income and expense from cash & cash equivalents	(1,585)	(746)	(340)
Adjusted EBITDA	**50,030**	**71,578**	**42,302**

D. Reconciliation of revenues from sales to adjusted EBITDA and net income (TotalEnergies share)

in millions of dollars	2023	2022	2021
Adjusted items			
Revenues from sales	218,945	263,206	184,678
Purchases, net of inventory variation	(142,247)	(171,049)	(120,160)
Other operating expenses	(29,808)	(28,745)	(26,754)
Exploration costs	(575)	(574)	(632)
Other income	504	1,349	1,300
Other expense, excluding amortization and impairment of intangible assets	(288)	(1,142)	(543)
Other financial income	1,221	812	762
Other financial expense	(722)	(533)	(539)
Net income (loss) from equity affiliates	3,000	8,254	4,190
Adjusted EBITDA	**50,030**	**71,578**	**42,302**
Adjusted items			
Less: depreciation, depletion and impairment of tangible assets and mineral interests	(12,012)	(12,316)	(12,735)
Less: amortization of intangible assets	(394)	(400)	(401)
Less: financial interest on debt	(2,820)	(2,386)	(1,904)
Add: financial income and expense from cash & cash equivalents	1,585	746	340
Less: income taxes	(12,939)	(20,565)	(9,211)
Less: non-controlling interests	(274)	(460)	(331)
Add: adjustment - TotalEnergies share	(1,792)	(15,671)	(2,028)
Net income - TotalEnergies share	**21,384**	**20,526**	**16,032**

E. Investments – Divestments and reconciliation of cash flow used in investing activities to net investments, to net acquisition and to organic investments

(1) Totalenergies share:

in millions of dollars	2023	2022	2021
Cash flow used in investing activities (a)	**16,454**	**15,116**	**13,656**
Other transactions with non-controlling interests (b)	—	(50)	(757)
Organic loan repayment from equity affiliates (c)	(2)	1,630	626
Change in debt from renewable projects financing (d)*	78	(589)	(356)
Capex linked to capitalized leasing contracts (e)	259	177	111
Expenditures related to carbon credits (f)	48	19	27
Net investments (a + b + c + d + e + f = g - i + h)	**16,837**	**16,303**	**13,307**
of which net acquisitions (g-i)	(1,289)	4,451	632
Acquisitions (g)	6,428	5,872	3,284
Asset sales (i)	7,717	1,421	2,652
Change in debt from renewable projects (partner share)	(81)	279	134
of which organic investments (h)	18,126	11,852	12,675
Capitalized exploration	1,094	669	841
Increase in non-current loans	1,845	954	1,231
Repayment of non-current loans, excluding organic loan repayment from equity affiliates	(524)	(1,082)	(531)
Change in debt from renewable projects (TotalEnergies share)	(3)	(310)	(222)

* Change in debt from renewable projects (TotalEnergies share and partner share).

(2) Exploration & Production:

in millions of dollars	2023	2022	2021
Cash flow used in investing activities (a)	**7,260**	**9,839**	**6,382**
Other transactions with non-controlling interests (b)	—	—	—
Organic loan repayment from equity affiliates (c)	—	22	39
Change in debt from renewable projects financing (d)*	—	—	—
Capex linked to capitalized leasing contracts (e)	218	147	86
Expenditures related to carbon credits (f)	48	19	16
Net investments (a + b + c + d + e + f = g - i + h)	**7,526**	**10,027**	**6,523**
of which net acquisitions (g-i)	(2,706)	2,520	(167)
Acquisitions (g)	2,320	3,134	497
Asset sales (i)	5,026	614	664
Change in debt from renewable projects (partner share)	—	—	—
of which organic investments (h)	**10,232**	**7,507**	**6,690**
Capitalized exploration	1,081	669	840
Increase in non-current loans	154	78	98
Repayment of non-current loans, excluding organic loan repayment from equity affiliates	(92)	(171)	(191)
Change in debt from renewable projects (TotalEnergies share)	—	—	—

* Change in debt from renewable projects (TotalEnergies share and partner share).

(3) Integrated LNG:

in millions of dollars	2023	2022	2021
Cash flow used in investing activities (a)	**3,120**	**(1,052)**	**1,292**
Other transactions with non-controlling interests (b)	—	—	(757)
Organic loan repayment from equity affiliates (c)	2	1,499	580
Change in debt from renewable projects financing (d)*	—	—	—
Capex linked to capitalized leasing contracts (e)	37	25	25
Expenditures related to carbon credits (f)	—	—	11
Net investments (a + b + c + d + e + f = g - i + h)	**3,159**	**472**	**1,151**
of which net acquisitions (g-i)	1,096	(47)	(910)
Acquisitions (g)	1,253	27	184
Asset sales (i)	157	74	(1,094)
Change in debt from renewable projects (partner share)	—	—	—
of which organic investments (h)	**2,063**	**519**	**2,061**
Capitalized exploration	13	—	1
Increase in non-current loans	570	328	658
Repayment of non-current loans, excluding organic loan repayment from equity affiliates	(131)	(690)	(143)
Change in debt from renewable projects (TotalEnergies share)	—	—	—

* Change in debt from renewable projects (TotalEnergies share and partner share).

(4) Integrated Power:

in millions of dollars	2023	2022	2021
Cash flow used in investing activities (a)	**4,836**	**4,100**	**3,699**
Other transactions with non-controlling interests (b)	—	—	—
Organic loan repayment from equity affiliates (c)	27	5	12
Change in debt from renewable projects financing (d)*	78	(589)	(356)
Capex linked to capitalized leasing contracts (e)	4	5	—
Expenditures related to carbon credits (f)	—	—	—
Net investments (a + b + c + d + e + f = g - i + h)	**4,945**	**3,521**	**3,355**
of which net acquisitions (g-i)	2,363	2,136	2,075
Acquisitions (g)	2,739	2,661	2,462
Asset sales (i)	376	525	(387)
Change in debt from renewable projects (partner share)	(81)	279	134
of which organic investments (h)	**2,582**	**1,385**	**1,280**
Capitalized exploration	—	—	—
Increase in non-current loans	870	397	316
Repayment of non-current loans, excluding organic loan repayment from equity affiliates	(177)	(83)	(26)
Change in debt from renewable projects (TotalEnergies share)	(3)	(310)	(222)

* Change in debt from renewable projects (TotalEnergies share and partner share).

(5) Refining & Chemicals:

in millions of dollars	2023	2022	2021
Cash flow used in investing activities (a)	**1,953**	**1,177**	**1,290**
Other transactions with non-controlling interests (b)	—	—	—
Organic loan repayment from equity affiliates (c)	(31)	104	(5)
Change in debt from renewable projects financing (d)*	—	—	—
Capex linked to capitalized leasing contracts (e)	—	—	—
Expenditures related to carbon credits (f)	—	—	—
Net investments (a + b + c + d + e + f = g - i + h)	**1,922**	**1,281**	**1,285**
of which net acquisitions (g-i)	(118)	(38)	(217)
Acquisitions (g)	32	15	53
Asset sales (i)	150	53	270
Change in debt from renewable projects (partner share)	—	—	—
of which organic investments (h)	**2,040**	**1,319**	**1,502**
Capitalized exploration	—	—	—
Increase in non-current loans	79	53	42
Repayment of non-current loans, excluding organic loan repayment from equity affiliates	(33)	(35)	(67)
Change in debt from renewable projects (TotalEnergies share)	—	—	—

* Change in debt from renewable projects (TotalEnergies share and partner share).

(6) Marketing & Services:

in millions of dollars	2023	2022	2021
Cash flow used in investing activities (a)	**(859)**	**964**	**923**
Other transactions with non-controlling interests (b)	—	(50)	—
Organic loan repayment from equity affiliates (c)	—	—	—
Change in debt from renewable projects financing (d)*	—	—	—
Capex linked to capitalized leasing contracts (e)	—	—	—
Expenditures related to carbon credits (f)	—	—	—
Net investments (a + b + c + d + e + f = g - i + h)	**(859)**	**914**	**923**
of which net acquisitions (g-i)	(1,924)	(121)	(151)
Acquisitions (g)	84	34	86
Asset sales (i)	2,008	155	237
Change in debt from renewable projects (partner share)	—	—	—
of which organic investments (h)	**1,065**	**1,035**	**1,074**
Capitalized exploration	—	—	—
Increase in non-current loans	152	83	105
Repayment of non-current loans, excluding organic loan repayment from equity affiliates	(82)	(87)	(82)
Change in debt from renewable projects (TotalEnergies share)	—	—	—

* Change in debt from renewable projects (TotalEnergies share and partner share).

F. Reconciliation of cash flow from operating activities to cash flow from operations excluding working capital (CFFO), to DACF and to net cash flow

(1) Totalenergies share:

in millions of dollars	2023	2022	2021
Cash flow from operating activities (a)	**40,679**	**47,367**	**30,410**
(Increase) decrease in working capital (b)*	5,526	2,831	188
Inventory effect (c)	(714)	501	1,796
Capital gain from renewable project sales (d)	81	64	89
Organic loan repayments from equity affiliates (e)	(2)	1,630	626
Cash flow from operations excluding working capital (CFFO) (f = a - b - c + d + e)	**35,946**	**45,729**	**29,140**
Financial charges	(505)	(1,296)	(1,520)
Debt Adjusted Cash Flow (DACF)	**36,451**	**47,025**	**30,660**
Organic investments (g)	18,126	11,852	12,675
Free cash flow after organic investments (f - g)	**17,820**	**33,877**	**16,465**
Net investments (h)	16,837	16,303	13,307
Net cash flow (f - h)	**19,109**	**29,426**	**15,833**

* Changes in working capital are presented excluding the mark-to-market effect of Integrated LNG and Integrated Power sectors' contracts.

G. Reconciliation of cash flow from operating activities to cash flow from operations excluding working capital (CFFO)

(1) Exploration & Production

in millions of dollars	2023	2022	2021
Cash flow from operating activities (a)	**18,531**	**27,654**	**22,009**
(Increase) decrease in working capital (b)*	(595)	1,596	3,331
Inventory effect (c)	—	—	—
Capital gain from renewable project sales (d)	—	—	—
Organic loan repayments from equity affiliates (e)	—	22	39
Cash flow from operations excluding working capital (CFFO) (f = a - b - c + d + e)	**19,126**	**26,080**	**18,717**

(2) Integrated LNG

in millions of dollars	2023	2022	2021
Cash flow from operating activities (a)	**8,442**	**9,604**	**(2,765)**
(Increase) decrease in working capital (b)*	1,151	1,319	(7,590)
Inventory effect (c)	—	—	—
Capital gain from renewable project sales (d)	—	—	—
Organic loan repayments from equity affiliates (e)	2	1,499	579
Cash flow from operations excluding working capital (CFFO) (f = a - b - c + d + e)	**7,293**	**9,784**	**5,404**

* Changes in working capital are presented excluding the mark-to-market effect of Integrated LNG sectors' contracts.

(3) Integrated Power

in millions of dollars	2023	2022	2021
Cash flow from operating activities (a)	**3,573**	**66**	**3,592**
(Increase) decrease in working capital (b)*	1,529	(835)	2,973
Inventory effect (c)	—	—	—
Capital gain from renewable project sales (d)	81	64	89
Organic loan repayments from equity affiliates (e)	27	5	12
Cash flow from operations excluding working capital (CFFO) (f = a - b - c + d + e)	**2,152**	**970**	**720**

* Changes in working capital are presented excluding the mark-to-market effect of Integrated LNG sectors' contracts.

(4) Refining & Chemicals

in millions of dollars	2023	2022	2021
Cash flow from operating activities (a)	**7,957**	**8,663**	**6,473**
(Increase) decrease in working capital (b)	2,641	823	2,041
Inventory effect (c)	(568)	240	1,481
Capital gain from renewable project sales (d)	—	—	—
Organic loan repayments from equity affiliates (e)	(31)	104	(5)
Cash flow from operations excluding working capital (CFFO) (f = a - b - c + d + e)	**5,853**	**7,704**	**2,946**

(5) Marketing & Services

in millions of dollars	2023	2022	2021
Cash flow from operating activities (a)	**1,957**	**3,124**	**2,333**
(Increase) decrease in working capital (b)	(215)	498	(538)
Inventory effect (c)	(146)	261	315
Capital gain from renewable project sales (d)	—	—	—
Organic loan repayments from equity affiliates (e)	—	—	—
Cash flow from operations excluding working capital (CFFO) (f = a - b - c + d + e)	**2,318**	**2,365**	**2,556**

H. Gearing Ratio

As of and for the year ended December 31 (in millions of dollars)	2023	2022	2021
Current borrowings *	7,869	14,065	13,645
Other current financial liabilities	446	488	372
Current financial assets *, **	(6,256)	(8,556)	(12,183)
Net financial assets classified as held for sale *	17	(38)	(4)
Non-current financial debt *	32,722	36,987	41,868
Non-current financial assets *	(1,229)	(1,303)	(1,557)
Cash and cash equivalents	(27,263)	(33,026)	(21,342)
Net debt (a)	**6,306**	**8,617**	**20,799**
Shareholders' equity - TotalEnergies share	116,753	111,724	111,736
Non-controlling interests	2,700	2,846	3,263
Shareholders' equity (b)	**119,453**	**114,570**	**114,999**
Gearing = a / (a+b)	**5.0%**	**7.0%**	**15.3%**
Leases (c)	*8,275*	*8,096*	*8,055*
Gearing including leases (a+c) / (a+b+c)	*10.9%*	*12.7%*	*20.1%*

* Excludes leases receivables and leases debts.

** Including initial margins held as part of the Company's activities on organized markets.

I. ROACE (Full-year 2023)

In millions of dollars	Exploration & Production	Integrated LNG	Integrated Power	Refining & Chemicals	Marketing & Services	Company
Adjusted net operating income	10,942	6,200	1,853	4,654	1,458	24,684
Capital employed at 12/31/2022	65,784	33,671	16,225	7,438	7,593	128,811
Capital employed at 12/31/2023	63,870	36,048	21,511	6,043	7,674	132,222
ROACE	**16.9%**	**17.8%**	**9.8%**	**69.0%**	**19.1%**	**18.9%**

J. Reconciliation of capital employed (balance sheet) and calculation of ROACE

In millions of dollars	Exploration & Production	Integrated LNG	Integrated Power	Refining & Chemicals	Marketing & Services	Corporate	Inter-Company	Company
Adjusted net operating income 2023 (a)	**10,942**	**6,200**	**1,853**	**4,654**	**1,458**	**(423)**	**—**	**24,684**
Balance sheet as of December 31, 2023								
Property plant and equipment intangible assets net	84,876	24,936	12,526	12,287	6,696	678	—	141,999
Investments & loans in equity affiliates	2,630	13,905	9,202	4,167	553	—	—	30,457
Other non-current assets	3,451	2,720	1,027	677	1,258	141	—	9,274
Inventories, net	*1,463*	*1,784*	*689*	*11,582*	*3,798*	*1*	—	*19,317*
Accounts receivable, net	*6,849*	*10,183*	*7,601*	*20,010*	*9,024*	*683*	*(30,908)*	*23,442*
Other current assets	*6,218*	*9,782*	*6,963*	*2,383*	*3,465*	*1,817*	*(9,807)*	*20,821*
Accounts payable	*(6,904)*	*(11,732)*	*(8,114)*	*(33,864)*	*(10,693)*	*(798)*	*30,770*	*(41,335)*
Other creditors and accrued liabilities	*(9,875)*	*(11,653)*	*(6,985)*	*(6,152)*	*(5,707)*	*(6,300)*	*9,945*	*(36,727)*
Working capital	(2,249)	(1,636)	154	(6,041)	(113)	(4,597)	—	(14,482)
Provisions and other non-current liabilities	(25,152)	(3,877)	(1,790)	(3,706)	(1,267)	854	—	(34,938)
Assets and liabilities classified as held for sale - Capital employed	314	—	392	137	881	—	—	1,724
Capital Employed (Balance sheet)	**63,870**	**36,048**	**21,511**	**7,521**	**8,008**	**(2,924)**	**—**	**134,034**
Less inventory valuation effect	—	—	—	(1,478)	(334)	—	—	**(1,812)**
Capital Employed at replacement cost (b)	**63,870**	**36,048**	**21,511**	**6,043**	**7,674**	**(2,924)**	**—**	**132,222**
Balance sheet as of December 31, 2022								
Property plant and equipment intangible assets net	87,833	24,189	6,696	11,525	8,120	669	—	139,032
Investments & loans in equity affiliates	2,138	12,065	8,804	4,431	451	—	—	27,889
Other non-current assets	3,069	3,342	327	570	1,050	130	—	8,488
Inventories, net	*1,260*	*2,312*	*1,836*	*12,888*	*4,640*	—	—	*22,936*
Accounts receivable, net	*7,312*	*11,110*	*12,515*	*19,297*	*8,482*	*1,407*	*(35,745)*	*24,378*
Other current assets	*6,347*	*21,344*	*12,914*	*2,410*	*3,787*	*2,455*	*(13,187)*	*36,070*
Accounts payable	*(6,298)*	*(11,846)*	*(14,881)*	*(30,673)*	*(12,082)*	*(1,313)*	*35,747*	*(41,346)*
Other creditors and accrued liabilities	*(11,452)*	*(24,796)*	*(10,940)*	*(7,215)*	*(5,115)*	*(5,942)*	*13,185*	*(52,275)*
Working capital	(2,831)	(1,876)	1,444	(3,293)	(288)	(3,393)	—	(10,237)
Provisions and other non-current liabilities	(24,633)	(4,049)	(1,201)	(3,760)	(1,303)	694	—	(34,252)
Assets and liabilities classified as held for sale - Capital employed	208	—	155	—	—	—	—	363
Capital Employed (Balance sheet)	**65,784**	**33,671**	**16,225**	**9,473**	**8,030**	**(1,900)**	**—**	**131,283**
Less inventory valuation effect	—	—	—	(2,035)	(437)	—	—	**(2,472)**
Capital Employed at replacement cost (c)	**65,784**	**33,671**	**16,225**	**7,438**	**7,593**	**(1,900)**	**—**	**128,811**
	—	—	—	—	—	—	—	—
ROACE 2023 as a percentage (a / average (b + c))	**16.9%**	**17.8%**	**98.0%**	**69.0%**	**19.1%**			**18.9%**

In millions of dollars	Exploration & Production	Integrated LNG	Integrated Power	Refining & Chemicals	Marketing & Services	Corporate	Inter-Company	Company
Adjusted net operating income 2022 (a)	**17,479**	**11,169**	**975**	**7,302**	**1,550**	**(263)**	**—**	**38,212**
Balance sheet as of December 31, 2022								
Property plant and equipment intangible assets net	87,833	24,189	6,696	11,525	8,120	669	—	139,032
Investments & loans in equity affiliates	2,138	12,065	8,804	4,431	451	—	—	27,889
Other non-current assets	3,069	3,342	327	570	1,050	130	—	8,488
Inventories, net	*1,260*	*2,312*	*1,836*	*12,888*	*4,640*	—	—	*22,936*
Accounts receivable, net	*7,312*	*11,110*	*12,515*	*19,297*	*8,482*	*1,407*	*(35,745)*	*24,378*
Other current assets	*6,347*	*21,344*	*12,914*	*2,410*	*3,787*	*2,455*	*(13,187)*	*36,070*
Accounts payable	*(6,298)*	*(11,846)*	*(14,881)*	*(30,673)*	*(12,082)*	*(1,313)*	*35,747*	*(41,346)*
Other creditors and accrued liabilities	*(11,452)*	*(24,796)*	*(10,940)*	*(7,215)*	*(5,115)*	*(5,942)*	*13,185*	*(52,275)*
Working capital	(2,831)	(1,876)	1,444	(3,293)	(288)	(3,393)	—	(10,237)
Provisions and other non-current liabilities	(24,633)	(4,049)	(1,201)	(3,760)	(1,303)	694	—	(34,252)
Assets and liabilities classified as held for sale - Capital employed	208	**—**	155	—	—	—	**—**	363
Capital Employed (Balance sheet)	**65,784**	**33,671**	**16,225**	**9,473**	**8,030**	**(1,900)**	**—**	**131,283**
Less inventory valuation effect	—	**—**	**—**	(2,035)	(437)	**—**	**—**	**(2,472)**
Capital Employed at replacement cost (c)	**65,784**	**33,671**	**16,225**	**7,438**	**7,593**	**(1,900)**	**—**	**128,811**
Balance sheet as of December 31, 2021								
Property plant and equipment intangible assets net	86,418	24,901	6,624	11,884	8,578	638	—	139,043
Investments & loans in equity affiliates	6,337	15,891	4,610	3,729	486	—	—	31,053
Other non-current assets	4,441	2,504	*855*	608	1,105	309	—	9,822
Inventories, net	*1,281*	*1,887*	*1,344*	*11,482*	*3,957*	*1*	—	*19,952*
Accounts receivable, net	*6,621*	*10,345*	*6,202*	*17,280*	*7,597*	*746*	*(26,808)*	*21,983*
Other current assets	*5,643*	*28,256*	*7,486*	*2,068*	*2,802*	*1,475*	*(12,586)*	*35,144*
Accounts payable	*(6,116)*	*(12,446)*	*(6,923)*	*(28,055)*	*(9,291)*	*(857)*	*26,851*	*(36,837)*
Other creditors and accrued liabilities	*(8,645)*	*(21,547)*	(9,546)	*(5,333)*	*(4,687)*	*(5,585)*	*12,543*	*(42,800)*
Working capital	(1,216)	6,495	(1,437)	(2,558)	378	(4,220)	—	*(2,558)*
Provisions and other non-current liabilities	(24,613)	(3,137)	(1,358)	(3,840)	(1,478)	581	—	*(33,845)*
Assets and liabilities classified as held for sale - Capital employed	308	—	**30**	—	—	—	—	*338*
Capital Employed (Balance sheet)	**71,675**	**46,654**	9,324	**9,823**	**9,069**	**(2,692)**	**—**	**143,853**
Less inventory valuation effect	—	—	**—**	(1,754)	(286)	—	—	*(2,040)*
Capital Employed at replacement cost (b)	**71,675**	**46,654**	**9,324**	**8,069**	**8,783**	**(2,692)**	**—**	**141,813**
	—	—	—	—	—	—	—	—
ROACE 2022 as a percentage (a / average (b + c))	**25.4%**	**27.8%**	**7.6%**	**94.2%**	**18.9%**			**28.2%**

K. Payout

in millions of dollars	2023	2022	2021
Dividend paid (parent company shareholders) (a)	7,517	9,986	8,228
Repayment of treasury shares	9,167	7,711	1,823
of which buy-backs (b)	*9,000*	*7,019*	*1,500*
Cash flow from operations excluding working capital (CFFO) (c)	35,946	45,729	29,140
Payout ratio = (a+b) / c	**46.0%**	**37.2%**	**33.4%**

5.4 Liquidity and capital resources

in millions of dollars	2023	2022	2021
Cash flow from operating activities	**40,679**	**47,367**	**30,410**
Including (increase) decrease in working capital	6,091	1,191	(616)
Cash flow used in investing activities	**(16,454)**	**(15,116)**	**(13,656)**
Total expenditures	(24,860)	(19,802)	(16,589)
Total divestments	8,406	4,686	2,933
Cash flow from/(used in) financing activities	**(29,730)**	**(19,272)**	**(25,497)**
Net increase (decrease) in cash and cash equivalents	**(5,505)**	**12,979**	**(8,743)**
Effect of exchange rates	(258)	(1,295)	(1,183)
Cash and cash equivalents at the beginning of the period	33,026	21,342	31,268
Cash and cash equivalents at the end of the period	**27,263**	**33,026**	**21,342**

TotalEnergies' cash requirements for working capital, capital expenditures, acquisitions and dividend payments over the past three years were financed primarily by a combination of funds generated from operations, net borrowings and divestments of assets. In the current environment, TotalEnergies expects its external debt to be principally financed from the international debt capital markets. TotalEnergies continually monitors the balance between cash flow from operating activities and net expenditures. In TotalEnergies SE's opinion, its working capital is sufficient for its present requirements.

5.4.1 Cash flow

Cash flow from operating activities in 2023 was $40,679 million compared to $47,367 million in 2022 and $30,410 million in 2021, a decrease of $6,688 million from 2022 to 2023.

Cash flow used in investing activities in 2023 was $16,454 million compared to $15,116 million in 2022 and $13,656 million in 2021. The increase of $1,338 million from 2022 to 2023 was mainly due to higher expenditures in the Integrated LNG and in the Integrated Power segments. The increase of $1,460 million from 2021 to 2022 was mainly due to higher expenditures in the Exploration & Production segment. TotalEnergies expenditures in 2023 were $24,860 million compared to $19,802 million in 2022 and $16,589 million in 2021. During 2023, 50% of the expenditures were made by the Exploration & Production segment (as compared to 54% in 2022 and 44% in 2021), 14% by the Integrated LNG segment (as compared to 6% in 2022 and 14% in 2021), 22% by the Integrated Power segment (as compared to 26% in 2022 and 24% in 2021), 9% by the Refining & Chemicals segment (compared to 7% in 2022 and 10% in 2021) and 5% by the Marketing & Services segment (compared to 6% in 2022 and 7% in 2021). The main source of funding for the expenditures was cash from operating activities in 2023, cash from operating activities and issuances of non-current debt in 2022 and cash from operating activities and net repayment in 2021.

For additional information on expenditures, please refer to the discussions in "Item 5.- 5.1 Overview", "Item 5.- 5.2 TotalEnergies results 2021-2023" and "Item 5.- 5.2.2 Business segment reporting" above, and point 1.6 of chapter 1 of the Universal Registration Document 2023 (starting on page 34), incorporated herein by reference and Note 15.1.D to the Consolidated Financial Statements on page F-73.

Divestments, based on selling price and net of cash sold, in 2023 were $8,406 million compared to $4,686 million in 2022 and $2,933 million in 2021. In 2023, TotalEnergies' principal divestments were assets sales of $7,717 million compared to $1,421 million in 2022 and $2,652 million in 2021, consisting mainly of the sales described in "Item 5.- 5.2.1 TotalEnergies results 2021-2023" above.

Cash flow from/(used in) financing activities in 2023 was $(29,730) million compared to $(19,272) million in 2022 and $(25,497) million in 2021. The increase of $(10,458) million in cash flow used in financing activities in 2023 compared to 2022 was mainly due to a decrease in current borrowings of $(14,289) million in 2023 compared to $(6,073) million in 2022. The decrease in cash flow used in financing activities in 2022 compared to 2021 was mainly due to the decrease in the net issuance of non-current debt of $1,108 million in 2022 compared to a net repayment of (359) million in 2021, to a significant decrease in current financial assets and liabilities ($3,944 million in 2022 compared to $(8,075) million in 2021) due to a decrease in initial margins held as part of TotalEnergies' activities on organized markets partially compensated by an increase in buyback of shares ($7,711 million in 2022 compared to $1,823 million in 2021).

5.4.2 Indebtedness

TotalEnergies' non-current financial debt at year-end 2023 was $40,478 million, compared to $45,264 million at year-end 2022 and $49,512 million at year-end 2021. For further information on the level of borrowing and the type of financial instruments, including maturity profile of debt and currency and interest rate structure, see point 1.9.2 of chapter 1 in the Universal Registration Document 2023 (starting on page 63), incorporated herein by reference and Note 15 ("Financial structure and financial costs") to the Consolidated Financial Statements starting on page F-69. For further information on the treasury policies, including the use of instruments for hedging purposes and the currencies in which cash and cash equivalents are held, see "Item 11. Quantitative and Qualitative Disclosures About Market Risk".

Cash and cash equivalents at year-end 2023 were $27,263 million compared to $33,026 million at year-end 2022 and $21,342 million at year-end 2021.

5.4.3 Shareholders' equity

Shareholders' equity at year-end 2023 was $119,453 million, compared to $114,570 million million at year-ended 2022 and $114,999 million at year-end 2021.

- Changes in shareholders' equity in 2023 were primarily due to the impacts of comprehensive income, dividend payments, the buy-back of TotalEnergies SE shares, and the repurchase of €1 billion notional amount of perpetual subordinated notes issued in 2016.
- Changes in shareholders' equity in 2022 were primarily due to the impacts of comprehensive income, dividend payments, and the buy-back of TotalEnergies SE shares.
- Changes in shareholders' equity in 2021 were primarily due to the impacts of comprehensive income, dividend payments, the buy-back of TotalEnergies SE shares and the issuance of perpetual subordinated notes issued by TotalEnergies SE in January 2021, in two tranches of €1.5 billion (callable in 2027 and 2032), recorded as equity for approximately €3.3 billion (or approximately $3.6 billion using the €/$ exchange rate on January 29, 2021 of €1=$1.2135 as released by the Board of Governors of the Federal Reserve System February 1, 2021).

Variation of the number of shares composing the share capital

As of December 31, 2021[(a)]		**2,640,429,329**
	Capital reduction by cancellation of treasury shares[(b)]	*(30,665,526)*
	Deferred contribution pursuant to the 2017 capital increase reserved for employees	*9,471*
	2022 Capital increase reserved for employees	*9,358,011*
As of December 31, 2022[(c)]		**2,619,131,285**
	Capital reduction by cancellation of treasury shares[(b)]	*(214,881,605)*
	2023 Capital increase reserved for employees	*8,002,155*
As of December 31, 2023[(d)]		**2,412,251,835**

(a) Including 33,841,104 treasury shares deducted from consolidated shareholders' equity.

(b) These transactions had no impact on the consolidated financial statements of TotalEnergies SE, the number of fully-diluted weighted-average shares or on the earnings per share

(c) Including 137,187,667 treasury shares deducted from consolidated shareholders' equity.

(d) Including 60,543,213 treasury shares deducted from consolidated shareholders' equity.

TotalEnergies share buyback

Fiscal year	Total number of shares purchased	Shares repurchased for cancellation *(Units/$)*	Shares allocated to performance share plans
2023	144,700,577	142,569,920 / 9.00 billion	2,130,657
2022	140,207,743	128,869,261 / 7.02 billion	11,338,482
2021	37,306,005	30,665,526 / 1.5 billion	6,640,479

5.4.4 Net-debt-to-capital ratio

As of December 31, 2023, TotalEnergies' net-debt-to-capital ratio excluding leases[1] and including initial margins held as part of its activities on organized markets was 5.0% compared to 7.0% and 15.3% at year-ends 2022 and 2021, respectively. The decreases from 2022 to 2023 and from 2021 to 2022 were mostly due to the change in net debt. For additional information, please refer to the Notes to the Consolidated Financial Statements (starting on page F-14).

For information on committed credit facilities and liquidity risk, please refer to Note 15.3 to the Consolidated Financial Statements (starting on page F-79).

5.4.5 Material cash requirements

In 2023, the largest part of TotalEnergies' capital expenditures of $24,860 million was made up of additions to intangible assets and property, plant and equipment (approximately 70%), with the remainder attributable to equity-method affiliates and to acquisitions of subsidiaries.

- In the Exploration & Production segment, as described in more detail under point 9.1.6 and 9.1.7 of chapter 9 of the Universal Registration Document 2023 (beginning on page 549), incorporated herein by reference, capital expenditures in 2023 were principally development costs (approximately 77%), exploration expenditures (successful and unsuccessful, approximately 4%) and acquisitions (approximately 19%).
- In the Integrated LNG segment, approximately 71% of capital expenditures were related mainly to facilities investments with the balance being related mainly to acquisitions.
- In the Integrated Power segment, approximately 50% of capital expenditures were related to acquisitions in renewables with the balance being related mainly to investments.
- In the Refining & Chemicals segment, approximately 79% of capital expenditures in 2023 were related to refining and petrochemical activities (essentially 62% for existing units including maintenance and major turnarounds and 38% for business development), the balance being related to Hutchinson and investments in low carbon activities.
- In the Marketing & Services segment, approximately 99% of capital expenditures in 2023 were focused on development expenditures, mainly in Europe and Africa.

For additional information on capital expenditures, refer to the discussion above in "Item 5.- 5.1 Overview", "Item 5.- 5.2 TotalEnergies results 2021-2023" and "Item 5.- 5.3 Business segment reporting", above, as well as point 1.5 of chapter 1 (on page 31) of the Universal Registration Document 2023, incorporated herein by reference.

As of December 31, 2023, TotalEnergies' material contractual obligations include debt obligations net of hedging instruments, purchases obligations, asset retirement obligations and lease obligations. For additional information on TotalEnergies' contractual obligations, refer to Note 13 to the Consolidated Financial Statements (starting on page F-63). TotalEnergies has other obligations in connection with pension plans that are described in Note 10 ("Payroll, staff and employee benefits obligations") to the Consolidated Financial Statements (starting on page F-55). These obligations are not contractually fixed as to timing and amount. Other non-current liabilities, detailed in Note 12 ("Provisions and other non-current liabilities") to the Consolidated Financial Statements (starting on page F-60), are liabilities related to risks that are probable and amounts that can be reasonably estimated. However, no contractual agreements exist related to the settlement of such liabilities, and the timing of the settlement is not known.

[1] For additional information, refer to Note 15.1(E) to the Consolidated Financial Statements (starting on page F-76).

TotalEnergies estimates the combination of its sources of capital will continue to be adequate to fund its short- and long- term contractual obligations.

Information on TotalEnergies' guarantees and other commitments and contingencies are presented in Note 13 ("Off balance sheet commitments and contractual obligations") to the Consolidated Financial Statements (starting on page F-63). TotalEnergies does not currently consider that these guarantees, or any other off-balance sheet arrangements of TotalEnergies or any other members of TotalEnergies, have or are reasonably likely to have, currently or in the future, a material effect on the TotalEnergies' financial condition, changes in financial condition, revenues or expenses, results of operation, liquidity, capital expenditures or capital resources.

5.5 Research and development

For a discussion of TotalEnergies' R&D policies and activities, refer to points 1.5.2 and 1.6 of chapter 1 (starting on pages 33 and 34, respectively) of the Universal Registration Document 2023, incorporated herein by reference.

5.6 Situation of the Company in Russia at March 24, 2024

The Company presents in the section below an update on the situation since the invasion of Ukraine by Russia on February 24, 2022 and its impact on its activities carried out by TotalEnergies in connection with Russia.

Principal activities of TotalEnergies in connection with Russia and principles of conduct

On **March 1, 2022**, TotalEnergies announced that it condemns Russia's military aggression against Ukraine, supports the scope and strength of the sanctions put in place by Europe that will be implemented by the Company regardless of the consequences on its asset management, and that it will no longer provide capital for new projects in Russia.

On **March 22, 2022**, considering the worsening conflict, TotalEnergies reaffirmed its firmest condemnation of Russia's military aggression against Ukraine, which has tragic consequences for the Ukrainian population and threatens peace in Europe. To act responsibly, as a European company and in accordance with its values, **the Company defined clear principles of conduct for managing its Russian related business:**

- Ensure strict compliance with current and future European sanctions, no matter what the consequences on the management of its assets in Russia, and gradually suspend its activities in Russia, while assuring its workforce's safety;
- Provide no further capital of TotalEnergies SE for the development of projects in Russia;
- Do not reverse the purpose of sanctions against Russia: do not unwarrantedly transfer value to Russian interests by withdrawing from assets;
- Help ensure the security of the European continent's energy supply within the framework defined by European authorities; and
- No longer enter into or renew contracts to purchase Russian oil and petroleum products, in order to halt all its purchases of Russian oil and petroleum products as soon as possible and by the end of 2022 at the latest. TotalEnergies announced that since February 25, 2022, it would not trade Russian oil or oil products on the spot markets, including spot trading of Russian natural gas or LNG.

TotalEnergies restated that it did not operate any oil or gas field, or Liquefied Natural Gas (LNG) plant, in Russia and that was a minority shareholder, at that time, in a number of non-state-owned Russian companies: Novatek (19.4%)[2], Yamal LNG (20%)[3], Arctic LNG 2 (10%)[4], TernefteGaz (49%)[5] and partner with 20% in the Kharyaga joint venture operated by Zarubezhneft[6], without any activity or operational responsibility on those sites.

On the same day, concerning the Arctic LNG 2 project in particular, given the uncertainty created by technological and financial sanctions on the ability to carry out the Arctic LNG 2 project currently under construction and their probable tightening with the worsening conflict, TotalEnergies SE decided no longer to record proven reserves for Arctic LNG 2 in its accounts.

On **April 27, 2022**, considering the new sanctions adopted by the European authorities on April 8, 2022, notably prohibiting export from European Union countries of goods and technology for use in the liquefaction of natural gas benefitting a Russian company, it appeared that these new prohibitions constituted additional risks on the execution of the Arctic LNG 2 project. As a result, TotalEnergies decided to record in its accounts, as of March 31, 2022, an impairment of $4.1 billion, concerning notably Arctic LNG 2.

On **July 28, 2022**, in the context of its second quarter and first half 2022 results, TotalEnergies announced that had recorded in its accounts a new $3.5 billion impairment charge related mainly to the potential impact of international sanctions on the value of its Novatek stake.

On **August 26, 2022**, TotalEnergies restated that in the context of the implementation of its principles of conduct, it would continue its duty to contribute toward securing Europe's gas supply from the Yamal LNG plant within the framework of long-term contracts that it must honor as long as Europe's governments do not impose sanctions on Russian gas.

TotalEnergies had also announced the gradual suspension of its activities in Russia that do not contribute to the security of energy supply of Europe. This included assets producing oil (Kharyaga field) and gas for the local Russian market (Termokarstovoye field) as well as other local businesses (lubricants, batteries) which were mothballed in the first half of 2022.

In accordance with these principles, TotalEnergies had announced on July 6, 2022 the sale of its remaining 20% interest in the Kharyaga oil project to Zarubezhneft. This sale was finalized on August 3, 2022. The Company also announced that it had agreed on July 18, 2022, to sell to Novatek TotalEnergies' 49% interest in Terneftegaz, which operates the Termokarstovoye gas and condensates field in Russia, on economic terms enabling TotalEnergies to recover the outstanding amounts invested in the field. This sale was finalized on September 15, 2022.

On **October 27, 2022**, in the context of its third quarter 2022 results, TotalEnergies announced that had recorded in its accounts a new $3.1 billion impairment charge related mainly to the potential impact of international sanctions on the value of its Novatek stake.

On **December 9, 2022**, TotalEnergies reiterated that it holds a 19.4% stake in Novatek, that it cannot sell given the shareholders' agreements in effect, as it is forbidden for TotalEnergies to sell any asset to one of Novatek's main shareholders who is under sanctions.

The Company highlighted that in view of the European sanctions in force since the beginning of the war, the two directors representing TotalEnergies on the board of directors of Novatek have to abstain from voting in meetings of the board of directors of this company, in particular on financial matters and that they are therefore no longer in a position to fully carry out their duties on the board, which might become an issue for the governance of this company.

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[2] Novatek is a Russian company listed on the Moscow stock exchange, and in which TotalEnergies held an interest of 19.4% as of December 31, 2023.

[3] Yamal LNG is a Russian company jointly owned by Novatek, TotalEnergies EP Yamal (20.02%), YAYM Limited, and China National Oil and Gas Exploration Development Company (CNODC), a subsidiary of CNPC, as of December 31, 2023.

[4] Arctic LNG 2 is a Russian company jointly owned by Novatek, TotalEnergies EP Salmanov (10%), CNODC Dawn Light Limited, CEPR Limited and Japan Arctic LNG, as of December 31, 2023.

[5] Terneftegas is a company jointly owned by Novatek, and TotalEnergies EP Termokarstovoye SAS (49%) before the sale of its interest finalized on September 15, 2022.

[6] Kharyaga is a non-incorporated joint venture with Zarubezhneft (operator, 40%), Equinor (30%) and Nenets Oil Company (10%). TotalEnergies finalized on August 3, 2022 the sale of its 20% interest in Kharyaga à Zarubezhneft.

Under these circumstances, the Board of Directors of TotalEnergies decided to withdraw the representatives of the Company from the board of Novatek with immediate effect. As a result, as the criteria for significant influence within the meaning of the accounting regulations that apply to the Company are not met, TotalEnergies will no longer equity account for its 19.4% stake in Novatek in the Company's accounts. In addition, TotalEnergies will no longer book reserves for its interest in Novatek.

On **February 8, 2023**, TotalEnergies announced that it had recorded in its accounts for the fourth quarter results a new $4.1 billion impairment charge related to the deconsolidation of Novatek.

Russian assets were fully impaired in 2022, with the exception of the shares held in the Yamal LNG company. In total, the impact of impairments and provisions recorded in 2022 due to the Russian-Ukrainian conflict amounted to $(14,756) million in TotalEnergies' net result.

On **November 2, 2023**, the Arctic LNG 2 company was placed under sanctions by the US authorities. TotalEnergies initiated the contractual suspension procedure provided for in the Arctic LNG 2 shareholders' agreement and that of force majeure for the LNG purchase contract from Arctic LNG 2. These procedures, upon their notification, resulted in the suspension of TotalEnergies' rights and obligations under these agreements, thus implying in particular the suspension of the participation of TotalEnergies' representatives in the governance bodies of Arctic LNG 2. As a result, the 10% interest held by TotalEnergies in Arctic LNG 2 is no longer accounted for using the equity method in the Company's accounts as of December 31, 2023 but is recorded under "other investments". As mentioned above, as the shares in Arctic LNG 2 were fully impaired in 2022, this deconsolidation had no impact on the 2023 financial statements.

The Company has also ensured the absence of depreciation to be accounted for on Yamal LNG, by testing the value of its equity accounted investment which amounts to $4,560 million as of December 31, 2023.

With regard to the participation in Novatek, in the absence of any new event, the assessments and judgments taken into account on December 31, 2022 in the accounting and valuation method remain unchanged at December 31, 2023. As the criteria for significant influence are no longer met within the meaning of IAS 28 "Investments in associates and joint ventures", TotalEnergies' 19.4% interest in Novatek has no longer been accounted for using the equity method in the Company's financial statements since the end of the fourth quarter of 2022.

Depending on the developments of the Russian-Ukrainian conflict and the measures that the European and American authorities may take, the activities of TotalEnergies in Russia, in particular those relating to the Yamal LNG asset, could be affected in the future.

The table below presents TotalEnergies' producing assets and entities in Russia as of December 31, 2023, the interest held in the asset or entities (TotalEnergies share in %).

Producing assets as of December 31, 2023 in Russia

Exploration & Production segment	Integrated LNG segment
Non operated: None.	**Non operated**: Yamal LNG (20.02%)
TotalEnergies no longer equity account for its 19.4% stake in Novatek as of December 31, 2022.	

The tables below present the average daily production of liquids and natural gas of TotalEnergies in Russia, as well as the Upstream Capital Employed per project in Russia as of December 31, 2023.

TotalEnergies' average daily liquids and natural gas production in Russia in 2023	Liquids kb/d(a)	Natural gas Mcf/d(b)	Total kboe/d
Russia	5	577	111
including production share of equity affiliates	5	577	111
Yamal LNG	5	575	110.5

(a) Liquids include crude oil, bitumen, condensates, and natural gas liquids (NGL).
(b) Including fuel gas.

Upstream Capital Employed in Russia as of and for the year ended December 31 (M$)	2023	2022	2021
Novatek	0	0	6,243
Yamal LNG	4,560	4,626	4,333
Arctic LNG 2	0	0	2,450
Provisions	(1,822)	(1,752)	—
Total Upstream Capital Employed	**2,738**	**2,874**	**13,026**

Activities in Russia in 2023

In the Integrated LNG segment, LNG production in Russia was from the Yamal LNG project. This development project of the onshore South Tambey field (gas and condensates) located on the Yamal peninsula was launched in 2013 by the company Yamal LNG. TotalEnergies holds a direct 20.02% interest in the project through its subsidiary TotalEnergies EP Yamal. The project includes a four-train gas liquefaction plant with a nominal capacity of 17.4 Mt/y of LNG.

In addition, TotalEnergies holds a 10% direct interest in the Arctic LNG 2 project (19.8 Mt/y, under construction) since 2019 through its subsidiary TotalEnergies EP Salmanov.

Since July 2021, TotalEnergies has also held a direct interest of 10% via TotalEnergies EP Transshipment in Arctic Transshipment[7], which was established to serve Arctic LNG 2 in order to enable the transfer of LNG cargoes from Arctic LNG carriers (icebreakers) to conventional LNG carriers at transshipment terminals in Murmansk and Kamchatka.

Given the uncertainties that technological and financial sanctions pose on the ability to complete the Arctic LNG 2 project, TotalEnergies has ceased to recognize as proved reserves the resources associated with the Arctic LNG 2 project since December 31. 2021, and has provisioned in its accounts the value of its investments as of March 31, 2022. TotalEnergies no longer recorded reserves from its interest in Novatek.

[7] Arctic Transshipment is a Russian company jointly owned by Novatek (90%) and TotalEnergies EP Transshipment (10%) at December 31, 2023.

The American Office of Foreign Assets Control (OFAC) designated, on September 14, 2023 and November 2, 2023, respectively, Arctic Transshipment and Arctic LNG 2 as Specially Designated Nationals with immediate effect subject to temporary exceptions under licenses issued by the OFAC. As a consequence of these designations, US persons are prohibited to deal with these two entities. All non-US persons are exposed to the risk of US secondary sanctions if they provide material support to these entities. Since April 18, 2023, TotalEnergies EP Transshipment has not participated in any governance body and has not paid any cash calls to Arctic Transshipment. The Company is party to an LNG purchase contract with Arctic LNG 2, for which the Company had indicated that it could not terminate it early without exposing itself financially to significant consequences in the absence of economic sanctions, and that it would exercise the force majeure clauses provided for in the contract to interrupt it if sanctions were imposed. On November 2, 2023, Arctic LNG 2 was placed under sanctions by the US authorities. As a result, in accordance with what it announced, on November 7, 2023, TotalEnergies initiated the contractual suspension procedure provided for in the Arctic LNG 2 shareholders' agreement and the force majeure procedure for the LNG purchase contract with Arctic LNG 2. Upon notification of these procedures, TotalEnergies' rights and obligations under these contracts were suspended (refer to point 3.2. of Chapter 3 of the Universal Registration Document 2023).

In the Marketing & Services segment, TotalEnergies stopped producing lubricants in Russia at the end of May 2022, in accordance with its principles of conduct published on March 22, 2022, and announced the sale of these activities in March 2023 to a company created by the Russian management team of the subsidiary TotalEnergies Marketing Russia.

For more detailed information on economic sanctions against Russia, see Section 3.2 of Chapter 3 of the Universal Registration Document 2023 (starting on page 140), incorporated herein by reference.

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

The following information concerning directors and senior management from the Universal Registration Document 2023 is incorporated herein by reference:

- composition of the Board of Directors (introduction and point 4.1.1 of chapter 4, starting on page 190); and
- information concerning the General Management (point 4.1.5 of chapter 4, starting on page 230).

The following information concerning compensation from the Universal Registration Document 2023 is incorporated herein by reference:

- responsible compensation policy (point 5.6.1.2 of chapter 5, starting on page 336); and
- compensation for the administration and management bodies (point 4.3 of chapter 4, starting on page 238).

The following information concerning Board practices and corporate governance from the Universal Registration Document 2023 is incorporated herein by reference:

- functioning of the Board of Directors (point 4.1.2 of chapter 4, starting on page 215);
- report of the Lead Independent Director on her mandate (point 4.1.3 of chapter 4, starting on page 227);
- assessment of the Board of Directors practices (point 4.1.4 of chapter 4, on page 229); and
- statement regarding corporate governance (point 4.2 of chapter 4, on page 238).

The following information concerning employees and share ownership from the Universal Registration Document 2023 is incorporated herein by reference:

- responsible management of the company's workforce (point 5.6.1.1 of chapter 5, starting on page 334);
- shares held by the administration and management bodies (point 4.1.6 of chapter 4, starting on page 236); and
- employee shareholding (point 6.4.2 of chapter 6, on page 402).

TotalEnergies believes that the relationship between its management and labor unions is, in general, satisfactory.

ITEM 6F. DISCLOSURE OF A REGISTRANT'S ACTION TO RECOVER ERRONEOUSLY AWARDED COMPENSATION

Not applicable.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

The following information concerning shareholders from the Universal Registration Document 2023 is incorporated herein by reference:

- major shareholders (point 6.4.1 of chapter 6, starting on page 401); and
- shareholding structure (point 6.4.3 of chapter 6, on page 403).

TotalEnergies' main transactions with related parties (principally all the investments carried under the equity method) and the balances receivable from and payable to them are shown in point 8.3 of Note 8 ("Equity affiliates, other investments and related parties") to the Consolidated Financial Statements (on page F-48). In the ordinary course of its business, TotalEnergies enters into transactions with various organizations with which certain of its directors or executive officers may be associated, but no such transactions of a material or unusual nature have been entered into during the period commencing on January 1, 2021 and ending on the date of this document. For further information on regulated agreement and undertakings and related-party transactions, refer to point 4.4.1 of chapter 4 of the Universal Registration Document 2023 (on page 267), incorporated herein by reference.

ITEM 8. FINANCIAL INFORMATION

The following information from the Universal Registration Document 2023 is incorporated herein by reference:

- legal and arbitration proceedings (point 3.5 of chapter 3, on page 152);
- dividend policy and other related information (point 6.2 of chapter 6, starting on page 395);
- supplemental oil and gas information (points 9.1 and 9.2 of chapter 9, starting on page 536);
- report on payments made to governments (point 9.3 of chapter 9, starting on page 553); and
- reporting of payments to governments for purchases of oil, gas and minerals (EITI reporting) (point 9.4 of chapter 9, starting on page 584).

The Consolidated Financial Statements and Notes thereto are included in pages F-9 et seq. attached hereto.

Except for certain events mentioned in “Item 5. Operating and financial review and prospects ” and point 3.5 of chapter 3 (on page 152) of the Universal Registration Document 2023, incorporated herein by reference and Note 17 to the Consolidated Financial Statements (on page F-87), no significant changes to TotalEnergies’ financial or commercial situation have occurred since the date of the Consolidated Financial Statements.

Refer to “Item 18. Financial statements” for the reports of the statutory auditors.

ITEM 9. THE OFFER AND LISTING

9.1 Markets

The main trading markets for the TotalEnergies shares are the following: Euronext Paris (France) and the New York Stock Exchange (“NYSE”, United States). The shares are also listed on Euronext Brussels (Belgium) and the London Stock Exchange (United Kingdom).

9.2 Offer and listing details

Provided below is certain information on trading on Euronext Paris and the NYSE. For additional information on listing details and share performance, refer to point 6.1 in chapter 6 of the Universal Registration Document 2023 (starting on page 392), incorporated herein by reference.

9.2.1 Trading on Euronext Paris

Official trading of listed securities on Euronext Paris, including the TotalEnergies shares, is transacted through EU investment service providers that are members of Euronext Paris and takes place continuously on each business day in Paris from 9:00 a.m. to 5:30 p.m. (Paris time), with a fixing of the closing price at 5:35 p.m. (Paris time). Euronext Paris may suspend or resume trading in a security listed on Euronext Paris if the quoted price of the security exceeds certain price limits defined by the regulations of Euronext Paris. The Euronext Paris ticker symbol for TotalEnergies SE is TTE.

The markets of Euronext Paris settle and transfer ownership two trading days after a transaction (T+2). Highly liquid shares, including those of TotalEnergies SE, are eligible for deferred settlement (Service de Règlement Différé - SRD). Payment and delivery for shares under the SRD occurs on the last trading day of each month. Use of the SRD service requires payment of a commission.

In France, the TotalEnergies shares are included in the principal index published by Euronext Paris (the “CAC 40 Index”). The CAC 40 Index is derived daily by comparing the total market capitalization of forty stocks traded on Euronext Paris to the total market capitalization of the stocks that made up the CAC 40 Index on December 31, 1987. Adjustments are made to allow for expansion of the sample due to new issues. The CAC 40 Index indicates trends in the French stock market as a whole and is one of the most widely followed stock price indices in France. In the UK, the shares are included in both FTSE Eurotop 100 and FTSEurofirst 100 indices. As a result of the creation of Euronext, the TotalEnergies shares are included in Euronext 100, the index representing Euronext’s blue chip companies based on market capitalization. The TotalEnergies shares are also included in the Stoxx Europe 50 and Euro Stoxx 50, blue chip indices comprised of the fifty most highly capitalized and most actively traded equities throughout Europe and within the European Monetary Union, respectively.

9.2.2 Trading on the New York Stock Exchange

American Depositary Shares (“ADSs”) evidenced by American Depositary Receipts (“ADRs”) have been listed on the NYSE since October 25, 1991. JPMORGAN CHASE BANK, N.A. serves as depositary with respect to the ADSs evidenced by ADRs traded on the NYSE. One ADS corresponds to one TotalEnergies share.

The NYSE ticker symbol for TotalEnergies SE is TTE.

ITEM 10. ADDITIONAL INFORMATION

10.1 Share capital

The following information from the Universal Registration Document 2023 is incorporated herein by reference:

- information concerning the share capital (point 7.1 of chapter 7, starting on page 408);
- the use of delegations of authority and power granted to the Board of Directors with respect to share capital increases and authorization for share cancellation (point 4.4.2 of chapter 4, starting on page 268);
- information on share buybacks (point 6.3 of chapter 6, starting on page 398); and
- factors likely to have an impact in the event of a public takeover or exchange offer (point 4.4.4 of chapter 4, starting on page 270).

10.2 Memorandum and articles of association

The following information from the Universal Registration Document 2023 is incorporated herein by reference:

- information concerning the articles of incorporation and bylaws, and other information (point 7.2 of chapter 7, starting on page 409); and
- participation of shareholders at shareholders’ meetings (point 4.4.3 of chapter 4, on page 269).

10.3 Material contracts

There have been no material contracts (not entered into in the ordinary course of business) entered into by members of TotalEnergies since March 29, 2022.

10.4 Exchange controls

Under current French exchange control regulations, no limits exist on the amount of payments that TotalEnergies may remit to residents of the United States. Laws and regulations concerning foreign exchange controls do require, however, that an accredited intermediary must handle all payments or transfer of funds made by a French resident to a non-resident.

10.5 Taxation

10.5.1 General

This section generally summarizes the material U.S. federal income tax and French tax consequences of owning and disposing of shares or ADSs of TotalEnergies SE to U.S. Holders that hold their shares or ADSs as capital assets for tax purposes. A U.S. Holder is a beneficial owner of shares or ADSs that is (i) a citizen or resident of the United States for U.S. federal income tax purposes, (ii) a domestic corporation or other domestic entity treated as a corporation for U.S. federal income tax purposes, (iii) an estate whose income is subject to U.S. federal income tax regardless of its source, or (iv) a trust if (1) a U.S. court can exercise primary supervision over the trust's administration and one or more U.S. persons are authorized to control all substantial decisions of the trust or (2) it has a valid election in effect under applicable U.S. Treasury regulations to be treated as a United States person.

This section does not address the Medicare tax on net investment income, the application of special accounting rules under Section 451(b) of the Internal Revenue Code of 1986, as amended ("IRC"), U.S. federal estate or gift taxes or any taxes from jurisdictions other than the United States and France. This section does not apply to members of special classes of holders subject to special rules, including without limitation:

- broker-dealers;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- tax-exempt organizations;
- certain financial institutions;
- insurance companies;
- U.S. pension funds;
- U.S. Regulated Investment Companies (RICs), Real Estate Investment Trusts (REITs), and Real Estate Mortgage Investment Conduits (REMICs);
- persons who are liable for the alternative minimum tax;
- persons that actually or constructively own 10% or more of the shares of TotalEnergies SE (by vote or value);
- persons who acquired the shares or ADSs pursuant to the exercise of any employee share option or otherwise as consideration;
- persons that purchase or sell shares or ADSs as part of a wash sale for U.S. federal income tax purposes;
- persons holding offsetting positions in respect of the shares or ADSs (including as part of a straddle, hedging, conversion or integrated transaction);
- U.S. expatriates; and
- persons whose functional currency is not the U.S. dollar.

If a partnership or other entity or arrangement treated as a partnership for U.S. federal income tax purposes holds shares or ADSs, the tax treatment of a partner will generally depend upon the status of the partner and upon the activities of the partnership. Partners of a partnership holding these shares or ADSs should consult their tax advisors as to the tax consequences of owning or disposing of shares or ADSs, as applicable.

Under French law, specific rules apply to trusts, in particular specific tax and filing requirements; additionally, specific rules apply to wealth, estate and gift taxes as they apply to trusts. Given the complex nature of these rules and the fact that their application varies depending on the status of the trust, the grantor, the beneficiary and the assets held in the trust, the following summary does not address the tax treatment of shares or ADSs held in a trust. If shares or ADSs are held in trust, the grantor, trustee and beneficiary are urged to consult their own tax advisor regarding the specific tax consequences of acquiring, owning and disposing of shares or ADSs.

In addition, the discussion below is limited to U.S. Holders that (i) are residents of the United States for purposes of the Treaty (as defined below), (ii) do not maintain a permanent establishment or fixed base in France to which the shares or ADSs are attributable and through which the respective U.S. Holders carry on, or have carried on, a business (or, if the holder is an individual, performs or has performed independent personal services), and (iii) are otherwise eligible for the benefits of the Treaty in respect of income and gain from the shares or ADSs (in particular, under the "Limitation on Benefits" provision of the Treaty). In addition, this section is based in part upon the representations of the Depositary and the assumption that each obligation in the Deposit Agreement and any related agreement will be performed in accordance with its terms.

The discussions below of the material U.S. federal income tax consequences to U.S. Holders of owning and disposing of shares or ADSs of TotalEnergies SE are based on the IRC, Treasury regulations promulgated thereunder and judicial and administrative interpretations thereof, as well as on the Convention Between the Government of the United States of America and the Government of the French Republic for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income and Capital dated August 31, 1994, as amended (the "Treaty"), all as in effect on the date hereof and all of which are subject to change, which change could apply retroactively and could affect the tax consequences described below. The description of the material French tax consequences is based on the laws of the Republic of France and French tax regulations, all as currently in effect, as well as the Treaty, as currently in effect. These laws, regulations and the Treaty are subject to change, possibly on a retroactive basis.

In general, and taking into account the earlier assumptions, for U.S. federal income tax purposes, a U.S. Holder of ADRs evidencing ADSs will be treated as the owner of the shares represented by those ADRs. Exchanges of shares for ADRs, and ADRs for shares, generally will not be subject to U.S. federal income tax. The U.S. Treasury has expressed concerns that intermediaries in the chain of ownership between the holder of an ADS and the issuer of the security underlying the ADS may be taking actions that are inconsistent with the beneficial ownership of the underlying security. Accordingly, the creditability of any French taxes and the availability of the reduced tax rate for any dividends received by certain non-corporate U.S. Holders (as discussed below), could be affected by actions taken by intermediaries in the chain of ownership between the holders of the ADSs and TotalEnergies if as a result of such actions the U.S. Holders of the ADSs are not properly treated as beneficial owners of underlying shares.

This discussion is intended only as a descriptive summary and does not purport to be a complete analysis or listing of all potential tax effects of the ownership or disposition of the shares and ADSs and is not intended to substitute competent professional advice. Individual situations of holders of shares and ADSs may vary from the description made below. The following summary does not address the French tax treatment applicable to dividends paid in certain so-called "Non Cooperative Countries and Territories" ("NCCT") within the meaning of Article 238-0 A of the French Code général des impôts ("French Tax Code") (*i.e.,* States other than the ones mentioned in Article 238-0 A 2 *bis* 2° of the same code) as such provision or list may be amended from time to time or replaced by any other provision or list having a similar purpose. It does not apply to dividends paid to persons established or domiciled in such a NCCT, or paid to a bank account opened in a financial institution located in such a NCCT, nor does it apply to capital gains realized by persons established or domiciled in such a NCCT. Furthermore, the following summary does not address the tax treatment applicable to temporary transfers and other similar transactions which could, under certain conditions, fall within the scope of the anti-abuse measure set forth in Article 119 bis A of the French Tax Code.

Holders are urged to consult their own tax advisors regarding the U.S. federal, state and local, and the French and other tax consequences of owning and disposing shares or ADSs of TotalEnergies in their respective circumstances. In particular, a holder is encouraged to confirm with its advisor whether the holder is a U.S. Holder eligible for the benefits of the Treaty.

10.5.2 Taxation of dividends

French taxation

The term “dividends” used in the following discussion means dividends within the meaning of the Treaty.

Dividends paid to non-residents of France who are U.S. Holders are in principle subject to a French withholding tax regardless of whether they are paid in cash, in shares or a mix of both. The French withholding tax is levied (i) at a rate of 12.8% for dividends paid to U.S. Holders who are individuals and (ii) at a rate of 25% for dividends paid to U.S. Holders that are legal entities (the “Legal Entities U.S. Holders”) subject to more favorable provisions of the Treaty as described below and certain more favorable French domestic law provisions.

The withholding tax is in principle levied on the gross amount of dividends. However, Article 235 quinquies of the French tax code allows, under certain conditions, for non-residents legal entities to compute the withholding tax on a net basis and to recover the excess of the tax initially withheld on a gross amount.

Under the Treaty, a U.S. Holder is generally entitled to a reduced rate of French withholding tax of 15% with respect to dividends, provided that certain requirements are satisfied. This reduced rate is, in practice, only of interest to Legal Entities U.S. Holders subject to the withholding tax at a rate of 25%.

Administrative guidelines (Bulletin Officiel des Finances Publiques, BOI-INT-DG-20-20-20-20-12/09/2012) (the “Administrative Guidelines”) set forth the conditions under which the reduced French withholding tax at the rate of 15% may be available. The immediate application of the reduced 15% rate is available to those U.S. Holders that may benefit from the so-called “simplified procedure” (within the meaning of the Administrative Guidelines).

Under the “simplified procedure”, U.S. Holders may claim the immediate application of withholding tax at the rate of 15% on the dividends to be received by them, provided that:

(i) they furnish to the U.S. financial institution managing their securities account a certificate of residence conforming with form No. 5000 FR. The immediate application of the 15% withholding tax will be available only if the certificate of residence is sent to the U.S. financial institution managing their securities account no later than the dividend payment date. Furthermore, each financial institution managing the U.S. Holders’ securities account must also send to the French paying agent the figure of the total amount of dividends to be received which are eligible to the reduced withholding tax rate before the dividend payment date; and

(ii) the U.S. financial institution managing the U.S. Holders’ securities account provides the French paying agent with a list of the eligible U.S. Holders and other pieces of information set forth in the Administrative Guidelines. Furthermore, the financial institution managing the U.S. Holders’ securities account should certify that the U.S. Holder is, to the best of its knowledge, a United States resident within the meaning of the Treaty. These documents must be sent to the French paying agent after the dividend payment date and within a time frame that will allow the French paying agent to file them no later than the end of the third month computed as from the end of the month of the dividend payment date.

Where the U.S. Holder’s identity and tax residence are known by the French paying agent, the latter may release such U.S. Holder from furnishing to (i) the financial institution managing its securities account, or (ii) as the case may be, the U.S. Internal Revenue Service (“IRS”), the abovementioned certificate of residence, and apply the 15% withholding tax rate to dividends it pays to such U.S. Holder.

For a U.S. Holder that is not entitled to the “simplified procedure” and whose identity and tax residence are not known by the paying agent at the time of the payment, the French withholding tax at the domestic rate will be levied at the time the dividends are paid. Such U.S. Holder, however, may be entitled to a refund of the withholding tax in excess of the 15% rate under the “standard procedure”, as opposed to the “simplified procedure”, provided that the U.S. Holder furnishes to the French paying agent an application for refund on forms No. 5000 FR and 5001 FR (or any other relevant form to be issued by the French tax authorities) certified by the U.S. financial institution managing the U.S. Holder’s securities account (or, if not, by the competent U.S. tax authorities) before December 31 of the second year following the date of payment of the withholding tax at the domestic rate to the French tax authorities, according to the requirements provided by the Administrative Guidelines.

Copies of forms No. 5000 FR and 5001 FR (or any other relevant form to be issued by the French tax authorities) as well as the form of the certificate of residence and the U.S. financial institution certification, together with instructions, are available from the IRS and the French tax authorities.

These forms, together with instructions, are to be provided by the Depositary to all U.S. Holders of ADRs registered with the Depositary. The Depositary is to use reasonable efforts to follow the procedures established by the French tax authorities for U.S. Holders to benefit from the immediate application of the 15% French withholding tax rate or, as the case may be, to recover the portion in excess over 15% of the French withholding tax initially withheld.

To effect such benefit or recovery, the Depositary shall advise such U.S. Holder to return the relevant forms to it, properly completed and executed. Upon receipt of the relevant forms properly completed and executed by such U.S. Holder, the Depositary shall cause them to be filed with the appropriate French tax authorities, and upon receipt of any resulting remittance, the Depositary shall distribute to the U.S. Holder entitled thereto, as soon as practicable, the proceeds thereof in U.S. dollars.

The identity and address of the French paying agent are available from TotalEnergies.

In addition, subject to certain specific filing obligations, there is no withholding tax on dividend payments made by French companies to:

(i) non-French collective investment funds formed under foreign law and established in a Member State of the European Union or in another State or territory, such as the United States, that has entered with France into an administrative assistance agreement for the purpose of combating fraud and tax evasion, and which fulfill the two following conditions: (a) the fund raises capital among a number of investors for the purpose of investing in accordance with a defined investment policy, in the interest of its investors, and (b) the fund has characteristics similar to those of collective investment funds organized under French law fulfilling the conditions set forth in Article 119 bis 2, 2 of the French Tax Code and the Administrative Guidelines Bulletin Officiel des Finances Publiques, BOI-RPPM-RCM-30-30-20-70-06/10/2021 (i.e., among others, open-end mutual fund (OPCVM), open-end real estate fund (OPCI) and closed-end investment companies (SICAF)); and

(ii) companies whose effective place of management is, or which have a permanent establishment receiving the dividends, in a Member State of the European Union or in another State or territory that has entered with France into an administrative assistance agreement for the purpose of combating fraud and tax evasion, such as the United States, that are in a loss-making position and subject, at the time of the distribution, to insolvency proceedings similar to the one set out in Article L. 640-1 of the French Commercial Code (or where there is no such procedure available, in a situation of cessation of payments with recovery being manifestly impossible) and that meet the other conditions set out in Article 119 quinquies of the French Tax Code as specified by the Administrative Guidelines Bulletin Officiel des Finances Publiques, BOI-RPPM-RCM-30-30-20-80-29/06/2022.

Collective investment funds and companies mentioned above are urged to consult their own tax advisors to confirm whether they are eligible to such provisions and under which conditions.

Finally, companies having their seat in a Member State of the European Union or in another Member State of the European Economic Area Agreement or any third country that has concluded with France a tax treaty including an administrative assistance provision to tackle tax evasion and avoidance and which is not a NCCT, such as the United States, and being in a tax loss position might, provided that the conditions set forth in Article 235 *quater* of the French Tax Code are met, benefit from a temporary reimbursement of the withholding tax applicable on dividend payments, the corresponding amount having to be refunded to the French treasury, in particular, at the time they become in a profitable tax position.

U.S. taxation

For U.S. federal income tax purposes and subject to the passive foreign investment company rules discussed below, the gross amount of any dividend that a U.S. Holder must include in gross income equals the amount paid by TotalEnergies (i.e., the net distribution received plus any tax withheld therefrom) from its current or accumulated earnings and profits (as determined for U.S. federal income tax purposes). Dividends will not be eligible for the dividends-received deduction allowed to a U.S. corporation under IRC section 243. Distributions, if any, in excess of such current and accumulated earnings and profits (as determined for U.S. federal income tax purposes) will constitute a non-taxable return of capital to a U.S. Holder and will be applied against and reduce such U.S. Holder’s tax basis in such shares or ADSs, but not below zero. To the extent that such distributions are in excess of such basis, the distributions will constitute capital gain. Because TotalEnergies does not currently maintain calculations of earnings and profits for U.S. federal income tax purposes, a U.S. Holder of shares or ADSs of TotalEnergies should expect to treat the entire amount of distributions paid with respect to the shares or ADSs as dividends.

Dividends paid to a non-corporate U.S. Holder that constitute “qualified dividend income” will be taxable to the holder at the preferential rates applicable to long-term capital gains provided (1) TotalEnergies is neither a passive foreign investment company nor treated as such with respect to the U.S. Holder for the taxable year in which the dividend was paid and the preceding taxable year and (2) certain holding period requirements are met. TotalEnergies believes that dividends paid by TotalEnergies with respect to its shares or ADSs will be qualified dividend income. The dividend is taxable to the U.S. Holder when the holder, in the case of shares, or the Depositary, in the case of ADSs, receives the dividend, actually or constructively.

The amount of any dividend distribution includible in the income of a U.S. Holder equals the U.S. dollar value of the euro payment made, determined at the spot euro/dollar exchange rate on the date the dividend distribution is includible in the U.S. Holder’s income, regardless of whether the payment is in fact converted into U.S. dollars. Any gain or loss resulting from currency exchange fluctuations during the period from the date the dividend payment is includible in the U.S. Holder’s income to the date the payment is converted into U.S. dollars will generally be treated as ordinary income or loss and, for foreign tax credit limitation purposes, from sources within the United States and will not be eligible for the special tax rate applicable to qualified dividend income. The U.S. federal income tax rules governing the availability and computation of foreign tax credits are complex. U.S. Holders should consult their own tax advisors concerning the implications of these rules in light of their particular circumstances.

Subject to certain conditions and limitations, U.S. Holders may elect to claim a credit against their U.S. federal income tax liability for the net amount of French taxes withheld in accordance with the Treaty and paid over to the French tax authorities. The limitation on foreign taxes eligible for credit is calculated separately with respect to specific classes of income. In addition, special rules apply in determining the foreign tax credit limitation with respect to dividends that are subject to the preferential tax rates. To the extent a refund of the tax withheld is available to a U.S. Holder under French law or under the Treaty, the amount of tax withheld that is refundable will not be eligible for credit against such holder’s U.S. federal income tax liability. For this purpose, dividends distributed by TotalEnergies will generally constitute “passive income” for purposes of computing the foreign tax credit allowable to the U.S. Holder.

If a U.S. Holder has the option to receive a distribution in shares (or ADSs) instead of cash, the distribution of shares (or ADSs) will be taxable as if the holder had received an amount equal to the fair market value of the distributed shares (or ADSs), and such holder’s tax basis in the distributed shares (or ADSs) will be equal to such amount.

10.5.3 Taxation of disposition of shares

A U.S. Holder will not be subject to French tax on any capital gain from the sale or exchange of the shares or ADSs or redemption of the underlying shares that the ADSs represent.

Pursuant to Article 235 ter ZD of the French tax code, a financial transaction tax applies, under certain conditions, to the acquisition of shares of publicly traded companies registered in France having a market capitalization over €1 billion on December 1 of the year preceding the acquisition. A list of the companies within the scope of the financial transaction tax for 2024 is published in the Administrative guidelines Bulletin Officiel des Finances Publiques, BOI-ANNX-000467-20/12/2023. TotalEnergies is included in this list, although it cannot be excluded that this list might be amended in the future. The tax also applies to the acquisition of ADRs evidencing ADSs. The financial transaction tax is due at a rate of 0.3% on the price paid to acquire the shares. The person or entity liable for the tax is generally the provider of investment services defined in Article L. 321-1 of the French Monetary and Financial Code (prestataire de services d’investissement). Investment service providers providing equivalent services outside France are subject to the tax under the same terms and conditions. Taxable transactions are broadly construed but several exceptions may apply. In general, non-income taxes, such as this financial transaction tax, paid by a U.S. Holder are not eligible for a foreign tax credit for U.S. federal income tax purposes. U.S. Holders should consult their own tax advisors as to the tax consequences and creditability of such financial transaction tax.

For U.S. federal income tax purposes and subject to the passive foreign investment company rules discussed below, a U.S. Holder will generally recognize capital gain or loss upon the sale or other disposition of shares or ADSs equal to the difference between the U.S. dollar value of the amount realized on the sale or other disposition and the holder’s tax basis, determined in U.S. dollars, in the shares or ADSs. The gain or loss will generally be U.S. source gain or loss and will be long-term capital gain or loss if the U.S. Holder’s holding period of the shares or ADSs is more than one year at the time of the disposition. Long-term capital gain of a non-corporate U.S. Holder is generally taxed at preferential rates if specified minimum holding periods are met. The deductibility of capital losses is subject to limitation.

10.5.4 Passive foreign investment company status

TotalEnergies believes that the shares and ADSs are not treated as stock of a passive foreign investment company (PFIC) for U.S. federal income tax purposes, and TotalEnergies does not expect that it will be treated as a PFIC in the current or future taxable years. This conclusion is a factual determination that is made annually and thus is subject to uncertainty and change. In general, a non-U.S. corporation will be a PFIC for any taxable year if either (i) at least 75% of its gross income for such year is passive income or (ii) at least 50% of the value of its assets (based on an average of the quarterly values of the assets) during such year is attributable to assets that produce passive income or are held for the production of passive income. If TotalEnergies were treated as a PFIC with respect to a U.S. Holder for any taxable year, the U.S. Holder generally would suffer adverse tax consequences, that may include having gains realized on the disposition of the shares or ADSs treated as ordinary income rather than capital gain and being subject to punitive interest charges on the receipt of certain distributions and on the proceeds of the sale or other disposition of the shares or ADSs. U.S. Holders would also be subject to information reporting requirements on an annual basis. U.S. Holders should consult their tax advisors about the potential application of the PFIC rules to shares or ADSs.

10.5.5 French estate and gift taxes

In general, a transfer of shares or ADSs by gift or by reason of the death of a U.S. Holder that would otherwise be subject to French gift or inheritance tax, respectively, will not be subject to such French tax by reason of Article 8 of the Convention between the United States of America and the French Republic for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Estates, Inheritances and Gifts, dated November 24, 1978, as amended, unless the donor or the transferor is domiciled in France at the time of the gift, or at the time of the transferor's death, or if the shares or ADSs were used in, or held for use in, the conduct of a business through a permanent establishment or a fixed base in France.

10.5.6 U.S. state and local taxes

In addition to U.S. federal income tax, U.S. Holders of shares or ADSs may be subject to U.S. state and local taxes with respect to their shares or ADSs. U.S. Holders should consult their own tax advisors.

10.6 Dividends and paying agents

The information set forth in points 6.2.2 and 6.2.3 of chapter 6 of the Universal Registration Document 2023 (starting on page 395) is incorporated herein by reference.

10.7 Documents on display

TotalEnergies files annual, periodic and other reports and information with the SEC. All of its SEC filings made after December 31, 2001 are available to the public at the SEC website at www.sec.gov and from certain commercial document retrieval services.

ITEM 10J. ANNUAL REPORT TO SECURITY HOLDERS

Not applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Please refer to Notes 15.3 ("Financial risks management") (starting on page F-79) and 16.2 ("Oil, Gas and Power markets related risks management") (on page F-87) to the Consolidated Financial Statements, for a qualitative and quantitative discussion of TotalEnergies' exposure to market risks. Please also refer to Notes 15.2 ("Fair value of financial instruments (excluding commodity contracts)") (starting on page F-74) and 16 ("Financial instruments related to commodity contracts") (starting on page F-84) to the Consolidated Financial Statements, for details of the different derivatives owned by TotalEnergies in these markets.

As part of its financing and cash management activities, TotalEnergies uses derivative instruments to manage its exposure to changes in interest rates and foreign exchange rates. These instruments are mainly interest rate and currency swaps. TotalEnergies may also occasionally use futures contracts and options. These operations and their accounting treatment are detailed in Notes 15.2 and 16 to the Consolidated Financial Statements.

The financial performance of TotalEnergies is sensitive to a number of factors; the most significant being oil and gas prices, generally expressed in dollars, and exchange rates, in particular that of the dollar versus the euro. Generally, a rise in the price of crude oil has a positive effect on earnings as a result of an increase in revenues from oil and gas production. Conversely, a decline in crude oil prices reduces revenues. The impact of changes in crude oil prices on the activities of the Refining & Chemicals and Marketing & Services segments depends upon the speed at which the prices of finished products adjust to reflect these changes. All of TotalEnergies' activities are, to various degrees, sensitive to fluctuations in the dollar/euro exchange rate.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

12.1 ADRs fees and charges

JPMORGAN CHASE BANK, N.A., as depositary for the TotalEnergies ADR program, collects its fees for delivery and surrender of ADRs directly from investors depositing shares or surrendering ADRs for the purpose of withdrawal or from intermediaries acting for them. The depositary collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The depositary may generally refuse to provide fee-attracting services until its fees for those services are paid. A copy of the depositary agreement is attached as Exhibit (a) to the registration statement on Form F 6 (Reg. No. 333-199737) filed with the SEC on October 31, 2014 as amended on July 30, 2021.

Investors must pay:	**For:**
$5.00 (or less) per 100 ADSs (or portion of 100 ADSs)	- Issuance of ADRs, including issuances resulting from a distribution of shares or rights or other property, stocks splits or mergers - Cancellation of ADRs for the purpose of withdrawal, including if the deposit agreement terminates
A fee equivalent to the fee that would be payable if securities distributed to the investor had been shares and the shares had been deposited for issuance of ADSs	- Distribution, by the depositary, of deposited securities to ADS registered holders
Registration or transfer fees	- Transfer and registration of shares on TotalEnergies' share register to or from the name of the depositary or its agent when the investor deposits or withdraws shares
Expenses of the depositary	- Cable, telex and facsimile transmissions (when expressly provided in the deposit agreement) - Converting foreign currency to U.S. dollars
Taxes and other governmental charges the depositary or the custodian have to pay on any ADS or share underlying an ADS, for example, stock transfer taxes, stamp duty or withholding taxes	- As necessary
Any charges incurred by the depositary or its agents for servicing the deposited securities	- As necessary

Fees paid to TotalEnergies SE by the depositary

In consideration for acting as depositary for the TotalEnergies ADR program, JPMORGAN CHASE BANK, N.A. has agreed to share, on an annual basis, with TotalEnergies SE portions of certain fees collected, less ADS program expenses paid by the depositary. For example, these expenses include the depositary's annual program fees, transfer agency fees, custody fees, legal expenses, postage and envelopes for mailing annual and interim financial reports, printing and distributing dividend checks, electronic filing of U.S. federal tax information, mailing required tax forms, stationery, postage, facsimile and telephone calls and the standard out-of-pocket maintenance costs for the ADSs.

In the year ended December 31, 2023, the ADR depositary paid aggregate fees to TotalEnergies SE in an amount of $13.7 million.

For additional information on TotalEnergies SE shares and the ADRs, please refer to Exhibit 2.2 "Description of securities registered under Section 12 of the Exchange Act".

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

None.

ITEM 15. CONTROLS AND PROCEDURES

15.1 Disclosure controls and procedures

An evaluation was carried out under the supervision and with the participation of TotalEnergies' management, including the Chief Executive Officer and the Chief Financial Officer, of the effectiveness, as of the end of the period covered by this Annual Report, of the design and operation of TotalEnergies' disclosure controls and procedures, which are defined as those controls and procedures designed to ensure that information required to be disclosed in reports filed under the Securities Exchange Act of 1934, as amended, is recorded, summarized and reported within specified time periods. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can provide only reasonable assurance of achieving their control objectives.

Based on this evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that the design and operation of these disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed in the reports that TotalEnergies SE files under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the applicable rules and forms, and that it is accumulated and communicated to management, including themselves, as appropriate to allow timely decisions regarding required disclosure.

15.2 Management's annual report on internal control over financial reporting

TotalEnergies' management is responsible for establishing and maintaining adequate internal control over financial reporting. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements and even when determined to be effective, can only provide reasonable assurance with respect to financial statement preparation and presentation. Also, the effectiveness of an internal control system may change over time.

TotalEnergies' management, including the Chief Executive Officer and the Chief Financial Officer, conducted an evaluation of the effectiveness of internal control over financial reporting using the criteria set forth in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on the results of this evaluation, TotalEnergies' management concluded that its internal control over financial reporting was effective as of December 31, 2023.

The effectiveness of internal control over financial reporting as of December 31, 2023, was audited by ERNST & YOUNG Audit and PricewaterhouseCoopers Audit, independent registered public accounting firms, as stated in their report included starting on page F-2 attached hereto.

15.3 Changes in internal control over financial reporting

There were no changes in TotalEnergies' internal control over financial reporting that occurred during the period covered by this Annual Report that have materially affected, or that were reasonably likely to materially affect, TotalEnergies' internal control over financial reporting.

15.4 Internal control and risk management procedures

For additional information, refer to points 3.3 and 3.6 of chapter 3 of the Universal Registration Document 2023 (starting on pages 144 and 153, respectively), incorporated herein by reference.

ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT

Mrs. Lise Croteau is the Audit Committee financial expert. She is an independent member of the Board of Directors in accordance with the NYSE listing standards applicable to TotalEnergies.

ITEM 16B. CODE OF ETHICS

At its meeting on October 27, 2016, the Board of Directors adopted a revised code of ethics that applies to its Chief Executive Officer, Chief Financial Officer, Chief Accounting Officer and the financial and accounting officers for its principal activities. A copy of this code of ethics is included as an exhibit to this Annual Report. TotalEnergies will promptly disclose to its shareholders, if required by applicable laws or stock exchange requirements, any amendments to or waivers from the code of ethics applicable to its directors or officers by posting such information on TotalEnergies' website. The Company has elected to comply with home country practice and disclose any waivers to its code of ethics in its Annual Report on Form 20-F instead of disclosing such waivers to shareholders within four business days pursuant to the NYSE rules. No waivers were given during 2023.

ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

16C.1 Fees for accountants' services

The information set forth in point 4.4.5.2 of chapter 4 of the Universal Registration Document 2023 (on page 273) is incorporated herein by reference.

16C.2 Audit Committee pre-approval policy

The Audit Committee has adopted an Audit and Non-Audit Services Pre-Approval Policy that sets forth the procedures and the conditions pursuant to which services proposed to be performed by the statutory auditors may be pre-approved and that are not prohibited by regulatory or other professional requirements. This policy provides for both pre-approval of certain types of services through the use of an annual budget approved by the Audit Committee for these types of services and special pre-approval of services by the Audit Committee on a case-by-case basis. The Audit Committee reviews on an annual basis the services provided by the statutory auditors. During 2023, no audit-related fees, tax fees or other non-audit fees were approved by the Audit Committee pursuant to the de minimis exception to the pre-approval requirement provided by paragraph (c)(7)(i)(C) of Rule 2-01 of Regulation S-X.

16C.3 Auditor's term of office

French law provides that the statutory and alternate auditors are appointed for renewable 6 fiscal-year terms. The terms of office of the statutory auditors and of the alternate auditors will expire at the end of the Shareholders' Meeting to be convened in 2028 to approve the financial statements for fiscal year 2027. The information set forth in point 4.4.5.1 of chapter 4 of the Universal Registration Document 2023 (on page 271) is incorporated herein by reference.

ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

TotalEnergies' Audit Committee consists of five directors, including four directors who meet the independence requirements under Rule 10A-3 of the Securities Exchange Act of 1934, as amended, and one who is exempt under such requirements pursuant to the Rule 10A-3(b)(1)(iv)(C) exemption for non-executive officer employees. The Audit Committee member exempt from the independence requirements under this rule is Mr. Romain Garcia-Ivaldi, appointed as the director representing employees pursuant to Article L.225-27-1 of the French Commercial Code (see "Item 6 — Directors, Senior Management and Employees"). TotalEnergies' reliance on such exemption does not materially adversely affect the ability of the Audit Committee to act independently.

ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

Period ***(in 2023)***	***Total Number of Shares (or Units) Purchased***	***Average Price Paid per Share (or Units) ($)(i)***	***Total Number of Shares (or Units) Purchased, as part of Publicly Announced Plans or Programs(ii)***	***Maximum Number of Shares (or Units) that may yet be purchased under the Plans or Programs(iii)***
January	13,875,072	63.29	13,875,072	110,850,539
February	9,876,681	62.28	9,876,681	216,956,193
March	10,091,105	59.77	10,091,105	213,311,322
April	8,870,771	63.60	8,870,771	204,440,989
May	13,454,853	60.94	13,454,853	191,000,370
June	10,479,370	58.33	10,479,370	181,321,415
July	10,256,566	58.33	10,256,566	171,066,609
August	12,320,347	61.47	12,320,347	158,746,452
September	11,287,018	65.19	11,287,018	224,870,764
October	13,478,930	65.79	13,478,930	211,391,834
November	19,246,147	67.30	19,246,147	192,145,687
December	11,463,717	67.41	11,463,717	180,681,970

(i) Based on the daily European Central Bank exchange rate of each transaction.

(ii) The Annual Shareholders' Meeting of May 26, 2023, cancelled and superseded the previous resolution (for any unused portion) from the Annual Shareholders' Meeting of May 25, 2022, authorizing the Board of Directors to trade in the Company's own shares on the market for a period of 18 months within the framework of the stock purchase program. The maximum number of shares that may be purchased by virtue of this authorization or under the previous authorization may not exceed 10% of the total number of shares constituting the share capital, this amount being periodically adjusted to take into account operations modifying the share capital after each shareholders' meeting. Under no circumstances may the total number of shares held by the Company, either directly or indirectly through its subsidiaries, exceed 10% of the share capital. This authorization will be renewed subject to the approval of the Annual Shareholders' Meeting of May 24, 2024.

(iii) Based on 10% of the Company's share capital, and after deducting the shares held by the Company for cancellation and the shares held by the Company to cover the share subscription or purchase option plans and the performance share plans for Company employees.

ITEM 16F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT

There has been no change in independent accountants of the Company during the two most recent fiscal years or any subsequent interim period except as previously reported in our Annual Report on Form 20-F for the year ended December 31, 2022 filed with the SEC on March 24, 2023. In addition, there have been no disagreements of the type required to be disclosed by Item 16F(b).

ITEM 16G. CORPORATE GOVERNANCE

This section presents a summary of significant differences between French corporate governance practices and the NYSE corporate governance standards, as required by section 303A.11 of the NYSE Listed Company Manual.

16G.1 Overview

The following paragraphs provide a brief, general summary of significant ways in which the corporate governance practices of TotalEnergies differ from those required by the listing standards of the NYSE for U.S. companies that have common stock listed on the NYSE. While TotalEnergies' management believes that the Company's corporate governance practices are similar in many respects to those of U.S. domestic NYSE listed companies and provide investors with protections that are comparable in many respects to those established by the NYSE Listed Company Manual, certain significant differences are described below.

The principal sources of corporate governance standards in France are the French Commercial Code (*Code de commerce*), the French Financial and Monetary Code (*Code monétaire et financier*) and the regulations and recommendations provided by the French Financial Markets Authority (*Autorité des marchés financiers,* AMF), as well as a number of general recommendations and guidelines on corporate governance, most notably the Corporate Governance Code of Listed Corporations (the "AFEP-MEDEF Code") published by the two main French business confederations, the *Association Française des Entreprises Privées* (AFEP) and the *Mouvement des Entreprises de France* (MEDEF), the latest version of which was published in December 2022.

The AFEP-MEDEF Code includes, among other things, recommendations relating to the role and operation of the board of directors (creation, composition and evaluation of the board of directors and the audit, compensation and nominations committees) and the independence criteria for board members. Articles L. 820-1 et seq. of the French Commercial Code authorize statutory auditors to provide certain non-audit services if in compliance with provisions of the French Commercial Code, the European legislation and the Code of ethics of the auditors. It also defines certain criteria for the independence of statutory auditors. In France, the independence of statutory auditors is also monitored by an independent body, the High Council for statutory auditors (*Haut Conseil du Commissariat aux Comptes*).

For an overview of certain of TotalEnergies' corporate governance policies, refer to points 4.1 and 4.2 of chapter 4 of the Universal Registration Document 2023 (starting on page 190), incorporated herein by reference.

16G.2 Composition of Board of Directors; Independence

The NYSE listing standards provide that the board of directors of a U.S.-listed company must include a majority of independent directors and that the audit committee, the nominating/corporate governance committee and the compensation committee must be composed entirely of independent directors. A director qualifies as independent only if the board affirmatively determines that the director has no material relationship with the company, either directly or as a partner, shareholder or officer of an organization that has a relationship with the company. Furthermore, as discussed below, the listing standards require additional procedures in regards to the independence of directors who sit on the audit committee and the compensation committee. In addition, the listing standards enumerate a number of relationships that preclude independence.

French law does not contain any independence requirement for the members of the board of directors of a French company, except for the audit committee, as described below. The AFEP-MEDEF Code recommends, however, that (i) the independent directors should account for half of the members of the board of directors of widely-held corporations without controlling shareholders, and (ii) independent directors should account for at least one-third of board members in controlled companies. Members of the board representing employees and employee shareholders are not taken into account in calculating these percentages. The AFEP-MEDEF Code states that a director is independent when "he or she has no relationship of any kind whatsoever with the corporation, its group or the management that may interfere with his or her freedom of judgment. Accordingly, an independent director is understood to be any non-executive director of the corporation or the group who has no particular bonds of interest (significant shareholder, employee, other) with them". The AFEP-MEDEF Code also enumerates specific criteria for determining independence, which are on the whole consistent with the goals of the NYSE listing standards, although the specific tests under the two standards may vary on some points.

As noted in the AFEP-MEDEF Code, "qualification as an independent director should be discussed by the appointments committee […] and decided on by the board on the occasion of the appointment of a director, and annually for all directors".

For an overview of TotalEnergies SE's Board of Directors' assessment of the independence of its members, including a description of the Board of Directors' independence criteria, refer to point 4.1.1.4 of chapter 4 of the Universal Registration Document 2023 (starting on page 209), incorporated herein by reference.

16G.3 Representation of women on corporate boards

The French Commercial Code provides for legally binding quotas to balance gender representation on boards of directors of French listed companies, requiring that each gender represents at least 40%. Directors representing the employees and directors representing the employee shareholders are not taken into account in calculating this percentage. When the board of directors consists of a maximum of eight members, the difference between the number of directors of each gender should not be higher than two. Any appointment of a director made in violation of these rules will be declared null and void and payment of the directors' compensation will be suspended until the board composition is compliant with the required quota (the suspension of the directors' compensation will also be disclosed in the management report). However, if a director whose appointment is null and void takes part in decisions of the board of directors, such decisions are not declared automatically null and void by virtue thereof. As of March 13, 2024, TotalEnergies SE's Board of Directors consisted of eight male members and six female members. Excluding the directors representing employees and the director representing employee shareholders in accordance with French law, the proportion of women on the Board of Directors was 45.5%.

16G.4 Board committees

16G.4.1 Overview

The NYSE listing standards require that a U.S.-listed company have an audit committee, a nominating/corporate governance committee and a compensation committee. Each of these committees must consist solely of independent directors and must have a written charter that addresses certain matters specified in the listing standards. Furthermore, the listing standards require that, in addition to the independence criteria referenced above under "Composition of Board of Directors; Independence", certain enumerated factors be taken into consideration when making a determination on the independence of directors on the compensation committee or when engaging advisors to the compensation committee.

With the exception of an audit committee, as described below, French law currently requires neither the establishment of board committees nor the adoption of written charters.

The AFEP-MEDEF Code recommends, however, that the board of directors sets up, in addition to the audit committee required by French law, a nominations committee, a compensation committee and a corporate social responsibility (CSR) committee. The AFEP-MEDEF Code also recommends that at least two-thirds of the audit committee members and a majority of the members of each of the compensation committee and the nominations committee be independent directors. It is recommended that the chairman of the compensation committee be independent and that one of its members be an employee director. None of those three committees should include any Executive Officer[8].

TotalEnergies SE has established an Audit Committee, a Governance and Ethics Committee, a Compensation Committee and a Strategy & CSR Committee. As of March 13, 2024, the composition of these Committees was as follows:

- the Audit Committee had five members, 75% of whom have been deemed independent by the Board of Directors (according to point 10.3 of the AFEP-MEDEF Code, directors representing the employee shareholders and directors representing employees are not taken into account when determining the independence rate);
- the Governance and Ethics Committee had five members, 80% of whom have been deemed independent by the Board of Directors;
- the Compensation Committee had four members, 100% of whom have been deemed independent by the Board of Directors (according to point 10.3 of the AFEP-MEDEF Code, directors representing the employee shareholders and directors representing employees are not taken into account when determining the independence rate); and
- the Strategy & CSR Committee had six members, 60% of the members of this Committee have been deemed independent by the Board of Directors (according to point 10.3 of the AFEP-MEDEF Code, directors representing the employee shareholders and directors representing employees are not taken into account when determining the independence rate).

For a description of the independence assessment of each member of the Board of Directors, see point 4.1.1.4 of chapter 4 of the Universal Registration Document 2023 (starting on page 209), incorporated herein by reference. For a description of the scope of each Committee's activity, see point 4.1.2.3 of chapter 4 of the Universal Registration Document 2023 (starting on page 222), incorporated herein by reference.

The NYSE listing standards also require that the audit, nominating/corporate governance and compensation committees of a U.S.-listed company be vested with decision-making powers on certain matters. Under French law, however, those committees are advisory in nature and have no decision-making authority. Board committees are responsible for examining matters within the scope of their charter and making recommendations thereon to the board of directors. Under French law, the board of directors has the final decision-making authority.

16G.4.2 Audit Committee

The NYSE listing standards contain detailed requirements for the audit committees of U.S.-listed companies. Some, but not all, of these requirements also apply to non U.S.-listed companies, such as TotalEnergies SE. French law and the AFEP-MEDEF Code share the NYSE listing standards' goal of establishing a system for overseeing the company's accounting process that is independent from management and that ensures auditor independence. As a result, they address similar topics, with some overlap.

Article L. 823-19 of the French Commercial Code requires the board of directors of companies listed in France to establish an audit committee, at least one member of which must be an independent director and must be competent in finance, accounting or statutory audit procedures.

[8] As defined by the AFEP-MEDEF Code, Executive Officers "include the Chairman and Chief Executive Officer, the Deputy chief executive officer(s) of public limited companies with a Board of Directors, the Chairman and members of the Management Board in public limited companies having a Management Board and Supervisory Board and the statutory managers of partnerships limited by shares".

The AFEP-MEDEF Code provides that at least two-thirds of the directors on the audit committee be independent and that the audit committee should not include any Executive Officer. Under NYSE rules, in the absence of an applicable exemption, audit committees are required to satisfy the independence requirements under Rule 10A-3 of the Exchange Act. TotalEnergies SE's Audit Committee consists of five directors, four of whom meet independence requirements under Rule 10A-3 and one (a director representing employees) who is relying on Rule 10A-3(b)(1)(iv)(C) exemption for non-executive officer employees (see "Item 6 – Directors, Senior Management and Employees").

The duties of TotalEnergies SE's Audit Committee, in line with French law and the AFEP-MEDEF Code, are described in point 4.1.2.3 of chapter 4 of the Universal Registration Document 2023 (starting on page 222), incorporated herein by reference. The Audit Committee regularly reports to the Board of Directors on the fulfillment of its tasks, the results of the financial statements certification process and the contribution of such process to guaranteeing the financial information's integrity.

One structural difference between the legal status of the audit committee of a U.S.-listed company and that of a French-listed company concerns the degree of the committee's involvement in managing the relationship between the company and the auditors. French law requires French companies that publish consolidated financial statements, such as TotalEnergies SE, to have two co-statutory auditors, while the NYSE listing standards require that the audit committee of a U.S.-listed company to have direct responsibility for the appointment, compensation, retention and oversight of the work of the auditor. French law provides that the election of the co-statutory auditors is the sole responsibility of the shareholders duly convened at a shareholders' meeting. In making their decision, the shareholders may rely on proposals submitted to them by the board of directors based on recommendations from the audit committee. The shareholders elect the statutory auditors for an audit period of six financial years. The statutory auditors may only be revoked by a court order and only on grounds of professional negligence or incapacity to perform their mission.

16G.5 Meetings of non-management directors

The NYSE listing standards require that the non-management directors of a U.S.-listed company meet at regularly scheduled executive sessions without management. French law does not contain such a requirement. The AFEP-MEDEF Code recommends, however, that a meeting not attended by the Executive Officers be organized at least once a year.

Since December 16, 2015, the rules of procedure of the board of directors provide that, with the agreement of the Governance and Ethics Committee, the Lead Independent Director may hold meetings of the directors who do not hold executive or salaried positions on the Board of Directors. He or she reports to the Board of Directors on the conclusions of such meetings.

In December 2023, the Lead Independent Director held a meeting of the independent directors. He subsequently presented a summary of this meeting to the Board of Directors.

Thus, the Board of Directors' practice is in line with the recommendation made in the AFEP-MEDEF Code.

16G.6 Shareholder approval of compensation

Pursuant to the provisions of the French Commercial Code, as amended, the compensation of the chairman of the board of directors, the members of the board of directors, the chief executive officer and, as the case may be, the deputy chief executive officer(s) in French listed companies shall each year be submitted to the approval of their shareholders. Articles L. 22-10-8 and L. 22-10-34 of the French Commercial Code provide, respectively, for an ex ante vote and two ex post votes:

- ex ante vote: the shareholders shall each year approve the compensation policy of the above-mentioned directors and officers for the current fiscal year. Such policy shall describe all components of fixed and variable compensation and shall explain the decision process followed for its determination, review and implementation. In the event a resolution is rejected by the shareholders, the preceding already-approved compensation policy for the concerned director(s) and officer(s) will be applicable; in the absence of a preceding already-approved compensation policy, the compensation is determined in line with compensation granted the preceding year if any, or in line with existing practices in the company; and
- two ex post votes, the shareholders shall each year approve:
  - the fixed, variable and extraordinary components of the aggregate compensation and benefit of any kinds due or attributable to the chief executive officer and the chairman of the board for the preceding fiscal year. In the event a resolution is rejected by the shareholders, the variable and extraordinary components of the compensation will not be paid to the chief executive officer and the chairman of the board;
  - the total annual compensation of all the above-mentioned directors and officers. In the event a resolution is rejected by the shareholders, such compensation will not be paid to the directors and officers.

16G.7 Disclosure

The NYSE listing standards require US-listed companies to adopt, and post on their websites, a set of corporate governance guidelines. The guidelines must address, among other things: director qualification standards, director responsibilities, director access to management and independent advisers, director compensation, director orientation and continuing education, management succession and an annual performance evaluation of the board. In addition, the chief executive officer of a U.S.-listed company must certify to the NYSE annually that he or she is not aware of any violations by the company of the NYSE's corporate governance listing standards.

French law requires neither the adoption of such guidelines nor the provision of such certification. The AFEP-MEDEF Code recommends, however, that the board of directors of a French-listed company review its operation annually and perform a formal evaluation at least once every three years, under the leadership of the appointments or nominations committee or an independent director, assisted by an external consultant. TotalEnergies SE's Board of Directors' most recent formal self-evaluation took place in late 2023. The AFEP-MEDEF Code also recommends that shareholders be informed of these evaluations each year in the annual report. In addition, Article L. 225-37 of the French Commercial Code requires the board of directors to present to the shareholders a corporate governance report appended to the management report, notably describing the composition of the board and the balanced representation of men and women on the board, the preparation and organization of the board's work, the offices and positions of each TotalEnergies SE executive officer and the compensation attributable and received by each such officer as well as the compensation attributable and received by the members of the board of directors. The AFEP-MEDEF Code also includes ethical rules concerning which directors are expected to comply.

16G.8 Code of business conduct and ethics

The NYSE listing standards require each U.S.-listed company to adopt, and post on its website, a code of business conduct and ethics for its directors, officers and employees. Under Article 17 of Law n° 2016/1691 of December 9, 2016, top management (such as the chairman of the board or chief executive officer) of large French companies is required to adopt a code of conduct proscribing the different types of behavior being likely to characterize acts of corruption, bribery or influence peddling. This code must be included in the rules of procedure of the company and be submitted to employee representatives. Under the SEC's rules and regulations, all companies required to submit periodic reports to the SEC, including TotalEnergies SE, must disclose in their annual reports whether they have adopted a code of ethics for their principal executive officers and senior financial officers. In addition, they must file a copy of the code with the SEC, post the text of the code on their website or undertake to provide a copy upon request to any person without charge. There is significant, though not complete, overlap between the code of ethics required by the NYSE listing standards and the code of ethics for senior financial officers required by the SEC's rules. For a description of the code of ethics adopted by TotalEnergies, refer to point 3.3.2 of chapter 3 of the Universal Registration Document 2023 (starting on page 144), incorporated herein by reference, and "Item 16B. Code of ethics".

ITEM 16H. MINE SAFETY DISCLOSURE

Not applicable.

ITEM 16I. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

ITEM 16K. CYBERSECURITY

Cybersecurity Risk Management and Strategy:

We have developed and implemented a cybersecurity risk management program intended to protect the confidentiality, integrity, and availability of our critical systems and information.

We design and assess our program based on the National Institute of Standards and Technology's Cybersecurity Framework (NIST CSF), the specific oversight of the national agency of cyber security (*Agence nationale de la sécurité des systèmes d'information* - ANSSI) in France for specific perimeters, and ISO 27001 for Information Security Management Systems (ISMS). This does not imply that we meet any particular technical specifications or requirements at all times but that the aforementioned frameworks help us identify, assess, and manage cybersecurity risks relevant to our business.

Our cybersecurity risk management program is integrated into our overall enterprise risk management program, and shares common methodologies, reporting channels and governance processes that apply across the enterprise risk management program to other legal, compliance, strategic, operational, and financial risk areas.

Key elements of our cybersecurity risk management program include, but are not limited to the following:

- risk assessments designed to help identify material cybersecurity risks to our critical systems, information, products, services, and our broader enterprise IT environment;
- a security team principally responsible for managing (1) our cybersecurity risk assessment processes, (2) our security controls, and (3) our response to cybersecurity incidents;
- the use of external service providers, where appropriate, to assess, test or otherwise assist with aspects of our security controls;
- cybersecurity awareness training of our employees, incident response personnel, and senior management;
- a cybersecurity incident response plan that includes procedures for responding to cybersecurity incidents; and
- a third-party risk management process for key service providers, suppliers, and vendors who access critical systems and data based on risk profile.

We have not identified risks from known cybersecurity threats, including as a result of any prior cybersecurity incidents, that have materially affected us, including our operations, business strategy, results of operations, or financial condition. We face certain ongoing risks from cybersecurity threats that, if realized, are reasonably likely to materially affect us, including our operations, business strategy, results of operations, or financial condition (see point 3.1.3 of chapter 3 of the Universal Registration Document 2023 (starting on page 135)).

Cybersecurity Governance:

Our Board considers cybersecurity risk as part of its risk oversight function and has delegated to the Audit Committee (Committee) oversight of cybersecurity and other information technology risks. The Committee oversees management's implementation of our cybersecurity risk management program. Cybersecurity issues are the subject of a strong commitment by the General Management, which is reflected in a structured governance to address the risks related to external threats.

The Committee receives a report annually from management on our cybersecurity activity, including our cybersecurity risks. In addition, management updates the Committee, as necessary, regarding any significant cybersecurity incidents. The TotalEnergies Cybersecurity & Risk Management Division periodically submits a cybersecurity strategy and roadmap for the Company's corporate and industrial information systems to the Committee for approval. The TotalEnergies Information Systems Division develops and disseminates governance and security rules describing items such as the infrastructure, organizational structure, and new or revised operating methods that are recommended. These rules are designed to be implemented across the Company by the various business segments.

The Committee periodically reports to the full Board regarding its activities, including those related to cybersecurity. The full Board also receives briefings from the Committee on our cyber risk management program.

Our management team, including the Chief Security Officer (CSO), the Chief Information Officer (CIO), the C-CISO, and the Branch - Chief Information Security Officers (B-CISOs), are responsible for assessing and managing our material risks from cybersecurity threats. The team has primary responsibility for our overall cybersecurity risk management program and supervises both our internal cybersecurity personnel and our retained external cybersecurity consultants. Our management team's experience includes the following:

- The Company CSO was a former French general of the National Gendarmerie, who previously served as the head of the *Groupe d'intervention de la Gendarmerie nationale* (GIGN) directing anti-terrorist operations.
- The CIO has more than 19 years of experience at TotalEnergies.
- The C-CISO is the former head of EUROPOL (11 years), a former colonel of the French Gendarmerie, and head of the National Criminal Intelligence Service.

Our management team is informed about and monitors the prevention, detection, mitigation, and remediation of cybersecurity risks and incidents through various means, which may include briefings from internal security personnel; threat intelligence and other information obtained from governmental, public, or private sources, including external consultants engaged by us; and alerts and reports produced by security tools deployed in the IT environment.

ITEM 17. FINANCIAL STATEMENTS

See “Item 18. Financial Statements”.

ITEM 18. FINANCIAL STATEMENTS

The Consolidated Financial Statements and Notes thereto are included in pages F-9 et seq. attached hereto.

The reports of the statutory auditors, ERNST & YOUNG Audit and PricewaterhouseCoopers Audit, are included in pages F-2 to F-8 attached hereto.

ITEM 19. EXHIBITS

The following documents are filed as part of this Annual Report:

1	Articles of Associations (*Statuts*) of TotalEnergies SE (as amended through February 12, 2024).
2.1	The total amount of long-term debt securities authorized under any instrument does not exceed 10% of the total assets of TotalEnergies SE and its subsidiaries on a consolidated basis. We hereby agree to furnish to the SEC, upon its request, a copy of any instrument defining the rights of holders of long-term debt of TotalEnergies SE or of its subsidiaries for which consolidated or unconsolidated financial statements are required to be filed.
2.2	Description of TotalEnergies securities registered under section 12 of the Exchange Act.
8	List of Subsidiaries (see Note 18 to the Consolidated Financial Statements, starting on page F-88).
11	Code of Ethics (incorporated by reference to exhibit 11 of TotalEnergies' annual report on Form 20-F for the year ended December 31, 2016, filed on March 17, 2017).
12.1	Certification of Chief Executive Officer.
12.2	Certification of Chief Financial Officer.
13.1*	Certification of Chief Executive Officer.
13.2*	Certification of Chief Financial Officer.
15.1	Excerpt of the pages and sections of the Universal Registration Document 2023 incorporated herein by reference.
15.2	Consent of ERNST & YOUNG Audit and of PricewaterhouseCoopers Audit.
15.3	Consent of ERNST & YOUNG Audit and of KPMG Audit, a division of KPMG S.A.
97	Clawback Policy
101.INS	Inline XBRL Instance Document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document.
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as Inline XBRL and included in Exhibit 101).

* Furnished herewith.

SIGNATURE

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

TotalEnergies SE

By: /s/ PATRICK POUYANNÉ
Name: Patrick Pouyanné
Title: Chairman and Chief Executive Officer

Date: March 29, 2024

PricewaterhouseCoopers Audit

63, rue de Villiers
92208 Neuilly-sur-Seine
S.A.S. au capital de € 2 510 460
672 006 483 R.C.S. Nanterre

Commissaire aux Comptes
Membre de la compagnie
régionale de Versailles et du Centre

ERNST & YOUNG Audit

Tour First
TSA 14444
92037 Paris-La Défense cedex
S.A.S. à capital variable
344 366 315 R.C.S. Nanterre

Commissaire aux Comptes
Membre de la compagnie
régionale de Versailles et du Centre

TotalEnergies SE

Report of Independent Registered Public Accounting Firms on Internal Control Over Financial Reporting

To the Shareholders and the Board of Directors,

Opinion on Internal Control Over Financial Reporting

We have audited TotalEnergies SE and its subsidiaries' (the "Company") internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the "COSO criteria"). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2023 and 2022 and the related consolidated statements of income, comprehensive income, changes in shareholders' equity and cash flows for each of the two years in the period ended December 31, 2023, and the related notes (collectively referred to as the "consolidated financial statements"), and our report dated March 28, 2024 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are public accounting firms registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Neuilly-sur-Seine and Paris-La Défense, France, March 28, 2024

/s/ PricewaterhouseCoopers Audit   /s/ ERNST & YOUNG Audit

PricewaterhouseCoopers Audit

63, rue de Villiers
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TotalEnergies SE

Report of Independent Registered Public Accounting Firms on the Consolidated Financial Statements

To the Shareholders and the Board of Directors,

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of TotalEnergies SE and its subsidiaries (the “Company”) as of December 31, 2023 and 2022, the related consolidated statements of income, comprehensive income, changes in shareholders’ equity and cash flows for each of the two years in the period ended December 31, 2023, and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2023 in conformity with International Financial Reporting Standards as adopted by the European Union and in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company’s internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated March 28, 2024 expressed an unqualified opinion thereon.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated financial statements based on our audits. We are public accounting firms registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Evaluation of the impairment of non-current assets used in exploration and production activities in the Exploration and Production (E&P) and the Integrated LNG (iLNG) segments

Description of the Matter

As stated in Notes 7.1 “Intangible assets”, 7.2 “Property, plant and equipment” and 8.1 “Equity affiliates: investments and loans" to the consolidated financial statements as at December 31, 2023, the non-current assets used in exploration and production activities in the E&P and iLNG segments are mainly comprised of proved mineral interests (M$ 8,009 - net amount), unproved mineral interests (M$ 12,352 – net amount), proved properties (M$ 57,879 – net amount), work in progress (M$ 23,286 - net amount) and a portion of the M$ 30,457 value of investments and loans in equity affiliates. The principles applied in determining the recoverable amounts of these assets are described in Notes 7.1, 7.2, 3.C “Asset impairment” and “Major judgments and accounting estimates” to the consolidated financial statements.

The recoverable amount of these assets is tested for impairment as soon as any indication for impairment exists, these tests being carried out at the level of the related cash-generating units (CGUs), that include the hydrocarbon sites and industrial assets enabling the production, processing and extraction of hydrocarbons. The value in use of a CGU is determined by reference to the discounted expected future cash flows of these assets, based upon Management's expectation of future economic and operating conditions. The main assumptions considered by the Company in assessing the value in use include hydrocarbon prices scenarios, future CO2 price, operating costs, estimates of hydrocarbon reserves and discount rate.

As described in the Notes "Major judgments and accounting estimates" and 3.C to the consolidated financial statements, the Company retains an oil price trajectory that converges in the long term towards the price retained in 2050 by the International Energy Agency (IEA) Net Zero Emissions (NZE) scenario, i.e. $25.52023/b. The prices retained for gas, stabilize by 2027 and until 2040 at lower levels than the current prices, and then converge towards the IEA's NZE scenario prices in 2050. The determination of value in use takes also into account the impact of the assets CO2 emissions. Future scope 1 and 2 emissions over the life of the assets are valued at $100/t or the applicable price in a country if higher. Beyond 2029, the CO2 price is inflated by 2% per year.

Finally, as described in Notes 7.1, 7.2 and "Major judgments and accounting estimates" to the consolidated financial statements, exploration costs capitalized in unproved mineral interests or in work in progress are subject to specific impairment tests to ensure that the exploratory wells have found a sufficient quantity of hydrocarbons and sufficient progress is made in the assessment of the reserves and the economic and operating viability of the project.

Impairments of non-current assets of exploration and production activities in the E&P and iLNG segments for 2023 amounted to M$ 1,005 in net income (TotalEnergies share).

As described in the "Major judgments and accounting estimates - Russian-Ukrainian conflict" note to the consolidated financial statements, Russian assets were fully impaired in 2022, with the exception of the shares held in Yamal LNG. An impairment test of the investment in Yamal LNG was carried out, which confirmed the absence of impairment to be recorded as at December 31, 2023.

Depending on the developments of the Russian-Ukrainian conflict and the measures that the European and American authorities may take, the activities of TotalEnergies in Russia, in particular those relating to the Yamal LNG asset, could be impacted in the future.

In order to assess the resilience of the portfolio to different parameters, sensitivity analyses to several assumptions were carried out by Management, including a 10% and 20% decrease in the hydrocarbon prices over the duration of the price scenario, as well as considering a CO2 price of $200/t, inflated by 2% per year beyond 2029.

We considered the evaluation of the impairment of non-current assets used in exploration and production activities in the E&P and iLNG segments to be a critical audit matter as evaluating the Company's assumptions described above involves a high degree of judgment, notably forecasts relating to future events.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of certain controls implemented by the Company to address the risk of material misstatement relating to the evaluation of the impairment of non-current assets used in exploration and production activities in the E&P and iLNG segments. Our work included testing control activities linked to the identification of triggering events and the assessment of key assumptions by Management supporting the recoverable value of the assets tested.

The procedures we performed consisted mainly in assessing whether an indication of impairment exists for these assets, such as the Russian-Ukrainian conflict, a significant decline in production, the enactment of a new tax law, the impact of new assumptions on hydrocarbon prices or CO2 price, in connection with the Company's ambition to achieve carbon neutrality by 2050 together with society.

For the impairment tests:

- we confronted the hydrocarbon price scenarios applied by the Company, prepared within the Strategy & Markets Division, with publicly available industry information (from the IEA, brokers and consultants as applicable), in particular the price scenarios relating to the Announced Pledges Scenario (APS) and NZE, considered by the IEA to be compatible with the objective of the Paris Agreement to limit the temperature increase to "well below 2°C";

- we analyzed the CO_2 price assumptions included in the future cash flows, notably by comparing them with current market data and publicly available industry information (in particular IEA);

- we assessed the consistency of the production end-dates used in the future cash flows with those included in the contracts for license expiration;

- we compared the main assumptions (hydrocarbon prices, future CO_2 price, operating costs, hydrocarbon reserves estimates, discount rates and expected future dividends) to those included in the analyses, budget and long-term plan approved by the Executive Committee and the Board of Directors;

- we assessed the consistency of the assumptions on operating costs by calculating cost-to-production ratios and comparing them year over year;

- we compared production profiles to the proved and probable hydrocarbon reserves produced as part of the Company's internal procedures;

- with the assistance of our valuation specialists, we re-performed the calculation of the discount rate used by management and confronted it to the rates calculated by market analysts;

- we assessed the consistency of the tax rates used with the applicable tax schemes and oil agreements in place;

- we assessed the information disclosed in Note 3.C "Asset impairment" to the consolidated financial statements, including the sensitivity analysis of net income to the oil and gas prices and CO_2 price.

For exploration costs capitalized as unproved mineral interests or work in progress, we inspected the documentation supporting sufficient quantity of hydrocarbons (as further described in our critical audit matter below) or that sufficient progress is made in the assessment of the reserves and the economic and operating viability of the project.

Finally, for Russian assets, we assessed the consolidation methods applied as at December 31, 2023 by the Company for its investments in Novatek, Yamal LNG and Arctic LNG 2, and related value in a particular and evolving context, notably given sanctions.

Effect of estimated proved and proved developed hydrocarbon reserves on the depreciation of the oil and gas assets used in production activities in the Exploration & Production (E&P) and integrated LNG (iLNG) segments

Description of the Matter

As discussed in the "Estimation of hydrocarbon reserves" paragraph of the "Major judgments and accounting estimates" Note to the consolidated financial statements, the estimation of proved and proved developed hydrocarbon reserves is a key factor in the Successful Efforts method used to account for the Company's oil and gas activities. Notes 7.1 "Intangible Assets" and 7.2 "Property, Plant and Equipment" to the consolidated financial statements outline that under this method oil and gas assets are depreciated using the unit-of-production method based on either proved hydrocarbon reserves or proved developed hydrocarbon reserves. Those reserves are estimated by the Company's petroleum engineers in accordance with industry practice and Securities and Exchange Commission (SEC) regulations.

The main assumptions used by the Company to estimate the proved and proved developed hydrocarbon reserves in order to calculate the depreciation of the oil and gas assets used in production activities in the E&P and iLNG segments for the year ended December 31, 2023, include the following: geoscience and engineering data used to determine deposit quantities, the contractual arrangements that determine the Company's share of the reserves and hydrocarbon prices.

We considered the effect of estimated proved and proved developed hydrocarbon reserves on the depreciation of oil and gas assets used in production activities in the E&P and iLNG segments to be a critical audit matter as Management's assessment of the Company's assumptions used involves a high degree of judgment due to their uncertain nature.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of certain controls, implemented by the Company, to address the risk of material misstatement relating to the depreciation of oil and gas assets used in production activities in the E&P and iLNG segments, depending on proved and proved developed hydrocarbon reserves. Our work included testing certain controls on the determination and evaluation of deposit quantities and the modeling of the contractual arrangements that determine the Company's share of proved and proved developed hydrocarbon reserves.

The procedures we performed on the estimation of the reserves by the Company consisted mainly in:

- assessing the qualifications and experience of the Company's petroleum engineers responsible for estimating reserves;

- analyzing the main changes in proved and proved developed hydrocarbon reserves compared to the previous year;

- comparing previously forecasted production to actual 2023 production;

- inspecting evidence from contractual arrangements that determine the Company's share of proved and proved developed hydrocarbon reserves until the term of the contracts and evaluating, where appropriate, the reasons leading the Company to believe that the renewal of the contractual arrangements is reasonably certain;

- assessing the consistency of the end of production dates used to calculate depreciation with those provided for in the contracts concerning license expiration and in the cash flow forecasts used for the impairment tests;

- assessing the absence of significant residual proved and proved developed hydrocarbon reserves to be produced after 2040 on the basis of the current portfolio of oil and gas assets;

- assessing the methodology applied by the Company to estimate these proved and proved developed hydrocarbon reserves, in light of SEC regulations and the 12-month average price for 2023.

Neuilly-sur-Seine and Paris-La Défense, France, March 28, 2024

/s/ PricewaterhouseCoopers Audit	/s/ ERNST & YOUNG Audit
We have served as the Company's auditor since 2022.	We have served as the Company's auditor since 2004.

Report of Independent Registered Public Accounting Firms on the Consolidated Financial Statements

To the Shareholders and the Board of Directors,

Opinion on the Consolidated Financial Statements

We have audited, before the effects of the adjustments to retrospectively reflect the change in segment composition, and present the details of the adjustment items to net operating income, as described in Note 3, the accompanying consolidated balance sheet of TotalEnergies SE and its subsidiaries (the “Company”) as of December 31, 2021, the related consolidated statements of income, comprehensive income, changes in shareholders’ equity, and cash flows for the year then ended, and the related notes (collectively referred to as the “ consolidated financial statements”). The 2021 consolidated financial statements before the effects of the adjustments to retrospectively reflect the change in segment composition, and present the details of the adjustment items to net operating income, as described in Note 3 are not presented herein.

In our opinion, the 2021 consolidated financial statements, before the effects of the adjustments to retrospectively reflect the change in segment composition, and present the details of the adjustment items to net operating income, as described in Note 3, present fairly, in all material respects, the financial position of the Company as of December 31, 2021, and the results of its operations and its cash flows for the year then ended, in conformity with International Financial Reporting Standards as adopted by the European Union and in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

KPMG Audit was not engaged to audit, review, or apply any procedures to the adjustments to retrospectively reflect the change in segment composition, and present the details of the adjustment items to net operating income, as described in Note 3, and, accordingly, KPMG Audit does not express an opinion or any other form of assurance about whether such adjustments are appropriate and have been properly applied. Those adjustments were audited by Ernst & Young Audit in 2023.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We are public accounting firms registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audit included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audit provides a reasonable basis for our opinion.

KPMG Audit
A division of KPMG S.A.
Represented by

/s/ Jacques-François, Georges, Marie Lethu
Jacques-François, Georges, Marie Lethu
Partner

/s/ Eric, Valéry, Jean-Yves Jacquet
Eric, Valéry, Jean-Yves Jacquet
Partner

We or our predecessor firms have served as the Company’s auditor from 1996 to 2022.
Paris-La Défense, France
March 16, 2022

ERNST & YOUNG Audit

/s/ ERNST & YOUNG Audit

We have served as the Company’s auditor since 2004.
Paris-La Défense, France, March 16, 2022, except for Note 3, as to which the date is March 28, 2024

Consolidated statement of income

TotalEnergies

For the year ended December 31, (M$)[a]		**2023**	**2022**	**2021**
Sales	*(Notes 3, 4, 5)*	**237,128**	**280,999**	**205,863**
Excise taxes	*(Notes 3 & 5)*	(18,183)	(17,689)	(21,229)
Revenues from sales	*(Notes 3 & 5)*	218,945	263,310	184,634
Purchases, net of inventory variation	*(Note 5)*	(143,041)	(169,448)	(118,622)
Other operating expenses	*(Note 5)*	(30,419)	(29,789)	(26,894)
Exploration costs	*(Note 5)*	(573)	(1,299)	(740)
Depreciation, depletion and impairment of tangible assets and mineral interests	*(Note 5)*	(12,762)	(12,221)	(13,556)
Other income	*(Note 6)*	3,677	2,849	1,312
Other expense	*(Note 6)*	(2,396)	(7,344)	(2,317)
Financial interest on debt		(2,820)	(2,386)	(1,904)
Financial income and expense from cash & cash equivalents		1,801	1,143	379
Cost of net debt	*(Note 15)*	(1,019)	(1,243)	(1,525)
Other financial income	*(Note 6)*	1,285	896	762
Other financial expense	*(Note 6)*	(731)	(533)	(539)
Net income (loss) from equity affiliates	*(Note 8)*	1,845	(1,892)	3,438
Income taxes	*(Note 11)*	(13,301)	(22,242)	(9,587)
CONSOLIDATED NET INCOME		**21,510**	**21,044**	**16,366**
TotalEnergies share		21,384	20,526	16,032
Non-controlling interests		126	518	334
Earnings per share ($)		8.72	7.91	5.95
Fully-diluted earnings per share ($)		8.67	7.85	5.92

(a) Except for per share amounts.

Consolidated statement of comprehensive income

TotalEnergies

For the year ended December 31, (M$)		2023	2022	2021
Consolidated net income		**21,510**	**21,044**	**16,366**
Other comprehensive income				
Actuarial gains and losses	*(Note 10)*	(114)	574	1,035
Change in fair value of investments in equity instruments	*(Note 8)*	(11)	112	66
Tax effect		(11)	(96)	(411)
Currency translation adjustment generated by the parent company	*(Note 9)*	2,573	(4,976)	(7,202)
Items not potentially reclassifiable to profit and loss		**2,437**	**(4,386)**	**(6,512)**
Currency translation adjustment	*(Note 9)*	(3,277)	1,734	4,216
Cash flow hedge	*(Notes 15 & 16)*	2,898	(5,452)	278
Variation of foreign currency basis spread	*(Note 15)*	(11)	65	2
Share of other comprehensive income of equity affiliates, net amount	*(Note 8)*	(208)	3,497	706
Other		(2)	(16)	(1)
Tax effect		(730)	1,449	(135)
Items potentially reclassifiable to profit and loss		**(1,330)**	**1,277**	**5,066**
Total other comprehensive income (net amount)		**1,107**	**(3,109)**	**(1,446)**
COMPREHENSIVE INCOME		**22,617**	**17,935**	**14,920**
- TotalEnergies share		*22,534*	*17,419*	*14,616*
- Non-controlling interests	*(Note 9)*	*83*	*516*	*304*

Consolidated balance sheet

TotalEnergies

As of December 31, (M$)		**2023**	**2022**	**2021**
ASSETS				
Non-current assets				
Intangible assets, net	*(Notes 4 & 7)*	33,083	31,931	32,484
Property, plant and equipment, net	*(Notes 4 & 7)*	108,916	107,101	106,559
Equity affiliates: investments and loans	*(Note 8)*	30,457	27,889	31,053
Other investments	*(Note 8)*	1,543	1,051	1,625
Non-current financial assets	*(Note 15)*	2,395	2,731	2,404
Deferred income taxes	*(Note 11)*	3,418	5,049	5,400
Other non-current assets	*(Note 6)*	4,313	2,388	2,797
Total non-current assets		**184,125**	**178,140**	**182,322**
Current assets				
Inventories, net	*(Note 5)*	19,317	22,936	19,952
Accounts receivable, net	*(Note 5)*	23,442	24,378	21,983
Other current assets	*(Note 5)*	20,821	36,070	35,144
Current financial assets	*(Note 15)*	6,585	8,746	12,315
Cash and cash equivalents	*(Note 15)*	27,263	33,026	21,342
Assets classified as held for sale	*(Note 2)*	2,101	568	400
Total current assets		**99,529**	**125,724**	**111,136**
TOTAL ASSETS		**283,654**	**303,864**	**293,458**
LIABILITIES & SHAREHOLDERS' EQUITY				
Shareholders' equity				
Common shares		7,616	8,163	8,224
Paid-in surplus and retained earnings		126,857	123,951	117,849
Currency translation adjustment		(13,701)	(12,836)	(12,671)
Treasury shares		(4,019)	(7,554)	(1,666)
Total shareholders' equity - TotalEnergies share	*(Note 9)*	**116,753**	**111,724**	**111,736**
Non-controlling interests		**2,700**	**2,846**	**3,263**
Total shareholders' equity		**119,453**	**114,570**	**114,999**
Non-current liabilities				
Deferred income taxes	*(Note 11)*	11,688	11,021	10,904
Employee benefits	*(Note 10)*	1,993	1,829	2,672
Provisions and other non-current liabilities	*(Note 12)*	21,257	21,402	20,269
Non-current financial debt	*(Note 15)*	40,478	45,264	49,512
Total non-current liabilities		**75,416**	**79,516**	**83,357**
Current liabilities				
Accounts payable		41,335	41,346	36,837
Other creditors and accrued liabilities	*(Note 5)*	36,727	52,275	42,800
Current borrowings	*(Note 15)*	9,590	15,502	15,035
Other current financial liabilities	*(Note 15)*	446	488	372
Liabilities directly associated with the assets classified as held for sale	*(Note 2)*	687	167	58
Total current liabilities		**88,785**	**109,778**	**95,102**
TOTAL LIABILITIES & SHAREHOLDERS' EQUITY		**283,654**	**303,864**	**293,458**

Consolidated statement of cash flow

TotalEnergies

For the year ended December 31, (M$)		2023	2022	2021
CASH FLOW FROM OPERATING ACTIVITIES				
Consolidated net income		21,510	21,044	16,366
Depreciation, depletion, amortization and impairment	*(Note 5.3)*	13,818	13,680	14,343
Non-current liabilities, valuation allowances, and deferred taxes	*(Note 5.5)*	813	4,594	962
(Gains) losses on disposals of assets		(3,452)	369	(454)
Undistributed affiliates' equity earnings		649	6,057	(667)
(Increase) decrease in working capital	*(Note 5.5)*	6,091	1,191	(616)
Other changes, net		1,250	432	476
Cash flow from operating activities		**40,679**	**47,367**	**30,410**
CASH FLOW USED IN INVESTING ACTIVITIES				
Intangible assets and property, plant and equipment additions	*(Note 7)*	(17,722)	(15,690)	(12,343)
Acquisitions of subsidiaries, net of cash acquired		(1,772)	(94)	(321)
Investments in equity affiliates and other securities		(3,477)	(3,042)	(2,678)
Increase in non-current loans		(1,889)	(976)	(1,247)
Total expenditures		**(24,860)**	**(19,802)**	**(16,589)**
Proceeds from disposals of intangible assets and property, plant and equipment		3,789	540	770
Proceeds from disposals of subsidiaries, net of cash sold		3,561	835	269
Proceeds from disposals of non-current investments		490	577	722
Repayment of non-current loans		566	2,734	1,172
Total divestments		**8,406**	**4,686**	**2,933**
Cash flow used in investing activities		**(16,454)**	**(15,116)**	**(13,656)**
CASH FLOW FROM FINANCING ACTIVITIES				
Issuance (repayment) of shares:				
– Parent company shareholders		383	370	381
– Treasury shares		(9,167)	(7,711)	(1,823)
Dividends paid:				
– Parent company shareholders		(7,517)	(9,986)	(8,228)
– Non-controlling interests		(311)	(536)	(124)
Net issuance of perpetual subordinated notes	*(Note 9)*	(1,081)	–	3,248
Payments on perpetual subordinated notes	*(Note 9)*	(314)	(339)	(313)
Other transactions with non-controlling interests		(126)	(49)	652
Net issuance (repayment) of non-current debt	*(Note 15)*	130	1,108	(359)
Increase (decrease) in current borrowings		(14,289)	(6,073)	(10,856)
Increase (decrease) in current financial assets and liabilities	*(Note 15)*	2,562	3,944	(8,075)
Cash flow from / (used in) financing activities		**(29,730)**	**(19,272)**	**(25,497)**
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS		**(5,505)**	**12,979**	**(8,743)**
Effect of exchange rates		(258)	(1,295)	(1,183)
Cash and cash equivalents at the beginning of the period		33,026	21,342	31,268
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD	*(Note 15)*	**27,263**	**33,026**	**21,342**

Consolidated statement of changes in shareholders' equity

TotalEnergies

(M$)	Common shares issued		Paid-in surplus and retained earnings	Currency translation adjustment	Treasury shares		Shareholders' equity - TotalEnergies share	Non-controlling interests	Total shareholders' equity
	Number	Amount			Number	Amount			
As of January 1, 2021	**2,653,124,025**	**8,267**	**107,078**	**(10,256)**	**(24,392,703)**	**(1,387)**	**103,702**	**2,383**	**106,085**
Net income 2021	–	–	16,032	–	–	–	16,032	334	16,366
Other comprehensive income	–	–	991	(2,407)	–	–	(1,416)	(30)	(1,446)
Comprehensive income	**–**	**–**	**17,023**	**(2,407)**	**–**	**–**	**14,616**	**304**	**14,920**
Dividend	–	–	(8,200)	–	–	–	(8,200)	(124)	(8,324)
Issuance of common shares	10,589,713	31	350	–	–	–	381	–	381
Purchase of treasury shares	–	–	–	–	(37,306,005)	(1,823)	(1,823)	–	(1,823)
Sale of treasury shares[a]	–	–	(216)	–	4,573,195	216	–	–	–
Share-based payments	–	–	143	–	–	–	143	–	143
Share cancellation	(23,284,409)	(74)	(1,254)	–	23,284,409	1,328	–	–	–
Net issuance (repayment) of perpetual subordinated notes	–	–	3,254	–	–	–	3,254	–	3,254
Payments on perpetual subordinated notes	–	–	(368)	–	–	–	(368)	–	(368)
Other operations with non-controlling interests	–	–	30	(6)	–	–	24	689	713
Other items	–	–	9	(2)	–	–	7	11	18
As of December 31, 2021	**2,640,429,329**	**8,224**	**117,849**	**(12,671)**	**(33,841,104)**	**(1,666)**	**111,736**	**3,263**	**114,999**
Net income 2022	–	–	20,526	–	–	–	20,526	518	21,044
Other comprehensive income	–	–	(2,933)	(174)	–	–	(3,107)	(2)	(3,109)
Comprehensive income	**–**	**–**	**17,593**	**(174)**	**–**	**–**	**17,419**	**516**	**17,935**
Dividend	–	–	(9,989)	–	–	–	(9,989)	(536)	(10,525)
Issuance of common shares	9,367,482	26	344	–	–	–	370	–	370
Purchase of treasury shares	–	–	–	–	(140,207,743)	(7,711)	(7,711)	–	(7,711)
Sale of treasury shares[a]	–	–	(318)	–	6,195,654	318	–	–	–
Share-based payments	–	–	229	–	–	–	229	–	229
Share cancellation	(30,665,526)	(87)	(1,418)	–	30,665,526	1,505	–	–	–
Net issuance (repayment) of perpetual subordinated notes	–	–	(44)	–	–	–	(44)	–	(44)
Payments on perpetual subordinated notes	–	–	(331)	–	–	–	(331)	–	(331)
Other operations with non-controlling interests	–	–	45	9	–	–	54	37	91
Other items	–	–	(9)	–	–	–	(9)	(434)	(443)
As of December 31, 2022	**2,619,131,285**	**8,163**	**123,951**	**(12,836)**	**(137,187,667)**	**(7,554)**	**111,724**	**2,846**	**114,570**
Net income 2023	–	–	21,384	–	–	–	21,384	126	21,510
Other comprehensive income	–	–	1,987	(837)	–	–	1,150	(43)	1,107
Comprehensive income	**–**	**–**	**23,371**	**(837)**	**–**	**–**	**22,534**	**83**	**22,617**
Dividend	–	–	(7,611)	–	–	–	(7,611)	(311)	(7,922)
Issuance of common shares	8,002,155	22	361	–	–	–	383	–	383
Purchase of treasury shares	–	–	–	–	(144,700,577)	(9,167)	(9,167)	–	(9,167)
Sale of treasury shares[a]	–	–	(396)	–	6,463,426	396	–	–	–
Share-based payments	–	–	291	–	–	–	291	–	291
Share cancellation	(214,881,605)	(569)	(11,737)	–	214,881,605	12,306	–	–	–
Net issuance (repayment) of perpetual subordinated notes	–	–	(1,107)	–	–	–	(1,107)	–	(1,107)
Payments on perpetual subordinated notes	–	–	(294)	–	–	–	(294)	–	(294)
Other operations with non-controlling interests	–	–	30	(28)	–	–	2	85	87
Other items	–	–	(2)	–	–	–	(2)	(3)	(5)
AS OF DECEMBER 31, 2023	**2,412,251,835**	**7,616**	**126,857**	**(13,701)**	**(60,543,213)**	**(4,019)**	**116,753**	**2,700**	**119,453**

(a) Treasury shares related to the performance share grants.

Changes in equity are detailed in Note 9.

TotalEnergies

Notes to the Consolidated Financial Statements

On February 6, 2024, the Board of Directors established and authorized the publication of the Consolidated Financial Statements of TotalEnergies SE for the year ended December 31, 2023, which will be submitted for approval to the Shareholders' Meeting to be held on May 24, 2024.

Basis of preparation of the consolidated financial statements

The Consolidated Financial Statements of TotalEnergies SE and its subsidiaries (the Company) are presented in U.S. dollars and have been prepared on the basis of IFRS (International Financial Reporting Standards) as adopted by the European Union and IFRS as issued by the IASB (International Accounting Standard Board) as of December 31, 2023.

The accounting principles applied for the consolidated financial statements at December 31, 2023, were the same as those that were used for the financial statements at December 31, 2022, except for amendments and interpretations of IFRS which were mandatory for the periods beginning after January 1, 2023. Their application did not have a significant impact on the financial statements as of December 31, 2023.

The international tax reform Pillar 2, which will be applicable in France from January 1, 2024, introduces a minimum tax rate of 15% on the profits of companies in each of their operating countries. TotalEnergies has set up a working group to assess the expected impacts of this reform. Given the high tax rates in its operating countries and the anticipated legislative and regulatory changes in some host countries, the Company does not expect the application of this minimum tax to result in the payment of additional tax in France.

Major judgments and accounting estimates

The preparation of financial statements in accordance with IFRS for the closing as of December 31, 2023 requires the General Management to make estimates, assumptions and judgments that affect the information reported in the Consolidated Financial Statements and the Notes thereto.

These estimates, assumptions and judgments are based on historical experience and other factors believed to be reasonable at the date of preparation of the financial statements. They are reviewed on an on-going basis by General Management and therefore could be revised as circumstances change or as a result of new information.

Different estimates, assumptions and judgments could significantly affect the information reported, and actual results may differ from the amounts included in the Consolidated Financial Statements and the Notes thereto.

The following summary provides further information about the key estimates, assumptions and judgments that are involved in preparing the Consolidated Financial Statements and the Notes thereto. It should be read in conjunction with the sections of the Notes mentioned in the summary.

- **Estimation of hydrocarbon reserves**

The estimation of oil and gas reserves is a key factor in the Successful Efforts method used by TotalEnergies to account for its oil and gas activities.

TotalEnergies' oil and gas reserves are estimated by TotalEnergies' petroleum engineers in accordance with industry standards and SEC (*U.S. Securities and Exchange Commission)* regulations.

Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geosciences and engineering data, can be determined with reasonable certainty to be recoverable (from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations), prior to the time at which contracts providing the rights to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation.

Proved oil and gas reserves are calculated using a 12-month average price determined as the unweighted arithmetic average of the first-day-of-the-month price for each month of the relevant year unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. TotalEnergies reassesses its oil and gas reserves at least once a year on all its properties.

The Successful Efforts method and the mineral interests and property, plant and equipment of exploration and production are presented in Note 7 "Intangible and tangible assets".

- **Impairment of property, plant and equipment, intangible assets and goodwill**

As part of the determination of the recoverable value of assets for impairment (IAS 36), the estimates, assumptions and judgments mainly concern hydrocarbon prices scenarios, operating costs, production volumes and oil and gas proved and probable reserves, refining margins and product marketing conditions (mainly petroleum, petrochemical and chemical products as well as renewable industry products). The estimates and assumptions used by the executive management are determined in specialized internal departments in light of economic conditions and external expert analysis. The discount rate is reviewed annually.

In 2020, in line with its new Climate Ambition announced on May 5, 2020, which aims at carbon neutrality, TotalEnergies had reviewed its oil assets that could be qualified as "stranded", and therefore had decided to impair its oil sands assets in Canada sold in 2023.

Impairment of assets and the method applied are described in Note 3 "Business segment information".

- **Asset retirement obligations**

Asset retirement obligations, which result from a legal or constructive obligation, are recognized based on a reasonable estimate in the period in which the obligation arises.

This estimate is based on information available in terms of costs and work program. It is regularly reviewed to take into account the changes in laws and regulations, the estimates of reserves and production, the analysis of site conditions and technologies.

The discount rate is reviewed annually.

Asset retirement obligations and the method used are described in Note 12 "Provisions and other non-current liabilities".

- **Climate change and energy transition**

Climate change and the energy transition were considered in preparing the Consolidated Financial Statements. They may have significant impacts on the value of TotalEnergies's assets and liabilities mentioned below, and on similar assets and liabilities that may be recognized in the future.

TotalEnergies supports the goals of the 2015 Paris Agreement, which calls for reducing greenhouse gas emissions in the context of sustainable development and the fight against poverty, and which aims to keep the increase in average global temperatures well below 2°C compared to pre-industrial levels.

TotalEnergies wants to rise to the dual challenge of meeting the energy needs of a growing world population while reducing global warming, and play an active role in the ongoing energy transition of the word. The Company is thus implementing its transition strategy aimed at ensuring the growth of its energy production to reach a sales mix of 30% oil, 50% gas and 20% electricity and low-carbon molecules by 2030, with carbon intensity (scope 1+2+3) decreasing by 25% compared to 2015.

TotalEnergies has embedded the changing energy markets into its strategy by investing in renewables and electricity, developing the production of biofuels, biogas and low-carbon hydrogen, favoring the use of natural gas, the transition fuel whose flexibility offers a lower carbon alternative to coal for electricity production and helps to mitigate the intermittency of solar and wind energies, targeting its investments in low-cost and low-emission oil, and developing nature-based carbon storage solutions as well as CO_2 capture and sequestration.

TotalEnergies is committed to reducing its carbon footprint caused by the production, processing and supply of energy to its customers. Although the pace of the transition will depend on public policy, consumption patterns and resulting demand, TotalEnergies has set itself the mission to offer its customers energy products that are affordable and generate less CO_2 and to support its partners and suppliers in their own low-carbon strategies.

TotalEnergies' ambition is to get to Net Zero by 2050, together with society. As in 2021 and 2022, the Board of Directors submitted a Sustainability & Climate - Progress Report 2023 to a consultative vote of the Shareholders of TotalEnergies at the Combined Shareholders' Meeting. This report gives an account of the progress made in the implementation of the Company's ambition in terms of sustainable development and energy transition towards carbon neutrality, and with regards to its related objectives for 2030, and it also completes this ambition (resolution approved by 89% of votes).

TotalEnergies evaluates the solidity of its portfolio, particularly new material capital expenditure investments, on the basis of relevant scenarios and sensitivity tests. Each material capex investment, including in the exploration, acquisition or development of oil and gas resources, as well as in other energies and technologies, is subject to an evaluation that takes into consideration the objectives of the Paris Agreement, each new investment thus enhancing the resilience of the Company's portfolio.

Economic criteria are analyzed as part of a price scenario for oil and gas that is compatible with the Paris agreement goals (Brent at 50$/b under the IEA APS scenario and Henry Hub at $3 per Mbtu). Even if CO_2 pricing does not currently apply in all of the Company's host countries, TotalEnergies includes as a base case in its investment criteria a minimum CO_2 price of 100$/t (or the applicable price in a given country, if it is higher), and beyond 2029, the CO_2 price is inflated by 2% per year. For investments in upstream oil & gas projects, TotalEnergies focuses on value creation and cash generation over volume, and the Company prioritizes projects with low technical costs (less than $20/b for operating costs plus investment costs) or low-breakeven points (less than $30/b, taxes included) and a profitability that exceeds an internally defined threshold. Carbon Capture and Storage (CCS) and Nature Based Solutions (NBS) projects are evaluated on the basis of the actual cost of one ton of CO_2 (internal threshold in $/t$CO_2$). As for projects in renewable energies, they are evaluated on their ability to generate a return on equity higher than 10%.

All oil and gas projects must help to lower the average intensity of greenhouse gas emissions (Scope 1+2) in their respective category. Currently, that means:

- for new oil and gas projects (greenfield and acquisitions), the intensity of Scope 1+2 greenhouse gas emissions is compared, depending on their nature, to the intensity of the average greenhouse gas emissions of the Company's upstream production assets or that of various downstream units (LNG plants, refineries).
- for additional investments in existing assets (brownfield projects), the investment must lower the Scope 1+2 emissions intensity of the asset in question.
- for projects involving other energies and technologies (biofuels, biogas, CCS, etc.), the greenhouse-gas emissions reductions are assessed based on their contribution to reducing the Company's emissions.

Besides, as described in Note 3.C “Asset impairment”, in order to ensure the resilience of its assets recognized on the balance sheet, the oil price trajectory retained by the Company for the computation of its impairments converges in the long term towards the price retained in 2050 by the IEA's NZE scenario, i.e. $\$25.5_{2023}$/b; the prices retained for gas, the transition fuel, stabilize between now and 2027 and until 2040 at lower levels than current prices and converge towards the IEA's NZE scenario prices in 2050.

The strategy is implemented in the long-term plan of the Company, which is forecasted for a 5-year period, updated every year, and approved by the Board of Directors.

It reflects the economic environment, the ambition of the Company on carbon neutrality (Net Zero emissions) together with society, the related targets by 2030 and the current dynamics of energy transition, knowing that there is still significant uncertainty on the path to energy transition that the various countries will take.

The financial statements of TotalEnergies are prepared in coherence with the main technical and economic assumptions of the long-term plan and the objectives stated above.

They are also sensitive to various environmental considerations, including oil & gas prices and refining margins, as well as technical parameters, such as the estimation of hydrocarbons reserves. In particular, the selected assumptions and estimates have an impact on hydrocarbons reserves, the useful life of assets, the impairment of assets and provisions.

Asset impairment

The energy transition is likely to have an impact on future oil and gas prices and therefore on the recoverable amount of intangible assets and property, plant and equipment in the oil and gas industry.

The principles applied in determining the recoverable amounts are as follows:

- The future cash flows were determined using the assumptions included in the 2024 budget and in the long-term plan of the Company approved by the Executive Committee and the Board of Directors. These assumptions, in particular including operational costs, estimation of oil and gas reserves, future volumes produced and marketed, represent the best estimate from the Company Management of economic and technical conditions over the remaining life of the assets.

- The Company, notably relying on data on global energy demand from the “World Energy Outlook” issued by the IEA since 2016, and on its own supply and demand assessments, determines oil & gas prices scenarios based on assumptions about the evolution of core indicators of the upstream activity (demand for hydrocarbons in different markets, investment forecasts, decline in production fields, changes in oil & gas reserves and supply by area and by nature of oil & gas products), of the downstream activity (changes in refining capacity and demand for petroleum products) and by integrating “climate” challenge.
- These price scenarios, first prepared within the Strategy & Markets Division, are also reviewed with the Company segments which bring their own expertise. They also integrate studies issued by international agencies, banks and independent consultants. They are then approved by the Executive Committee and the Board of Directors.
- The IEA 2023 World Energy Outlook anticipates three scenarios that are key references for the Company: the STEPS (Stated Policies Scenario) and APS (Announced Pledges Scenario) for the short/mid-term and the NZE (Net Zero Emissions by 2050) for the long-term.
- The STEPS only includes climate actions already implemented to date around the world and those under development. The APS also takes into account climate ambitions declared to date in the world, including the NDCs (Nationally Determined Contributions) and carbon neutrality ambitions. According to the IEA, it is associated with a temperature increase of around 1.7°C. This scenario is compatible with the objective of the Paris Agreement to limit the temperature increase to “well below 2°C”.

  The IEA’s NZE is understood as the set of actions to be taken to be compatible with a 1.5°C scenario in 2050 (without overshooting). This normative scenario does not predict oil demand in the short and medium term, and therefore the price scenarios it proposes, particularly in the short and medium term, do not include a “realistic” evolution of demand. In fact, this scenario predicts that oil demand will peak in 2023 and fall by 20% between 2022 and 2030, whereas, according to the latest projections from the IEA, oil demand in 2024 will be higher than in 2023 and will continue to grow until 2028. According to the projections of other energy companies and consultants, demand would rather being to decline toward 2030 (the Oil peak at Wood MacKenzie in 2032, at HIS inflections in 2028).
- Beyond the 2020-2030 decade, the oil price trajectory retained by the Company converges in the long term, to the price retained in 2050 by the IEA’s NZE scenario, i.e $\$25.5_{2023}$/b. The prices retained for gas, the transition fuel, stabilize until 2040 at lower levels than the current prices and converge towards the IEA’s NZE scenario prices in 2050.

The oil price trajectories adopted by the Company are based on the following assumptions:

- Oil demand has experienced sustained growth after the Covid crisis as the global economic recovery generated strong tensions on energy prices from mid-2021 onwards, which exacerbated in 2022 by the war in Ukraine. Despite the risks of recession in Europe in particular, global liquid demand in 2024 should be higher than in 2019 pre-crisis, notably due to the end of lockdown measures in China which allowed the restart of industrial activity. It should continue to grow until 2030, in a context of sustained growth in global energy demand. Indeed, population growth and rising living standards, particularly in emerging countries, should sustain oil consumption, despite the gradual electrification of transport and efficiency gains in combustion engines, mainly in developed countries.

  In this context, prices would remain supported in the short term by historic production cuts decided (and implemented) by OPEC+ members. In the United States, production in 2023 is expected to be higher than in 2019, and capacities for further growth in shale oil in subsequent years seem to be a consensus. However, recent sector consolidation (Permian, DJ and Bakken) should strengthen discipline on the profitability of these investments and thus contain growth.
- The price trajectory used reflects the Company’s analysis that the weakness of investment oil upstream since 2015 oil crisis and accentuated by the health and economic crisis of 2020 (-30% according to the IEA), and the natural decline of fields currently in production, leads to a global supply-demand balance that will remain tight until 2030. Thus in the scenario used, the Brent price stabilizes at $\$70_{2023}$/b from 2025 to 2030. The developments observed in 2023, in particular the post-Covid demand recovery in China and the production cuts of OPEC+, justify this price level from 2025.
- Beyond 2030, given technological developments, particularly in the transport sector, oil demand should have reached its peak and the selected price scenario decreases linearly to reach $\$50_{2023}$/b in 2040 and then $\$25.5_{2023}$/b in 2050, in line with the NZE scenario.

  The average Brent prices over the period 2024-2050 thus stands at $\$53.8_{2023}$/b.

For natural gas, the transition fuel, the price trajectory adopted by the Company is based on the following assumptions:

- Natural gas demand in 2021 has exceeded its pre-crisis level with very strong tensions on prices in Europe and, by extension, in Asia through LNG prices, as a result of the cuts in Russian pipe gas importation that began at the end of 2021 and continued in 2022 with the complete shutdown of the Nordstream. Global gas demand in 2022 was almost at the same level as in 2021. Global demand in 2023 is expectd to be at the same level as in 2022 with the recourse to American LNG to replace Russian gas in Europe, still in competition with Asia. Gas prices in Asia and Europe have returned to much lower levels than the exceptionally high prices reached in the third quarter of 2022 but remain higher than before the crisis. The price of gas in the United States did not experience such a sharp increase in 2022 and has since stabilized.

  The Company anticipates in 2024 higher prices than before the crisis on the Asia, Europe and slightly on the USA hubs. Thereafter, natural gas demand would be driven by the same fundamentals as oil (decrease in Europe but resistance in Asia-Pacific), plus its substitution for coal in power generation and by its role as a flexible and controllable source to mitigate the intermittent use and seasonality of renewable energies. The abundant global supply and the growth of liquefied natural gas would, however, limit the potential for higher gas prices. Beyond 2040, with the development of renewables including storage and hydrogen, gas demand is expected to stabilize.

In this context, the gas price level used to determine the value in use of the CGUs concerned is as follows:

On the NBP quotation (Europe): $\$14.7_{2023}$/Mbtu in 2024, $\$12.5_{2023}$/Mbtu in 2025, $\$10.2_{2023}$/Mbtu in 2026, then $\$8_{2023}$/Mbtu between 2027 and 2040.

On the Henry Hub quotation (United States): $\$3_{2023}$/Mbtu between 2024 and 2040.

On the DES Japan (Asia) quotation: $\$15.7_{2023}$/Mbtu in 2024, $\$13.5_{2023}$/Mbtu in 2025, $\$11.2_{2023}$/Mbtu in 2026, then $\$9_{2023}$/Mbtu between 2027 and 2040.

From 2040 onwards, the price trajectory converges towards the price retained in 2050 by the NZE scenario, i.e. $\$4.2_{2023}$/Mbtu for NBP, $\$2.0_{2023}$/Mbtu for Henry Hub and $\$5.4_{2023}$/Mbtu DES Japan (Asia).

The future operational costs were determined by taking into account the existing technologies, the fluctuation of prices for petroleum services in line with market developments and the internal cost reduction programs effectively implemented.

The determination of value in use also takes into account on all identified assets the impact of their CO_2 emissions. Future scope 1 and 2 emissions of the assets concerned over the life of the assets are valued at $100/t or the applicable price in a given country, if it is higher. Beyond 2029, the CO_2 price is inflated by 2% per year.

The future cash flows are estimated over a period consistent with the life of the assets of the CGUs. They are prepared post-tax and take into account specific risks related to the CGUs' assets. They are discounted using an 8% post-tax discount rate, this rate being the weighted-average cost of TotalEnergies capital estimated from historical market data. This rate was 8% in 2022 and 7% in 2021. The value in use calculated by discounting the above post-tax cash flows using an 8% post-tax discount rate is not materially different from the value in use calculated by discounting pre-tax cash flows using a pre-tax discount rate determined by an iterative computation from the post-tax value in use. These pre-tax discount rates generally range from 7% to 14%.

Asset impairments are subject to sensitivity testing. In particular, upstream assets are tested as follows:

- Decreases of -10% and -20% in the hydrocarbon's prices, over the duration of the price scenario.
- Consideration of a CO_2 cost of $200/t, inflated by 2% per year beyond 2029 for all assets.
- Increase or decrease of 1% in the discount rate of future cash flows.

Finally, TotalEnergies also reviewed its upstream assets that can be qualified as “stranded”, meaning with reserves beyond 20 years and high production costs, whose overall reserves may therefore not be produced by 2050. The only projects concerned were the Fort Hills and Surmont oil sands projects in Canada that TotalEnergies sold in 2023.

The Company's strategy of focusing new oil investments on low carbon intensity projects and low cost of production also led it to exit from extra heavy crude oil assets in Venezuela's Orinoco Belt in 2021.

The characteristics of TotalEnergies' portfolio mitigate the risk of having stranded assets in the future if a structural decline in demand for hydrocarbons occurs due to stricter global environmental regulations and constraints and a resulting change in consumer preferences.

The Company will continue to review price assumptions as the energy transition progresses and this may result in additional impairment charges in the future.

The effect of asset impairments on TotalEnergies' financial statements and the associated sensitivity calculations are detailed in Note 3.C “Asset impairment”.

Exploration assets

The energy transition could affect the future development or economic viability of certain exploration assets.

TotalEnergies applies IFRS 6 “Exploration for and Evaluation of Mineral Resources”. Oil and gas exploration and production properties and assets are accounted for in accordance with the Successful Efforts method.

Exploratory wells are capitalized and tested for impairment on an individual basis as follows:

- Costs of exploratory wells which result in proved reserves are capitalized and then depreciated using the unit-of-production method based on proved developed reserves;
- Costs of exploratory wells are capitalized as work in progress until proved reserves have been found, if both of the following conditions are met:
  - The well has found a sufficient quantity of reserves to justify, if appropriate, its completion as a producing well, assuming that the required capital expenditures are made.
  - TotalEnergies is making sufficient progress assessing the reserves and the economic and operating viability of the project. This progress is evaluated on the basis of indicators such as whether additional exploratory works are under way or firmly planned (wells, seismic or significant studies), whether costs are being incurred for development studies and whether TotalEnergies is waiting for governmental or other third-party authorization on a proposed project, or availability of capacity on an existing transport or processing facility.

Costs of exploratory wells not meeting these conditions are charged to exploration costs.

These assets will continue to be carefully reviewed as the energy transition progresses, in line with the resulting capital expenditure allocation policy.

The effect of exploration activities on the financial statements of TotalEnergies is detailed in Note 7.2 “Property, plant and equipment”.

Intangible and tangible assets - depreciation and useful lives

The energy transition may curtail the useful life of oil and gas assets, thereby increasing the annual depreciation charges related to these assets.

The following accounting principles are applied to the hydrocarbon production assets of exploration and production activities:

- Unproved mineral interests are tested for impairment based on the results of the exploratory activity or as part of the impairment tests of the cash-generating units to which they are allocated.
- Unproved mineral interests are transferred to proved mineral interests at their net book value as soon as proved reserves are booked.
- Proved mineral interests are depreciated using the unit-of-production method based on proved reserves. The corresponding expense is recorded as depreciation of tangible assets and mineral interests.
- Development costs of oil and gas production facilities are capitalized. These costs include borrowing costs incurred during the period of construction and the present value of estimated future costs of asset retirement obligations.
- The depletion rate of development wells and of production assets is equal to the ratio of oil and gas production for the period to proved developed reserves (unit-of-production method).

In the event that, due to the price effect on reserves evaluation, the unit-of-production method does not reflect properly the useful life of the asset, an alternative depreciation method is applied based on the reserves evaluated with the price of the previous year. As of December 31, 2023, 2022 and 2021, this alternative method is not applied as, given the price used to assess the reserves, the unit-of-production method correctly reflects the useful life of the assets.

With respect to phased development projects or projects subject to progressive well production start-up, the fixed assets' depreciable amount, excluding production or service wells, is adjusted to exclude the portion of development costs attributable to the undeveloped reserves of these projects.

With respect to production sharing contracts, the unit-of-production method is based on the portion of production and reserves assigned to TotalEnergies taking into account estimates based on the contractual clauses regarding the reimbursement of exploration, development and production costs (cost oil/gas) as well as the sharing of hydrocarbon rights after deduction of cost oil (profit oil/gas).

Hydrocarbon transportation and processing assets are depreciated using the unit-of-production method based on throughput or by using the straight-line method whichever best reflects the economic life of the asset.

Given the characteristics of the Company's portfolio of oil & gas assets, its current value on the balance sheet will be almost entirely depreciated by 2040.

Consequently, TotalEnergies does not anticipate significant changes in the useful life of its existing oil and gas assets that would represent an element of significant judgment impacting its consolidated accounts in the future.

The impact of the depreciation of oil and gas assets on the financial statements of TotalEnergies is detailed in Notes 7.1 "Intangible assets" and 7.2 "Property, plant and equipment".

Asset retirement obligations

The energy transition may bring forward asset retirement obligations of certain oil and gas assets, thereby increasing the present value of the associated provisions.

Asset retirement obligations, which result from a legal or constructive obligation, are recognized based on a reasonable estimate in the period in which the obligation arises.

The associated asset retirement costs are capitalized as part of the carrying amount of the underlying asset and depreciated over the useful life of this asset.

An entity is required to measure changes in the liability for an asset retirement obligation due to the passage of time (accretion) by applying a discount rate to the amount of the liability. Given the long-term nature of expenditures related to our asset retirement obligations, the rate is determined by reference to the rates of high quality AA-rated corporate bonds on the USD area for a long-term horizon. The increase of the provision due to the passage of time is recognized as "Other financial expense".

The discount rate used for the valuation of asset retirement obligation is 5% in 2023, it was 4% in 2022 and 3% in 2021 (the expenses are estimated at current currency values with an inflation rate of 2% in 2023 and 2022 and 1.5% in 2021).

In upstream activities, in application of its internal procedures, TotalEnergies regularly reviews, on an asset-by-asset basis, the estimate of its future asset retirement costs, as well as the date at which work will be performed. The assets and liabilities recognized in respect of retirement obligations under these rules as described in Note 12.1 "Provisions and other non-current liabilities" are adjusted accordingly.

The Company will continue to review its estimates of both costs and the maturity of commitments on a regular basis and will take into account any significant impact that may result from changes in these parameters in the future.

The effect of the asset retirement obligations on the financial statements of TotalEnergies and the associated sensitivity calculations are detailed in Note 12.1 "Provisions and other non-current liabilities". A maturity schedule of these obligations is presented in Note 13.1 "Off-balance sheet commitments and contractual obligations".

➢ **Income Taxes**

A tax liability is recognized when in application of a tax regulation, a future payment is considered probable and can be reasonably estimated. The exercise of judgment is required to assess the impact of new events on the amount of the liability.

Deferred tax assets are recognized in the accounts to the extent that their recovery is considered probable. The amount of these assets is determined after taking into account deferred tax liabilities with comparable maturity, arising from the same entities and tax regimes. It takes into account existing taxable profits and future taxable profits which estimation is inherently uncertain and subject to change over time. The exercise of judgment is required to assess the impact of new events on the value of these assets and including changes in estimates of future taxable profits and the deadlines for their use.

In addition, these tax positions may depend on interpretations of tax laws and regulations in the countries where TotalEnergies operates. These interpretations may have uncertain nature. Depending on the circumstances, they are final only after negotiations or resolution of disputes with authorities that can last several years.

Incomes taxes and the accounting methods are described in Note 11 "Income taxes".

➢ **Employee benefits**

The benefit obligations and plan assets can be subject to significant volatility due in part to changes in market values and actuarial assumptions. These assumptions vary between different pension plans and thus take into account local conditions. They are determined following a formal process involving expertise and TotalEnergies internal judgments, in financial and actuarial terms, and also in consultation with actuaries and independent experts.

The assumptions for each plan are reviewed annually and adjusted if necessary to reflect changes from the experience and actuarial advice. The discount rate is reviewed quarterly.

Payroll, staff and employee benefits obligations and the method applied are described in Note 10 "Payroll, staff and employee benefits obligations".

➢ **Russian-Ukrainian conflict**

Russian assets were fully impaired in 2022, with the exception of the shares held in the Yamal LNG company. In total, the impact of impairments and provisions recorded in 2022 due to the Russo-Ukrainian conflict amounted to $(14,756) million in TotalEnergies' net result.

On **November 2, 2023**, the Arctic LNG 2 company was placed under sanctions by the U.S. authorities. TotalEnergies initiated the contractual suspension procedure provided for in the Arctic LNG 2 shareholders' agreement and that of force majeure for the LNG purchase contract from Arctic LNG 2. These procedures, upon their notification, resulted in the suspension of TotalEnergies' rights and obligations under these agreements, thus implying in particular the suspension of the participation of TotalEnergies' representatives in the governance bodies of Arctic LNG 2. As a result, the 10% interest held by TotalEnergies in Arctic LNG 2 is no longer accounted for using the equity method in the Company's accounts as of December 31, 2023 but is recorded under "other investments". As mentioned above, as the shares in Arctic LNG 2 were fully impaired in 2022, this deconsolidation had no impact on the 2023 consolidated financial statements.

The Company has also ensured the absence of depreciation to be accounted for on Yamal LNG, by testing the value of its equity accounted investment which amounts to $4,560 million as of December 31, 2023.

With regard to the participation in Novatek, in the absence of any new event, the assessments and judgments taken into account on December 31, 2022 in the accounting and valuation method remain unchanged at December 31, 2023. As the criteria for significant influence are no longer met within the meaning of IAS 28 "Investments in associates and joint ventures", TotalEnergies' 19.4% interest in Novatek has no longer been accounted for using the equity method in the Company's financial statements since the end of the 4^{th} quarter of 2022.

Depending on the developments of the Russian-Ukrainian conflict and the measures that the European and American authorities may take, the activities of TotalEnergies in Russia, in particular those relating to the Yamal LNG asset, could be affected in the future.

Judgments in case of transactions not addressed by any accounting standard or interpretation

Furthermore, when the accounting treatment of a specific transaction is not addressed by any accounting standard or interpretation, the management applies its judgment to define and apply accounting policies that provide information consistent with the general IFRS concepts: faithful representation, relevance and materiality.

Note 1 General accounting principles

1.1 Accounting principles

A) Principles of consolidation

Entities that are directly controlled by the parent company or indirectly controlled through other consolidated entities are fully consolidated.

Investments in joint ventures are accounted for by the equity method. TotalEnergies accounts for joint operations by recognizing its share of assets, liabilities, income and expenses.

Investments in associates, in which TotalEnergies has significant influence, are accounted for by the equity method. Significant influence is presumed when TotalEnergies holds, directly or indirectly (e.g. through subsidiaries), 20% or more of the voting rights. In the case of a percentage of less than 20%, accounting under the equity method applies only when significant influence can be demonstrated.

All internal balances, transactions and income are eliminated.

B) Business combinations

Business combinations are accounted for using the acquisition method. This method requires the recognition of the acquired identifiable assets and assumed liabilities of the companies acquired by TotalEnergies at their fair value.

The purchase accounting of the acquisition is finalized up to a maximum of one year from the acquisition date.

The acquirer shall recognize goodwill at the acquisition date, being the excess of:

- The consideration transferred, the amount of non-controlling interests and, in business combinations achieved in stages, the fair value at the acquisition date of the investment previously held in the acquired company;
- Over the fair value at the acquisition date of acquired identifiable assets and assumed liabilities.

If the consideration transferred is lower than the fair value of acquired identifiable assets and assumed liabilities, an additional analysis is performed on the identification and valuation of the identifiable elements of the assets and liabilities. After having completed such additional analysis, any negative goodwill is recorded as income.

Non-controlling interests are measured either at their proportionate share in the net assets of the acquired company or at fair value.

In transactions with non-controlling interests, the difference between the price paid (received) and the book value of non-controlling interests acquired (sold) is recognized directly in equity.

C) Foreign currency translation

The presentation currency of TotalEnergies' Consolidated Financial Statements is the U.S. dollar. However, the functional currency of the parent company is the euro. The resulting currency translation adjustments are presented on the line "currency translation adjustment generated by the parent company" of the consolidated statement of comprehensive income, within "items not potentially reclassifiable to profit and loss". In the balance sheet, they are recorded in "currency translation adjustment".

The financial statements of subsidiaries are prepared in the currency that most clearly reflects their business environment. This is referred to as their functional currency.

Since July 1, 2018, Argentina is considered to be hyperinflationary. IAS 29 "Financial Reporting in Hyperinflationary Economies" is applicable to entities whose functional currency is the Argentine peso. The functional currency of the Argentine Exploration & Production subsidiary is the U.S. dollar, therefore IAS 29 has no incidence on TotalEnergies accounts. Net asset of the other business segments is not significant.

(i) Monetary transactions

Transactions denominated in currencies other than the functional currency of the entity are translated at the exchange rate on the transaction date. At each balance sheet date, monetary assets and liabilities are translated at the closing rate and the resulting exchange differences are recognized in the statement of income.

(ii) Translation of financial statements

Assets and liabilities of entities denominated in currencies other than dollar are translated into dollar on the basis of the exchange rates at the end of the period. The income and cash flow statements are translated using the average exchange rates for the period. Foreign exchange differences resulting from such translations are either recorded in shareholders' equity under "Currency translation adjustments" (for TotalEnergies share) or under "Non-controlling interests" (for the share of non-controlling interests) as deemed appropriate.

1.2 Significant accounting principles applicable in the future

The expected impact of the standards or interpretations published respectively by the International Accounting Standards Board (IASB) and the International Financial Reporting Standards Interpretations Committee (IFRS IC) which were not yet in effect at December 31, 2023, is not material.

Note 2 Changes in TotalEnergies' perimeter

2.1 Main acquisitions and divestments

In 2023, the main changes in TotalEnergies perimeter were as follows:

➢Exploration & Production

- In March 2023, TotalEnergies has signed an agreement with CEPSA to acquire CEPSA's upstream assets in the United Arab Emirates. The assets to be acquired are:
  - a 20% participating interest in the Satah Al Razboot (SARB), Umm Lulu, Bin Nasher and Al Bateel (SARB and Umm Lulu) offshore concession.
    The SARB and Umm Lulu concession includes two major offshore fields. ADNOC holds a 60% interest in this concession, alongside OMV (20%). The concession is operated by ADNOC Offshore.
  - a 12.88% indirect interest in the Mubarraz concession held by Abu Dhabi Oil Company Ltd (ADOC), through the acquisition of 20% of Cosmo Abu Dhabi Energy Exploration & Production Co. Ltd (CEPAD), a company holding a 64.4% interest in ADOC. The Mubarraz concession is comprised of four producing offshore fields.

  The SARB and Umm Lulu transaction was completed on March 15, 2023. The Mubarraz transaction was not completed following Cosmo's decision to exercise its right of first refusal on the proposed transaction on April 21, 2023 in accordance with the terms of the agreements.
- On September 28, 2023, TotalEnergies EP Angola Block 20 has finalized the sale to Petronas Angola E&P Ltd (PAEPL), a company belonging to the Petronas group of companies, of a 40% interest in Block 20 in the Kwanza Basin in Angola. The transaction was completed for an amount of $400 million, subject to customary price adjustments. TotalEnergies retains the operatorship and a 40% interest in Block 20, alongside PAEPL (40%) and Sonangol Pesquisa e Produção S.A. (20%).
- On April 27, 2023, TotalEnergies announced the signature of an agreement with Suncor Energy Inc. for the sale of the entirety of the shares of TotalEnergies EP Canada Ltd. The transaction was subject to the waiver of TotalEnergies EP Canada Ltd's partners pre-emption rights.

  On May 26, 2023, ConocoPhillips has notified that it is exercising its preemption right to purchase the 50% interest in the Surmont asset. On October 4, 2023, TotalEnergies EP Canada Ltd. has finalized the sale to ConocoPhillips of its 50% interest in the Surmont oil sands asset and associated midstream commitments. The transaction, for a base amount of $4.03 billion Canadian dollar (about US$3.0 billion) plus up to $440 million Canadian dollar (about US$330 million) in contingent payments. Including adjustments, TotalEnergies received a cash payment at closing of $3.7 billion Canadian dollar (about US$2.75 billion).

  On November 20, 2023, TotalEnergies has completed the sale to Suncor of the entirety of the shares of TotalEnergies EP Canada Ltd., comprising notably its participation in the Fort Hills oil sands asset and associated midstream commitments. The consideration for the transaction is $1.47 billion Canadian dollar (about US$1.1 billion). Including adjustments, TotalEnergies received a cash payment at closing of $1.83 billion Canadian dollar (about US$1.3 billion).

➢Integrated LNG

- On June 12, 2022, following the request for proposals in relation to partner selection for the North Field East (NFE) liquified natural gas project, TotalEnergies has been awarded, a 25% interest in a new joint venture (JV), alongside the national company QatarEnergy (75%). The new JV will hold a 25% interest in the 32 million tons per annum (Mtpa) NFE project, equivalent to one 8 Mtpa LNG train. The acquisition of the interest in this project was finalized in January 2023.

➢Integrated Power

- On October 26, 2022, TotalEnergies and Casa dos Ventos (CDV), Brazil's leading renewable energy developer, announced the creation of a 34% (TTE)/66%(CDV) joint venture to jointly develop, build and operate the renewable portfolio of Casa Dos Ventos. This portfolio includes 700 MW of onshore wind capacity in operation, 1 GW of onshore wind under construction, 2.8 GW of onshore wind and 1.6 GW of solar projects under well advanced development (COD[1] within 5 years). Besides, the newly formed JV will have the right to acquire the current and new projects that are or will be developed by CDV as they reach execution stage. The transaction amounts to a payment of $0.5 billion and an earn-out of up to $30 million for the acquisition of a 34% stake in the JV. In addition, TotalEnergies will have the option to acquire an additional 15% equity share in 2027. The transaction was completed in January 2023.
- On June 29, 2023, the Company exercised its option to buy back all the shares in Total Eren Holding and Total Eren, in which it held 33.86% and 5.73% respectively. Total Eren has 3.5 GW of assets in operation worldwide, and a diversified portfolio of solar, wind, hydro and storage projects of more than 10 GW in 30 countries, of which nearly 1.2 GW are under construction or at an advanced stage of development. On 24 July, 2023, TotalEnergies completed this acquisition for a net investment of €1,467 million.

[1] Commercial Operation Date

➢ **Marketing & Services**

- On March 16, 2023, TotalEnergies and Alimentation Couche-Tard signed agreements concerning the TotalEnergies service station networks in four European countries, providing for an association of TotalEnergies and Couche-Tard in Belgium and Luxembourg and a transfer in Germany and the Netherlands.

  On December 28, 2023, the transaction related to the network in Germany was finalized for a cash amount received after adjustments and before taxes of 2.4 billion dollars.

  The assets and liabilities related to the networks in the Netherlands, Luxembourg, and Belgium are respectively classified in the sections “Assets classified as held for sale” and “Liabilities directly associated with the assets classified as held for sale” of the balance sheet on December 31, 2023. These transactions were finalized in January 2024 for 1.4 billion dollars.

2.2 Major business combinations

Accounting principles

In accordance with IFRS 3 “Business combinations”, TotalEnergies is assessing the fair value of identifiable acquired assets, liabilities and contingent liabilities on the basis of available information. This assessment will be finalised within 12 months following the acquisition date.

➢ Exploration & Production

- Acquisition of participating interest in SARB and Umm Lulu offshore concession

  The purchase price allocation of $1,473 million has been done and is shown below:

(M$)	At the acquisition date
Intangible assets	278
Tangible assets	1,429
Other assets and liabilities	(234)
Fair value of consideration	**1,473**

➢ Integrated Power

- Acquisition of all the shares in Total Eren

  The preliminary purchase price allocation brought back to 100% of $2,909 million is shown below:

(M$)	At the acquisition date
Goodwill	1,417
Intangible assets	821
Tangible assets	2,193
Other assets and liabilities	(64)
Net debt of the acquired treasury	(1,389)
Minority interests	(69)
Fair value of the consideration transferred	**2,909**

Goodwill represents the valuation of Total Eren’s ability to generate future projects in the field of renewable energy.

2.3 Divestment projects

Accounting principles

Pursuant to IFRS 5 “Non-current assets held for sale and discontinued operations”, assets and liabilities of affiliates that are held for sale are presented separately on the face of the balance sheet. Depreciation of assets ceases from the date of classification in “Non-current assets held for sale”.

➢ Exploration & Production

On August 4, 2023, TotalEnergies and its partner SOCAR (State Oil Company of the Republic of Azerbaijan) have signed an agreement to sell a 15% participating interest each in the Absheron gas field to ADNOC (Abu Dhabi National Oil Company). After completion of this transaction, which is subject to the approval by the relevant authorities, TotalEnergies will own a 35% interest in Absheron gas field, alongside SOCAR (35%) and ADNOC (30%).

As of December 31, 2023, the assets have been classified in the consolidated balance sheet as “assets classified as held for sale” for an amount of $314 million. These assets mainly include tangible assets.

➢ Marketing & Services

As of December 31, 2023, the assets and liabilities related to the transactions with Alimentation Couche-Tard on the TotalEnergies service station networks in the Netherlands, Luxembourg and Belgium were classified respectively under “ Assets classified as held for sale” for $1,153 million and under “ Liabilities directly associated with the assets classified as held for sale “ in the consolidated balance sheet for $577 million. The assets concerned are mainly tangible fixed assets.

Note 3 Business segment information

Description of the business segments

Financial information by business segment is reported in accordance with the internal reporting system and shows internal segment information that is used to manage and measure the performance of TotalEnergies and which is reviewed by the main operational decision-making body of the Company, namely the Executive Committee.

The operational profit and assets are broken down by business segment prior to the consolidation and inter-segment adjustments.

Sales prices between business segments approximate market prices.

The profitable growth in the LNG and power integrated value chains are two of the key axes of TotalEnergies's strategy.

In order to give more visibility to these businesses, the Board of Directors has decided that from the first quarter 2023, Integrated LNG and Integrated Power results, previously grouped in the Integrated Gas, Renewables & Power (iGRP) segment, would be reported separately as two segments.

A new reporting structure for the business segments' financial information has been put in place, effective January 1, 2023. It is based on the following five business segments:

- An Exploration & Production segment that encompasses the activities of exploration and production of oil and natural gas, conducted in about 50 countries;
- An Integrated LNG segment covering the integrated gas chain (including upstream and midstream LNG activities) as well as biogas, hydrogen and gas trading activities;
- An Integrated Power segment covering generation, storage, electricity trading and B2B-B2C distribution of gas and electricity;
- A Refining & Chemicals segment constituting a major industrial hub comprising the activities of refining, petrochemicals and specialty chemicals. This segment also includes the activities of oil Supply, Trading and marine Shipping;
- A Marketing & Services segment including the global activities of supply and marketing in the field of petroleum products;

In addition the Corporate segment includes holdings operating and financial activities.

This new segment reporting has been prepared in accordance with IFRS 8 and according to the same principles as the internal reporting followed by the TotalEnergies's Executive Committee.

Due to the change in the Company's internal organizational structure affecting the composition of the business segments, the segment reporting data for the years 2021 and 2022 has been restated.

Definition of the indicators

Adjusted Net Operating Income

TotalEnergies measures performance at the segment level on the basis of adjusted net operating income. Adjusted net operating income comprises operating income of the relevant segment after deducting the amortization and the depreciation of intangible assets other than mineral interest, translation adjustments and gains or losses on the sale of assets, as well as all other income and expenses related to capital employed (dividends from nonconsolidated companies, income from equity affiliates and capitalized interest expenses) and after income taxes applicable to the above, excluding the effect of the adjustments describe below.

The income and expenses not included in net operating income adjusted that are included in net income TotalEnergies share are interest expenses related to net financial debt, after applicable income taxes (net cost of net debt), non-controlling interests, and the adjusted items.

Starting 2023, details of adjustment items are presented for net operating income (with comparative periods 2021 and 2022).

Adjustment items include:

a) Special items

Due to their unusual nature or particular significance, certain transactions qualifying as "special items" are excluded from the business segment figures. In general, special items relate to transactions that are significant, infrequent or unusual. However, in certain instances, transactions such as restructuring costs or assets disposals, which are not considered to be representative of the normal course of business, may qualify as special items although they may have occurred in prior years or are likely to occur in following years.

b) The inventory valuation effect

In accordance with IAS 2, TotalEnergies values inventories of petroleum products in its financial statements according to the First-in, First-Out (FIFO) method and other inventories using the weighted-average cost method. Under the FIFO method, the cost of inventory is based on the historic cost of acquisition or manufacture rather than the current replacement cost. In volatile energy markets, this can have a significant distorting effect on the reported income. Accordingly, the adjusted results of the Refining & Chemicals and Marketing & Services segments are presented according to the replacement cost method. This method is used to assess the segments' performance and facilitate the comparability of the segments' performance with those of its main competitors.

In the replacement cost method, which approximates the Last-In, First-Out (LIFO) method, the variation of inventory values in the statement of income is, depending on the nature of the inventory, determined using either the month-end prices differential between one period and another or the average prices of the period rather than the historical value. The inventory valuation effect is the difference between the results under the FIFO and the replacement cost methods.

c) Effect of changes in fair value

The effect of changes in fair value presented as an adjustment item reflects for trading inventories and storage contracts, differences between internal measures of performance used by TotalEnergies' Executive Committee and the accounting for these transactions under IFRS.

IFRS requires that trading inventories be recorded at their fair value using period end spot prices. In order to best reflect the management of economic exposure through derivative transactions, internal indicators used to measure performance include valuations of trading inventories based on forward prices.

TotalEnergies, in its trading activities, enters into storage contracts, whose future effects are recorded at fair value in TotalEnergies' internal economic performance. IFRS precludes recognition of this fair value effect.

Furthermore, TotalEnergies enters into derivative instruments to risk manage certain operational contracts or assets. Under IFRS, these derivatives are recorded at fair value while the underlying operational transactions are recorded as they occur. Internal indicators defer the fair value on derivatives to match with the transaction occurrence.

A) Information by business segment

For the year ended December 31, 2023 (M$)	**Exploration & Production**	**Integrated LNG**	**Integrated Power**	**Refining & Chemicals**	**Marketing & Services**	**Corporate**	**Intercompany**	**Total**
External sales	6,561	12,086	27,337	101,203	89,909	32	–	237,128
Intersegment sales	42,595	14,789	4,126	36,581	631	206	(98,928)	–
Excise taxes	–	–	–	(841)	(17,342)	–	–	(18,183)
Revenues from sales	**49,156**	**26,875**	**31,463**	**136,943**	**73,198**	**238**	**(98,928)**	**218,945**
Operating expenses	(20,355)	(21,569)	(28,763)	(130,899)	(70,497)	(878)	98,928	(174,033)
Depreciation, depletion and impairment of tangible assets and mineral interests	(8,493)	(1,288)	(281)	(1,685)	(905)	(110)	—	(12,762)
Net income (loss) from equity affiliates and other items	(307)	2,194	(345)	(42)	2,208	(28)	—	3,680
Tax on net operating income	(10,095)	(810)	(394)	(938)	(1,246)	271	—	(13,212)
Adjustments[(a)]	(1,036)	(798)	(173)	(1,275)	1,300	(84)	—	(2,066)
Adjusted net operating income	**10,942**	**6,200**	**1,853**	**4,654**	**1,458**	**(423)**	**—**	**24,684**
Adjustments[(a)]								(2,066)
Net cost of net debt								(1,108)
Non-controlling interests								(126)
NET INCOME - TotalEnergies SHARE								21,384

[(a)] Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

The management of balance sheet positions (including margin calls) related to centralized markets access for LNG, gas and power activities since 2022 has been fully included in the Integrated LNG segment.

Effects of changes in the fair value of gas and LNG positions are allocated to the operating income of Integrated LNG segment.

Effects of changes in the fair value of power positions are allocated to the operating income of Integrated Power segment.

For the year ended December 31, 2023 (M$)	**Exploration & Production**	**Integrated LNG**	**Integrated Power**	**Refining & Chemicals**	**Marketing & Services**	**Corporate**	**Intercompany**	**Total**
Total expenditures	12,378	3,410	5,497	2,149	1,273	153	–	24,860
Total divestments	5,118	290	661	196	2,132	9	–	8,406
Cash flow from operating activities	**18,531**	**8,442**	**3,573**	**7,957**	**1,957**	**219**	**–**	**40,679**

For the year ended December 31, 2022 (M$)	**Exploration & Production**	**Integrated LNG**	**Integrated Power**	**Refining & Chemicals**	**Marketing & Services**	**Corporate**	**Intercompany**	**Total**
External sales	9,942	21,300	27,453	121,618	100,661	25	—	280,999
Intersegment sales	55,190	17,075	3,353	45,857	1,433	248	(123,156)	—
Excise taxes	—	—	—	(737)	(16,952)	—	—	(17,689)
Revenues from sales	**65,132**	**38,375**	**30,806**	**166,738**	**85,142**	**273**	**(123,156)**	**263,310**
Operating expenses	(24,521)	(29,982)	(29,217)	(156,897)	(81,746)	(1,329)	123,156	(200,536)
Depreciation, depletion and impairment of tangible assets and mineral interests	(8,115)	(1,208)	(194)	(1,533)	(1,033)	(138)	—	(12,221)
Net income (loss) from equity affiliates and other items	(9,943)	978	1,788	885	(20)	288	—	(6,024)
Tax on net operating income	(17,445)	(1,574)	(138)	(2,544)	(787)	281	—	(22,207)
Adjustments[(a)]	(12,371)	(4,580)	2,070	(653)	6	(362)	—	(15,890)
Adjusted net operating income	**17,479**	**11,169**	**975**	**7,302**	**1,550**	**(263)**	**—**	**38,212**
Adjustments[(a)]								(15,890)
Net cost of net debt								(1,278)
Non-controlling interests								(518)
NET INCOME - TotalEnergies SHARE								**20,526**

[(a)] Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

The management of balance sheet positions (including margin calls) related to centralized markets access for LNG, gas and power activities since 2022 has been fully included in the Integrated LNG segment.

Effects of changes in the fair value of gas and LNG positions are allocated to the operating income of Integrated LNG segment.

Effects of changes in the fair value of power positions are allocated to the operating income of Integrated Power segment.

For the year ended December 31, 2022 (M$)	**Exploration & Production**	**Integrated LNG**	**Integrated Power**	**Refining & Chemicals**	**Marketing & Services**	**Corporate**	**Intercompany**	**Total**
Total expenditures	10,646	1,249	5,226	1,391	1,186	104	—	19,802
Total divestments	807	2,301	1,126	214	222	16	—	4,686
Cash flow from operating activities	**27,654**	**9,604**	**66**	**8,663**	**3,124**	**(1,744)**	**—**	**47,367**

For the year ended December 31, 2021 (M$)	Exploration & Production	Integrated LNG	Integrated Power	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
External sales	7,246	14,903	15,801	87,600	80,288	25	—	205,863
Intersegment sales	34,896	6,862	1,325	27,637	451	254	(71,425)	—
Excise taxes	—	—	—	(1,108)	(20,121)	—	—	(21,229)
Revenues from sales	**42,142**	**21,765**	**17,126**	**114,129**	**60,618**	**279**	**(71,425)**	**184,634**
Operating expenses	(16,722)	(17,116)	(16,775)	(108,982)	(57,159)	(927)	71,425	(146,256)
Depreciation, depletion and impairment of tangible assets and mineral interests	(9,110)	(1,446)	(204)	(1,583)	(1,100)	(113)	—	(13,556)
Net income (loss) from equity affiliates and other items	(760)	2,935	(190)	518	108	45	—	2,656
Tax on net operating income	**(7,506)**	**(600)**	**(2)**	**(1,068)**	**(738)**	**152**	**—**	**(9,762)**
Adjustments[(a)]	(2,395)	(53)	(697)	1,105	111	(121)	—	(2,050)
Adjusted net operating income	**10,439**	**5,591**	**652**	**1,909**	**1,618**	**(443)**	**—**	**19,766**
Adjustments[(a)]								(2,050)
Net cost of net debt								(1,350)
Non-controlling interests								(334)
NET INCOME - TotalEnergies SHARE								**16,032**

(a) Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

For the year ended December 31, 2021 (M$)	Exploration & Production	Integrated LNG	Integrated Power	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Total expenditures	7,276	2,351	3,990	1,638	1,242	92	—	16,589
Total divestments	894	1,059	291	348	319	22	—	2,933
Cash flow from operating activities	**22,009**	**(2,765)**	**3,592**	**6,473**	**2,333**	**(1,232)**	**—**	**30,410**

B) Additional information on adjustment items

The main adjustment items for 2023 are the following:

1) An "Inventory valuation effect" amounting to $(694) million in net operating income for the Refining & Chemicals and Marketing & Services segments;
2) Non-recurring impairments and provisions of assets in the amount of $(2,297) million in net operating income (see Note 3.C "Asset impairment");
3) Capital gains on disposal for an amount of $2,047 million in net operating income generated in particular on the sale of the Company's assets in Canada for the Exploration-Production segment and on the sale of the TotalEnergies service station network in Germany for the Marketing & Services segment;
4) Other adjustment items include $388 million of revaluation of the previously held share of Total Eren and $(1,466) million mainly consisting of the impacts of the European solidarity contribution, the contribution on inframarginal annuity in France and the devaluation of the Argentine peso.

The detail of the adjustment items is presented in the table below.

Adjustments to net operating income

For the year ended December 31, 2023 (M$)	Exploration & Production	Integrated LNG	Integrated Power	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect	–	–	–	(586)	(108)	–	(694)
Effect of changes in fair value	–	(547)	559	–	–	–	12
Restructuring charges	–	–	(5)	(51)	–	–	(56)
Asset impairment and provisions charges	(926)	(124)	(773)	(359)	(115)	–	(2,297)
Gains (losses) on disposals of assets	431	–	–	–	1,616	–	2,047
Other items	(541)	(127)	46	(279)	(93)	(84)	(1,078)
TOTAL	**(1,036)**	**(798)**	**(173)**	**(1,275)**	**1,300**	**(84)**	**(2,066)**

Adjustments to net operating income

For the year ended December 31, 2022 (M$)	Exploration & Production	Integrated LNG	Integrated Power	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect	—	—	—	337	194	—	531
Effect of changes in fair value	—	340	798	—	—	—	1,138
Restructuring charges	—	—	(41)	—	(14)	—	(55)
Asset impairment and provisions charges[a]	(11,157)	(4,460)	(21)	—	(112)	(9)	(15,759)
Gains (losses) on disposals of assets	—	—	1,450	—	—	—	1,450
Other items	(1,214)	(460)	(116)	(990)	(62)	(353)	(3,195)
TOTAL	**(12,371)**	**(4,580)**	**2,070**	**(653)**	6	**(362)**	**(15,890)**

[a] Of which $(14,756) million relate to the impairment and provisions charges on the assets of the Company in Russia.

[b] Other items represented $(3.2) billion in 2022, consisting of $(1.7) billion related to windfall taxes levied by governments (European Solidarity Contribution, French Electricity Generation Infra-Marginal Income Contribution, effect on deferred tax of Energy Profits Levy in the United Kingdom), $(1) billion as a consequence of the conflict in Ukraine (grant of fuel discounts to French customers in the context of price increase, foreign exchange losses due to volatility in Russian ruble-U.S. dollar and euro exchange rates), and $(0.5) billion mainly related to provisions for onerous contracts.

Adjustments to net operating income

For the year ended December 31, 2021 (M$)	Exploration & Production	Integrated LNG	Integrated Power	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect	—	—	—	1,296	236	—	1,532
Effect of changes in fair value	—	254	(448)	—	—	—	(194)
Restructuring charges	(75)	(8)	(16)	(118)	(44)	(54)	(315)
Asset impairment and provisions charges	(518)	(291)	(41)	(42)	(40)	—	(932)
Gains (losses) on disposals of assets[a]	(1,726)	—	—	—	—	—	(1,726)
Other items	(76)	(8)	(192)	(31)	(41)	(67)	(415)
TOTAL	**(2,395)**	**(53)**	**(697)**	**1,105**	**111**	**(121)**	**(2,050)**

[a] Of which $(1,379) million relate to the impact of the TotalEnergies' interest sale of Petrocedeño to PDVSA.

C) Asset impairment

Accounting principles

The recoverable amounts of intangible assets and property, plant and equipment are tested for impairment as soon as any indication of impairment exists. This test is performed at least annually for goodwill.

The recoverable amount is the higher of the fair value (less costs to sell) or the value in use.

Assets are grouped into cash-generating units (or CGUs) and tested. A CGU is a homogeneous set of assets that generates cash inflows that are largely independent of the cash inflows from other groups of assets.

The value in use of a CGU is determined by reference to the discounted expected future cash flows of these assets, based upon Management's expectation of future economic and operating conditions. When this value is less than the carrying amount of the CGU, an impairment loss is recorded. This loss is allocated first to goodwill with a corresponding amount in "Other expense". Any further losses are then allocated to property, plant and mineral interests with a corresponding amount in "Depreciation, depletion and impairment of tangible assets and mineral interests" and to other intangible assets with a corresponding amount in "Other expense".

Impairment losses recognized in prior periods can be reversed up to the original carrying amount, had the impairment loss not been recognized. Impairment losses recognized on goodwill cannot be reversed.

Investments in associates or joint ventures are tested for impairment whenever indication of impairment exists. If any objective evidence of impairment exists, the carrying amount of the investment is compared with its recoverable amount, being the higher of its fair value less costs to sell and value in use. If the carrying amount exceeds the recoverable amount, an impairment loss is recorded in "Net income (loss) from equity affiliates".

For the financial year 2023, asset impairments were recorded for an amount of $(2,297) million in net operating income and $(2,166) million in net income, TotalEnergies share. These impairments were qualified as adjustment items of the net operating income and net income, TotalEnergies share.

Impairments relate to certain cash-generating units (CGUs) for which indicators of impairment have been identified, due to changes in operating conditions or the economic environment of the activities concerned.

Principles for determining value in use of a CGU

The principles applied in determining the recoverable amounts are as follows:

- The future cash flows were determined using the assumptions included in the 2024 budget and in the long-term plan of the Company approved by the Executive Committee and the Board of Directors. These assumptions, in particular including operational costs, estimation of oil and gas reserves, future volumes produced and marketed, represent the best estimate from the Company Management of economic and technical conditions over the remaining life of the assets.
- The Company, notably relying on data on global energy demand from the "World Energy Outlook" issued by the IEA since 2016, and on its own supply and demand assessments, determines oil & gas prices scenarios based on assumptions about the evolution of core indicators of the upstream activity (demand for hydrocarbons in different markets, investment forecasts, decline in production fields, changes in oil & gas reserves and supply by area and by nature of oil & gas products), of the downstream activity (changes in refining capacity and demand for petroleum products) and by integrating "climate" challenges.
- These price scenarios, first prepared within the Strategy & Markets Division, are also reviewed with the Company segments which bring their own expertise. They also integrate studies issued by international agencies, banks and independent consultants. They are then approved by the Executive Committee and the Board of Directors.
- The IEA 2023 World Energy Outlook anticipates three scenarios that are key references for the Company: the STEPS (Stated Policies Scenario) and APS (Announced Pledges Scenario) for the short/mid-term and the NZE (Net Zero Emissions by 2050) for the long-term.
- The STEPS only includes climate actions already implemented to date around the world and those under development. The APS also takes into account climate ambitions declared to date in the world, including the NDCs (Nationally Determined Contributions) and carbon neutrality ambitions. According to the IEA, it is associated with a temperature increase of around 1.7°C. This scenario is compatible with the objective of the Paris Agreement to limit the temperature increase to "well below 2°C".

  The IEA's NZE is understood as the set of actions to be taken to be compatible with a 1.5°C scenario in 2050 (without overshooting). This normative scenario does not predict oil demand in the short and medium term, and therefore the price scenarios it proposes, particularly in the short and medium term, do not include a "realistic" evolution of demand. In fact, this scenario predicts that oil demand will peak in 2023 and fall by 20% between 2022 and 2030, whereas, according to the latest projections from the IEA, oil demand in 2024 will be higher than in 2023 and will continue to grow until 2028. According to the projections of other energy companies and consultants, demand would rather being to decline toward 2030 (the Oil peak at Wood MacKenzie in 2032, at HIS inflections in 2028).
- Beyond the 2020-2030 decade, the oil price trajectory retained by the Company converges in the long term, to the price retained in 2050 by the IEA's NZE scenario, i.e 25.5_{2023}$/b. The prices retained for gas, the transition fuel, stabilize until 2040 at lower levels than the current prices and converge towards the IEA's NZE scenario prices in 2050.

The oil price trajectories adopted by the Company are based on the following assumptions:

- Oil demand has experienced sustained growth after the Covid crisis as the global economic recovery generated strong tensions on energy prices from mid-2021 onwards, which exacerbated in 2022 by the war in Ukraine. Despite the risks of recession in Europe in particular, global liquid demand in 2024 should be higher than in 2019 pre-crisis, notably due to the end of lockdown measures in China which allowed the restart of industrial activity. It should continue to grow until 2030, in a context of sustained growth in global energy demand. Indeed, population growth and rising living standards, particularly in emerging countries, should sustain oil consumption, despite the gradual electrification of transport and efficiency gains in combustion engines, mainly in developed countries.

In this context, prices would remain supported in the short term by historic production cuts decided (and implemented) by OPEC+ members. In the US, production in 2023 is expected to be higher than in 2019, and capacities for further growth in shale oil in subsequent years seem to be a consensus. However, recent sector consolidation (Permian, DJ and Bakken) should strengthen discipline on the profitability of these investments and thus contain growth. The price trajectory used reflects the Company's analysis that the weakness of investment oil upstream since 2015 oil crisis and accentuated by the health and economic crisis of 2020 (-30% according to the IEA), and the natural decline of fields currently in production, leads to a global supply-demand balance that will remain tight until 2030. Thus in the scenario used, the Brent price stabilizes at $\$70_{2023}$/b from 2025 to 2030. The developments observed in 2023, in particular the post-Covid demand recovery in China and the production cuts of OPEC+, justify this price level from 2025.

- Beyond 2030, given technological developments, particularly in the transport sector, oil demand should have reached its peak and the selected price scenario decreases linearly to reach $\$50_{2023}$/b in 2040 and then $\$25.5_{2023}$/b in 2050, in line with the NZE scenario.

The average Brent prices over the period 2024-2050 thus stands at $\$53.8_{2023}$/b.

For natural gas, the transition fuel, the price trajectory adopted by the Company is based on the following assumptions:

- Natural gas demand in 2021 has exceeded its pre-crisis level with very strong tensions on prices in Europe and, by extension, in Asia through LNG prices, as a result of the cuts in Russian pipe gas importation that began at the end of 2021 and continued in 2022 with the complete shutdown of the Nordstream. Global gas demand in 2022 was almost at the same level as in 2021. Global demand in 2023 is expectd to be at the same level as in 2022 with the recourse to American LNG to replace Russian gas in Europe, still in competition with Asia. Gas prices in Asia and Europe have returned to much lower levels than the exceptionally high prices reached in the third quarter of 2022 but remain higher than before the crisis. The price of gas in the United States did not experience such a sharp increase in 2022 and has since stabilized.

  The Company anticipates in 2024 higher prices than before the crisis on the Asia, Europe and slightly on the USA hubs. Thereafter, natural gas demand would be driven by the same fundamentals as oil (decrease in Europe but resistance in Asia-Pacific), plus its substitution for coal in power generation and by its role as a flexible and controllable source to mitigate the intermittent use and seasonality of renewable energies. The abundant global supply and the growth of liquefied natural gas would, however, limit the potential for higher gas prices. Beyond 2040, with the development of renewables including storage and hydrogen, gas demand is expected to stabilize.

In this context, the gas price level used to determine the value in use of the CGUs concerned is as follows:

On the NBP quotation (Europe): $\$14.7_{2023}$/Mbtu in 2024, $\$12.5_{2023}$/Mbtu in 2025, $\$10.2_{2023}$/Mbtu in 2026, then $\$8_{2023}$/Mbtu between 2027 and 2040.

On the Henry Hub quotation (United States): $\$3_{2023}$/Mbtu between 2024 and 2040.

On the DES Japan (Asia) quotation: $\$15.7_{2023}$/Mbtu in 2024, $\$13.5_{2023}$/Mbtu in 2025, $\$11.2_{2023}$/Mbtu in 2026, then $\$9_{2023}$/Mbtu between 2027 and 2040.

From 2040 onwards, the price trajectory converges towards the price retained in 2050 by the NZE scenario, i.e. $\$4.2_{2023}$/Mbtu for NBP, $\$2.0_{2023}$/Mbtu for Henry Hub and $\$5.4_{2023}$/Mbtu DES Japan (Asia).

The future operational costs were determined by taking into account the existing technologies, the fluctuation of prices for petroleum services in line with market developments and the internal cost reduction programs effectively implemented.

The determination of value in use also takes into account on all identified assets the impact of their CO2 emissions. Future scope 1 and 2 emissions of the assets concerned over the life of the assets are valued at $100/t or the applicable price in a given country, if it is higher. Beyond 2029, the CO_2 price is inflated by 2% per year.

The future cash flows are estimated over a period consistent with the life of the assets of the CGUs. They are prepared post-tax and take into account specific risks related to the CGUs' assets. They are discounted using an 8% post-tax discount rate, this rate being the weighted-average cost of TotalEnergies capital estimated from historical market data. This rate was 8% in 2022 and 7% in 2021. The value in use calculated by discounting the above post-tax cash flows using an 8% post-tax discount rate is not materially different from the value in use calculated by discounting pre-tax cash flows using a pre-tax discount rate determined by an iterative computation from the post-tax value in use. These pre-tax discount rates generally range from 7% to 14%.

Impairment losses recognized by segment

The CGUs of the Exploration & Production segment are defined as oil and gas fields or groups of oil and gas fields with industrial assets enabling the production, treatment and evacuation of the oil and gas. For the financial year 2023, the Company recorded impairments of assets over CGUs of the Exploration & Production segment for $(881) million in net income, TotalEnergies share.

Impairments recognized in 2023 mainly relate to the Company's assets in Kenya, Congo and for Al Shaheen in Qatar related to temporal tax effects.

As for sensitivities of the Exploration & Production segment:

- a decrease by 1 point in the discount rate would have a positive impact of $0.1 billion in net income, TotalEnergies share.
- an increase by 1 point in the discount rate would have an additional negative impact of approximately $0.6 billion in net income, TotalEnergies share.
- a decrease of 10% of the oil and gas prices over the duration of the plan (thus an average oil price of around $\$48_{2023}$/b) would have an additional negative impact of approximately $0.6 billion in net income, TotalEnergies share.
- a decrease of 20% of the oil and gas prices over the duration of the plan (thus an average oil price of around $\$43_{2023}$/b) would have an additional negative impact of approximately $2.3 billion in net income, TotalEnergies share.
- Taking into account a CO_2 cost of $200/t, inflated by 2%/year from 2029 onwards for all assets would have an additional negative impact of approximately $0.2 on net income, TotalEnergies share.

The CGUs of the Integrated LNG segment are subsidiaries or groups of subsidiaries organized by activity or geographical area, and by fields or groups of fields for upstream LNG activities. For the financial year 2023, the Company recorded impairments on CGUs in the Integrated LNG segment for $(124) million in net income, TotalEnergies share.

As for sensitivities of the Integrated LNG:

- a decrease by 1 point in the discount rate would have a positive impact of $0.1 billion in net income, TotalEnergies share.

- an increase by 1 point in the discount rate would have an additional negative impact of approximately $1.1 billion in net income, TotalEnergies share.
- a decrease of 10% of the oil and gas prices over the duration of the plan would have an additional negative impact of approximately $2.1 billion in net income, TotalEnergies share.
- a decrease of 20% of the oil and gas prices over the duration of the plan would have an additional negative impact of approximately $5.6 billion in net income, TotalEnergies share.
- Taking into account a CO_2 cost of $200/t inflated by 2%/year from 2029 onwards for all assets would have an additional negative impact of approximately $0.8 billion in net income, TotalEnergies share.

The CGUs of the Integrated Power segment are subsidiaries or groups of subsidiaries organized by activity or geographical area. For the financial year 2023, the Company recorded impairments on CGUs in the Integrated Power segment for $(773) million in net income, TotalEnergies share.

Impairments recognized in 2023 mainly relate to the offshore wind project in Yunlin, Taiwan, and the goodwill and customer portfolios of gas and power marketing activities in Belgium, Spain and France.

As for sensitivities of the Integrated Power:

- a decrease by 1 point in the discount rate would have no impact in net income, TotalEnergies share.
- an increase by 1 point in the discount rate would have an additional negative impact of approximately $0.2 billion in net income, TotalEnergies share.

The CGUs of the Refining & Chemicals segment are defined as legal entities with operational activities for refining and petrochemicals activities. Future cash flows are based on the gross contribution margin (calculated on the basis of net sales after purchases of crude oil and refined products, the effect of inventory valuation and variable costs). The other activities of the segment are global divisions, each division gathering a set of businesses or homogeneous products for strategic, commercial and industrial plans. Future cash flows are determined from the specific margins of these activities, unrelated to the price of oil.

For the financial year 2023, the Company has recorded impairments on CGUs in the Refining & Chemicals segment for an amount of $(273) million in net income TotalEnergies share, mainly relating to divestments projects of Naphtachimie to INEOS and the Natref refinery in South Africa.

As for sensitivities of the Refining & Chemicals segment:

- an increase by 1 point in the discount rate would have an additional negative impact of $0.1 billion in net income, TotalEnergies share.
- a decrease of 10% of the refining margins (could be in link with the increase of CO_2 cost) would have a negative impact of approximately of $0.6 billion in net income, TotalEnergies share.

The most sensitive assets would be the refining assets in France.

The CGUs of the Marketing & Services segment are subsidiaries or groups of subsidiaries organized by geographical area.

For the financial year 2023, the Company recorded impairments on the CGUs of the Marketing & Services segment for $(115) million in net income, TotalEnergies share.

Impairments recognized in years 2022 and 2021

For the financial year 2022, the Company recorded impairments in Exploration & Production, Integrated Gas, Renewables & Power and Marketing & Services segments for an amount of $(15,743) million in net income, TotalEnergies share.

Impairments recognized in 2022 in Exploration & Production segment relate to the Company's assets in Russia for an amount of $(10,527) million in net income TotalEnergies share, mainly relating to the investment in Novatek.

They also take into account the impairment of the North Platte project assets for $(957) million in net income, TotalEnergies share, following the Company's decision announced in February not to sanction and so to withdraw from this deepwater project in the Gulf of Mexico.

The impairments recognized also include a reversal of impairment on the Company's assets in Canada. In the context of the project to spin-off the Company's upstream activities in Canada, an impairment test was carried out, and the resulting value in use led to a reversal of impairment of $728 million in net income, TotalEnergies share.

Impairments recognized in 2022 on CGUs in the Integrated Gas, Renewables & Power segment for $(4,481) million in net income, TotalEnergies share. Impairments recognized relate to the Company's assets in Russia for an amount of $(4,142) million in net income, TotalEnergies share, notably concerning Arctic LNG 2.

Impairments recognized in 2022 in CGUs Marketing & Services segment for $(112) million in net income, TotalEnergies share. Impairments recognized relate to the Company's assets in Russia for an amount $(87) million in net income, TotalEnergies share.

These impairments were qualified as adjustments items of the net income, TotalEnergies share.

For the financial year 2021, the Company recorded impairments in Exploration & Production, Integrated Gas, Renewables & Power, Refining & Chemicals and Marketing & Services segments for an amount of $(910) million in net income, TotalEnergies share.

These impairments were qualified as adjustments items of the net income, TotalEnergies share.

Note 4 Segment Information by geographical area

(M$)	France	Rest of Europe	North America	Africa	Rest of the world	Total
For the year ended December 31, 2023						
External sales	55,610	97,662	22,219	21,709	39,928	**237,128**
Property, plant and equipment, intangible assets, net	16,863	24,486	11,228	38,658	50,764	**141,999**
Capital expenditures	4,166	3,757	3,153	4,877	8,907	**24,860**
For the year ended December 31, 2022						
External sales	58,411	122,641	33,188	24,582	42,177	**280,999**
Property, plant and equipment, intangible assets, net	13,080	26,382	13,292	39,410	46,867	**139,032**
Capital expenditures	1,632	2,743	5,304	3,253	6,870	**19,802**
For the year ended December 31, 2021						
External sales	43,316	85,072	22,998	19,520	34,957	**205,863**
Property, plant and equipment, intangible assets, net	14,204	29,660	12,229	41,593	41,357	**139,043**
Capital expenditures	2,157	3,027	1,680	3,696	6,029	**16,589**

Note 5 Main items related to operating activities

Items related to the statement of income

5.1 Net sales

Accounting principles

IFRS 15 requires identification of the performance obligations for the transfer of goods and services in each contract with customers. Revenue is recognized upon satisfaction of the performance obligations for the amounts that reflect the consideration to which TotalEnergies expects to be entitled in exchange for those goods and services.

Sales of goods

Revenues from sales are recognized when the control has been transferred to the buyer and the amount can be reasonably measured. Revenues from sales of crude oil and natural gas are recorded upon transfer of title, according to the terms of the sales contracts.

Revenues from the production of crude oil and natural gas properties, in which TotalEnergies has an interest with other producers, are recognized based on actual entitlement volumes sold over the period. Any difference between entitlement volumes and volumes sold, based on TotalEnergies net working interest, are recognized in the "Under-lifting" and "Over-lifting" accounts in the balance sheet and in operating expenses in the profit and loss.

Oil and gas delivered quantities that represent production royalties and taxes, when paid in cash, are included in revenues, except for the United States and Canada.

Certain transactions within the trading activities (contracts involving quantities that are purchased from third parties then resold to third parties) are shown at their net value in purchases, net of inventory variation. These transactions relate in particular to crude oil, petroleum products, gas, power and LNG.

Exchanges of crude oil and petroleum products realized within trading activities are shown at their net value in both the statement of income and the balance sheet.

Sales of services

Revenues from services are recognized when the services have been rendered.

Revenues from gas transport are recognized when services are rendered. These revenues are based on the quantities transported and measured according to procedures defined in each service contract.

Shipping revenues and expenses from time-charter activities are recognized on a pro rata basis over a period that commences upon the unloading of the previous voyage and terminates upon the unloading of the current voyage. Shipping revenue recognition starts only when a charter has been agreed to by both TotalEnergies and the customer.

Income related to the distribution of electricity and gas is not recognized in revenues in certain countries because TotalEnergies acts as an agent in this transaction. In these countries, TotalEnergies is not responsible for the delivery and does not set the price of the service, because it can only pass on to the customer the amounts invoiced to it by the distributors.

Excise taxes

Excise taxes are rights or taxes which amount is calculated based on the quantity of oil and gas products put on the market. Excise taxes are determined by the states. They are paid directly to the customs and tax authorities and then invoiced to final customers by being included in the sales price.

The analysis of the criteria set by IFRS 15 led TotalEnergies to determine that it was acting as principal in these transactions. Therefore, sales are presented on a gross basis, including excise taxes collected by TotalEnergies within the course of its oil distribution operations. In addition, the subtotal "Revenue from sales" is presented as an additional line item in the P&L and is obtained by deducting Excise tax expenses from Sales.

5.2 Operating expenses and research and development

Accounting principles

TotalEnergies applies IFRS 6 "Exploration for and Evaluation of Mineral Resources". Oil and gas exploration and production properties and assets are accounted for in accordance with the Successful Efforts method.

Geological and geophysical costs, including seismic surveys for exploration purposes are expensed as incurred in exploration costs.

Costs of dry wells and wells that have not found proved reserves are charged to expense in exploration costs.

5.2.1 Operating expenses

For the year ended December 31, (M$)	2023	2022	2021
Purchases, net of inventory variation [(a)] [(b)]	(143,041)	(169,448)	(118,622)
Exploration costs	(573)	(1,299)	(740)
Other operating expenses [(c)]	(30,419)	(29,789)	(26,894)
of which non-current operating liabilities (allowances) reversals	*821*	*1,086*	*1,299*
of which current operating liabilities (allowances) reversals	*(92)*	*(188)*	*(30)*
OPERATING EXPENSES	**(174,033)**	**(200,536)**	**(146,256)**

(a) Includes taxes paid on oil and gas production in the Exploration & Production segment, amongst others, royalties.
(b) TotalEnergies values under / over lifting at market value.
(c) Principally composed of production and administrative costs (refer to in particular the payroll costs as detailed in Note 10 to the Consolidated Financial Statements “Payroll, staff and employee benefits obligations”).

5.2.2 Research and development costs

Accounting principles

Research costs are charged to expense as incurred.

Development expenses are capitalized when the criteria of IAS 38 are met.

Research and development costs incurred by TotalEnergies in 2023 and booked in operating expenses (excluding depreciations) amount to $774 million ($762 million in 2022 and $824 million in 2021), corresponding to 0.33% of the sales.

In 2023 3,687 people are dedicated to these research and development activities (3,536 in 2022 and 3,830 in 2021).

5.3 Amortization, depreciation and impairment of tangible assets and mineral interests

The amortization, depreciation and impairment of tangible assets and mineral interests are detailed as follows:

For the year ended December 31, (M$)	2023	2022	2021
Depreciation and impairment of tangible assets	(11,902)	(11,128)	(12,683)
Amortization and impairment of mineral assets	(860)	(1,093)	(873)
TOTAL	**(12,762)**	**(12,221)**	**(13,556)**

Items related to balance sheet

5.4 Working capital

5.4.1 Inventories

Accounting principles

Inventories are measured in the Consolidated Financial Statements at the lower of historical cost or market value. Costs for petroleum and petrochemical products are determined according to the FIFO (First-In, First-Out) method or weighted-average cost method and other inventories are measured using the weighted-average cost method.

In addition stocks held for trading are measured at fair value less cost to sell.

Refining & Chemicals

Petroleum product inventories are mainly comprised of crude oil and refined products. Refined products principally consist of gasoline, distillate and fuel produced by TotalEnergies' refineries. The turnover of petroleum products does not exceed two months on average.

Crude oil costs include raw material and receiving costs. Refining costs principally include crude oil costs, production costs (energy, labor, depreciation of producing assets) and an allocation of production overheads (taxes, maintenance, insurance, etc.).

Costs of chemical product inventories consist of raw material costs, direct labor costs and an allocation of production overheads. Start-up costs, general administrative costs and financing costs are excluded from the costs of refined and chemicals products.

Marketing & Services

The costs of products refined by TotalEnergies' entities include mainly raw materials costs, production costs (energy, labor, depreciation of producing assets), primary costs of transport and an allocation of production overheads (taxes, maintenance, insurance, etc.).

General administrative costs and financing costs are excluded from the cost price of products.

Product inventories purchased from entities external to TotalEnergies are valued at their purchase cost plus primary costs of transport.

Carbon dioxide emission rights generated as part of the EU Emission Trading scheme (EU ETS)

In the absence of a current IFRS standard or interpretation on accounting for emission rights of carbon dioxide generated as part of the EU Emission Trading scheme (EU ETS), the following principles are applied:

- Emission rights are managed as a cost of production and as such are recognized in inventories:
  - Emission rights allocated for free are booked in inventories with a nil carrying amount;
  - Purchased emission rights are booked at acquisition cost;
  - Sales or annual surrender of emission rights result in decreases in inventories valued at weighted-average cost;
  - If the carrying amount of inventories at closing date is higher than the market value, an impairment loss is recorded.
- If emission rights to be surrendered at the end of the compliance period are higher than emission rights (allocated and purchased), the shortage is accounted for as a liability at market value;
- Forward transactions are recognized at their fair market value in the balance sheet. Changes in the fair value of such forward transactions are recognized in the statement of income.

Energy savings certificates

In the absence of current IFRS standards or interpretations on accounting for energy savings certificates (ESC), the following principles are applied:

- If the obligations linked to the sales of energy are greater than the number of ESC's held then a liability is recorded. These liabilities are valued based on the price of the last transactions;
- In the event that the number of ESC's held exceeds the obligation at the balance sheet date this is accounted for as inventory. Otherwise a valuation allowance is recorded;
- ESC inventories are valued at weighted-average cost (acquisition cost for those ESC's acquired or cost incurred for those ESC's generated internally).

If the carrying value of the inventory of certificates at the balance sheet date is higher than the market value, an impairment loss is recorded.

As of December 31, 2023 (M$)	Gross value	Valuation allowance	Net value
Crude oil and natural gas	3,334	(152)	3,182
Refined products	5,335	(141)	5,194
Chemicals products	1,668	(97)	1,571
Trading inventories	6,158	–	6,158
Other inventories	4,248	(1,036)	3,212
TOTAL	**20,743**	**(1,426)**	**19,317**

As of December 31, 2022 (M$)	Gross value	Valuation allowance	Net value
Crude oil and natural gas	4,758	(47)	4,711
Refined products	6,386	(162)	6,224
Chemicals products	1,635	(93)	1,542
Trading inventories	6,672	–	6,672
Other inventories	4,797	(1,010)	3,787
TOTAL	**24,248**	**(1,312)**	**22,936**

As of December 31, 2021 (M$)	Gross value	Valuation allowance	Net value
Crude oil and natural gas	3,221	(7)	3,214
Refined products	5,411	(50)	5,361
Chemicals products	1,519	(98)	1,421
Trading inventories	6,501	–	6,501
Other inventories	4,538	(1,083)	3,455
TOTAL	**21,190**	**(1,238)**	**19,952**

Changes in the valuation allowance on inventories are as follows:

For the year ended December 31, (M$)	Valuation allowance as of January 1,	Increase (net)	Currency translation adjustment and other variations	Valuation allowance as of December 31,
2023	**(1,312)**	**(92)**	**(22)**	**(1,426)**
2022	(1,238)	(121)	47	(1,312)
2021	(1,285)	(36)	83	(1,238)

5.4.2 Accounts receivable and other current assets

As of December 31, 2023 (M$)	Gross value	Valuation allowance	Net value
Accounts receivable	**24,334**	**(892)**	**23,442**
Recoverable taxes	4,085	(7)	4,078
Other operating receivables	15,218	(266)	14,952
Prepaid expenses	1,731	–	1,731
Other current assets	60	–	60
Other current assets	**21,094**	**(273)**	**20,821**

As of December 31, 2022 (M$)	Gross value	Valuation allowance	Net value
Accounts receivable	**25,204**	**(826)**	**24,378**
Recoverable taxes	6,295	(32)	6,263
Other operating receivables	28,582	(293)	28,289
Prepaid expenses	1,455	–	1,455
Other current assets	63	–	63
Other current assets	**36,395**	**(325)**	**36,070**

As of December 31, 2021 (M$)	Gross value	Valuation allowance	Net value
Accounts receivable	**22,776**	**(793)**	**21,983**
Recoverable taxes	3,713	(54)	3,659
Other operating receivables	29,767	(214)	29,553
Prepaid expenses	1,879	–	1,879
Other current assets	53	–	53
Other current assets	**35,412**	**(268)**	**35,144**

Changes in the valuation allowance on “Accounts receivable” and “Other current assets” are as follows:

For the year ended December 31, (M$)	Valuation allowance as of January 1,	Increase (net)	Currency translation adjustments and other variations	Valuation allowance as of December 31,
Accounts receivable				
2023	**(826)**	**(82)**	**16**	**(892)**
2022	(793)	(98)	65	(826)
2021	(831)	(24)	62	(793)
Other current assets				
2023	**(325)**	**(7)**	**59**	**(273)**
2022	(268)	(83)	26	(325)
2021	(275)	(10)	17	(268)

As of December 31, 2023, the net portion of the overdue receivables included in “Accounts receivable” and “Other current assets” was $5,903 million, of which $3,211 million was due less than 90 days, $420 million was due between 90 days and 6 months, $993 million was due between 6 and 12 months and $1,278 million was due after 12 months.

As of December 31, 2022, the net portion of the overdue receivables included in “Accounts receivable” and “Other current assets” was $5,481 million, of which $3,328 million was due less than 90 days, $672 million was due between 90 days and 6 months, $571 million was due between 6 and 12 months and $910 million was due after 12 months.

As of December 31, 2021, the net portion of the overdue receivables included in “Accounts receivable” and “Other current assets” was $4,482 million, of which $2,844 million was due less than 90 days, $260 million was due between 90 days and 6 months, $556 million was due between 6 and 12 months and $823 million was due after 12 months.

5.4.3 Other creditors and accrued liabilities

As of December 31, (M$)	2023	2022	2021
Accruals and deferred income	1,129	737	3,744
Payable to States (including taxes and duties)	13,974	14,780	10,281
Payroll	1,687	1,572	1,481
Other operating liabilities	19,937	35,186	27,294
TOTAL	**36,727**	**52,275**	**42,800**

As of December 31, 2023, the heading “Other operating liabilities” notably includes the second quarterly interim dividend for the fiscal year 2023 for $1,959 million, which was paid in January 2024 and the third quarterly interim dividend for the fiscal year 2023 for $1,923 million, which will be paid in April 2024.

As of December 31, 2022, the heading “Other operating liabilities” notably included the second quarterly interim dividend for the fiscal year 2022 for $1,857 million, which was paid in January 2023 and the third quarterly interim dividend for the fiscal year 2022 for $1,827 million, which was paid in April 2023.

As of December 31, 2021, the heading “Other operating liabilities” notably included the second quarterly interim dividend for the fiscal year 2021 for $1,974 million, which was paid in January 2022 and the third quarterly interim dividend for the fiscal year 2021 for $1,948 million, which was paid in April 2022.

Items related to the cash flow statement

5.5 Cash flow from operating activities

Accounting principles

The cash flows incurred in currencies other than dollar has been translated into dollars using the exchange rate on the transaction date or the average exchange rate for the period. Currency translation differences arising from the translation of monetary assets and liabilities denominated in foreign currency into dollars using the closing exchange rates are shown in the consolidated statement of cash flows under "Effect of exchange rates". Therefore, the consolidated statement of cash flows will not agree with the figures derived from the consolidated balance sheet.

The following table gives additional information on cash paid or received in the cash flow from operating activities.

Detail of interest, taxes and dividends

For the year ended December 31, (M$)	2023	2022	2021
Interests paid	(2,883)	(2,292)	(1,886)
Interests received	1,431	655	284
Income tax paid[(a)]	(12,688)	(14,486)	(4,508)
Dividends received	2,821	3,955	2,346

(a) These amounts include taxes paid in kind under production-sharing contracts in exploration and production activities.

Detail of changes in working capital

For the year ended December 31, (M$)	2023	2022	2021
Inventories	3,159	(3,805)	(5,903)
Accounts receivable	306	(3,272)	(6,788)
Other current assets	14,860	(3,523)	(21,026)
Accounts payable	572	5,313	12,073
Other creditors and accrued liabilities	(12,806)	6,478	21,028
NET AMOUNT, DECREASE (INCREASE)	**6,091**	**1,191**	**(616)**

Detail of changes in provisions and deferred taxes

As of December 31, (M$)	2023	2022	2021
Accruals	257	2,177	(467)
Deferred taxes	556	2,417	1,429
TOTAL	**813**	**4,594**	**962**

Note 6 Other items from operating activities

6.1 Other income and other expense

For the year ended December 31, (M$)	2023	2022	2021
Gains on disposal of assets	3,157	2,244	890
Foreign exchange gains	–	379	227
Other	520	226	195
OTHER INCOME	**3,677**	**2,849**	**1,312**
Losses on disposal of assets	(98)	(2,613)	(436)
Foreign exchange losses	(763)	(1,023)	(702)
Amortization of other intangible assets (excl. mineral interests)	(769)	(430)	(448)
Other	(766)	(3,278)	(731)
OTHER EXPENSE	**(2,396)**	**(7,344)**	**(2,317)**

Other income

In 2023, gains on disposal of assets are mainly related to the disposal of the retail network in Germany in the Marketing & Services segment, to the sale of the 50% participation in the Surmont asset and the disposal of TotalEnergies EP Canada Ltd shares in the segment Exploration & Production. The "Other" heading notably includes a revaluation of $388 million from the previously held share of Total Eren.

In 2022, gains on disposal of assets were mainly related to the partial disposal of TotalEnergies' interest in its subsidiary which owns 50.5% of SunPower and the revaluation of its retained interest which is accounted for using the equity method for $1,461 million in the segment Integrated Power.

In 2021, gains on disposal of assets included the sale of interests in onshore Oil Mining Lease 17 in Nigeria in the Exploration & Production segment, the sale of interests in two portfolios of renewable assets in the Integrated LNG and Integrated Power segments, and the sale of a part of TotalEnergies' investment in Trapil in the Refining & Chemicals and Marketing & Services segments.

Other expense

In 2023, the heading "Other" mainly consists in impairments related to the Yunlin offshore wind project in Taiwan in the segment Integrated Power and to the divestment project of Natref refinery in South Africa in the segment Refining & Chemicals. In 2022, losses on disposal were mainly related to the recycling in expenses of Exploration & Production, of an amount of $2,384 million representing the accumulated foreign exchange losses accumulated in equity since the acquisition of the Novatek stake and until its deconsolidation date. The heading "Other" notably includes provisions relating to assets in Russia in the Integrated LNG and Exploration & Production segments.

In 2021, losses on disposal were mainly related to the sale of the Utica asset in the United States as well as the sale of interests in non - operated assets and the Cap Lopez oil terminal in Gabon in the Exploration & Production segment. The heading "Other" mainly consists of the restructuring charges in the Exploration & Production, Refining & Chemicals, Marketing & Services and Holding segments for an amount of $288 million, and of the impairment of non - consolidated shares and provision for financial risks for $238 million.

6.2 Other financial income and expense

As of December 31, (M$)	**2023**	**2022**	**2021**
Dividend income on non-consolidated subsidiaries	143	159	203
Capitalized financial expenses	667	310	134
Other	475	427	425
OTHER FINANCIAL INCOME	**1,285**	**896**	**762**
Accretion of asset retirement obligations	(524)	(430)	(449)
Other	(207)	(103)	(90)
OTHER FINANCIAL EXPENSE	**(731)**	**(533)**	**(539)**

6.3 Other non-current assets

As of December 31, 2023 (M$)	**Gross value**	**Valuation allowance**	**Net value**
Loans and advances [a]	2,516	(294)	2,222
Other non-current financial assets related to operational activities	1,761	–	1,761
Other	330	–	330
TOTAL	**4,607**	**(294)**	**4,313**

As of December 31, 2022 (M$)	**Gross value**	**Valuation allowance**	**Net value**
Loans and advances [a]	2,092	(255)	1,837
Other non-current financial assets related to operational activities	250	—	250
Other	301	—	301
TOTAL	**2,643**	**(255)**	**2,388**

As of December 31, 2021 (M$)	**Gross value**	**Valuation allowance**	**Net value**
Loans and advances [a]	2,364	(257)	2,107
Other non-current financial assets related to operational activities	312	—	312
Other	378	—	378
TOTAL	**3,054**	**(257)**	**2,797**

(a) Excluding loans to equity affiliates.

Changes in the valuation allowance on loans and advances are detailed as follows:

For the year ended December 31, (M$)	**Valuation allowance as of January 1,**	**Increases**	**Decreases**	**Currency translation adjustment and other variations**	**Valuation allowance as of December 31,**
2023	**(255)**	**(11)**	**2**	**(30)**	**(294)**
2022	(257)	(27)	11	18	(255)
2021	(273)	(6)	14	8	(257)

Note 7 Intangible and tangible assets

7.1 Intangible assets

Accounting principles

Goodwill

Guidance for measuring goodwill is presented in Note 1.1 paragraph B to the Consolidated Financial Statements. Goodwill is not amortized but is tested for impairment at least annually and as soon as there is any indication of impairment.

Mineral interests

Unproved mineral interests are tested for impairment based on the results of the exploratory activity or as part of the impairment tests of the cash-generating units to which they are allocated.

Unproved mineral interests are transferred to proved mineral interests at their net book value as soon as proved reserves are booked.

Proved mineral interests are depreciated using the unit-of-production method based on proved reserves.

The corresponding expense is recorded as depreciation of tangible assets and mineral interests.

Other intangible assets

Other intangible assets include patents, and trademarks.

Intangible assets are carried at cost, after deducting any accumulated amortization and accumulated impairment losses.

Intangible assets (excluding mineral interests) that have a finite useful life are amortized on a straight-line basis over three to twenty years depending on the useful life of the assets. The corresponding depreciation expense is recorded under “Other expense”.

As of December 31, 2023 (M$)	Cost	Amortization and impairment	Net
Goodwill	10,484	(533)	9,951
Proved mineral interests	17,713	(9,704)	8,009
Unproved mineral interests	14,976	(2,624)	12,352
Other intangible assets	7,354	(4,583)	2,771
TOTAL INTANGIBLE ASSETS	**50,527**	**(17,444)**	**33,083**

As of December 31, 2022 (M$)	Cost	Amortization and impairment	Net
Goodwill	9,010	(360)	8,650
Proved mineral interests	18,025	(10,088)	7,937
Unproved mineral interests	15,962	(2,946)	13,016
Other intangible assets	6,795	(4,467)	2,328
TOTAL INTANGIBLE ASSETS	**49,792**	**(17,861)**	**31,931**

As of December 31, 2021 (M$)	Cost	Amortization and impairment	Net
Goodwill	9,728	(899)	8,829
Proved mineral interests	17,382	(9,730)	7,652
Unproved mineral interests	16,637	(2,831)	13,806
Other intangible assets	7,185	(4,988)	2,197
TOTAL INTANGIBLE ASSETS	**50,932**	**(18,448)**	**32,484**

Change in net intangible assets is analyzed in the following table:

(M$)	Net amount as of January 1,	Expenditures	Disposals	Amortization and impairment	Currency translation adjustment	Other	Net amount as of December 31,
2023	**31,931**	**1,244**	**(458)**	**(1,630)**	**148**	**1,848**	**33,083**
2022	32,484	1,991	(75)	(1,582)	(423)	(464)	31,931
2021	33,528	696	(271)	(1,322)	(394)	247	32,484

In 2023, the heading “Amortization and impairment” includes the accounting impact of exceptional asset impairments for an amount of $472 million (see Note 3.C “Asset impairment”), related in particular to goodwill and customer portfolios of gas and power marketing activities in Belgium, Spain and France.

In 2023, the heading “Other” mainly reflects changes in the consolidation scope, in particular the acquisition of Total Eren for $2,238 million.

In 2022, the heading “Amortization and impairment” included the accounting impact of exceptional asset impairments for an amount of $301 million, resulting in particular from the withdrawal from the North Platte project in the deep waters of the Gulf of Mexico (see Note 3.C “Asset impairment”).

In 2022, the heading “Other” mainly reflected changes in the consolidation scope (in particular the removal of SunPower from the scope of consolidation for $167 million).

In 2021, the heading “Amortization and impairment” included the accounting impact of exceptional asset impairments for an amount of $253 million, notably relating to the end of the Qatargas 1 licence agreement and unconventional assets in the United States (see Note 3.C “Asset impairment”).

In 2021, the heading “Other” mainly reflected changes in the consolidation scope (including the acquisition of Blue Raven Solar for $140 million and Fonroche Biogaz) for $89 million.

A summary of changes in the carrying amount of goodwill by business segment for the year ended December 31, 2023 is as follows:

(M$)	Net goodwill as of January 1, 2023	Increases	Impairments	Other	Net goodwill as of December 31, 2023
Exploration & Production	2,581	–	-	(90)	2,491
Integrated LNG	2,804	44	–	9	2,857
Integrated Power	2,219	1,452	(101)	96	3,666
Refining & Chemicals	502	19	(18)	35	538
Marketing & Services	516	–	(65)	(55)	396
Corporate	28	–	–	(25)	3
TOTAL	**8,650**	**1,515**	**(184)**	**(30)**	**9,951**

7.2 Property, plant and equipment

Accounting principles

Exploration costs

TotalEnergies applies IFRS 6 “Exploration for and Evaluation of Mineral Resources”. Oil and gas exploration and production properties and assets are accounted for in accordance with the Successful Efforts method.

Exploratory wells are capitalized and tested for impairment on an individual basis as follows:

- Costs of exploratory wells which result in proved reserves are capitalized and then depreciated using the unit-of-production method based on proved developed reserves;
- Costs of exploratory wells are capitalized as work in progress until proved reserves have been found, if both of the following conditions are met:
  - The well has found a sufficient quantity of reserves to justify, if appropriate, its completion as a producing well, assuming that the required capital expenditures are made;
  - TotalEnergies is making sufficient progress assessing the reserves and the economic and operating viability of the project. This progress is evaluated on the basis of indicators such as whether additional exploratory works are under way or firmly planned (wells, seismic or significant studies), whether costs are being incurred for development studies and whether TotalEnergies is waiting for governmental or other third-party authorization on a proposed project, or availability of capacity on an existing transport or processing facility.

Costs of exploratory wells not meeting these conditions are charged to Exploration costs.

Oil and Gas production assets of exploration and production activities

Development costs of oil and gas production facilities are capitalized. These costs include borrowing costs incurred during the period of construction and the present value of estimated future costs of asset retirement obligations.

The depletion rate of development wells and of production assets is equal to the ratio of oil and gas production for the period to proved developed reserves (unit-of-production method).

In the event that, due to the price effect on reserves evaluation, the unit-of-production method does not reflect properly the useful life of the asset, an alternative depreciation method is applied based on the reserves evaluated with the price of the previous year. As of December 31, 2023, 2022 and 2021, this alternative method is not applied as, given the price used to assess the reserves, the unit-of-production method correctly reflects the useful life of the assets.

With respect to phased development projects or projects subject to progressive well production start-up, the fixed assets’ depreciable amount, excluding production or service wells, is adjusted to exclude the portion of development costs attributable to the undeveloped reserves of these projects.

With respect to production sharing contracts, the unit-of-production method is based on the portion of production and reserves assigned to TotalEnergies taking into account estimates based on the contractual clauses regarding the reimbursement of exploration, development and production costs (cost oil/gas) as well as the sharing of hydrocarbon rights after deduction of cost oil (profit oil/gas).

Hydrocarbon transportation and processing assets are depreciated using the unit-of-production method based on throughput or by using the straight-line method whichever best reflects the economic life of the asset.

Other property, plant and equipment

Other property, plant and equipment are carried at cost, after deducting any accumulated depreciation and accumulated impairment losses. This cost includes borrowing costs directly attributable to the acquisition or production of a qualifying asset incurred until assets are placed in service. Borrowing costs are capitalized as follows:

- if the project benefits from a specific funding, the capitalization of borrowing costs is based on the borrowing rate;
- if the project is financed by all TotalEnergies’ debt, the capitalization of borrowing costs is based on the weighted average borrowing cost for the period.

Routine maintenance and repairs are charged to expense as incurred. The costs of major turnarounds of refineries and large petrochemical units are capitalized as incurred and depreciated over the period of time between two consecutive major turnarounds.

Other property, plant and equipment are depreciated using the straight-line method over their useful lives, which are as follows:

● Furniture, office equipment, machinery and tools	3-12 years
● Transportation equipment	5-20 years
● Storage tanks and related equipment	10-15 years
● Specialized complex installations and pipelines	10-30 years
● Buildings	10-50 years

As of December 31, 2023 (M$)	Cost	Depreciation and impairment	Net
Property, plant and equipment of exploration and production activities			
Proved properties	201,961	(144,082)	57,879
Unproved properties	1,455	(268)	1,187
Work in progress	23,729	(443)	23,286
Subtotal	**227,145**	**(144,793)**	**82,352**
Other property, plant and equipment			
Land	2,837	(1,008)	1,829
Machinery, plant and equipment (including transportation equipment)	38,769	(27,222)	11,547
Buildings	9,529	(6,105)	3,424
Work in progress	5,262	(23)	5,239
Other	12,344	(7,819)	4,525
Subtotal	**68,741**	**(42,177)**	**26,564**
TOTAL PROPERTY, PLANT AND EQUIPMENT	**295,886**	**(186,970)**	**108,916**

As of December 31, 2022 (M$)	Cost	Depreciation and impairment	Net
Property, plant and equipment of exploration and production activities			
Proved properties	210,079	(146,571)	63,508
Unproved properties	1,023	(268)	755
Work in progress	20,294	(688)	19,606
Subtotal	**231,396**	**(147,527)**	**83,869**
Other property, plant and equipment			
Land	3,089	(1,039)	2,050
Machinery, plant and equipment (including transportation equipment)	37,002	(26,079)	10,923
Buildings	10,230	(6,627)	3,603
Work in progress	3,960	(23)	3,937
Other	10,401	(7,682)	2,719
Subtotal	**64,682**	**(41,450)**	**23,232**
TOTAL PROPERTY, PLANT AND EQUIPMENT	**296,078**	**(188,977)**	**107,101**

As of December 31, 2021 (M$)	Cost	Depreciation and impairment	Net
Property, plant and equipment of exploration and production activities			
Proved properties	212,264	(149,221)	63,043
Unproved properties	1,635	(268)	1,367
Work in progress	18,463	(831)	17,632
Subtotal	**232,362**	**(150,320)**	**82,042**
Other property, plant and equipment			
Land	3,145	(973)	2,172
Machinery, plant and equipment (including transportation equipment)	38,285	(26,425)	11,860
Buildings	10,558	(6,646)	3,912
Work in progress	3,625	(8)	3,617
Other	10,434	(7,478)	2,956
Subtotal	**66,047**	**(41,530)**	**24,517**
TOTAL PROPERTY, PLANT AND EQUIPMENT	**298,409**	**(191,850)**	**106,559**

Change in net property, plant and equipment is analyzed in the following table:

(M$)	Net amount as of January 1,	Expenditures	Disposals	Depreciation and impairment	Currency translation adjustment	Other	Net amount as of December 31,
2023	**107,101**	**16,478**	**(3,781)**	**(12,448)**	**415**	**1,151**	**108,916**
2022	106,559	13,699	(951)	(12,275)	(2,236)	2,305	107,101
2021	108,335	11,647	(705)	(13,133)	(1,739)	2,154	106,559

In 2023, the heading “Disposals” mainly includes the impact of the sale of assets in Canada to ConocoPhillips of $3,220 million.

In 2023, the heading “Depreciation and impairment” includes the impact of impairments of assets recognized for an amount of $653 million (see Note 3.C “Asset impairment”) including notably upstream assets in Kenya and Congo and impairments related to the project of selling Naphtachimie to INEOS.

In 2023, the heading “Other” includes in particular the impact of changes in the consolidation scope for $298 million (mainly the acquisition of Total Eren for $2,193 million, the sale of TotalEnergies EP Canada Ltd. to Suncor for $(1,134) million and the exit of network activities in Germany for $(826) million), the impact of new IFRS 16 contracts during the year (mainly FPSO and ships) for $2,526 million and the impact of the revaluation of provisions for sites restitution on tangible assets for $(1,262) million.

In 2022, the heading “Disposals” mainly included the impact of the transfer of assets from TotalEnergies East Africa Midstream to the equity - accounted company EACOP for $508 million.

In 2022, the heading “Depreciation and impairment” included the impact of impairments of assets recognized for an amount of $888 million, including the withdrawal from the North Platte project in the deep waters of the Gulf of Mexico, and an impairment reversal of $1,196 million on the Company’s assets in Canada (see Note 3.C “Asset impairment”).

In 2022, the heading “Other” included the impact of changes in the consolidation scope, and the impact of new IFRS 16 contracts during the year (mainly FPSOs and vessels) for an amount of $1,969 million.

In 2021, the heading “Disposals” mainly included the sale of non-operated assets in Gabon for $397 million.

In 2021, the heading “Depreciation and impairment” included the impact of impairments of assets recognized for an amount of $615 million including the Company’s assets in Myanmar and unconventional assets in the United States (see Note 3.C “Asset impairment”).

In 2021, the heading “Other” included the impact of changes in the consolidation scope, and the impact of the new IFRS 16 contracts of the period (mainly new chartering contracts) for an amount of $1,786 million.

Following the application of IFRS 16 “Leases”, property, plant and equipment as at December 31, 2023, 2022 and 2021 presented above include the following amounts for rights of use of assets:

As of December 31, 2023 (M$)	**Cost**	**Depreciation and impairment**	**Net**
Property, plant and equipment of exploration and production activities	4,770	(1,927)	2,843
Other property, plant and equipment			
Land	1,383	(415)	968
Machinery, plant and equipment (including transportation equipment)	4,751	(2,235)	2,516
Buildings	1,332	(614)	718
Other	908	(529)	379
Subtotal	**8,374**	**(3,793)**	**4,581**
TOTAL PROPERTY, PLANT AND EQUIPMENT	**13,144**	**(5,720)**	**7,424**

As of December 31, 2022 (M$)	**Cost**	**Depreciation and impairment**	**Net**
Property, plant and equipment of exploration and production activities	4,497	(2,121)	2,376
Other property, plant and equipment			
Land	1,396	(397)	999
Machinery, plant and equipment (including transportation equipment)	4,691	(2,100)	2,591
Buildings	1,750	(615)	1,135
Other	745	(483)	262
Subtotal	**8,582**	**(3,595)**	**4,987**
TOTAL PROPERTY, PLANT AND EQUIPMENT	**13,079**	**(5,716)**	**7,363**

As of December 31, 2021 (M$)	**Cost**	**Depreciation and impairment**	**Net**
Property, plant and equipment of exploration and production activities	3,228	(1,683)	1,545
Other property, plant and equipment			
Land	1,441	(324)	1,117
Machinery, plant and equipment (including transportation equipment)	4,910	(1,819)	3,091
Buildings	1,853	(561)	1,292
Other	712	(404)	308
Subtotal	**8,916**	**(3,108)**	**5,808**
TOTAL PROPERTY, PLANT AND EQUIPMENT	**12,144**	**(4,791)**	**7,353**

Note 8 Equity affiliates, other investments and related parties

8.1 EQUITY AFFILIATES: INVESTMENTS AND LOANS

Accounting principles

Under the equity method, the investment in the associate or joint venture is initially recognized at acquisition cost and subsequently adjusted to recognize TotalEnergies’ share of the net income and other comprehensive income of the associate or joint venture.

Unrealized gains on transactions between TotalEnergies and its equity-accounted entities are eliminated to the extent of TotalEnergies’ interest in the equity accounted entity.

In equity affiliates, goodwill is included in investment book value.

In cases where TotalEnergies holds less than 20% of the voting rights in another entity, the determination of whether TotalEnergies exercises significant influence is also based on other facts and circumstances: representation on the Board of Directors or an equivalent governing body of the entity, participation in policy-making processes, including participation in decisions relating to dividends or other distributions, significant transactions between the investor and the entity, exchange of management personnel, or provision of essential technical information.

The contribution of equity affiliates in the consolidated balance sheet, consolidated statement of income and consolidated statement of comprehensive income is presented below:

Equity value
As of December 31,

(M$)	2023	2022	2021
Total Associates	9,484	9,533	17,244
Total Joint ventures	16,411	14,623	9,277
TOTAL	**25,895**	**24,156**	**26,521**
Loans	4,562	3,733	4,532
TOTAL	**30,457**	**27,889**	**31,053**

Profit/(loss)

(M$)	2023	2022	2021
Total Associates	1,132	(4,567)	1,186
Total Joint ventures	713	2,675	2,252
TOTAL	**1,845**	**(1,892)**	**3,438**

Other comprehensive income

(M$)	2023	2022	2021
Total Associates	(57)	3,368	734
Total Joint ventures	(151)	129	(28)
TOTAL	**(208)**	**3,497**	**706**

A) Information related to associates

Information (100% basis) related to significant associates is as follows:

	Liquefaction entities			Novatek[(a)]	
Exploration & Production activites (M$)	2023	2022	2021	2022	2021
Non current assets	42,197	40,850	39,348	–	26,954
Current assets	5,745	8,276	11,075	–	8,208
TOTAL ASSETS	**47,942**	**49,126**	**50,423**	**–**	**35,162**
Shareholder's equity	35,144	19,188	23,867	–	25,944
Non current liabilities	7,700	22,312	19,659	–	3,246
Current liabilities	5,098	7,626	6,897	–	5,972
TOTAL LIABILITIES	**47,942**	**49,126**	**50,423**	**–**	**35,162**
Revenues from sales	26,288	35,888	23,243	–	15,876
Net income	**6,880**	**10,247**	**8,056**	**–**	**5,871**
Other comprehensive income	**–**	**–**	**–**	**–**	**(82)**
% owned	–	–	–	19.40 %	19.40 %
Equity value	3,963	3,243	5,582	–	6,243
Including goodwill and identifiable assets	*32*	*34*	*1,832*	–	*1,210*
Profit/(loss)	822	(340)	1,024	(5,747)	1,065
Share of other comprehensive income, net amount	(19)	(71)	85	3,118	446
Dividends paid to TotalEnergies	1,052	1,224	817	883	387

(a) Information includes the best Company's estimates of results at the date of TotalEnergies' financial statements.

As of 31 December 2023, and as of 31 December 2022, Novatek is no longer consolidated as an equity accounted affiliate in the Company's consolidated financial statements. This stake is recognized in “other investments” and is measured in accordance with IFRS 9 at fair value through profit or loss. In the context of the Russian-Ukrainian conflict, the Company considers that the market value of Novatek is not representative of its fair value. As of December 31, 2023, and as of December 31, 2022, the Company retained a zero fair value given the very significant uncertainties on any valuation assumption for the stake in Novatek.

TotalEnergies' interests in associates operating liquefaction plants are combined. In 2023, the amounts include investments in Nigeria LNG (15.00%), Angola LNG Limited (13.60%), Yemen LNG Co. (39.62%), Qatar Liquefied Gas Company Limited (Qatargas) (10.00%), Qatar Liquefied Gas Company Limited II (16.70%), Oman LNG LLC (5.54%), Abu Dhabi Gas Liquefaction Company Limited (5.00%), as well as the year's acquisitions, mainly Qatar Liquified Gas Company Limited 5 (North Field East project) (25%) and Qatar Liquified Gas Company Limited 10 (North Field South project) (25%).

Renewables and Electricity activities	Adani Green Energy Limited		
(M$)	2023	2022	2021
Non current assets	7,887	6,961	6,223
Current assets	1,091	769	1,042
TOTAL ASSETS	**8,978**	**7,730**	**7,265**
Shareholder's equity	965	807	316
Non current liabilities	5,712	5,805	5,560
Current liabilities	2,301	1,118	1,389
TOTAL LIABILITIES	**8,978**	**7,730**	**7,265**
Revenues from sales	1,061	1,073	545
Net income	**162**	**104**	**35**
Other comprehensive income	**5**	**(112)**	**(10)**
% owned	19.74 %	19.74 %	20.00 %
Equity value	1,877	1,856	2,102
including goodwill and identifiable assets	*1,687*	*1,697*	*2,039*
Profit/(loss)	32	21	7
Share of other comprehensive income, net amount	3	23	6
Dividends paid to TotalEnergies	–	–	–

Refining & Chemicals activities	Saudi Aramco Total Refining & Petrochemicals			Qatar		
(M$)	2023	2022	2021	2023	2022	2021
Non current assets	9,780	10,003	10,264	2,882	3,905	3,909
Current assets	2,584	3,615	2,221	2,000	2,491	1,908
TOTAL ASSETS	**12,364**	**13,618**	**12,485**	**4,882**	**6,396**	**5,817**
Shareholder's equity	3,527	3,858	1,164	2,748	2,737	2,693
Non current liabilities	5,850	6,365	7,322	835	2,062	1,906
Current liabilities	2,987	3,395	3,999	1,299	1,597	1,218
TOTAL LIABILITIES	**12,364**	**13,618**	**12,485**	**4,882**	**6,396**	**5,817**
Revenues from sales	12,994	20,492	11,123	9,506	13,193	9,266
Net income	**584**	**2,409**	**(245)**	**203**	**629**	**649**
Other comprehensive income	**(59)**	**284**	**155**	**(7)**	**(5)**	**(5)**
% owned	37.50 %	37.50 %	37.50 %			
Equity value	1,323	1,447	437	665	703	693
including goodwill and identifiable assets	–	–	–	–	–	–
Profit/(loss)	219	903	(92)	78	161	174
Share of other comprehensive income, net amount	(46)	147	116	(7)	10	13
Dividends paid to TotalEnergies	321	–	–	145	138	199

Saudi Aramco Total Refining & Petrochemicals is an entity including a refinery in Jubail, Saudi Arabia, with a capacity of 460,000 barrels/day with integrated petrochemical units.

The TotalEnergies' interests in associates of the Refining & Chemicals segment, operating steam crackers and polyethylene lines in Qatar have been combined: Qatar Petrochemical Company Ltd. (20.00%), Qatofin (49.08%), Laffan Refinery (10.00%).

B) Information related to joint ventures

The information (100% gross) related to significant joint ventures is as follows:

	Liquefaction entities (Integrated LNG)			GIP III Zephyr (Integrated Power)		Hanwha TotalEnergies Petrochemical Co.Ltd (Refining & Chemicals)		
(M$)	2023	2022	2021	2023	2022	2023	2022	2021
Non current assets	62,461	65,293	66,924	13,111	12,406	3,959	4,113	4,443
Current assets excluding cash and cash equivalents	2,832	2,630	2,912	375	370	2,089	2,326	2,117
Cash and cash equivalents	4,690	4,375	2,312	1,313	1,116	113	82	151
TOTAL ASSETS	**69,983**	**72,298**	**72,148**	**14,799**	**13,892**	**6,161**	**6,521**	**6,711**
Shareholder's equity - Group share	20,438	17,455	9,956	604	296	2,963	3,146	3,538
Shareholder's equity - Non controlling interests	–	–	–	1,912	2,548	–	–	–
Other non current liabilities	10,399	10,785	8,205	1,460	1,285	174	180	164
Non current financial debts	36,144	41,452	50,920	9,598	8,808	858	1,220	1,241
Other current liabilities	3,002	2,606	3,067	414	496	1,137	1,117	1,055
Current financial debts	–	–	–	811	459	1,029	858	713
TOTAL LIABILITIES	**69,983**	**72,298**	**72,148**	**14,799**	**13,892**	**6,161**	**6,521**	**6,711**
Revenues from sales	17,605	24,701	14,380	1,452	351	8,754	10,824	8,600
Depreciation and depletion of tangible assets and mineral interests	(2,700)	(2,814)	(3,058)	(460)	(129)	(281)	(289)	(312)
Interest income	32	17	–	40	5	–	–	–
Interest expense	(3,146)	(2,453)	(2,599)	(315)	(95)	(67)	(47)	(44)
Income taxes	(1,798)	(2,804)	(1,448)	–	–	10	(65)	(222)
Net income	**5,122**	**12,791**	**5,600**	**83**	**(36)**	**(28)**	**123**	**620**
Non controlling interests	–	–	–	(126)	219	–	–	–
Other comprehensive income	**(52)**	**526**	**323**	**(2)**	**–**	**(105)**	**(189)**	**(308)**
% owned				50.00 %	50.00 %	50.00 %	50.00 %	50.00 %
Equity value	4,941	4,315	2,725	2,283	2,356	1,482	1,573	1,769
including goodwill and identifiable assets	*430*	*465*	*502*	*1,981* (a)	*2,208*	–	–	–
Profit/(loss)	1,058	2,616	1,119	29	(18)	(14)	62	310
Share of other comprehensive income, net amount	(14)	137	84	(1)	–	(69)	(59)	(150)
Dividends paid to TotalEnergies	418	1,166	81	100	46	25	162	109

(a) Goodwill represents the valuation of this entity's ability to generate future projects in the field of renewable energy and amounts to M$1,755 as of December 31, 2023.

TotalEnergies' interests in joint ventures operating liquefaction plants have been combined. The amounts include investments in Yamal LNG in Russia (20.02% direct holding) and Ichthys LNG in Australia (26.00%).

GIP III Zephyr Holdings, LLC holds the shares of Clearway Energy Group (CEG), a developer of renewables projects, owning 42% of economic interest of its listed subsidiary, Clearway Energy LLC. (CWEN).

Hanwha TotalEnergies Petrochemical Co. Ltd is a South Korean company that operates a petrochemical complex in Daesan (condensate separator, steam cracker, styrene, paraxylene, polyolefins).

Off-balance sheet commitments relating to joint ventures are disclosed in Note 13 of the Consolidated Financial Statements.

C) Other equity affiliates

In TotalEnergies share, the main aggregated financial items in equity affiliates including assets held for sale, which have not been presented individually are as follows:

As of December 31,	2023		2022		2021	
(M$)	Associates	Joint ventures	Associates	Joint ventures	Associates	Joint ventures
Non Current assets	4,977	13,224	6,014	11,281	5,987	9,745
Current assets	1,231	2,988	1,591	2,742	1,849	1,799
TOTAL ASSETS	**6,208**	**16,212**	**7,605**	**14,023**	**7,836**	**11,544**
Shareholder's equity - TotalEnergies share	921	4,625	1,423	3,894	1,366	2,531
Shareholder's equity - Non controlling interests	–	75	–	140	–	–
Non current liabilities	4,553	8,798	5,296	7,375	5,455	7,460
Current liabilities	734	2,714	886	2,614	1,015	1,553
TOTAL LIABILITIES	**6,208**	**16,212**	**7,605**	**14,023**	**7,836**	**11,544**

For the year ended December 31, (M$)	2023 Associates	2023 Joint ventures	2022 Associates	2022 Joint ventures	2021 Associates	2021 Joint ventures
Revenues from sales	2,026	7,451	2,338	7,026	2,450	4,850
Net income	**7**	**(279)**	**488**	**454**	**514**	**381**
Non controlling interests	–	(64)	–	–	–	–
Share of other comprehensive income items	11	(67)	140	52	68	38
Equity value	1,656	7,705	2,285	6,379	2,188	4,782
Profit/(Loss)	(19)	(359)	436	15	(992)	823
Dividends paid to TotalEnergies	323	120	469	63	498	96

8.2 OTHER INVESTMENTS

Accounting principles

Other investments are equity instruments and are measured according to IFRS 9 at fair value through profit and loss (default option). On initial recognition, the standard allows to make an election to record the changes of fair value in other comprehensive income. For these equity instruments, only dividends can be recognized in profit or loss.

TotalEnergies recognizes changes in fair value in equity or in profit or loss according to the option chosen on an instrument by instrument basis.

For quoted shares on active markets, this fair value is based on the market price.

As of December 31, 2023 (M$)	As of January 1, 2023	Increase - Decrease	Change in fair value	As of December 31, 2023
Next Decade Corporation	–	219	(5)	214
Other shares at fair value through other comprehensive income (unit value < $50M)	119	28	(6)	141
Equity instruments recorded at fair value other comprehensive income	**119**	**247**	**(11)**	**355**
BTC Limited	5	–	–	5
Hubei Cathay Smart Energy Fund	54	(54)	–	–
Nordian CPO[(a)]	–	70	–	70
Other shares at fair value through profit and loss (unit value < $50M)	873	264	(24)	1,113
Equity instruments recorded at fair value profit and loss	**932**	**280**	**(24)**	**1,188**
TOTAL EQUITY INSTRUMENTS	**1,051**	**527**	**(35)**	**1,543**

(a) Nordian CPO will be consolidate in 2024

As of December 31, 2022 (M$)	As of January 1, 2022	Increase - Decrease	Change in fair value	As of December 31, 2022
Enphase Energy Inc.	457	(579)	122	–
Other shares at fair value through other comprehensive income (unit value < $50M)	116	13	(10)	119
Equity instruments recorded at fair value other comprehensive income	**573**	**(566)**	**112**	**119**
BTC Limited	14	–	(9)	5
Hubei Cathay Smart Energy Fund	36	7	11	54
Other shares at fair value through profit and loss (unit value < $50M)	1,002	(54)	(75)	873
Equity instruments recorded at fair value profit and loss	**1,052**	**(47)**	**(73)**	**932**
TOTAL EQUITY INSTRUMENTS	**1,625**	**(613)**	**39**	**1,051**

As of December 31, 2021 (M$)	As of January 1, 2021	Increase - Decrease	Change in fair value	As of December 31, 2021
Enphase Energy Inc.	613	(177)	21	457
Tellurian Investments Inc.	57	(111)	54	–
Other shares at fair value through other comprehensive income (unit value < $50M)	113	12	(9)	116
Equity instruments recorded at fair value other comprehensive income	**783**	**(276)**	**66**	**573**
BBPP	58	(58)	–	–
BTC Limited	27	—	(13)	14
Hubei Cathay Smart Energy Fund	36	1	(1)	36
Other shares at fair value through profit and loss (unit value < $50M)	1,103	(107)	6	1,002
Equity instruments recorded at fair value profit and loss	**1,224**	**(164)**	**(8)**	**1,052**
TOTAL EQUITY INSTRUMENTS	**2,007**	**(440)**	**58**	**1,625**

8.3 Related parties

The main transactions as well as receivable and payable balances with related parties (principally non-consolidated subsidiaries and equity affiliates) are detailed as follows:

As of December 31, (M$)	2023	2022	2021
Balance sheet			
Receivables			
Debtors and other debtors	1,144	1,231	809
Loans (excl. loans to equity accounted for affiliates)	232	184	113
Payables			
Creditors and other creditors	1,068	1,610	1,347
Debts	1	5	2

For the year ended December 31, (M$)	2023	2022	2021
Statement of income			
Sales	7,222	6,806	4,250
Purchases	(15,574)	(25,656)	(13,473)
Financial income	3	3	–
Financial expense	(5)	(9)	(8)

8.4 Compensation for the administration and management bodies

The aggregated amount of direct and indirect compensation accounted by the French and foreign affiliates of the Company, for all executive officers of TotalEnergies as of December 31 and for the members of the Board of Directors who are employees of TotalEnergies, is detailed below.

As of December 31, 2023, December 31, 2022, and December 31, 2021, TotalEnergies Executive Officers are the members of the Executive Committee, i.e. eight people and there are three employees members of the Board of Directors.

For the year ended December 31, (M$)	2023	2022	2021
Number of people	11	11	11
Direct or indirect compensation	13.9	12.4	11.9
Pension expenses [(a)]	3.5	1.9	1.4
Share-based payments expense (IFRS 2) [(b)]	8.7	7.7	4.9

(a) The benefits provided for Executive Officers of the Company and the members of the Board of Directors, who are employees of the Company, include severance to be paid upon retirement, supplementary pension schemes and insurance plans, which represent a commitment of $82.9 million as of December 31, 2023 (against $64.3 million as of December 31, 2022 and $90.7 million as of December 31, 2021). Converted into Euros, this commitment amounts to €75 million as of December 31, 2023 (against €60.3 million as of December 31, 2022 and €80.1 million as of December 31, 2021). The increase is related to the decrease in discount rates.

(b) Share-based payments expense computed for the Executive Officers and the members of the Board of Directors who are employees of TotalEnergies and based on the principles of IFRS 2 “Share-based payments” described in Note 9.

The compensation allocated to members of the Board of Directors as directors’ fees totaled $2 million in 2023 ($1.84 million in 2022 and $2.06 million in 2021).

Note 9 Shareholders’ equity and share-based payments

9.1 SHAREHOLDERS’ EQUITY

Number of TotalEnergies shares and rights attached

As of December 31, 2023, the share capital of TotalEnergies SE amounts to €6,030,629,587.50, divided into 2,412,251,835 shares, with a par value of €2.50. There is only one category of shares. The shares may be held in either registered or bearer form.

The authorized share capital amounts to 3,436,374,353 shares as of December 31, 2023, compared to 3,664,966,081 shares as of December 31, 2022 and 3,686,636,841 shares as of December 31, 2021.

It was decided, at the Shareholders’ Meeting of May 26, 2023, in accordance with Article L. 22-10-46 of the French Commercial Code, to abolish the double voting rights. As of December 31, 2023, no double voting rights are attached to the Company’s shares.

Pursuant to the Corporation’s bylaws (Statutes), no shareholder may cast a vote at a Shareholders’ Meeting, either by himself or through an agent, representing more than 10% of the total voting rights for the Corporation’s shares. This limit applies to the aggregated amount of voting rights held directly, indirectly or through voting proxies.

These restrictions no longer apply if any individual or entity, acting alone or in concert, acquires at least two-thirds of the total share capital of the Corporation.

Share cancellation

The Board of Directors, pursuant to the authorization granted by the Extraordinary Shareholders' Meeting on May 26, 2017, in the thirteenth resolution and renewed by the twenty - third resolution of the Extraordinary Shareholders' Meeting on May 25, 2022 to reduce, on one or more occasions, the Corporation's share capital by cancelling shares, in accordance with the provisions of Articles L. 225-209 (became L. 22-10-62) and L. 225-213 of the French Commercial Code, has proceeded with the following cancellation of TotalEnergies shares:

Fiscal year	Board of Directors' decision date	Number of shares bought back and cancelled for the purpose of the shareholder policy	Percentage of the share capital cancelled[a]
2023	September 21, 2023[b]	86,012,344 shares bought back between January 2 and August 24, 2023	3.44 %
2023	February 7, 2023	128,869,261 shares bought back between February 11 and December 15, 2022	4.92 %
2022	February 9, 2022	30,665,526 shares bought back between November 8 and December 22, 2021	1.16 %
2021	February 8, 2021	23,284,409 shares bought back between October 31, 2019 and March 9, 2020	0.88 %

(a) Percentage of the share capital that the cancelled shares represented on the operations' date.
(b) With effect as at 2023, September 25.

Under the terms of the twenty-third resolution of the General Meeting of Shareholders of May 25, 2022, the Board of Directors is authorized to cancel the shares of the Company within the limit of 10% of the capital of the Company existing on the date of the operation per period of 24 months.

Variation of the number of shares composing the share capital

AS OF DECEMBER 31, 2020 [(a)]		**2,653,124,025**
	Capital reduction by cancellation of treasury shares	(23,284,409)
	2021 Capital increase reserved for employees	10,589,713
AS OF DECEMBER 31, 2021 [(b)]		**2,640,429,329**
	Capital reduction by cancellation of treasury shares	(30,665,526)
	Deferred contribution pursuant to the 2017 capital increase reserved for employees	9,471
	2022 Capital increase reserved for employees	9,358,011
AS OF DECEMBER 31, 2022 [(c)]		**2,619,131,285**
	Capital reduction by cancellation of treasury shares	(214,881,605)
	2023 Capital increase reserved for employees	8,002,155
AS OF DECEMBER 31, 2023 [(d)]		**2,412,251,835**

(a) Including 24,392,703 treasury shares deducted from consolidated shareholders' equity.
(b) Including 33,841,104 treasury shares deducted from consolidated shareholders' equity.
(c) Including 137,187,667 treasury shares deducted from consolidated shareholders' equity.
(d) Including 60,543,213 treasury shares deducted from consolidated shareholders' equity.

Capital increase reserved for employees

The Extraordinary Shareholders' Meeting ("ESM") of May 26, 2023, in its sixteenth resolution, granted the authority to the Board of Directors to carry out, a capital increase, in one or more occasions within a maximum period of twenty-six months, reserved to members (employees and retirees) of a company or group savings plan ("ESOP").

In fiscal year 2023, the Board of Directors of September 21, 2023, by virtue of the sixteenth resolution above-mentioned, decided to proceed with a capital increase reserved for employees and retirees within the limit of 18 million shares with immediate dividend rights. On this occasion, the Board of Directors has granted all powers to the Chairman and Chief Executive Officer to determine the opening and closing dates of the subscription period and the subscription price. This capital increase is expected to be completed after the Shareholders' Meeting of May 24, 2024.

During the fiscal years 2023, 2022 and 2021, the Corporation completed the following ESOP, which terms are set out below:

Fiscal year	2023	2022	2021
Date of the ESOP	June 7, 2023	June 8, 2022	June 9, 2021
By virtue of	22nd resolution of the ESM of May 25, 2022	17th resolution of the ESM of May 28, 2021	20th resolution of the ESM of May 29, 2020
Subscriptions			
Number of shares subscribed	7,760,062	9,130,380	10,376,190
Subscription price	45.60 euros	37.00 euros	30.50 euros
Free shares			
Number of shares granted	242,093	227,631	213,523

Treasury shares

Accounting principles

Treasury shares held by TotalEnergies SE, or by its subsidiaries are deducted from consolidated shareholders' equity. Gains or losses on sales of treasury shares are excluded from the determination of net income and are recognized in shareholders' equity.

Number of treasury shares held by TotalEnergies SE

As of December 31,	2023	2022	2021
Number of treasury shares held by TotalEnergies SE	60,543,213	137,187,667	33,841,104
Percentage of share capital	2.51 %	5.24 %	1.28 %
of which shares acquired with the intention to cancel them	*56,557,576*	*128,869,261*	*30,665,526*
of which shares allocated to TotalEnergies share performance plans	*3,887,587*	*8,231,365*	*3,103,018*
of which shares intended to be allocated to new share performance or purchase options plans	*98,050*	*87,041*	*72,560*

Paid-in surplus

In accordance with French law, the paid-in surplus corresponds to premiums related to shares issuances, contributions or mergers of the parent company which can be capitalized or used to offset losses if the legal reserve has reached its minimum required level. The amount of the paid-in surplus may also be distributed subject to taxation except when it qualifies as a refund of shareholder contributions.

As of December 31, 2023, paid-in surplus relating to TotalEnergies SE amounted to €24,385 million (€35,099 million as of December 31, 2022 and €36,030 million as of December 31, 2021).

Reserves

Under French law, 5% of net income must be transferred to the legal reserve until the legal reserve reaches 10% of the nominal value of the share capital. This reserve cannot be distributed to the shareholders other than upon liquidation but can be used to offset losses.

If wholly distributed, the unrestricted reserves of TotalEnergies SE would be taxed for an approximate amount of $234 million as of December 31, 2023 ($227 million as of December 31, 2022 and $362 million as of December 31, 2021) due to additional corporation tax applied on regulatory reserves so that they become distributable.

Earnings per share

Accounting principles

Earnings per share is calculated by dividing net income (TotalEnergies share) by the weighted-average number of common shares outstanding during the period, excluding TotalEnergies shares held by TotalEnergies SE (Treasury shares) which are deducted from consolidated shareholders' equity.

Diluted earnings per share is calculated by dividing net income (TotalEnergies share) by the fully-diluted weighted-average number of common shares outstanding during the period. Treasury shares held by the parent company, TotalEnergies SE are deducted from consolidated shareholders' equity. This calculation also takes into account the dilutive effect of share grants and capital increases with a subscription period closing after the end of the fiscal year.

The weighted-average number of fully-diluted shares is calculated in accordance with the treasury stock method provided for by IAS 33. The proceeds, which would be recovered in the event of an exercise of rights related to dilutive instruments, are presumed to be a share buyback at the average market price over the period. The number of shares thereby obtained leads to a reduction in the total number of shares that would result from the exercise of rights.

In compliance with IAS 33, earnings per share and diluted earnings per share are based on the net income after deduction of the remuneration due to the holders of deeply subordinated notes.

The variation of both weighted-average number of shares and weighted-average number of diluted shares, as of December 31, respectively used in the calculation of earnings per share and fully-diluted earnings per share is detailed as follows:

	2023	2022	2021
Number of shares as of January 1,	**2,619,131,285**	**2,640,429,329**	**2,653,124,025**
TotalEnergies shares held by TotalEnergies SE or by its subsidiaries and deducted from shareholders' equity	(137,187,667)	(33,841,104)	(24,392,703)
Evolution of the number of shares during the financial year pro-rated			
Final grant of TotalEnergies performance shares	5,378,956	5,152,336	3,810,430
Capital increase reserved for employees [(a)]	4,671,946	5,465,154	6,177,333
Capital increase as payment of the scrip dividend	–	–	–
Buyback of TotalEnergies treasury shares including:	(74,633,216)	(62,498,318)	(7,296,460)
Shares repurchased during the fiscal year to cancel the dilution caused by the scrip dividend payment and within the framework of the share buyback program	*(72,985,133)*	*(58,621,530)*	*(3,762,794)*
Shares repurchased during the fiscal year to cover for the performance share plans	*(1,648,083)*	*(3,876,788)*	*(3,533,666)*
WEIGHTED-AVERAGE NUMBER OF SHARES	**2,417,361,304**	**2,554,707,397**	**2,631,422,625**
Dilutive effect			
Grant of TotalEnergies performance shares	14,354,523	15,890,560	14,492,673
Capital increase reserved for employees[(a)]	2,051,751	1,584,068	1,552,947
WEIGHTED-AVERAGE NUMBER OF DILUTED SHARES AS OF DECEMBER 31,	**2,433,767,578**	**2,572,182,025**	**2,647,468,245**

(a) Including the shares granted in consideration to the deferred contribution pursuant to the capital increase reserved for employees.

Earnings per share in euros

The earnings per share in euros, converted from the earnings per share in dollars, by using the average exchange rate euro/dollar, is €8.06 per share for 2023 closing (€7.51 for 2022 closing). The fully-diluted earnings per share calculated by using the same method is €8.02 per share for 2023 closing (€7.45 for 2022 closing).

Dividend

On February 7, 2024, the Board of Directors after approving the financial statements for fiscal year 2023, decided to propose to the Shareholders' Meeting on May 24, 2024 the distribution of an ordinary €3.01 dividend per share for fiscal year 2023. Subject to the Shareholders' decision on May 24, 2024, considering the first three interim dividends already decided by the Board of Directors, the final ordinary dividend for the fiscal year 2023 will be €0.79 per share.

2023 Dividend	First interim	Second interim	Third interim	Final
Amount	€0.74	€0.74	€0.74	€0.79
Set date	April 26, 2023	July 26, 2023	October 25, 2023	February 7, 2024
Ex-dividend date	September 20, 2023	January 2, 2024	March 20, 2024	June 19, 2024
Payment date	October 2, 2023	January 12, 2024	April 3, 2024	July 1, 2024

Issuances of perpetual subordinated notes

As of December 31, 2023, the amount of perpetual subordinated notes booked in TotalEnergies shareholders' equity is $12,777 million. The coupons attributable to the holders of these securities are recognized as a deduction from TotalEnergies shareholders' equity for an amount of $294 million for fiscal year 2023. The tax deduction due to these coupons is booked in the statement of income.

Based on their characteristics (mainly no mandatory repayment and no obligation to pay a coupon except under certain circumstances specified into the documentation of the notes) and in compliance with IAS 32 standard – *Financial instruments - Presentation*, these notes were recorded in equity.

During the year 2023, TotalEnergies SE has fully reimbursed the nominal amount of €1,000 million of perpetual subordinated notes carrying a coupon of 2.708%, issued in October 2016, on their first call date on May 5, 2023.

The last issuance of perpetual subordinated notes in euros occurred on January 17, 2022, when TotalEnergies SE issued €1,750 million in two tranches.

Summary of the perpetual deeply subordinated notes of TotalEnergies SE:

Perpetual deeply subordinated notes issues by TotalEnergies SE

				Outstanding amount in M€ as of:		
Date	**Amount issued (M€)**	**Coupon (%)**	**First call date**	**December 31, 2023**	**December 31, 2022**	**December 31, 2021**
January 17, 2022	750	3.250 %	January 17, 2037	750	750	–
	1,000	2.000 %	April 17, 2027	1,000	1,000	–
January 25, 2021	1,500	2.125 %	January 25, 2033	1,500	1,500	1,500
	1,500	1.625 %	January 25, 2028	1,500	1,500	1,500
September 4, 2020	1,000	2.000 %	September 4, 2030	1,000	1,000	1,000
April 4, 2019	1,500	1.750 %	April 4, 2024	1,500	1,500	1,500
October 6, 2016	1,500	3.369 %	October 6, 2026	1,500	1,500	1,500
	1,000	2.708 %	May 5, 2023	–	1,000	1,000
May 18, 2016	1,750	3.875 %	May 18, 2022	–	–	1,750
February 26, 2015	2,500	2.625 %	February 26, 2025	2,500	2,500	2,500
TOTAL				**11,250**	**12,250**	**12,250**

Other comprehensive income

Detail of other comprehensive income showing both items potentially reclassifiable and those not potentially reclassifiable from equity to net income is presented in the table below:

For the year ended December 31, (M$)	**2023**	**2022**	**2021**
Actuarial gains and losses	(114)	574	1,035
Change in fair value of investments in equity instruments	(11)	112	66
Tax effect	(11)	(96)	(411)
Currency translation adjustment generated by the parent company	2,573	(4,976)	(7,202)
Sub-total items not potentially reclassifiable to profit & loss	**2,437**	**(4,386)**	**(6,512)**
Currency translation adjustment	**(3,277)**	**1,734**	**4,216**
– Unrealized gain/(loss) of the period	(2,524)	1,974	4,380
– Less gain/(loss) included in net income	753	240	164
Cash flow hedge	**2,898**	**(5,452)**	**278**
– Unrealized gain/(loss) of the period	3,155	(4,190)	109
– Less gain/(loss) included in net income	257	1,262	(169)
Variation of foreign currency basis spread	**(11)**	**65**	**2**
– Unrealized gain/(loss) of the period	(37)	26	(47)
– Less gain/(loss) included in net income	(26)	(39)	(49)
Share of other comprehensive income of equity affiliates, net amount	**(208)**	**3,497**	**706**
– Unrealized gain/(loss) of the period	(194)	1,071	626
– Less gain/(loss) included in net income	14	(2,426)	(80)
Other	**(2)**	**(16)**	**(1)**
Tax effect	**(730)**	**1,449**	**(135)**
Sub-total items potentially reclassifiable to profit & loss	**(1,330)**	**1,277**	**5,066**
TOTAL OTHER COMPREHENSIVE INCOME, NET AMOUNT	**1,107**	**(3,109)**	**(1,446)**

The currency translation adjustment by currency is detailed in the following table:

As of December 31, 2023 (M$)	**Total**	**Euro**	**Pound sterling**	**Ruble**	**Other currencies**
Currency translation adjustment generated by the parent company	**2,573**	2,573	–	–	–
Currency translation adjustment	**(3,277)**	(3,174)	186	–	(289)
Currency translation adjustment of equity affiliates	**(179)**	(107)	(9)	–	(63)
TOTAL CURRENCY TRANSLATION ADJUSTMENT RECOGNIZED IN COMPREHENSIVE INCOME	**(883)**	(708)	177	–	(352)

As of December 31, 2022 (M$)	**Total**	**Euro**	**Pound sterling**	**Ruble**	**Other currencies**
Currency translation adjustment generated by the parent company	**(4,976)**	(4,976)	–	–	–
Currency translation adjustment	**1,734**	3,120	(592)	4	(798)
Currency translation adjustment of equity affiliates	**3,002**	(1,076)	31	4,247	(200)
TOTAL CURRENCY TRANSLATION ADJUSTMENT RECOGNIZED IN COMPREHENSIVE INCOME	**(240)**	(2,932)	(561)	4,251	(998)

As of December 31, 2021 (M$)	Total	Euro	Pound sterling	Ruble	Other currencies
Currency translation adjustment generated by the parent company	**(7,202)**	(7,202)	–	–	–
Currency translation adjustment	**4,216**	4,654	(180)	(1)	(257)
Currency translation adjustment of equity affiliates	**536**	730	4	(27)	(171)
TOTAL CURRENCY TRANSLATION ADJUSTMENT RECOGNIZED IN COMPREHENSIVE INCOME	**(2,450)**	(1,818)	(176)	(28)	(428)

Tax effects relating to each component of other comprehensive income are as follows:

For the year ended December 31, (M$)	2023 Pre-tax amount	2023 Tax effect	2023 Net amount	2022 Pre-tax amount	2022 Tax effect	2022 Net amount	2021 Pre-tax amount	2021 Tax effect	2021 Net amount
Actuarial gains and losses	(114)	(10)	(124)	574	(106)	468	1,035	(372)	663
Change in fair value of investments in equity instruments	(11)	(1)	(12)	112	10	122	66	(39)	27
Currency translation adjustment generated by the parent company	2,573	–	2,573	(4,976)	–	(4,976)	(7,202)	–	(7,202)
Sub-total items not potentially reclassifiable to profit & loss	**2,448**	**(11)**	**2,437**	**(4,290)**	**(96)**	**(4,386)**	**(6,101)**	**(411)**	**(6,512)**
Currency translation adjustment	(3,277)	–	(3,277)	1,734	—	1,734	4,216	—	4,216
Cash flow hedge	2,898	(733)	2,165	(5,452)	1,466	(3,986)	278	(130)	148
Variation of foreign currency basis spread	(11)	3	(8)	65	(17)	48	2	(5)	(3)
Share of other comprehensive income of equity affiliates, net amount	(208)	–	(208)	3,497	–	3,497	706	–	706
Other	(2)	–	(2)	(16)	–	(16)	(1)	–	(1)
Sub-total items potentially reclassifiable to profit & loss	**(600)**	**(730)**	**(1,330)**	**(172)**	**1,449**	**1,277**	**5,201**	**(135)**	**5,066**
TOTAL OTHER COMPREHENSIVE INCOME	**1,848**	**(741)**	**1,107**	**(4,462)**	**1,353**	**(3,109)**	**(900)**	**(546)**	**(1,446)**

Non-controlling interests

As of December 31, 2023, the subsidiaries with the most significant non-controlling interests are TotalEnergies Australia Unit Trust, TotalEnergies Gabon and TotalEnergies E&P Congo.

9.2 Share-based payments

Accounting principles

TotalEnergies SE may grant employees share subscription or purchase options plans, performance shares plans and offer its employees the opportunity to subscribe to reserved capital increases. These employee benefits are recognized as expenses with a corresponding credit to shareholders' equity.

The expense is equal to the fair value of the instruments granted. The expense is recognized on a straight-line basis over the period in which the advantages are acquired.

The fair value of the options is calculated using the Black-Scholes model at the grant date.

For performance shares plans, the fair value is calculated using the market price at the grant date after deducting the expected distribution rate during the vesting period.

The number of allocated equity instruments can be revised during the vesting period in cases of non-compliance with performance conditions, with the exception of those related to the market, or according to the rate of turnover of the beneficiaries.

The cost of employee-reserved capital increases is immediately expensed.

The cost of the capital increase reserved for employees consists of the cost related to the discount on the shares subscribed using the classic and/or the leveraged schemes, the cost of the free shares and the opportunity gain for the shares subscribed using the leveraged scheme, as applicable. This opportunity gain corresponds to the benefit of subscribing to the leveraged offer, rather than reproducing the same economic profile through the purchase of options in the market for individual investors.

A. TotalEnergies Performance share plans

	2018	2019	2020	2021	2022	2023(a)	Total
Date of the Shareholders' Meeting	5/24/2016	6/1/2018	6/1/2018	6/1/2018	5/28/2021	5/26/2023	
Award date	3/14/2018	3/13/2019	3/18/2020	5/28/2021	3/16/2022	5/26/2023	
Date of the final award (end of the vesting period)	3/15/2021	3/14/2022	3/20/2023	5/29/2024	3/17/2025	5/27/2026	
Transfer authorized as from	3/16/2023	3/15/2024	3/21/2025	5/30/2026	3/17/2025	5/27/2026	
Grant date IFRS 2 fair value	36.22 €	40.11 €	12.40 €	27.40 €	37.22 €	46.24 €	
Number of performance shares							
Outstanding as of January 1, 2021	**5,961,865**	**6,352,464**	**6,706,888**	**-**	**-**	**-**	**19,021,217**
Notified	-	-	—	6,764,548	-	-	6,764,548
Cancelled	(1,395,555)	(58,578)	(52,301)	(31,118)	-	-	(1,537,552)
Finally granted	(4,566,310)	(4,810)	(1,385)	(690)	-	-	(4,573,195)
Outstanding as of January 1, 2022	**-**	**6,289,076**	**6,653,202**	**6,732,740**	**-**	**-**	**19,675,018**
Notified	-	-	-	-	7,353,271	-	7,353,271
Cancelled	-	(127,852)	(65,561)	(57,410)	(25,090)	-	(275,913)
Finally granted	-	(6,161,224)	(12,680)	(13,750)	(8,000)	-	(6,195,654)
Outstanding as of January 1, 2023	**-**	**-**	**6,574,961**	**6,661,580**	**7,320,181**	**-**	**20,556,722**
Notified	-	-	-	-	-	7,985,203	**7,985,203**
Cancelled	-	-	(128,577)	(98,291)	(86,348)	(42,040)	**(355,256)**
Finally granted	-	-	(6,446,384)	(5,250)	(5,568)	(190)	**(6,457,392)**
OUTSTANDING AS OF DECEMBER 31, 2023	**-**	**-**	**-**	**6,558,039**	**7,228,265**	**7,942,973**	**21,729,277**

(a) includes 37,000 performance shares granted on December 13, 2023 to 4 executives recruited in 2023 in accordance with the decision of the Board of Directors on December 13, 2023 and the Shareholders' Meeting on May 26, 2023. For these performance shares, the vesting period begins on December 13, 2023 and the final grant date is December 14, 2026, subject to the conditions set (end of the vesting period). The IFRS 2 fair value on the grant date was €51.56.

The performance shares, which are bought back by TotalEnergies SE on the market, are finally granted to their beneficiaries after a 3-year vesting period, from the date of the grant. The final grant is subject to a continued employment condition as well as:

- two performance conditions for the 2018 Plan;
- three performance conditions for the 2019 Plan;
- four performance conditions for the 2020 Plan;
- five performance conditions for the 2021, 2022 and 2023 Plans.

Moreover, the transfer of the performance shares finally granted under the 2018 to 2021 Plans will not be permitted until the end of a 2-year holding period from the date of the final grant.

2023 Plan

The Board of Directors granted performance shares, with effective date May 26, 2023, as well as on December 13, 2023, to certain employees and executive directors of TotalEnergies SE or its subsidiaries, subject to the fulfilment of the continued employment condition and five performance conditions.

The presence condition applies to all shares.

The performance conditions apply differently depending on the capacity of the beneficiaries. If all shares granted to senior executives are subject to performance conditions, the grant of the first 150 shares to non-senior executives are not subject to the performance condition abovementioned, which will, nonetheless, apply to any shares granted above this threshold.

The applicable performance conditions are as follows:

- For 25% of the shares, the Corporation will be ranked against its peers (ExxonMobil, Shell, BP and Chevron) based on the Total Shareholder Return ("TSR") during the three vesting years (2023, 2024 and 2025). The TSR criterion considered is that of the last quarter of the year, the dividend being considered reinvested based on the closing price on the ex-dividend date;
- For 25% of the shares, the Corporation will be ranked against its peers (ExxonMobil, Shell, BP and Chevron) based on the annual variation in net cash flow per share criterion expressed in dollars during the three vesting years (2023, 2024 and 2025);
- For 20% of the shares, the level reached by the pre-dividend organic cash breakeven in view of the objective set for the three vesting years (2023, 2024 and 2025). The pre-dividend organic cash breakeven is defined as the Brent price for which the operating cash flow before working capital changes (MBA) covers the organic investments[1] . The ability of the Company to resist to the variations of the Brent barrel price is measured by this parameter;
- For 15% of the shares, the change in the greenhouse gas (GHG) emissions on operated facilities (Scope 1+2) in relation to the achievement of the target to reduce the GHG emissions set for 2025;
- For 15% of the shares, the change in methane emissions on operated facilities in relation to the achievement of the target to reduce methane emissions set for 2025.

[1] Organic investments: net investments excluding acquisitions, asset sales and other operations with non-controlling interests.

B. Share-based payment expense

Share-based payment expense before tax was broken down as follows:

As of December 31, (M$)	2023	2022	2021
TotalEnergies performance shares plans	217	200	129
SunPower plans [(a)]	–	23	25
Capital increase reserved for employees	74	28	14
TOTAL	**291**	**251**	**168**

[(a)]Since September 30, 2022, TotalEnergies' 50.5% subsidiary in SunPower is accounted for using the equity method in the Company's consolidated accounts (see Note 18 to the consolidated accounts)

The main assumptions used for the valuation of the cost of the capital increase reserved for employees in 2023 were the following:

For the year ended December 31,	2023
Date of the Board of Directors meeting that decided the issue	September 22, 2022
Reference price (€) [(a)]	56.88
Subscription price (€) [(b)]	45.60
Number of shares issued (in millions) [(c)]	8.00

(a) Average of the closing prices of the TotalEnergies shares over the twenty trading sessions preceding April 26, 2023, being the date of the Chairman and CEO's decision setting the opening date of the subscription period and the subscription price.
(b) Reference price, reduced by a 20% discount and rounded off to the highest tenth of a euro.
(c) Including the free shares issued.

Note 10 Payroll, staff and employee benefits obligations

10.1 EMPLOYEE BENEFITS OBLIGATIONS

Accounting principles

In accordance with the laws and practices of each country, TotalEnergies participates in employee benefit plans offering retirement, death and disability, healthcare and special termination benefits. These plans provide benefits based on various factors such as length of service, salaries, and contributions made to the governmental bodies responsible for the payment of benefits.

These plans can be either defined contribution or defined benefit pension plans and may be entirely or partially funded with investments made in various non-consolidated instruments such as mutual funds, insurance contracts, and other instruments.

For defined contribution plans, expenses correspond to the contributions paid.

Defined benefit obligations are determined according to the Projected Unit Method. Actuarial gains and losses may arise from differences between actuarial valuation and projected commitments (depending on new calculations or assumptions) and between projected and actual return of plan assets. Such gains and losses are recognized in the statement of comprehensive income, with no possibility to subsequently recycle them to the income statement.

The past service cost is recorded immediately in the statement of income, whether vested or unvested.

The net periodic pension cost is recognized under "Other operating expenses".

Liabilities for employee benefits obligations consist of the following:

As of December 31, (M$)	2023	2022	2021
Pension benefits liabilities	1,453	1,308	1,966
Other benefits liabilities	468	467	633
Restructuring reserves (early retirement plans)	72	54	73
TOTAL	**1,993**	**1,829**	**2,672**
Net liabilities relating to assets held for sale	–	–	(1)

Description of plans and risk management

TotalEnergies operates, for the benefit of its current and former employees, both defined benefit plans and defined contribution plans.

TotalEnergies recognized a charge of $167 million for defined contribution plans in 2023 ($152 million in 2022 and $145 million in 2021).

TotalEnergies' main defined benefit pension plans are located in France, the United Kingdom, the United States, Belgium and Germany. Their main characteristics, depending on the country-specific regulatory environment, are the following:

- the benefits are usually based on the final salary and seniority;
- they are usually funded (pension fund or insurer);
- they are usually closed to new employees who benefit from defined contribution pension plans;
- they are paid in annuity or in lump sum.

The pension benefits include also termination indemnities and early retirement benefits. The other benefits are employer contributions to post-employment medical care.

In order to manage the inherent risks, TotalEnergies has implemented a dedicated governance framework to ensure the supervision of the different plans. These governance rules provide for:

- TotalEnergies' representation in key governance bodies or monitoring committees;
- the principles of the funding policy;
- the general investment policy, including for most plans:
  - the establishment of a monitoring committee to define and follow the investment strategy and performance,
  - the principles to be respected in term of investment allocation;
- a procedure to approve the establishment of new plans or the amendment of existing plans;
- the principles of administration, communication and reporting.

Change in benefit obligations and plan assets

The fair value of the defined benefit obligation and plan assets in the Consolidated Financial Statements is detailed as follows:

As of December 31,	Pension benefits			Other benefits		
(M$)	2023	2022	2021	2023	2022	2021
Change in benefit obligation						
Benefit obligation at beginning of year	8,267	11,777	13,591	467	633	700
Current service cost	178	202	247	12	15	17
Interest cost	355	195	164	20	12	8
Past service cost	47	27	(197)	–	9	(1)
Settlements	2	5	3	–	–	–
Plan participants' contributions	23	17	17	–	1	–
Benefits paid	(563)	(661)	(704)	(24)	(22)	(34)
Actuarial losses / (gains)	393	(2,502)	(734)	(6)	(155)	(11)
Foreign currency translation and other	146	(793)	(610)	(1)	(25)	(46)
Benefit obligation at year-end	**8,847**	**8,267**	**11,777**	**468**	**467**	**633**
Of which plans entirely or partially funded	*8,392*	*7,806*	*11,143*	**–**	–	–
Of which plans not funded	*455*	*461*	*634*	*468*	*467*	*633*
Change in fair value of plan assets						
Fair value of plan assets at beginning of year	(7,306)	(10,231)	(10,580)	–	–	–
Interest income	(332)	(190)	(146)	–	–	–
Actuarial losses / (gains)	(272)	2,083	(290)	–	–	–
Settlements	–	2	—	–	–	–
Plan participants' contributions	(23)	(17)	(17)	–	–	–
Employer contributions	(254)	(260)	(303)	–	–	–
Benefits paid	523	607	635	–	–	–
Foreign currency translation and other	(104)	700	470	–	–	–
Fair value of plan assets at year-end	**(7,768)**	**(7,306)**	**(10,231)**	**–**	–	–
UNFUNDED STATUS	**1,079**	**961**	**1,546**	**468**	**467**	**633**
Asset ceiling	44	46	41	–	—	–
NET RECOGNIZED AMOUNT	**1,123**	**1,007**	**1,587**	**468**	**467**	**633**
Pension benefits and other benefits liabilities	1,453	1,308	1,966	468	467	633
Other non-current assets	(330)	(301)	(378)	–	–	–
Net benefit liabilities relating to assets held for sale	–	—	(1)	–	–	–

As of December 31, 2023, the contribution from the main geographical areas for the net pension liability in the balance sheet is: 93% for the Euro area, (10)% for the United Kingdom and 17% for the United States.

The amounts recognized in the consolidated income statement and the consolidated statement of comprehensive income for defined benefit plans are detailed as follows:

For the year ended December 31,	Pension benefits			Other benefits		
(M$)	2023	2022	2021	2023	2022	2021
Current service cost	178	202	247	12	15	17
Past service cost	47	27	(197)	–	9	(1)
Settlements	2	7	3	–	—	—
Net interest cost	28	5	18	20	12	8
Benefit amounts recognized on profit & loss	**255**	**241**	**71**	**32**	**36**	**24**
- Actuarial (Gains) / Losses						
* Effect of changes in demographic assumptions	4	1	(71)	(8)	(9)	(8)
* Effect of changes in financial assumptions	188	(2,617)	(450)	(7)	(138)	2
* Effect of experience adjustments	204	111	(214)	8	(8)	(5)
* Actual return on plan assets	(272)	2,083	(294)	–	—	—
- Effect of asset ceiling	(3)	3	5	–	—	—
Benefit amounts recognized on equity	**121**	**(419)**	**(1,024)**	**(6)**	**(155)**	**(11)**
TOTAL BENEFIT AMOUNTS RECOGNIZED ON COMPREHENSIVE INCOME	**376**	**(178)**	**(953)**	**25**	**(119)**	**13**

Expected future cash outflows

The average duration of accrued benefits is approximately 11 years for defined pension benefits and 15 years for other benefits. TotalEnergies expects to pay contributions of $146 million in respect of funded pension plans in 2024.

Estimated future benefits either financed from plan assets or directly paid by the employer are detailed as follows:

Estimated future payments

(M$)	Pension benefits	Other benefits
2024	551	25
2025	510	24
2026	536	23
2027	596	23
2028	612	22
2029-2033	3,098	111

Type of assets

Asset allocation	Pension benefits		
as of December 31,	2023	2022	2021
Equity securities	27%	26%	39%
Debt securities	47%	46%	35%
Monetary	2%	3%	1%
Annuity contracts	17%	17%	17%
Real estate	7%	8%	8%

Investments on equity and debt markets are quoted on active markets.

Main actuarial assumptions and sensitivity analysis

Assumptions used to determine benefits obligations:

	Pension benefits			Other benefits		
As of December 31,	2023	2022	2021	2023	2022	2021
Discount rate (weighted average for all regions)	**3.89%**	**4.39%**	**1.82%**	**4.26%**	**4.45%**	**1.83%**
Of which Euro zone	*3.27%*	*3.70%*	*0.99%*	*3.30%*	*3.48%*	*1.05%*
Of which United States	*4.50%*	*4.50%*	*3.00%*	*4.50%*	*4.50%*	*3.00%*
Of which United Kingdom	*4.50%*	*4.75%*	*2.00%*	–	—	—
Inflation rate (weighted average for all regions)	**2.49%**	**2.91%**	**2.41%**	–	**—**	**—**
Of which Euro zone	*2.24%*	*2.49%*	*1.71%*	–	—	—
Of which United States	*2.50%*	*2.50%*	*2.50%*	–	—	—
Of which United Kingdom	*3.00%*	*3.25%*	*3.25%*	–	—	—

The discount rate retained is determined by reference to the high quality rates for AA-rated corporate bonds for a duration equivalent to that of the obligations. It derives from a benchmark per monetary area of different market data at the closing date.
Sensitivity to inflation in respect of defined benefit pension plans is not material in the United States.

A 0.5% increase or decrease in discount rates – all other things being equal - would have the following approximate impact on the benefit obligation:

(M$)	0.5% Increase	0.5% Decrease
Benefit obligation as of December 31, 2023	(490)	538

A 0.5% increase or decrease in inflation rates – all other things being equal - would have the following approximate impact on the benefit obligation:

(M$)	0.5% Increase	0.5% Decrease
Benefit obligation as of December 31, 2023	300	(290)

10.2 Payroll and staff

For the year ended December 31,	2023	2022	2021
Personnel expenses (M$)			
Wages and salaries (including social charges)	9,210	9,002	9,207
TotalEnergies employees at December 31,			
France (DROM COM includ.)			
• Management	14,675	14,130	13,903
• Other	20,831	20,829	21,232
International			
• Management	19,470	18,183	17,346
• Other	47,603	48,137	48,828
TOTAL	**102,579**	**101,279**	**101,309**

The number of employees includes only employees of fully consolidated subsidiaries.

Note 11 Income taxes

Accounting principles

Income taxes disclosed in the statement of income include current tax expense (or income) and deferred tax expense (or income).

Current tax expense (or income) are the estimated amount of the tax due for the taxable income of the period.

Deferred income taxes are recorded based on the temporary differences between the carrying amounts of assets and liabilities recorded in the balance sheet and their tax bases, and on carry-forwards of unused tax losses and other tax credits.

Deferred tax assets and liabilities are measured using the tax rates that have been enacted or substantially enacted at the balance sheet date. The tax rates used depend on the timing of reversals of temporary differences, tax losses and other tax credits. The effect of a change in tax rate is recognized either in the Consolidated Statement of Income or in shareholders' equity depending on the item it relates to.

Deferred tax resulting from temporary differences between the carrying amounts of equity-method investments and their tax bases are recognized. The deferred tax calculation is based on the expected future tax effect (dividend distribution rate or tax rate on capital gains).

Income taxes are detailed as follows:

For the year ended December 31, (M$)	2023	2022	2021
Current income taxes	(12,745)	(19,825)	(8,158)
Deferred income taxes	(556)	(2,417)	(1,429)
TOTAL INCOME TAXES	**(13,301)**	**(22,242)**	**(9,587)**

Before netting deferred tax assets and liabilities by fiscal entity, the components of deferred tax balances are as follows:

As of December 31, (M$)	2023	2022	2021
Net operating losses and tax carry forwards	3,098	3,600	5,129
Employee benefits	415	409	586
Other temporary non-deductible provisions	7,569	8,813	8,235
Differences in depreciations	(15,443)	(14,692)	(15,233)
Other temporary tax deductions	(3,909)	(4,102)	(4,221)
NET DEFERRED TAX LIABILITY	**(8,270)**	**(5,972)**	**(5,504)**

The reserves of TotalEnergies subsidiaries that would be taxable if distributed but for which no distribution is planned, and for which no deferred tax liability has therefore been recognized, totaled $1,407 million as of December 31, 2023.

Deferred tax assets not recognized as of December 31, 2023, amount to $3,060 million as their future recovery was not regarded as probable given the expected results of the entities. Particularly in the Exploration & Production segment, when the affiliate or the field concerned is in its exploration phase, the net operating losses created during this phase will be useable only if a final investment and development decision is made. Accordingly, the time limit for the utilization of those net operating losses is not known.

Deferred tax assets not recognized relate notably to France for an amount of $1,072 million and to Australia for an amount of $222 million.

After netting deferred tax assets and liabilities by fiscal entity, deferred taxes are presented on the balance sheet as follows:

As of December 31, (M$)	2023	2022	2021
Deferred tax assets	3,418	5,049	5,400
Deferred tax liabilities	(11,688)	(11,021)	(10,904)
NET AMOUNT	**(8,270)**	**(5,972)**	**(5,504)**

The net deferred tax variation in the balance sheet is analyzed as follows:

As of December 31, (M$)	2023	2022	2021
Opening balance	**(5,972)**	**(5,504)**	**(3,310)**
Deferred tax on income	(556)	(2,417)	(1,429)
Deferred tax on shareholders' equity [(a)]	(741)	1,353	(546)
Changes in scope of consolidation and others	(1,102)	218	(315)
Currency translation adjustment	101	378	96
CLOSING BALANCE	**(8,270)**	**(5,972)**	**(5,504)**

(a) This amount includes mainly deferred taxes on actuarial gains and losses, current income taxes and deferred taxes for changes in fair value of investments inequity instruments, as well as deferred taxes related to the cash flow hedge (see Note 9 to the Consolidated Financial Statements).

Reconciliation between provision for income taxes and pre-tax income

For the year ended December 31, (M$)	2023	2022	2021
Consolidated net income	21,510	21,044	16,366
Income taxes	13,301	22,242	9,587
Pre-tax income	**34,811**	**43,286**	**25,953**
French statutory tax rate	25.83%	25.83%	28.41%
Theoretical tax charge	**(8,992)**	**(11,181)**	**(7,373)**
Difference between French and foreign income tax rates	(5,925)	(9,625)	(3,754)
Tax effect of equity in income (loss) of affiliates	477	(489)	977
Permanent differences	800	(676)	738
Adjustments on prior years income taxes	54	64	109
Adjustments on deferred tax related to changes in tax rates	216	(610)	(119)
Variation of deferred tax assets not recognized	69	275	(165)
INCOME TAXES IN THE STATEMENT OF INCOME	**(13,301)**	**(22,242)**	**(9,587)**

The French statutory tax rate includes the standard corporate tax rate (25%), additional and exceptional applicable taxes that bring the overall tax rate to 25.83% in 2023 (versus 25.83% in 2022 and 28.41% in 2021).

Permanent differences are mainly due to impairment of goodwill and to dividends from non-consolidated companies as well as the specific taxation rules applicable to certain activities.

Schedule of losses and tax credits carried forward

TotalEnergies has deferred tax assets related to losses and carried forward tax credits which expire according to the following years:

As of December 31, (M$)	2023	2022	2021
2022	–	–	27
2023	–	4	1
2024	2	2	5
2025	2	4	25
2026[(a)]	8	8	1,652
2027[(b)]	3	1,220	–
2028 and after	1,201	–	–
Unlimited	1,882	2,362	3,419
TOTAL	**3,098**	**3,600**	**5,129**

(a) 2026 and after for 2021.
(b) 2027 and after for 2022.

As of December 31, 2023 the schedule of deferred tax assets related to carried forward tax credits on net operating losses for the main countries is as follows:

	Tax			
As of December 31, 2023 (M$)	**Kazakhstan**	**France**	**Australia**	**United States**
2024	–	–	–	–
2025	–	–	–	–
2026	–	–	–	–
2027	–	–	–	–
2028 and after	2	–	–	322
Unlimited	834	732	667	338
TOTAL	**836**	**732**	**667**	**660**

Note 12 Provisions and other non-current liabilities

12.1 PROVISIONS AND OTHER NON-CURRENT LIABILITIES

Accounting principles

A provision is recognized when TotalEnergies has a present obligation, legal or constructive, as a result of a past event for which it is probable that an outflow of resources will be required and when a reliable estimate can be made regarding the amount of the obligation. The amount of the liability corresponds to the best possible estimate.

Provisions and non-current liabilities are comprised of liabilities for which the amount and the timing are uncertain. They arise from environmental risks, legal and tax risks, litigation and other risks.

As of December 31, (M$)	2023	2022	2021
Litigations and accrued penalty claims	476	529	285
Provisions for environmental contingencies	750	751	812
Asset retirement obligations	11,585	13,110	14,976
Other non-current provisions	3,588	3,633	2,766
of which restructuring activities	*228*	*282*	*506*
of which financial risks related to non-consolidated and equity accounted for affiliates	*1,708*	*1,582*	*265*
of which contingency reserve on solar panels warranties (SunPower)	*–*	*–*	*83*
Other non-current liabilities	4,858	3,379	1,430
TOTAL	**21,257**	**21,402**	**20,269**

In 2023, litigation reserves amount to $476 million of which $276 million in the Exploration & Production, notably in Brazil, Bolivia and Angola, and $91 million in Refining & Chemicals.

In 2022, litigation reserves amounted to $529 million of which $257 million in the Exploration & Production, notably in Brazil, Bolivia and Angola, and $159 million in Refining & Chemicals.

In 2021, litigation reserves amounted to $285 million of which $192 million in the Exploration & Production, notably in Brazil, Bolivia and Angola.

Other non-current liabilities mainly include debts whose maturity is more than one year related to fixed assets acquisitions.

Changes in provisions and other non-current liabilities

Changes in provisions and other non-current liabilities are as follows:

(M$)	As of January, 1	Allowances	Reversals	Currency translation adjustment	Other	As of December, 31
2023	**21,402**	**1,269**	**(1,315)**	**212**	**(311)**	**21,257**
of which provisions for financial risks	–	*18*	*(29)*	–	–	–
of which asset retirement obligations	–	*524*	*(339)*	–	–	–
of which provisions for environmental contingencies	–	*117*	*(158)*	–	–	–
of which provisions for restructuring of activities	–	*69*	*(138)*	–	–	–
2022	**20,269**	**2,724**	**(1,397)**	**(834)**	**640**	**21,402**
of which provisions for financial risks	–	*1,363*	*(15)*	–	–	–
of which asset retirement obligations	–	*430*	*(418)*	–	–	–
of which provisions for environmental contingencies	–	*97*	*(133)*	–	–	–
of which provisions for restructuring of activities	–	*31*	*(230)*	–	–	–
2021	**20,925**	**1,446**	**(1,560)**	**(404)**	**(138)**	**20,269**
of which provisions for financial risks	–	–	–	–	–	–
of which asset retirement obligations	–	*449*	*(527)*	–	–	–
of which provisions for environmental contingencies	–	*43*	*(178)*	–	–	–
of which provisions for restructuring of activities	–	*415*	*(178)*	–	–	–

Asset retirement obligations

Accounting principles

Asset retirement obligations, which result from a legal or constructive obligation, are recognized based on a reasonable estimate in the period in which the obligation arises.

The associated asset retirement costs are capitalized as part of the carrying amount of the underlying asset and depreciated over the useful life of this asset.

An entity is required to measure changes in the liability for an asset retirement obligation due to the passage of time (accretion) by applying a discount rate to the amount of the liability. Given the long-term nature of expenditures related to our asset retirement obligations, the rate is determined by reference to the rates of high quality AA-rated corporate bonds on the USD area for a long-term horizon. The increase of the provision due to the passage of time is recognized as “Other financial expense”.

The discount rate used for the valuation of asset retirement obligation is 5% in 2023 and 4% in 2022 and 3% in 2021 (the expenses are estimated at current currency values with an inflation rate of 2% in 2023 and 2% in 2022 and 1.5% in 2021).

A decrease of 0.5% of this rate would increase the asset retirement obligation by $846 million, with a corresponding impact in tangible assets, and with a negative impact of approximately $80 million on the following years net income. Conversely, an increase of 0.5% would have a nearly symmetrical impact compared to the effect of the decrease of 0.5%.

Changes in the asset retirement obligation are as follows:

(M$)	As of January 1,	Accretion	Revision in estimates	New obligations	Spending on existing obligations	Currency translation adjustment	Other	As of December 31,
2023	**13,110**	**524**	**(1,499)**	**108**	**(339)**	**101**	**(420)**	**11,585**
2022	14,976	430	(1,172)	198	(418)	(663)	(241)	13,110
2021	15,368	449	(109)	228	(527)	(194)	(239)	14,976

12.2 OTHER RISKS AND CONTINGENT LIABILITIES

There are no governmental, legal or arbitration proceedings, including any proceeding of which the Corporation is aware that are pending or threatened against the Corporation, that could have, or could have had during the last 12 months, a material impact on TotalEnergies’ financial situation or profitability.

Described below are the main administrative, legal and arbitration proceedings in which the Corporation and the other entities of TotalEnergies are involved.

FERC

The Office of Enforcement of the U.S. Federal Energy Regulatory Commission (FERC) began in 2015 an investigation in connection with the natural gas trading activities in the United States of TotalEnergies Gas & Power North America, Inc. (TGPNA), a U.S. subsidiary of TotalEnergies. The investigation covered transactions made by TGPNA between June 2009 and June 2012 on the natural gas market. TGPNA received a Notice of Alleged Violations from FERC on September 21, 2015. On April 28, 2016, FERC issued an order to show cause to TGPNA and two of its former employees, and to the Corporation and TotalEnergies Gas & Power Ltd., regarding the same facts. The case was remanded on July 15, 2021 to the FERC Administrative Judge for hearing and consideration on the merits. TGPNA brought a claim to the U.S. District Court for the District of Texas in December 2022 disputing the constitutionality of FERC’s administrative procedure; the U.S. District Court for the District of Texas ordered a stay of the case in the course of 2023, pending decisions by the U.S. Supreme Court in another cases involving similar constitutional issues. TGPNA contests the claims brought against it.

DISPUTE RELATING TO CLIMATE

In France, the Corporation was summoned in January 2020 before Nanterre’s Civil Court of Justice by certain associations and local communities in order to oblige the Company to complete its Vigilance Plan, by identifying in detail risks relating to a global warming above 1.5 °C, as well as indicating the expected amount of future greenhouse gas emissions related to the Company’s activities and its product utilization by third parties and in order to obtain an injunction ordering the Corporation to cease exploration and exploitation of new oil or gas fields, to reduce its oil and gas production by 2030 and 2050, and to reduce its net direct and indirect CO_2 emissions by 40% in 2040 compared with 2019. This action was declared inadmissible on July 6, 2023, by the Paris Civil Court of Justice to which the case was transferred following a new procedural law. All the claimants appealed this decision before the Paris Court of Appeal. TotalEnergies considers that it has fulfilled its obligations under the French law on the vigilance duty.

Several associations in France brought civil and criminal actions against TotalEnergies, with the purpose of proving that since May 2021 – after the change of name of TotalEnergies – the Corporation’s corporate communication and its publicity campaign contain environmental claims that are either false or misleading for the consumer. TotalEnergies considers that these accusations are unfounded.

In France, on July 4, 2023, nine shareholders (two companies and 7 individuals holding a small number of the Corporation’s shares) brought an action against the Corporation before the Nanterre Commercial Court, seeking the annulment of resolution no. 3 passed by the Corporation’s Annual Shareholders’ Meeting on May 26, 2023, recording the results for fiscal year 2022 and setting the amount of the dividend to be distributed for fiscal year 2022. The plaintiffs essentially allege an insufficient provision for impairment of the Company’s assets in the financial statements for the fiscal year 2022, due to the insufficient consideration of future risks and costs related to the consequences of greenhouse gas emissions emitted by its customers (scope 3) and carbon cost assumptions presented as too low. The Corporation considers this action to be unfounded.

In the United States, U.S. subsidiaries of TotalEnergies (TotalEnergies EP USA, Inc., TotalSpecialties USA, Inc. and TotalEnergies Marketing USA, Inc.) were summoned, amongst many companies and professional associations, in several “climate litigation” cases, seeking to establish legal liability for past greenhouse gas emissions, and to compensate plaintiff public authorities, in particular for resulting adaptation costs. The Corporation was summoned, along with these subsidiaries, in three of these litigations. The Corporation and its subsidiaries consider that the courts lack jurisdiction, and have many arguments to put forward, and consider that the past and present behavior of the Corporation and its subsidiaries does not constitute a fault susceptible to give rise to liability.

RUSSIA

In France, two associations filed a simple complaint against the Company in October 2022 with the National Anti-Terrorist Prosecutor's Office, due to the continuation of some of the Company's activities in Russia since the Russian invasion of Ukraine in 2022. The complaint, which the Corporation has not been given access to, would accuse the Corporation – due to its 49%[1] holding in Russian company Terneftegas, at that time 51%-owned by Novatek and operated by said company – of complicity in war crimes committed by the Russian Air Force in Ukraine, by aiding or assisting, through the supply of kerosene to the Russian Air Force. The Corporation – which has no direct or indirect activity vis-à-vis the sale of kerosene in Russia – has strongly rejected these accusations, as unfounded in both law and fact[2].

The complaint was dismissed by the National Anti-Terrorist Prosecutor's Office in early January 2023.

The plaintiffs later lodged a new identical complaint in March 2023 with the application to join the proceedings as a civil party. In June 2023, the National Anti-Terrorist Prosecutor's Office recommended a dismissal to the Elder Magistrate in charge of criminal matters.

MOZAMBIQUE

In France, victims and heirs of deceased persons filed a complaint against the Company in October 2023 with the Nanterre Prosecutor, following the events perpetrated by terrorists in the city of Palma in March 2021. This complaint would allege that the Corporation is liable for "unvoluntary manslaughter" and, "failure to assist people in danger". The Corporation considers these accusations as unfounded in both law and fact[3].

[1] The sale by the Company of the 49% interest in Terneftegaz announced by the Company on July 18, 2022 was finalized on September 15, 2022.
[2] Please refer to the press release published by the Company on August 24, 2022 contesting the accusations made by French newspaper Le Monde.
[3] Please refer to the press release published by the Company on October 11, 2023 contesting the accusations.

Note 13 Off-balance sheet commitments and lease contracts

13.1 OFF-BALANCE SHEET COMMITMENTS AND CONTRACTUAL OBLIGATIONS

As of December 31, 2023 (M$)	Total	Maturity and installments: Less than 1 year	Between 1 and 5 years	More than 5 years
Non-current debt obligations net of hedging instruments *(Note 15)*	31,493	–	13,068	18,425
Current portion of non-current debt obligations net of hedging instruments *(Note 15)*	5,669	5,669	–	–
Lease obligations *(Note 13.2)*	9,477	1,721	3,652	4,104
Asset retirement obligations *(Note 12)*	11,585	453	1,452	9,680
Contractual obligations recorded in the balance sheet	**58,224**	**7,843**	**18,172**	**32,209**
Lease obligations for low value assets, short term contracts or not yet commenced *(Note 13.2)*	2,221	643	1,049	529
Purchase obligations	178,772	14,536	40,850	123,386
Contractual obligations not recorded in the balance sheet	**180,993**	**15,179**	**41,899**	**123,915**
TOTAL OF CONTRACTUAL OBLIGATIONS	**239,217**	**23,022**	**60,071**	**156,124**
Guarantees given to customs authorities	2,001	1,913	47	41
Guarantees given on borrowings	19,219	582	9,506	9,131
Guarantees related to sales of businesses	312	160	–	152
Guarantees of current liabilities	67	67	–	–
Guarantees to customers / suppliers	23,382	6,768	3,946	12,668
Letters of credit	3,294	3,002	270	22
Other operating commitments	20,409	8,698	1,083	10,628
TOTAL OF OTHER COMMITMENTS GIVEN	**68,684**	**21,190**	**14,852**	**32,642**
Assets received as collateral (security interests)	42	22	8	12
Sales obligations	97,436	8,470	47,178	41,788
Other commitments received	25,365	18,025	3,355	3,985
TOTAL OF COMMITMENTS RECEIVED	**122,843**	**26,517**	**50,541**	**45,785**
of which commitments given relating to joint ventures	*32,846*	*906*	*10,643*	*21,297*
of which commitments given relating to associates	*97,130*	*850*	*14,676*	*81,604*

As of December 31, 2022 (M$)	Total	Maturity and installments: Less than 1 year	Between 1 and 5 years	More than 5 years
Non-current debt obligations net of hedging instruments *(Note 15)*	35,684	–	14,229	21,455
Current portion of non-current debt obligations net of hedging instruments *(Note 15)*	5,328	5,328	–	–
Lease obligations *(Note 13.2)*	9,714	1,437	3,872	4,405
Asset retirement obligations *(Note 12)*	13,110	521	1,497	11,092
Contractual obligations recorded in the balance sheet	**63,836**	**7,286**	**19,598**	**36,952**
Lease obligations for low value assets, short term contracts or not yet commenced *(Note 13.2)*	1,830	783	610	437
Purchase obligations	139,050	11,286	40,516	87,248
Contractual obligations not recorded in the balance sheet	**140,880**	**12,069**	**41,126**	**87,685**
TOTAL OF CONTRACTUAL OBLIGATIONS	**204,716**	**19,355**	**60,724**	**124,637**
Guarantees given to customs authorities	2,003	1,904	53	46
Guarantees given on borrowings	20,218	2,519	5,814	11,885
Guarantees related to sales of businesses	310	157	–	153
Guarantees of current liabilities	62	61	1	–
Guarantees to customers / suppliers	23,757	3,539	2,275	17,943
Letters of credit	2,430	2,241	172	17
Other operating commitments	23,039	5,198	900	16,941
TOTAL OF OTHER COMMITMENTS GIVEN	**71,819**	**15,619**	**9,215**	**46,985**
Assets received as collateral (security interests)	45	14	10	21
Sales obligations	94,977	6,267	36,341	52,369
Other commitments received	25,650	19,261	2,817	3,572
TOTAL OF COMMITMENTS RECEIVED	**120,672**	**25,542**	**39,168**	**55,962**
of which commitments given relating to joint ventures	*32,054*	*2,006*	*5,666*	*24,382*
of which commitments given relating to associates	*52,270*	*839*	*11,638*	*39,793*

As of December 31, 2021 (M$)	Total	Maturity and installments: Less than 1 year	Between 1 and 5 years	More than 5 years
Non-current debt obligations net of hedging instruments *(Note 15)*	40,311	–	16,811	23,500
Current portion of non-current debt obligations net of hedging instruments *(Note 15)*	5,073	5,073	–	–
Lease obligations *(Note 13.2)*	9,034	1,390	3,321	4,323
Asset retirement obligations *(Note 12)*	14,976	610	1,751	12,615
Contractual obligations recorded in the balance sheet	**69,394**	**7,073**	**21,883**	**40,438**
Lease obligations for low value assets, short term contracts or not yet commenced *(Note 13.2)*	1,679	689	543	447
Purchase obligations	136,032	13,333	36,174	86,525
Contractual obligations not recorded in the balance sheet	**137,711**	**14,022**	**36,717**	**86,972**
TOTAL OF CONTRACTUAL OBLIGATIONS	**207,105**	**21,095**	**58,600**	**127,410**
Guarantees given to customs authorities	2,236	2,122	50	64
Guarantees given on borrowings	20,428	595	3,734	16,099
Guarantees related to sales of businesses	316	163	–	153
Guarantees of current liabilities	70	69	1	–
Guarantees to customers / suppliers	23,494	3,093	4,376	16,025
Letters of credit	2,993	2,869	122	2
Other operating commitments	21,138	3,058	1,594	16,486
TOTAL OF OTHER COMMITMENTS GIVEN	**70,675**	**11,969**	**9,877**	**48,829**
Assets received as collateral (security interests)	62	37	16	9
Sales obligations	92,555	7,565	33,271	51,719
Other commitments received	22,326	17,285	1,755	3,286
TOTAL OF COMMITMENTS RECEIVED	**114,943**	**24,887**	**35,042**	**55,014**
of which commitments given relating to joint ventures	*33,373*	*253*	*7,353*	*25,767*
of which commitments given relating to associates	*34,491*	*727*	*9,110*	*24,654*

A. Contractual obligations

Debt obligations

"Non-current debt obligations" are included in the items "Non-current financial debt" and "Non-current financial assets" of the Consolidated Balance Sheet. It includes the non-current portion of swaps hedging bonds and excludes non-current lease obligations of $7,756 million.

The current portion of non-current debt is included in the items "Current borrowings", "Current financial assets" and "Other current financial liabilities" of the Consolidated Balance Sheet. It includes the current portion of swaps hedging bonds and excludes the current portion of lease obligations of $1,721 million.

The information regarding contractual obligations linked to indebtedness is presented in Note 15 to the Consolidated Financial Statements.

Lease contracts

The information regarding leases is presented in Note 13.2 to the Consolidated Financial Statements.

Asset retirement obligations

This item represents the discounted present value of Exploration & Production and Integrated LNG asset retirement obligations, primarily asset removal costs at the completion date. The information regarding contractual obligations linked to asset retirement obligations is presented in Note 12 to the Consolidated Financial Statements.

Purchase obligations

Purchase obligations are obligations under contractual agreements to purchase goods or services, including capital projects. These obligations are enforceable and legally binding on the company and specify all significant terms, including the amount and the timing of the payments.

These obligations mainly include: unconditional hydrocarbon purchase contracts (except where an active, highly-liquid market exists and when the hydrocarbons are expected to be re-sold shortly after purchase) in the Integrated LNG segment, reservation of transport capacities in pipelines, unconditional exploration works and development works in the Exploration & Production and Integrated LNG segment, and contracts for capital investment projects in the Refining & Chemicals segment.

B. Other commitments given

Guarantees given to customs authorities

These consist of guarantees given by TotalEnergies to customs authorities in order to guarantee the payments of taxes and excise duties on the importation of oil and gas products, mostly in France.

Guarantees given on borrowings

TotalEnergies guarantees bank debt and lease obligations of certain non-consolidated subsidiaries and equity affiliates. Maturity dates vary, and guarantees will terminate on payment and/or cancellation of the obligation. A payment would be triggered by failure of the guaranteed party to fulfill its obligation covered by the guarantee, and no assets are held as collateral for these guarantees. As of December 31, 2023, the maturities of these guarantees are up to 2047.

As of December 31, 2023, the guarantees provided by TotalEnergies SE in connection with the financing of the Mozambique LNG project amount to $4,600 million as in 2022.

As of December 31, 2023, the guarantees provided by TotalEnergies SE in connection with the financing of the Ichthys LNG project amount to $4,136 million. As of December 31, 2022, the guarantees amounted to $4,659 million.

As of December 31, 2023, the guarantees provided by TotalEnergies SE in connection with the financing of the Yamal LNG project amount to $3,270 million. As of December 31, 2022, the guarantees amounted to $3,483 million.

As of December 31, 2023, the guarantees provided by TotalEnergies SE in connection with the financing of the Bayport Polymers LLC project, amount to $1,400 million. As of December 31, 2022, the guarantees amounted to $1,820 million.

As of December 31, 2023, the guarantees provided by TotalEnergies Holdings in connection with the financing of the Seagreen project, amount to $1,273 million. As of December 31, 2022, the guarantees amounted to $1,204 million.

As of December 31, 2023, the guarantees provided by TotalEnergies SE in connection with the financing of the Arctic LNG2 project amount to $1,050 million. As of December 31, 2022, the guarantees amounted to $1,013 million.

As of December 31, 2023, TotalEnergies SE has confirmed guarantees for TotalEnergies Refining Saudi Arabia SAS shareholders' advances for an amount of $1,025 million as in 2022.

As of December 31, 2023, the guarantee provided by TotalEnergies Holdings in connection with the financing of the Rio Grande LNG project amount to $800 million.

Indemnities related to sales of businesses

In the ordinary course of business, TotalEnergies executes contracts involving standard indemnities for the oil industry and indemnities specific to transactions such as sales of businesses. These indemnities might include claims against any of the following: environmental, tax and shareholder matters, intellectual property rights, governmental regulations and employment-related matters, and commercial contractual relationships. Performance under these indemnities would generally be triggered by a breach of terms of the contract or by a third party claim. TotalEnergies regularly evaluates the probability of having to incur costs associated with these indemnities.

Other guarantees given

Non-consolidated subsidiaries

TotalEnergies also guarantees the current liabilities of certain non-consolidated subsidiaries. Performance under these guarantees would be triggered by a financial default of the entity.

Operating agreements

As part of normal ongoing business operations and consistent with generally accepted industry practices, TotalEnergies enters into numerous agreements with other parties. These commitments are often entered into for commercial purposes, for regulatory purposes or for other operating agreements.

C. Commitments received

Sales obligations

These amounts represent binding obligations to sell goods, including in particular hydrocarbon sales contracts (except where an active, highly-liquid market exists and when the volumes are expected to be re-sold shortly after purchase).

13.2 LEASE CONTRACTS

Accounting principles

A lease contract is a contract that grants lessee the right to use an identified asset for a specified period of time in exchange for consideration. At lease inception, an asset corresponding to right of use and a debt are recognized in the lessee's balance sheet. Carrying value of right of use corresponds to present value of future lease payments plus any direct costs incurred for concluding the contract. Lease debt is recorded as a liability in the balance sheet under financial debts. Rights of use are depreciated over the useful lives applied by TotalEnergies.

Leases that are of short duration or that relate to low value assets are not recorded in the balance sheet, in accordance with the exemptions in the standard. They are presented as off-balance sheet commitments.

TotalEnergies mainly leases real estate, service stations, ships, and other equipment (see Note 7 to the Consolidated Financial Statements).

The future minimum lease payments on leases to which TotalEnergies is committed are as follows:

For the year ended December 31, 2023 (M$)	Exempted contracts	Leases recorded in balance sheet
2024	643	2,473
2025	406	1,607
2026	249	1,384
2027	231	1,142
2028	163	1,007
2029 and beyond	529	6,188
Total minimum payments	**2,221**	**13,801**
Less financial expenses		(4,324)
Nominal value of contracts		**9,477**
Less current portion of lease contracts *(Note 15)*		(1,721)
Non-current lease liabilities		**7,756**

For the year ended December 31, 2022 (M$)	Exempted contracts	Leases recorded in balance sheet
2023	783	2,189
2024	190	1,646
2025	154	1,255
2026	137	1,140
2027	129	993
2028 and beyond	437	6,053
Total minimum payments	**1,830**	**13,276**
Less financial expenses		(3,562)
Nominal value of contracts		**9,714**
Less current portion of lease contracts *(Note 15)*		(1,437)
Non-current lease liabilities		**8,277**

For the year ended December 31, 2021 (M$)	Exempted contracts	Leases recorded in balance sheet
2022	689	1,835
2023	194	1,347
2024	136	1,199
2025	111	1,097
2026	102	1,021
2027 and beyond	447	6,017
Total minimum payments	**1,679**	**12,516**
Less financial expenses		(3,482)
Nominal value of contracts		**9,034**
Less current portion of lease contracts *(Note 15)*		(1,390)
Non-current lease liabilities		**7,644**

For the year ended December 31, 2023, rental expense recorded in the income statement and incurred under short term leases or low value assets leases and under variable lease payments is $1,007 million and $183 million, respectively.

For the year ended December 31, 2022, rental expense recorded in the income statement and incurred under short term leases or low value assets leases and under variable lease payments was $701 million and $151 million, respectively.

For the year ended December 31, 2021, rental expense recorded in the income statement and incurred under short team leases or low value assets leases and under variable lease payments was $487 million and $242 million, respectively.

Other information required on lease debts, notably their maturity, is presented in Note 15 to the Consolidated Financial Statements.

Note 14 Financial assets and liabilities analysis per instrument class and strategy

The financial assets and liabilities disclosed in the balance sheet are detailed as follows:

As of December 31, 2023 (M$) Assets / (Liabilities)	Amortized cost	Fair value through P&L	Other comprehensive income	Fair value of bonds hedging instruments	Total	Fair value
Equity affiliates: loans	4,260	302	–	–	4,562	**4,562**
Other investments	–	1,188	355	–	1,543	**1,543**
Non-current financial assets	1,166	414	142	673	2,395	**2,395**
Other non-current assets	3,983	–	–	–	3,983	**3,983**
Accounts receivable, net[(b)]	23,442	–	–	–	23,442	**23,442**
Other operating receivables	7,940	6,775	237	–	14,952	**14,952**
Current financial assets	5,046	1,448	–	91	6,585	**6,585**
Cash and cash equivalents	27,263	–	–	–	27,263	**27,263**
Total financial assets	**73,100**	**10,127**	**734**	**764**	**84,725**	**84,725**
Total non-financial assets					**198,929**	
TOTAL ASSETS					**283,654**	
Non-current financial debt[(a)]	(38,040)	(240)	–	(2,198)	(40,478)	**(41,329)**
Accounts payable[(b)]	(41,335)	–	–	–	(41,335)	**(41,335)**
Other operating liabilities	(12,287)	(7,573)	(77)	–	(19,937)	**(19,937)**
Current borrowings[(a)]	(9,590)	–	–	–	(9,590)	**(9,601)**
Other current financial liabilities	–	(178)	–	(268)	(446)	**(446)**
Total financial liabilities	**(101,252)**	**(7,991)**	**(77)**	**(2,466)**	**(111,786)**	**(112,648)**
Total non-financial liabilities					**(171,868)**	
TOTAL LIABILITIES					**(283,654)**	

(a) The financial debt is adjusted to the hedged risks value (currency and interest rate) as part of hedge accounting (see Note 15 to the Consolidated Financial Statements).
(b) The impact of offsetting on accounts receivable, net is $(5,897) million and $5,897 million on accounts payable.

As of December 31, 2022 (M$) Assets / (Liabilities)	Amortized cost	Fair value through P&L	Other comprehensive income	Fair value of bonds hedging instruments	Total	Fair value
Equity affiliates: loans	3,733	—	—	—	3,733	**3,733**
Other investments	—	932	119	—	1,051	**1,051**
Non-current financial assets	1,428	490	—	813	2,731	**2,731**
Other non-current assets	2,087	—	—	—	2,087	**2,087**
Accounts receivable, net[(b)]	24,378	—	—	—	24,378	**24,378**
Other operating receivables	8,069	19,529	691	—	28,289	**28,289**
Current financial assets	7,536	1,071	137	2	8,746	**8,746**
Cash and cash equivalents	33,026	—	—	—	33,026	**33,026**
Total financial assets	**80,257**	**22,022**	**947**	**815**	**104,041**	**104,041**
Total non-financial assets					**199,823**	
TOTAL ASSETS					**303,864**	
Non-current financial debt[(a)]	(41,235)	(283)	—	(3,746)	(45,264)	**(43,471)**
Accounts payable[(b)]	(41,346)	—	—	—	(41,346)	**(41,346)**
Other operating liabilities	(16,412)	(17,994)	(780)	—	(35,186)	**(35,186)**
Current borrowings[(a)]	(15,502)	—	—	—	(15,502)	**(15,518)**
Other current financial liabilities	—	(226)	—	(262)	(488)	**(488)**
Total financial liabilities	**(114,495)**	**(18,503)**	**(780)**	**(4,008)**	**(137,786)**	**(136,009)**
Total non-financial liabilities					**(166,078)**	
TOTAL LIABILITIES					**(303,864)**	

(a) The financial debt is adjusted to the hedged risks value (currency and interest rate) as part of hedge accounting (see Note 15 to the Consolidated Financial Statements).
(b) The impact of offsetting on accounts receivable, net is $(10,156) million and $10,156 million on accounts payable.

As of December 31, 2021 (M$) Assets / (Liabilities)	Amortized cost	Fair value through P&L	Other comprehensive income	Fair value of bonds hedging instruments	Total	Fair value
Equity affiliates: loans	4,532	—	—	—	4,532	**4,532**
Other investments	—	1,052	573	—	1,625	**1,625**
Non-current financial assets	847	770	—	787	2,404	**2,404**
Other non-current assets	2,419	—	—	—	2,419	**2,419**
Accounts receivable, net[b]	21,983	—	—	—	21,983	**21,983**
Other operating receivables	7,141	21,067	1,345	—	29,553	**29,553**
Current financial assets	12,001	272	–	42	12,315	**12,315**
Cash and cash equivalents	21,342	—	—	—	21,342	**21,342**
Total financial assets	**70,265**	**23,161**	**1,918**	**829**	**96,173**	**96,173**
Total non-financial assets					**197,285**	
TOTAL ASSETS					**293,458**	
Non-current financial debt[a]	(47,973)	(41)	—	(1,498)	(49,512)	**(53,144)**
Accounts payable[b]	(36,837)	—	—	—	(36,837)	**(36,837)**
Other operating liabilities	(11,128)	(15,266)	(900)	—	(27,294)	**(27,294)**
Current borrowings [a]	(15,035)	—	—	—	(15,035)	**(15,039)**
Other current financial liabilities	—	(56)	—	(316)	(372)	**(372)**
Total financial liabilities	**(110,973)**	**(15,363)**	**(900)**	**(1,814)**	**(129,050)**	**(132,686)**
Total non-financial liabilities					**(164,408)**	
TOTAL LIABILITIES					**(293,458)**	

(a) The financial debt is adjusted to the hedged risks value (currency and interest rate) as part of hedge accounting (see Note 15 to the Consolidated Financial Statements).
(b) The impact of offsetting on accounts receivable, net is $(4,584) million and $4,584 million on accounts payable.

Note 15 Financial structure and financial costs

15.1 FINANCIAL DEBT AND DERIVATIVE FINANCIAL INSTRUMENTS

A) Non-current financial debt and related financial instruments

As of December 31, 2023
(M$)

(Assets) / Liabilities	Secured	Unsecured	Total
Non-current financial debt	8,427	32,051	40,478
of which hedging instruments of non-current financial debt (liabilities)	–	*2,198*	*2,198*
Non-current financial assets	(1,166)	(1,229)	(2,395)
of which hedging instruments of non-current financial debt (assets)	–	*(673)*	*(673)*
NON-CURRENT NET FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS	**7,261**	**30,822**	**38,083**
Variable rate bonds or bonds after fair value hedge	–	7,051	7,051
Fixed rate bonds or bonds after cash flow hedge	–	22,839	22,839
Other floating rate debt	430	408	838
Other fixed rate debt	241	840	1,081
Lease obligations	7,756	–	7,756
Non-current financial assets excluding derivative financial instruments	(1,166)	(142)	(1,308)
Non-current instruments held for trading	–	(174)	(174)
NON-CURRENT NET FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS	**7,261**	**30,822**	**38,083**

As of December 31, 2022
(M$)

(Assets) / Liabilities	Secured	Unsecured	Total
Non-current financial debt	8,329	36,935	45,264
of which hedging instruments of non-current financial debt (liabilities)	–	*3,746*	*3,746*
Non-current financial assets	(1,428)	(1,303)	(2,731)
of which hedging instruments of non-current financial debt (assets)	–	*(813)*	*(813)*
NON-CURRENT NET FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS	**6,901**	**35,632**	**42,533**
Variable rate bonds or bonds after fair value hedge	–	8,958	8,958
Fixed rate bonds or bonds after cash flow hedge	–	26,159	26,159
Other floating rate debt	13	227	240
Other fixed rate debt	39	496	535
Lease obligations	8,277	–	8,277
Non-current financial assets excluding derivative financial instruments	(1,428)	–	(1,428)
Non-current instruments held for trading	–	(208)	(208)
NON-CURRENT NET FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS	**6,901**	**35,632**	**42,533**

As of December 31, 2021
(M$)

(Assets) / Liabilities	Secured	Unsecured	Total
Non-current financial debt	7,720	41,792	49,512
of which hedging instruments of non-current financial debt (liabilities)	–	*1,498*	*1,498*
Non-current financial assets	(847)	(1,557)	(2,404)
of which hedging instruments of non-current financial debt (assets)	–	*(787)*	*(787)*
NON-CURRENT NET FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS	**6,873**	**40,235**	**47,108**
Variable rate bonds or bonds after fair value hedge	–	12,820	12,820
Fixed rate bonds or bonds after cash flow hedge	–	27,147	27,147
Other floating rate debt	15	634	649
Other fixed rate debt	61	363	424
Lease obligations	7,644	–	7,644
Non-current financial assets excluding derivative financial instruments	(847)	(675)	(1,522)
Non-current instruments held for trading	–	(54)	(54)
NON-CURRENT NET FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS	**6,873**	**40,235**	**47,108**

The bonds, as of December 31, 2023, after taking into account currency and interest rates swaps fair value, are detailed as follows:

Bonds after fair value hedge or variable rate bonds[(a)] (M$)	Currency of issuance	Amount after December 31, 2023	Amount after December 31, 2022	Amount after December 31, 2021	Range of current maturities	Range of initial current rate before hedging instruments
Bond	USD	3,542	5,042	5,001	2024 - 2028	2.434% - 3.883 %
Bond	CHF	409	407	409	2026 - 2029	0.176% - 0.298 %
Bond	AUD	71	71	71	2025	4.000 %
Bond	EUR	3,209	5,574	7,528	2024 - 2044	0.625% - 3.000 %
Bond	GBP	929	925	1,524	2025 - 2031	1.405% - 1.750 %
Bond	HKD	130	129	129	2025	2.920 %
Current portion (less than one year)		(2,118)	(3,890)	(2,540)		
Principal financing entities[(b)]		**6,172**	**8,258**	**12,122**		
TotalEnergies SE						
Bond		—	—	1,200		
Current portion (less than one year)		—	—	(1,200)		
Other consolidated subsidiaries		879	700	698		
TOTAL VARIABLE RATE BONDS OR BONDS AFTER FAIR VALUE HEDGE		**7,051**	**8,958**	**12,820**		

Bonds after cash flow hedge or fixed rate bonds (M$)	Currency of issuance	Amount after December 31, 2023	Amount after December 31, 2022	Amount after December 31, 2021	Range of current maturities	Range of initial current rate before hedging instruments
Bond	EUR	15,448	15,628	15,487	2024 - 2044	0.696% - 5.125 %
Bond	USD	8,301	8,783	9,941	2024 - 2060	2.829% - 3.461 %
Bond	HKD	187	187	200	2026	3.088 %
Bond	CHF	1,088	1,076	1,113	2024 - 2027	0.510% - 1.010 %
Bond	GBP	980	985	1,004	2024 - 2026	1.250% - 1.660 %
Bond	AUD	(1)	(2)	5	2025	4.000 %
Current portion (less than one year)		(3,175)	(500)	(1,000)		
Principal financing entities[(b)]		**22,828**	**26,157**	**26,750**		
Other consolidated subsidiaries		11	2	397		
TOTAL FIXED RATE BONDS OR BONDS AFTER CASH FLOW HEDGE		**22,839**	**26,159**	**27,147**		

(a) The IBOR rate reform mainly impacted the bonds after fair value hedge, on principal financing entities and TotalEnergies SE, indexed on the USD LIBOR rate. At December 31, 2023, the amount of the bonds after fair value hedge (both non-current and current portions) on principal financing entities and TotalEnergies SE is $ 8,290 million.

(b) All debt securities issued through the following subsidiaries are fully and unconditionally guaranteed by TotalEnergies SE as to payment of principal, premium, if any, interest and any other amounts due:
- TotalEnergies Capital is a wholly and directly owned subsidiary of TotalEnergies SE (except for one share held by each director). It acts as a financing vehicle for TotalEnergies. The repayment of its financial debt (capital, premium and interest) is fully and unconditionally guaranteed by TotalEnergies SE;
- TotalEnergies Capital Canada Ltd. is a wholly and directly owned subsidiary of TotalEnergies SE. It acted as a financing vehicle for the activities of TotalEnergies in Canada. The repayment of its financial debt (capital, premium and interest) is fully and unconditionally guaranteed by TotalEnergies SE;
- TotalEnergies Capital International is a wholly and directly owned subsidiary of TotalEnergies SE (except for one share held by each director). It acts as a financing vehicle for TotalEnergies. The repayment of its financial debt (capital, premium and interest) is fully and unconditionally guaranteed by TotalEnergies SE.

Loan repayment schedule (excluding current portion)

As of December 31, 2023 (M$)	Non-current financial debt	*of which hedging instruments of non-current financial debt (liabilities)*	Non-current financial assets	*of which hedging instruments of non-current financial debt (assets)*	Non-current net financial debt and related financial instruments	%
2025	5,381	*369*	(434)	*(110)*	4,947	13 %
2026	4,013	*323*	(304)	*(102)*	3,709	10 %
2027	3,720	*85*	(349)	*(55)*	3,371	9 %
2028	4,502	*304*	(246)	*(142)*	4,256	11 %
2029 and beyond	22,862	*1,117*	(1,062)	*(264)*	21,800	57 %
TOTAL	**40,478**	***2,198***	**(2,395)**	***(673)***	**38,083**	**100 %**

As of December 31, 2022 (M$)	Non-current financial debt	*of which hedging instruments of non-current financial debt (liabilities)*	Non-current financial assets	*of which hedging instruments of non-current financial debt (assets)*	Non-current net financial debt and related financial instruments	%
2024	7,251	*399*	(899)	*(56)*	6,352	15 %
2025	4,701	*552*	(259)	*(168)*	4,442	10 %
2026	3,465	*467*	(194)	*(107)*	3,271	8 %
2027	3,522	*217*	(104)	*(17)*	3,418	8 %
2028 and beyond	26,325	*2,111*	(1,275)	*(465)*	25,050	59 %
TOTAL	**45,264**	***3,746***	**(2,731)**	***(813)***	**42,533**	**100 %**

As of December 31, 2021 (M$)	Non-current financial debt	*of which hedging instruments of non-current financial debt (liabilities)*	Non-current financial assets	*of which hedging instruments of non-current financial debt (assets)*	Non-current net financial debt and related financial instruments	%
2023	6,143	*115*	(111)	*(51)*	6,032	13 %
2024	6,506	*190*	(219)	*(103)*	6,287	13 %
2025	4,471	*194*	(89)	*(51)*	4,382	9 %
2026	3,348	*238*	(71)	*(34)*	3,277	7 %
2027 and beyond	29,044	*761*	(1,914)	*(548)*	27,130	58 %
TOTAL	**49,512**	***1,498***	**(2,404)**	***(787)***	**47,108**	**100 %**

Analysis by currency and interest rate

These analyses take into account interest rate and foreign currency swaps to hedge non-current financial net debt.

As of December 31, (M$)	2023	%	2022	%	2021	%
U.S. dollar	34,789	91 %	38,896	91 %	44,387	94 %
Euro	2,322	6 %	2,083	5 %	1,708	4 %
Norwegian krone	40	0 %	47	0 %	67	0 %
Other currencies	932	3 %	1,507	4 %	946	2 %
TOTAL	**38,083**	**100 %**	**42,533**	**100 %**	**47,108**	**100 %**

As of December 31, (M$)	2023	%	2022	%	2021	%
Fixed rate	30,311	80 %	33,533	79 %	34,353	73 %
Floating rate	7,772	20 %	9,000	21 %	12,755	27 %
TOTAL	**38,083**	**100 %**	**42,533**	**100 %**	**47,108**	**100 %**

B) Current financial assets and liabilities

Current borrowings consist mainly of drawings on commercial papers or treasury bills and of bank loans. These instruments bear interest at rates that are close to market rates. Current deposits beyond three months include initial margins held as part of the Company's activities on organized markets.

As of December 31,
(M$)

(Assets) / Liabilities	**2023**	**2022**	**2021**
Current financial debt[a]	2,377	8,997	8,846
Current lease obligations	1,721	1,437	1,390
Current portion of non-current financial debt	5,492	5,068	4,799
Current borrowings *(Note 14)*	**9,590**	**15,502**	**15,035**
Current portion of hedging instruments of debt (liabilities)	268	262	316
Other current financial instruments (liabilities)	178	226	56
Other current financial liabilities *(Note 14)*	**446**	**488**	**372**
Current deposits beyond three months	(5,450)	(8,127)	(11,868)
Marketable securities	(519)	(218)	(195)
Financial receivables on sub-lease, current	(329)	(190)	(132)
Current portion of hedging instruments of debt (assets)	(91)	(2)	(42)
Other current financial instruments (assets)	(196)	(209)	(78)
Current financial assets *(Note 14)*	**(6,585)**	**(8,746)**	**(12,315)**
NET CURRENT BORROWINGS	**3,451**	**7,244**	**3,092**

(a) As of December 31, 2023, December 31, 2022 and December 31, 2021, current financial debt includes notably short-term negotiable debt security issued through programs fully and unconditionally secured by TotalEnergies SE.

C) Cash flow from (used in) financing activities

The variations of financial debt are detailed as follows:

			Non-cash changes					
(M$)	As of January 1, 2023	Cash changes	Change in scope, including IFRS 5 reclassification	Foreign currency	Changes in fair value	Reclassification Non-current / Current	Other	**As of December 31, 2023**
Non-current financial instruments - assets[a] and non-current financial assets	(2,731)	—	(96)	(21)	353	387	(287)	(2,395)
Non-current financial debt	45,264	130	667	65	(343)	(7,573)	2,268	40,478
Non-current financial debt and related financial instruments	**42,533**	**130**	**571**	**44**	**10**	**(7,186)**	**1,981**	**38,083**
Current financial instruments - assets[a]	(401)	383	(1)	(8)	(68)	(387)	(134)	(616)
Current borrowings	15,502	(14,660)	181	389	121	7,573	484	9,590
Current financial instruments - liabilities[a]	488	—	6	11	(59)	—	—	446
Current financial debt and related financial instruments	**15,589**	**(14,277)**	**186**	**392**	**(6)**	**7,186**	**350**	**9,420**
Financial debt and financial assets classified as held for sale	(38)	—	341	7	—	—	—	310
NET FINANCIAL DEBT	**58,084**	**(14,147)**	**1,098**	**443**	**4**	**—**	**2,331**	**47,813**

(a) Fair value or cash flow hedge instruments and other non-hedge debt-related derivative instruments.

			Non-cash changes					
(M$)	As of January 1, 2022	Cash changes	Change in scope, including IFRS 5 reclassification	Foreign currency	Changes in fair value	Reclassification Non-current / Current	Other	**As of December 31, 2022**
Non-current financial instruments - assets[a] and non-current financial assets	(2,404)	—	24	52	(448)	198	(153)	(2,731)
Non-current financial debt	49,512	1,108	(696)	(225)	175	(6,981)	2,371	45,264
Non-current financial debt and related financial instruments	**47,108**	**1,108**	**(672)**	**(173)**	**(273)**	**(6,783)**	**2,218**	**42,533**
Current financial instruments - assets[a]	(252)	264	—	6	(97)	(198)	(124)	(401)
Current borrowings	15,035	(6,337)	(316)	(106)	(69)	6,981	314	15,502
Current financial instruments - liabilities[a]	372	—	—	(9)	125	—	—	488
Current financial debt and related financial instruments	**15,155**	**(6,073)**	**(316)**	**(109)**	**(41)**	**6,783**	**190**	**15,589**
Financial debt and financial assets classified as held for sale	(4)	—	(34)	—	—	—	—	(38)
NET FINANCIAL DEBT	**62,259**	**(4,965)**	**(1,022)**	**(282)**	**(314)**	**—**	**2,408**	**58,084**

(a) Fair value or cash flow hedge instruments and other non-hedge debt-related derivative instruments.

			Non-cash changes					
(M$)	As of January 1, 2021	Cash changes	Change in scope, including IFRS 5 reclassification	Foreign currency	Changes in fair value	Reclassification Non-current / Current	Other	**As of December 31, 2021**
Non-current financial instruments - assets [a] and non-current financial assets	(4,781)	(290)	1	64	2,432	188	(18)	(2,404)
Non-current financial debt	60,203	(359)	(58)	(183)	(2,377)	(9,254)	1,540	49,512
Non-current financial debt and related financial instruments	**55,422**	**(649)**	**(57)**	**(119)**	**55**	**(9,066)**	**1,522**	**47,108**
Current financial instruments - assets[a]	(194)	191	—	8	(45)	(188)	(24)	(252)
Current borrowings	17,099	(11,047)	15	(283)	(158)	9,254	155	15,035
Current financial instruments - liabilities[a]	203	—	1	(11)	179	—	—	372
Current financial debt and related financial instruments	**17,108**	**(10,856)**	**16**	**(286)**	**(24)**	**9,066**	**131**	**15,155**
Financial debt and financial assets classified as held for sale	313	—	(306)	(11)	—	—	—	(4)
NET FINANCIAL DEBT	**72,843**	**(11,505)**	**(347)**	**(416)**	**31**	**—**	**1,653**	**62,259**

(a) Fair value or cash flow hedge instruments and other non-hedge debt-related derivative instruments.

Monetary changes in non-current financial debt are detailed as follows:

For the year ended December 31, (M$)	2023	2022	2021
Issuance of non-current debt	189	1,148	808
Repayment of non-current debt	(59)	(40)	(1,167)
NET AMOUNT	**130**	**1,108**	**(359)**

D) Cash and cash equivalents

Accounting principles

Cash and cash equivalents are composed of cash on hand and highly liquid short-term investments that are easily convertible into known amounts of cash and are subject to insignificant risks of changes in value.

Investments with maturity greater than three months and less than twelve months are shown under "Current financial assets".

Changes in current financial assets and liabilities are included in the financing activities section of the consolidated statement of cash flows.

Cash and cash equivalents are detailed as follows:

For the year ended December 31, (M$)	2023	2022	2021
Cash	16,956	14,873	13,544
Cash equivalents	10,307	18,153	7,798
TOTAL	**27,263**	**33,026**	**21,342**

Cash equivalents are mainly composed of deposits with a maturity of less than three months, deposited in government institutions or deposit banks selected in accordance with strict criteria.

As of December 31, 2023, the cash and cash equivalents include $1,807 million subject to restrictions, notably due to regulatory framework or to the fact they are owned by affiliates located in countries with exchange controls.

E) Net-debt-to-capital ratio

For its internal and external communication needs, TotalEnergies calculates a debt ratio by dividing its net financial debt excluding leases by its capital.

The ratio is calculated as follows: *Net debt excluding leases / (Equity + Net debt excluding leases)*

As of December 31, (M$) (Assets) / Liabilities	2023	2022	2021
Current borrowings[(a)]	7,869	14,065	13,645
Other current financial liabilities	446	488	372
Current financial assets[(a)]	(6,256)	(8,556)	(12,183)
Net financial assets and liabilities held for sale or exchange[(a)]	17	(38)	(4)
Non-current financial debt[(a)]	32,722	36,987	41,868
Non-current financial assets[(a)]	(1,229)	(1,303)	(1,557)
Cash and cash equivalents	(27,263)	(33,026)	(21,342)
Net financial debt excluding leases	**6,306**	**8,617**	**20,799**
Shareholders' equity – TotalEnergies share	116,753	111,724	111,736
Distribution of the income based on existing shares at the closing date	2,700	2,846	3,263
Shareholders' equity	**119,453**	**114,570**	**114,999**
NET-DEBT-TO-CAPITAL RATIO EXCLUDING LEASES	**5.0 %**	**7.0 %**	**15.3 %**

(a) Excluding lease receivables & lease debts.

15.2 FAIR VALUE OF FINANCIAL INSTRUMENTS (EXCLUDING COMMODITY CONTRACTS)

Accounting principles

TotalEnergies uses derivative instruments to manage its exposure to risks of changes in interest rates, foreign exchange rates and commodity prices. These financial instruments are accounted for in accordance with IFRS 9, changes in fair value of derivative instruments are recognized in the income statement or in other comprehensive income and are recognized in the balance sheet in the accounts corresponding to their nature, according to the risk management strategy. The derivative instruments used by TotalEnergies are the following:

- *Cash management*

Financial instruments used for cash management purposes are part of a hedging strategy of currency and interest rate risks within global limits set by TotalEnergies and are considered to be held for trading. Changes in fair value are systematically recorded in the income statement. The balance sheet value of those instruments is included in “Current financial assets” or “Other current financial liabilities”.

- *Long-term financing*

When an external long-term financing is set up, specifically to finance subsidiaries, and when this financing involves currency and interest rate derivatives, these instruments are qualified as:

1) Fair value hedge of the interest rate and currency risks on the external debt financing the loans to subsidiaries. Changes in fair value of derivatives are recognized in the income statement, as are changes in fair value of underlying financial debts and loans to subsidiaries.

   The fair value of those hedging instruments of long-term financing is included in assets under “Non-current financial assets” or in liabilities under “Non-current financial debt” for the non-current portion. The current portion (less than one year) is accounted for in “Current financial assets” or “Other current financial liabilities”.

   In case of the anticipated termination of derivative instruments accounted for as fair value hedges, the amount paid or received is recognized in the income statement and:

   - If this termination is due to an early cancellation of the hedged items, the adjustment previously recorded as revaluation of those hedged items is also recognized in the income statement;
   - If the hedged items remain in the balance sheet, the adjustment previously recorded as a revaluation of those hedged items is amortized over the remaining life of those items.

   In case of a change in the strategy of the hedge (fair value hedge to cash flow hedge), if the components of the initial aggregated exposure had already been designated in a hedging relationship (FVH), TotalEnergies designates the new instrument as a hedging instrument of an aggregated position (CFH) without having to end the initial hedging relationship.

2) Cash flow hedge when TotalEnergies implements a strategy of fixing interest rate and/or currency rate on the external debt. Changes in fair value are recorded in other comprehensive income for the effective portion of the hedging and in the income statement for the ineffective portion of the hedging. When the hedged transaction affects profit or loss, the fair value variations of the hedging instrument recorded in equity are also symmetrically recycled to the income statement.

   The fair value of those hedging instruments of long-term financing is included in assets under “Non-current financial assets” or in liabilities under “Non-current financial debt” for the non-current portion. The current portion (less than one year) is accounted for in “Current financial assets” or “Other current financial liabilities”.

   If the hedging instrument expires, is sold or terminated by anticipation, gains or losses previously recognized in equity remain in equity. Amounts are recycled to the income statement only when the hedged transaction affects profit or loss.

3) In compliance with IFRS 9, TotalEnergies has decided to recognize in a separate component of the comprehensive income the variation of foreign currency basis spread (Cross Currency Swaps) identified in the hedging relationships qualified as fair value hedges and cash flow hedges.

- *Foreign subsidiaries’ equity hedge*

Certain financial instruments hedge against risks related to the equity of foreign subsidiaries whose functional currency is not the euro (mainly the dollar). These instruments qualify as “net investment hedges” and changes in fair value are recorded in other comprehensive income under “Currency translation” for the effective portion of the hedging and in the income statement for the ineffective portion of the hedging. Gains or losses on hedging instruments previously recorded in equity, are reclassified to the income statement in the same period as the total or partial disposal of the foreign activity.

The fair value of these instruments is recorded under “Current financial assets” and “Other current financial liabilities”.

- *Commitments to purchase shares held by non-controlling interests (put options written on minority interests)*

Put options granted to non-controlling-interest shareholders are initially recognized as financial liabilities at the present value of the exercise price of the options with a corresponding reduction in shareholders’ equity – TotalEnergies share. The financial liability is subsequently measured at fair value at each balance sheet date in accordance with contractual clauses and any variation is recorded in the income statement (cost of debt).

A) Impact on the income statement per nature of financial instruments

Assets and liabilities from financing activities

The impact on the income statement of financing assets and liabilities mainly includes:

- Financial income on cash, cash equivalents, and current financial assets (notably current deposits beyond three months) classified as “Loans and receivables”;
- Financial expense of long-term subsidiaries financing, associated hedging instruments (excluding ineffective portion of the hedge detailed below) and financial expense of short-term financing classified as “Financing liabilities and associated hedging instruments”;
- Ineffective portion of bond hedging;

- Financial income and financial expense on lease contracts and,
- Financial income, financial expense and fair value of derivative instruments used for cash management purposes classified as "Assets and liabilities held for trading".

Financial derivative instruments used for cash management purposes (interest rate and foreign exchange) are considered to be held for trading. Based on practical documentation issues, TotalEnergies did not elect to set up hedge accounting for such instruments. The impact on income statement of the derivatives is offset by the impact of loans and current liabilities they are related to. Therefore these transactions taken as a whole do not have a significant impact on the Consolidated Financial Statements.

For the year ended December 31, (M$)	2023	2022	2021
Loans and receivables	1,420	562	188
Financing liabilities and associated hedging instruments	(2,190)	(1,812)	(1,373)
Fair value hedge (ineffective portion)	2	(5)	(10)
Lease assets and obligations	(499)	(458)	(413)
Assets and liabilities held for trading	248	470	83
IMPACT ON THE COST OF NET DEBT	**(1,019)**	**(1,243)**	**(1,525)**

B) Impact of the hedging strategies

Fair value hedge instruments

The impact on the income statement of the bond hedging instruments which is recorded in the item "Financial interest on debt" in the Consolidated Statement of Income is detailed as follows:

For the year ended December 31, (M$)	2023	2022	2021
Revaluation impact at market value of bonds	(765)	3,817	3,199
Swaps hedging bonds	767	(3,822)	(3,209)
INEFFECTIVE PORTION OF THE FAIR VALUE HEDGE	**2**	**(5)**	**(10)**

The ineffective portion is not representative of TotalEnergies' performance considering its objective to hold swaps to maturity. The current portion of the swaps valuation is not subject to active management.

Net investment hedge

As of December 31, 2023, 2022 and 2021 TotalEnergies had no open forward contracts held in respect of net investment hedge strategies.

Cash flow hedge

The impact on the income statement and other comprehensive income of the bonds hedging instruments qualified as cash flow hedges is detailed as follows:

For the year ended December 31, (M$)	2023	2022	2021
Profit (Loss) recorded in other comprehensive income of the period	128	72	(167)
Recycled amount from other comprehensive income to the income statement of the period	140	(55)	(113)

As of December 31, 2023, 2022 and 2021, the ineffective portion of these financial instruments is nil.

Hedging instruments and hedged items by strategy

Fair Value Hedge

The following charts regarding Fair Value Hedge, disclose by nature of hedging instruments (Interest Rate Swaps and Cross Currency Swaps):

- The nominal amounts and carrying amounts of hedging instruments;
- The carrying amounts of hedged items and cumulative FVH adjustments included in the carrying amounts of the hedged items;
- The hedged items that have ceased to be adjusted for hedging gains and losses.

For the year ended December 31, 2023
(M$)

Hedged items	Hedging instruments	Nominal amount of hedging instruments	Carrying amount of hedging instruments		Carrying amount of hedged items		Cumulative FVH adjustments included in the carrying amount of the hedged items		Line items in the statement of financial position
			Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	
Bonds	Interest Rate Swaps	3,500	—	(86)	—	(3,457)	—	43	*Financial debt / Financial assets*
Bonds	Cross Currency Swaps	4,671	45	(559)	—	(4,232)	—	439	*Financial debt / Financial assets*
End of hedging (before 2018)		—	—	—	—	—	—	10	

For the year ended December 31, 2022 (M$)			Carrying amount of hedging instruments		Carrying amount of hedged items		Cumulative FVH adjustments included in the carrying amount of the hedged items		
Hedged items	Hedging instruments	Nominal amount of hedging instruments	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Line items in the statement of financial position
Bonds	Interest Rate Swaps	5,000	—	(151)	—	(4,892)	—	108	*Financial debt / Financial assets*
Bonds	Cross Currency Swaps	7,029	—	(1,124)	—	(5,982)	—	1,047	*Financial debt / Financial assets*
End of hedging (before 2018)		—	—	—	—	—	—	(8)	

For the year ended December 31, 2021 (M$)			Carrying amount of hedging instruments		Carrying amount of hedged items		Cumulative FVH adjustments included in the carrying amount of the hedged items		
Hedged items	Hedging instruments	Nominal amount of hedging instruments	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Line items in the statement of financial position
Bonds	Interest Rate Swaps	6,767	303	(36)	—	(7,037)	—	(837)	*Financial debt / Financial assets*
Bonds	Cross Currency Swaps	9,566	154	(382)	—	(8,865)	—	701	*Financial debt / Financial assets*
End of hedging (before 2018)		—	—	—	—	—	—	(27)	

Cash Flow Hedge

The following charts regarding Cash Flow Hedge disclose the nominal amounts and carrying amounts by nature of hedging instruments (Interest Rate Swaps and Cross Currency Swaps).

According to IFRS 9, there is no accounting entry related to Cash Flow Hedge on hedged items.

For the year ended December 31, 2023 (M$)	Nature of hedging instruments	Nominal amount of hedging instruments	Carrying amount of hedging instruments: Assets	Carrying amount of hedging instruments: Liabilities	Line items in the statement of financial position
Bonds	Interest Rate Swaps	12,023	611	—	*Financial debt / Financial assets*
Bonds	Cross Currency Swaps	17,511	108	(1,821)	*Financial debt / Financial assets*

For the year ended December 31, 2022 (M$)	Nature of hedging instruments	Nominal amount of hedging instruments	Carrying amount of hedging instruments: Assets	Carrying amount of hedging instruments: Liabilities	Line items in the statement of financial position
Bonds	Interest Rate Swaps	12,782	815	(2)	*Financial debt / Financial assets*
Bonds	Cross Currency Swaps	17,511	—	(2,731)	*Financial debt / Financial assets*

For the year ended December 31, 2021 (M$)	Nature of hedging instruments	Nominal amount of hedging instruments	Carrying amount of hedging instruments: Assets	Carrying amount of hedging instruments: Liabilities	Line items in the statement of financial position
Bonds	Interest Rate Swaps	12,782	—	(736)	*Financial debt / Financial assets*
Bonds	Cross Currency Swaps	17,511	372	(660)	*Financial debt / Financial assets*

C) Maturity of derivative instruments

The maturity of the notional amounts of derivative instruments, excluding the commodity contracts, is detailed in the following table:

For the year ended December 31, 2023		Notional		Notional value schedule					
(M$)	Fair	value	Fair	2025					2029
Assets / (Liabilities)	**value**	**2024**	**value**	**and beyond**	**2025**	**2026**	**2027**	**2028**	**and beyond**
Fair value hedge									
Swaps hedging bonds (assets)	—	250	45	403					
Swaps hedging bonds (liabilities)	(75)	1,837	(570)	5,681					
Total swaps hedging bonds - Fair value hedge	**(75)**	**2,087**	**(525)**	**6,084**	**1,630**	**202**	**820**	**1,000**	**2,432**
Cash flow hedge									
Swaps hedging bonds (assets)	91	2,114	628	14,830					
Swaps hedging bonds (liabilities)	(193)	1,574	(1,628)	11,016					
Total swaps hedging bonds - Cash flow hedge	**(102)**	**3,688**	**(1,000)**	**25,846**	**4,509**	**4,153**	**2,135**	**4,686**	**10,363**
Forward exchange contracts related to operating activities (assets)	2	83	8	311					
Forward exchange contracts related to operating activities (liabilities)	(14)	234	(2)	240					
Total forward exchange contracts related to operating activities	**(12)**	**317**	**6**	**551**	**285**	**266**	**—**	**—**	**—**
Held for trading									
Other interest rate swaps (assets)	149	38,415	393	7,690					
Other interest rate swaps (liabilities)	(94)	37,170	(208)	7,407					
Total other interest rate swaps	**55**	**75,585**	**185**	**15,097**	**8,692**	**1,580**	**1,500**	**1,908**	**1,417**
Currency swaps and forward exchange contracts (assets)	66	10,325	21	1,071					
Currency swaps and forward exchange contracts (liabilities)	(84)	8,513	(32)	773					
Total currency swaps and forward exchange contracts	**(18)**	**18,838**	**(11)**	**1,844**	**1,840**	**(2)**	**6**	**—**	**—**

Notional amounts set the levels of commitment and are indicative nor of a contingent gain or loss neither of a related debt.

For the year ended December 31, 2022		Notional			Notional value schedule				
(M$)	Fair	value	Fair	2024					2028
Assets / (Liabilities)	**value**	**2023**	**value**	**and beyond**	**2024**	**2025**	**2026**	**2027**	**and beyond**
Fair value hedge									
Swaps hedging bonds (assets)	—	1,000	—	—					
Swaps hedging bonds (liabilities)	(260)	2,858	(1,015)	8,171					
Total swaps hedging bonds - Fair value hedge	**(260)**	**3,858**	**(1,015)**	**8,171**	**2,087**	**1,630**	**202**	**820**	**3,432**
Cash flow hedge									
Swaps hedging bonds (assets)	2	**250**	813	11,782					
Swaps hedging bonds (liabilities)	(2)	**750**	(2,731)	17,511					
Total swaps hedging bonds - Cash flow hedge	**—**	**1,000**	**(1,918)**	**29,293**	**3,659**	**4,459**	**4,069**	**2,071**	**15,035**
Forward exchange contracts related to operating activities (assets)	4	70	3	91					
Forward exchange contracts related to operating activities (liabilities)	(19)	187	(19)	433					
Total forward exchange contracts related to operating activities	**(15)**	**257**	**(16)**	**524**	**524**	**—**	**—**	**—**	**—**
Held for trading									
Other interest rate swaps (assets)	154	14,955	447	7,470					
Other interest rate swaps (liabilities)	(94)	13,236	(226)	4,128					
Total other interest rate swaps	**60**	**28,191**	**221**	**11,598**	**5,233**	**3,716**	**1,174**	**1,022**	**453**
Currency swaps and forward exchange contracts (assets)	55	7,076	44	1,289					
Currency swaps and forward exchange contracts (liabilities)	(110)	15,964	(57)	839					
Total currency swaps and forward exchange contracts	**(55)**	**23,040**	**(13)**	**2,128**	**391**	**1,737**	**—**	**—**	**—**

Notional amounts set the levels of commitment and are indicative nor of a contingent gain or loss neither of a related debt.

For the year ended December 31, 2021 (M$) Assets / (Liabilities)	Fair value	Notional value 2022	Fair value	Notional value schedule 2023 and beyond	2023	2024	2025	2026	2027 and beyond
Fair value hedge									
Swaps hedging bonds (assets)	42	566	415	9,659					
Swaps hedging bonds (liabilities)	(316)	3,737	(102)	2,371					
Total swaps hedging bonds - Fair value hedge	**(274)**	**4,303**	**313**	**12,030**	**3,858**	**2,087**	**1,630**	**202**	**4,253**
Cash flow hedge									
Swaps hedging bonds (assets)	—	—	372	7,149					
Swaps hedging bonds (liabilities)	—	—	(1,396)	23,144					
Total swaps hedging bonds - Cash flow hedge	**—**	**—**	**(1,024)**	**30,293**	**1,000**	**3,659**	**4,459**	**4,068**	**17,107**
Forward exchange contracts related to operating activities (assets)	—	36	—	—					
Forward exchange contracts related to operating activities (liabilities)	(8)	283	(14)	366					
Total forward exchange contracts related to operating activities	**(8)**	**319**	**(14)**	**366**	**171**	**195**	**—**	**—**	**—**
Held for trading									
Other interest rate swaps (assets)	13	20,876	78	5,170					
Other interest rate swaps (liabilities)	(19)	6,470	(41)	2,561					
Total other interest rate swaps	**(6)**	**27,346**	**37**	**7,731**	**1,708**	**2,856**	**2,111**	**751**	**305**
Currency swaps and forward exchange contracts (assets)	65	9,769	17	367					
Currency swaps and forward exchange contracts (liabilities)	(37)	5,065	—	(16)					
Total currency swaps and forward exchange contracts	**28**	**14,834**	**17**	**351**	**265**	**86**	**—**	**—**	**—**

Notional amounts set the levels of commitment and are indicative nor of a contingent gain or loss neither of a related debt.

D) Fair value hierarchy

Accounting principles

According to IFRS 13, fair values are estimated for the majority of TotalEnergies' financial instruments, with the exception of publicly traded equity securities and marketable securities for which the market price is used.

Estimations of fair value, which are based on principles such as discounting future cash flows to present value, must be weighted by the fact that the value of a financial instrument at a given time may be influenced by the market environment (liquidity especially), and also the fact that subsequent changes in interest rates and exchange rates are not taken into account.

As a consequence, the use of different estimates, methodologies and assumptions could have a material effect on the estimated fair value amounts.

The methods used are as follows:

- *Financial debts, swaps*

The market value of swaps and of bonds that are hedged by those swaps has been determined on an individual basis by discounting future cash flows with the market curves existing at year-end.

- *Other financial instruments*

The fair value of interest rate swaps and of FRA's (Forward Rate Agreements) is calculated by discounting future cash flows on the basis of market curves existing at year-end after adjustment for interest accrued but unpaid. Forward exchange contracts and currency swaps are valued on the basis of a comparison of the negotiated forward rates with the rates in effect on the financial markets at year-end for similar maturities.

Exchange options are valued based on models commonly used by the market.

The fair value hierarchy for financial instruments, excluding commodity contracts, is as follows:

As of December 31, 2023 (M$)	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
Fair value hedge instruments	—	(600)	—	(600)
Cash flow hedge instruments	—	(1,104)	—	(1,104)
Assets and liabilities held for trading	—	207	—	207
Equity instruments	255	—	—	255
TOTAL	**255**	**(1,497)**	**—**	**(1,242)**

As of December 31, 2022 (M$)	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
Fair value hedge instruments	—	(1,275)	—	(1,275)
Cash flow hedge instruments	—	(1,950)	—	(1,950)
Assets and liabilities held for trading	—	214	—	214
Equity instruments	33	—	—	33
TOTAL	**33**	**(3,011)**	**—**	**(2,978)**

As of December 31, 2021 (M$)	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
Fair value hedge instruments	—	39	—	39
Cash flow hedge instruments	—	(1,052)	—	(1,052)
Assets and liabilities held for trading	—	82	—	82
Equity instruments	501	—	—	501
TOTAL	**501**	**(931)**	**—**	**(430)**

15.3 FINANCIAL RISKS MANAGEMENT

Financial markets related risks

As part of its financing and cash management activities, TotalEnergies uses derivative instruments to manage its exposure to changes in interest rates and foreign exchange rates. These instruments are mainly interest rate and currency swaps. TotalEnergies may also occasionally use futures contracts and options. These operations and their accounting treatment are detailed in Notes 14, 15.1 and 15.2 to the Consolidated Financial Statements.

Risks relative to cash management operations and to interest rate and foreign exchange financial instruments are managed according to rules set by TotalEnergies' General Management, which provide for regular pooling of available cash balances, open positions and management of the financial instruments by the Treasury Department. Excess cash of TotalEnergies is deposited mainly in government institutions, banking institutions, or major companies through deposits, reverse repurchase agreements and purchase of commercial paper. Liquidity positions and the management of financial instruments are centralized by the Treasury Department, where they are managed by a team specialized in foreign exchange and interest rate market transactions.

The Cash Monitoring-Management Unit within the Treasury Department monitors limits and positions per bank on a daily basis and results of the Front Office. This unit also prepares marked-to-market valuations of used financial instruments and, when necessary, performs sensitivity analyses.

Counterparty risk

TotalEnergies has established standards for market transactions under which any banking counterparty must be approved in advance, based on an assessment of the counterparty's financial solidity (multi-criteria analysis including notably a review of its Credit Default Swap (CDS) level, financial credit ratings, which must be of high standing, and general financial situation).

An overall credit limit is set for each authorised financial counterparty and is allocated amongst the affiliates and TotalEnergies' central treasury entities, according to TotalEnergies' financial needs.

Reform of benchmarks risk

The transition to IBOR indices did not have a significant impact on the financial instruments managed by the Treasury Department of TotalEnergies. The USD LIBOR maturities ceased to be published end of June 2023 and was replaced by the SOFR. Furthermore, in Europe, the Eonia rate ceased to be published on January 3, 2022 and was replaced by the ESTR rate.

Bonds and associated derivatives impacted by the IBOR reform are presented in Note 15.1 “Financial debt and derivative financial instruments”.

Short-term interest rate exposure and cash

Cash balances, primarily composed of euros and dollars, are managed according to the guidelines established by TotalEnergies' General Management (to maintain an adequate level of liquidity, optimize revenue from investments considering existing interest rate yield curves, and minimize the cost of borrowing) based on a daily interest rate benchmark, primarily through short-term interest rate swaps and short-term currency swaps.

Interest rate risk on non-current debt

TotalEnergies' policy consists in incurring long-term debt at a floating or fixed rate, depending on TotalEnergies' general corporate needs and the interest rate environment at the time of issuance, mainly in dollars or euros. Long-term interest rate and currency swaps may be entered into for the purpose of hedging bonds at the time of issuance, synthetically resulting in the incurrence of variable or fixed rate debt. In order to partially alter the interest rate exposure of its long-term indebtedness, TotalEnergies may also enter into long-term interest rate swaps on an *ad-hoc* basis.

Currency exposure

TotalEnergies generally seeks to minimize the currency exposure of each entity to its functional currency (primarily the dollar, the euro, the pound sterling and the Norwegian krone).

For currency exposure generated by commercial activity, the hedging of revenues and costs in foreign currencies is typically performed using currency operations on the spot market and, in some cases, on the forward market. TotalEnergies rarely hedges future cash flows, although it may use options to do so.

With respect to currency exposure linked to non-current assets, TotalEnergies has a hedging policy of financing these assets in their functional currency.

Net short-term currency exposure is periodically monitored against limits set by TotalEnergies' General Management.

The non-current debt described in Note 15.1 to the Consolidated Financial Statements is generally raised by the corporate treasury entities either directly in dollars or in euros, or in other currencies which are then exchanged for dollars or euros through swap issuances to appropriately match general corporate needs. The proceeds from these debt issuances are loaned to affiliates whose accounts are kept in dollars or in euros. Thus, the net sensitivity of these positions to currency exposure is not significant.

TotalEnergies' short-term currency swaps, the notional value of which appears in Note 15.2 to the Consolidated Financial Statements, are used to attempt to optimize the centralized cash management of TotalEnergies. Thus, the sensitivity to currency fluctuations which may be induced is likewise considered negligible.

Sensitivity analysis on interest rate and foreign exchange risk

The tables below present the potential impact of an increase or decrease of 10 basis points on the interest rate yield curves for each of the currencies on the fair value of the current financial instruments as of December 31, 2023, 2022 and 2021.

			Change in fair value due to a change in interest rate by	
Assets / (Liabilities) (M$)	**Carrying amount**	**Estimated fair value**	**+ 10 basis points**	**- 10 basis points**
As of December 31, 2023				
Bonds (non-current portion, before swaps)	(28,365)	(29,216)	162	(162)
Swaps hedging bonds (liabilities)	*(2,198)*	*(2,198)*	—	—
Swaps hedging bonds (assets)	*673*	*673*	—	—
Total swaps hedging bonds (assets and liabilities)	(1,525)	(1,525)	*(12)*	*12*
Current portion of non-current debt after swaps (excluding lease obligations)	(5,669)	(5,680)	(1)	(7)
Other interest rates swaps	240	240	17	(17)
Currency swaps and forward exchange contracts	(29)	(29)	—	—
As of December 31, 2022				
Bonds (non-current portion, before swaps)	(32,184)	(30,391)	210	(210)
Swaps hedging bonds (liabilities)	*(3,746)*	*(3,746)*	—	—
Swaps hedging bonds (assets)	*813*	*813*	—	—
Total swaps hedging bonds (assets and liabilities)	(2,933)	(2,933)	(9)	9
Current portion of non-current debt after swaps (excluding lease obligations)	(5,328)	(5,344)	3	(3)
Other interest rates swaps	281	281	10	(10)
Currency swaps and forward exchange contracts	(68)	(68)	—	—
As of December 31, 2021				
Bonds (non-current portion, before swaps)	(39,256)	(42,888)	349	(349)
Swaps hedging bonds (liabilities)	*(1,498)*	*(1,498)*	—	—
Swaps hedging bonds (assets)	*787*	*787*	—	—
Total swaps hedging bonds (assets and liabilities)	(711)	(711)	(34)	34
Current portion of non-current debt after swaps (excluding lease obligations)	(5,073)	(5,077)	5	(5)
Other interest rates swaps	31	31	16	(16)
Currency swaps and forward exchange contracts	45	45	—	—

The impact of changes in interest rates on the cost of net debt before tax is as follows:

For the year ended December 31, (M$)	2023	2022	2021
Cost of net debt	(1,019)	(1,243)	(1,525)
Interest rate translation of :			
+ 10 basis points	10	18	47
- 10 basis points	(10)	(18)	(47)

As a result of the policy for the management of currency exposure previously described, TotalEnergies' sensitivity to currency exposure is primarily influenced by the net equity of the subsidiaries whose functional currency is the euro and to a lesser extent, the pound sterling and the Norwegian krone.

This sensitivity is reflected in the historical evolution of the currency translation adjustment recorded in the statement of changes in consolidated shareholders' equity which, over the course of the last three years, is essentially related to the fluctuation of the euro, the ruble and the pound sterling and is set forth in the table below:

	Dollar / Euro exchange rates	Dollar / Pound sterling exchange rates	Dollar / Ruble exchange rates
December 31, 2023	**0.90**	**0.79**	**89.14**
December 31, 2022	0.94	0.83	74.01
December 31, 2021	0.88	0.74	75.31

As of December 31, 2023 (M$)	Total	Euro	Dollar	Pound sterling	Ruble	Other currencies
Shareholders' equity at historical exchange rate	**130,454**	19,198	92,202	4,732	—	14,322
Currency translation adjustment before net investment hedge	**(13,696)**	(7,881)	—	(2,285)	—	(3,530)
Net investment hedge – open instruments	**(5)**	(5)	—	—	—	—
Shareholders' equity at exchange rate as of December 31, 2023	**116,753**	11,312	92,202	2,447	—	10,792

As of December 31, 2022 (M$)	Total	Euro	Dollar	Pound sterling	Ruble	Other currencies
Shareholders' equity at historical exchange rate	**124,560**	15,835	88,902	6,258	45	13,520
Currency translation adjustment before net investment hedge	**(12,831)**	(7,170)	–	(2,463)	(30)	(3,168)
Net investment hedge – open instruments	**(5)**	(5)	–	–	–	–
Shareholders' equity at exchange rate as of December 31, 2022	**111,724**	8,660	88,902	3,795	15	10,352

As of December 31, 2021 (M$)	Total	Euro	Dollar	Pound sterling	Ruble	Other currencies
Shareholders' equity at historical exchange rate	**124,407**	24,617	70,030	6,064	10,596	13,100
Currency translation adjustment before net investment hedge	**(12,666)**	(4,239)	–	(1,902)	(4,281)	(2,244)
Net investment hedge – open instruments	**(5)**	(5)	–	–	–	–
Shareholders' equity at exchange rate as of December 31, 2021	**111,736**	20,373	70,030	4,162	6,315	10,856

Based on the 2023 financial statements, a conversion using rates different from + or - 10% for each of the currencies below would have the following impact on shareholders equity and net income (TotalEnergies share):

As of December 31, 2023 (M$)	Euro	Pound sterling	Ruble	Norwegian Crown
Impact of an increase of 10% of exchange rates on :				
– Shareholders' equity	1,131	245	–	–
– net income (TotalEnergies share)	310	94	–	–
Impact of a decrease of (10)% of exchange rates on :				
– Shareholders' equity	(1,131)	(245)	–	–
– net income (TotalEnergies share)	(310)	(94)	–	–

Stock market risk

TotalEnergies holds interests in a number of publicly-traded companies (see Note 8 to the Consolidated Financial Statements). The market value of these holdings fluctuates due to various factors, including stock market trends, valuations of the sectors in which the companies operate, and the economic and financial condition of each individual company.

Liquidity risk

TotalEnergies SE has committed credit facilities granted by international banks allowing it to benefit from significant liquidity reserves.

As of December 31, 2023, these credit facilities amounted to $10,559 million and were entirely unutilized. The agreements underpinning credit facilities granted to TotalEnergies SE do not contain conditions related to TotalEnergies' financial ratios, to its credit ratings from specialized agencies, or to the occurrence of events that could have a material adverse effect on its financial position.

As of December 31, 2023, the aggregated amount of the main committed credit facilities granted by international banks to the TotalEnergies' companies, including TotalEnergies SE, was $11,527 million, of which $11,387 million were unutilized. In addition, the $8 billion undrawn credit line as of December 31, 2022, put in place in March 2022, has not been extended and therefore ended in March 2023.

Credit facilities granted to the TotalEnergies' companies other than TotalEnergies SE are not intended to fund TotalEnergies' general corporate purposes; they are intended to fund either general corporate purposes of the borrowing affiliate, or a specific project.

The following tables show the maturity of the financial assets and liabilities of TotalEnergies as of December 31, 2023, 2022 and 2021 (see Note 15.1 to the Consolidated Financial Statements).

As of December 31, 2023

Assets/(Liabilities) (M$)	Less than one year	1-2 years	2-3 years	3-4 years	4-5 years	More than 5 years	Total
Non-current financial debt (notional value excluding interests)	—	(5,079)	(3,816)	(3,615)	(4,356)	(22,525)	(39,391)
Non-current financial assets excluding derivative financial instruments	—	132	107	244	100	725	1,308
Current borrowings	(9,590)	—	—	—	—	—	(9,590)
Other current financial liabilities	(446)	—	—	—	—	—	(446)
Current financial assets	6,585	—	—	—	—	—	6,585
Net financial assets and liabilities held for sale or exchange	(310)	—	—	—	—	—	(310)
Cash and cash equivalents	27,263	—	—	—	—	—	27,263
Net amount before financial expense	**23,502**	**(4,947)**	**(3,709)**	**(3,371)**	**(4,256)**	**(21,800)**	**(14,581)**
Financial expense on non-current financial debt	(469)	(517)	(460)	(430)	(390)	(4,242)	(6,508)
Interest differential on swaps	(355)	(265)	(261)	(216)	(209)	(537)	(1,843)
NET AMOUNT	**22,678**	**(5,729)**	**(4,430)**	**(4,017)**	**(4,855)**	**(26,579)**	**(22,932)**

As of December 31, 2022

Assets/(Liabilities) (M$)	Less than one year	1-2 years	2-3 years	3-4 years	4-5 years	More than 5 years	Total
Non-current financial debt (notional value excluding interests)	—	(6,719)	(4,527)	(3,356)	(3,503)	(25,856)	(43,961)
Non-current financial assets excluding derivative financial instruments	—	367	85	85	85	806	1,428
Current borrowings	(15,502)	—	—	—	—	—	(15,502)
Other current financial liabilities	(488)	—	—	—	—	—	(488)
Current financial assets	8,746	—	—	—	—	—	8,746
Net financial assets and liabilities held for sale or exchange	38	—	—	—	—	—	38
Cash and cash equivalents	33,026	—	—	—	—	—	33,026
Net amount before financial expense	**25,820**	**(6,352)**	**(4,442)**	**(3,271)**	**(3,418)**	**(25,050)**	**(16,713)**
Financial expense on non-current financial debt	(662)	(583)	(515)	(449)	(416)	(4,611)	(7,236)
Interest differential on swaps	(431)	(312)	(264)	(272)	(221)	(761)	(2,261)
NET AMOUNT	**24,727**	**(7,247)**	**(5,221)**	**(3,992)**	**(4,055)**	**(30,422)**	**(26,210)**

As of December 31, 2021

Assets/(Liabilities) (M$)	Less than one year	1-2 years	2-3 years	3-4 years	4-5 years	More than 5 years	Total
Non-current financial debt (notional value excluding interests)	—	(6,073)	(6,328)	(4,420)	(3,314)	(28,495)	(48,630)
Non-current financial assets excluding derivative financial instruments	—	41	41	38	37	1,365	1,522
Current borrowings	(15,035)	—	—	—	—	—	(15,035)
Other current financial liabilities	(372)	—	—	—	—	—	(372)
Current financial assets	12,315	—	—	—	—	—	12,315
Net financial assets and liabilities held for sale or exchange	4	—	—	—	—	—	4
Cash and cash equivalents	21,342	—	—	—	—	—	21,342
Net amount before financial expense	**18,254**	**(6,032)**	**(6,287)**	**(4,382)**	**(3,277)**	**(27,130)**	**(28,854)**
Financial expense on non-current financial debt	(821)	(786)	(664)	(576)	(506)	(5,197)	(8,550)
Interest differential on swaps	(217)	(235)	(232)	(229)	(221)	(836)	(1,970)
NET AMOUNT	**17,216**	**(7,053)**	**(7,183)**	**(5,187)**	**(4,004)**	**(33,163)**	**(39,374)**

The following table sets forth financial assets and liabilities related to operating activities as of December 31, 2023, 2022 and 2021 (see Note 14 of the Notes to the Consolidated Financial Statements).

As of December 31, Assets/(Liabilities) (M$)	2023	2022	2021
Accounts payable	(41,335)	(41,346)	(36,837)
Other operating liabilities	(19,937)	(35,186)	(27,294)
including derivative financial instruments related to commodity contracts (liabilities)	*(7,650)*	*(18,774)*	*(16,166)*
Accounts receivable, net	23,442	24,378	21,983
Other operating receivables	14,952	28,289	29,553
including derivative financial instruments related to commodity contracts (assets)	*7,012*	*20,220*	*22,412*
TOTAL	**(22,878)**	**(23,865)**	**(12,595)**

These financial assets and liabilities mainly have a maturity date below one year.

Credit risk

Credit risk is defined as the risk of the counterparty to a contract failing to perform or pay the amounts due.

TotalEnergies is exposed to credit risks in its operating and financing activities. TotalEnergies' maximum exposure to credit risk is partially related to financial assets recorded on its balance sheet, including energy derivative instruments that have a positive market value.

The following table presents TotalEnergies' maximum credit risk exposure:

As of December 31, Assets/(Liabilities) (M$)	2023	2022	2021
Loans to equity affiliates *(Note 8)*	4,562	3,733	4,532
Loans and advances *(Note 6)*	2,222	1,837	2,107
Other non-current financial assets related to operational activities *(Note 6)*	1,761	250	312
Non-current financial assets *(Note 15.1)*	2,395	2,731	2,404
Accounts receivable *(Note 5)*	23,442	24,378	21,983
Other operating receivables *(Note 5)*	14,952	28,289	29,553
Current financial assets *(Note 15.1)*	6,585	8,746	12,315
Cash and cash equivalents *(Note 15.1)*	27,263	33,026	21,342
TOTAL	**83,182**	**102,990**	**94,548**

The valuation allowance on accounts receivable, other operating receivables and on loans and advances is detailed in Notes 5 and 6 to the Consolidated Financial Statements.

As part of its credit risk management related to operating and financing activities, TotalEnergies has developed margining agreements with certain counterparties. As of December 31, 2023, the net margin call paid amounted to $2,435 million (against $2,857 million paid as of December 31, 2022 and $7,299 million paid as of December 31, 2021).

TotalEnergies has established a number of programs for the sale of receivables, without recourse, with various banks, primarily to reduce its exposure to such receivables. As a result of these programs TotalEnergies retains no risk of payment default after the sale, but may continue to service the customer accounts as part of a service arrangement on behalf of the buyer and is required to pay to the buyer payments it receives from the customers relating to the receivables sold. As of December 31, 2023, the net value of receivables sold amounted to $7,700 million. TotalEnergies has substantially transferred all the risks and rewards related to receivables. No financial asset or liability remains recognized in the consolidated balance sheet after the date of sale.

Furthermore, in 2023, TotalEnergies conducted several operations of reverse factoring. The value of factored payables outstanding at year-end is $495 million.

Credit risk is managed by TotalEnergies' business segments as follows:

- **Exploration & Production segment**

Risks arising under contracts with government authorities or other oil companies or under long-term supply contracts necessary for the development of projects are evaluated during the project approval process. The long-term aspect of these contracts and the high-quality of the other parties lead to a low level of credit risk.

Risks related to commercial operations, other than those described above (which are, in practice, directly monitored by subsidiaries), are subject to procedures for establishing credit limits and reviewing outstanding balances.

- **Integrated LNG & Integrated Power segments**

  - Gas & Power activities

Trading of gas & power activities deal with counterparties in the energy, industrial and financial sectors throughout the world. Financial institutions providing credit risk coverage are highly rated international banks and insurance groups.

Potential counterparties are subject to credit assessment and approval before concluding transactions and are thereafter subject to regular review, including re-appraisal and approval of the limits previously granted.

The creditworthiness of counterparties is assessed based on an analysis of quantitative and qualitative data regarding financial standing and business risks, together with the review of any relevant third party and market information, such as data published by rating agencies. On this basis, credit limits are defined for each potential counterparty and, where appropriate, transactions are subject to specific authorizations.

Credit exposure, which is essentially an economic exposure or an expected future physical exposure, is permanently monitored and subject to sensitivity measures.

Credit risk is mitigated by the systematic use of industry standard contractual frameworks that permit netting, enable requiring added security in case of adverse change in the counterparty risk, and allow for termination of the contract upon occurrence of certain events of default.

About the professionals and retail gas and power sales activities, credit risk management policy is adapted to the type of customer either through the use of procedures of prepayments and appropriate collection, especially for mass customers or through credit insurances and sureties/guarantees obtaining. For the Professionals segment, the segregation of duties between the commercial and financial teams allows an “a priori” control of risks.

  - Other activities

Internal procedures include rules on credit risk management. Procedures to monitor customer risk are defined at the local level, especially for Saft Groupe (rules for the approval of credit limits, use of guarantees, monitoring and assessment of the receivables portfolio).

- **Refining & Chemicals segment**

  - Refining & Chemicals activities

Credit risk is primarily related to commercial receivables. Internal procedures of Refining & Chemicals include rules for the management of credit describing the fundamentals of internal control in this domain. Each Business Unit implements the procedures of the activity for managing and provisioning credit risk according to the size of the subsidiary and the market in which it operates. The principal elements of these procedures are:

- implementation of credit limits with different authorization schemes;
- use of insurance policies or specific guarantees (letters of credit);
- regular monitoring and assessment of overdue accounts (aging balance), including dunning procedures.

Counterparties are subject to credit assessment and approval prior to any transaction being concluded. Regular reviews are made for all active counterparties including a re-appraisal and renewing of the granted credit limits. The limits of the counterparties are assessed based on quantitative and qualitative data regarding financial standing, together with the review of any relevant third party and market information, such as that provided by rating agencies and insurance companies.

  - Trading & Shipping activities

Trading & Shipping deals with commercial counterparties and financial institutions located throughout the world. Counterparties to physical and derivative transactions are primarily entities involved in the oil and gas industry or in the trading of energy commodities, or financial institutions. Credit risk coverage is arranged with financial institutions, international banks and insurance groups selected in accordance with strict criteria.

The Trading & Shipping division applies a strict policy of internal delegation of authority in order to set up credit limits by country and counterparty and approval processes for specific transactions. Credit exposures contracted under these limits and approvals are monitored on a daily basis.

Potential counterparties are subject to credit assessment and approval prior to any transaction being concluded and all active counterparties are subject to regular reviews, including re-appraisal and approval of granted limits. The creditworthiness of counterparties is assessed based on an analysis of quantitative and qualitative data regarding financial standing and business risks, together with the review of any relevant third party and market information, such as ratings published by Standard & Poor’s, Moody’s Investors Service and other credit-rating agencies.

Contractual arrangements are structured so as to maximize the risk mitigation benefits of netting between transactions wherever possible and additional protective terms providing for the provision of security in the event of financial deterioration and the termination of transactions on the occurrence of defined default events are used to the greatest permitted extent.

Credit risks in excess of approved levels are secured by means of letters of credit and other guarantees, cash deposits and insurance arrangements. In respect of derivative transactions, risks are secured by margin call contracts wherever possible.

- **Marketing & Services segment**

Internal procedures for the Marketing & Services division include rules on credit risk that describe the basis of internal control in this domain, including the segregation of duties between commercial and financial operations.

Credit policies are defined at the local level and procedures to monitor customer risk are implemented (credit committees at the subsidiary level, the creation of credit limits for corporate customers, etc.). Each entity also implements monitoring of its outstanding receivables. Risks related to credit may be mitigated or limited by subscription of credit insurance and/or requiring security or guarantees.

Note 16 Financial instruments related to commodity contracts

16.1 FINANCIAL INSTRUMENTS RELATED TO COMMODITY CONTRACTS

Accounting principles

Financial instruments related to commodity contracts, including crude oil, petroleum products, gas, and power purchase/sales contracts within the trading activities, together with the commodity contract derivative instruments and freight rate swaps, are used to adjust TotalEnergies’ exposure to price fluctuations within global trading limits. According to the industry practice, these instruments are considered as held for trading. Changes in fair value are recorded in the income statement. The fair value of these instruments is recorded in “Other current assets” or “Other creditors and accrued liabilities” depending on whether they are assets or liabilities.

The valuation methodology is to mark-to-market all open positions for both physical and paper transactions. The valuations are determined on a daily basis using observable market data based on organized and over the counter (OTC) markets. In specific cases when market data is not directly available, the valuations are derived from observable data such as arbitrages, freight or spreads and market corroboration. For valuation of risks which are the result of a calculation, such as options for example, commonly known models are used to compute the fair value.

As of December 31, 2023 (M$)	Gross value before offsetting		Amounts offset		Net balance sheet value presented		Other amounts not	Net carrying	Fair
Assets / (Liabilities)	assets	liabilities	assets[(c)]	liabilities[(c)]	assets	liabilities	offset	amount	value[(b)]
Gas & Power activities									
Swaps	116	(125)	(27)	27	89	(98)	—	(9)	(9)
Forwards[(a)]	5,875	(6,369)	(253)	253	5,622	(6,116)	—	(494)	(494)
Options	540	—	—	—	540	—	—	540	540
Futures	2	—	—	—	2	—	—	2	2
Other/Collateral	—	—	—	—	—	—	109	109	109
Total Gas & Power	**6,533**	**(6,494)**	**(280)**	**280**	**6,253**	**(6,214)**	**109**	**148**	**148**
Crude oil, petroleum products and freight rates activities									
Petroleum products, crude oil and freight rate swaps	66	(50)	(28)	28	38	(22)	—	16	16
Forwards[(a)]	655	(1,348)	(13)	13	642	(1,335)	—	(693)	(693)
Options	23	(97)	(23)	23	—	(74)	—	(74)	(74)
Futures	1	—	—	—	1	—	—	1	1
Options on futures	287	(214)	(209)	209	78	(5)	—	73	73
Other/Collateral	—	—	—	—	—	—	—	—	—
Total crude oil, petroleum products and freight rates	**1,032**	**(1,709)**	**(273)**	**273**	**759**	**(1,436)**	**—**	**(677)**	**(677)**
TOTAL	**7,565**	**(8,203)**	**(553)**	**553**	**7,012**	**(7,650)**	**109**	**(529)**	**(529)**
Total of fair value non recognized in the balance sheet									—

(a) Forwards: contracts resulting in physical delivery are accounted for as derivative commodity contracts and included in the amounts shown.
(b) When the fair value of derivatives listed on an organized exchange market (futures, options on futures and swaps) is offset with the margin call received or paid in the balance sheet, this fair value is set to zero.
(c) Amounts offset in accordance with IAS 32.

As of December 31, 2022 (M$)	Gross value before offsetting		Amounts offset		Net balance sheet value presented		Other amounts not	Net carrying	Fair
Assets / (Liabilities)	assets	liabilities	assets[(c)]	liabilities[(c)]	assets	liabilities	offset	amount	value[(b)]
Gas & Power activities									
Swaps	1,268	(449)	(18)	18	1,250	(431)	—	819	819
Forwards[(a)]	18,014	(18,638)	(1,994)	1,994	16,020	(16,644)	—	(624)	(624)
Options	2,143	(1)	(1)	1	2,142	—	—	2,142	2,142
Futures	13	(3)	—	—	13	(3)	—	10	10
Other/Collateral	—	—	—	—	—	—	(406)	(406)	(406)
Total Gas & Power	**21,438**	**(19,091)**	**(2,013)**	**2,013**	**19,425**	**(17,078)**	**(406)**	**1,941**	**1,941**
Crude oil, petroleum products and freight rates activities									
Petroleum products, crude oil and freight rate swaps	122	(114)	(58)	58	64	(56)	—	8	8
Forwards[(a)]	631	(1,489)	(7)	7	624	(1,482)	—	(858)	(858)
Options	76	(227)	(69)	69	7	(158)	—	(151)	(151)
Futures	—	—	—	—	—	—	—	—	—
Options on futures	113	(13)	(13)	13	100	—	—	100	100
Other/Collateral	—	—	—	—	—	—	—	—	—
Total crude oil, petroleum products and freight rates	**942**	**(1,843)**	**(147)**	**147**	**795**	**(1,696)**	**—**	**(901)**	**(901)**
TOTAL	**22,380**	**(20,934)**	**(2,160)**	**2,160**	**20,220**	**(18,774)**	**(406)**	**1,040**	**1,040**
Total of fair value non recognized in the balance sheet									—

(a) Forwards: contracts resulting in physical delivery are accounted for as derivative commodity contracts and included in the amounts shown.
(b) When the fair value of derivatives listed on an organized exchange market (futures, options on futures and swaps) is offset with the margin call received or paid in the balance sheet, this fair value is set to zero.
(c) Amounts offset in accordance with IAS 32.

As of December 31, 2021 (M$)	Gross value before offsetting		Amounts offset		Net balance sheet value presented		Other amounts not	Net carrying	Fair
Assets / (Liabilities)	assets	liabilities	assets[(c)]	liabilities[(c)]	assets	liabilities	offset	amount	value[(b)]
Gas & Power activities									
Swaps	92	(385)	(35)	35	57	(350)	—	(293)	(293)
Forwards[(a)]	21,752	(16,954)	(2,120)	2,120	19,632	(14,834)	—	4,798	4,798
Options	1,953	(63)	(3)	3	1,950	(60)	—	1,890	1,890
Futures	418	(430)	(183)	183	235	(247)	—	(12)	(12)
Other/Collateral	—	—	—	—	—	—	382	382	382
Total Gas & Power	**24,215**	**(17,832)**	**(2,341)**	**2,341**	**21,874**	**(15,491)**	**382**	**6,765**	**6,765**
Crude oil, petroleum products and freight rates activities									
Petroleum products, crude oil and freight rate swaps	245	(289)	(166)	166	79	(123)	—	(44)	(44)
Forwards[(a)]	411	(444)	(88)	88	323	(356)	—	(33)	(33)
Options	68	(236)	(40)	40	28	(196)	—	(168)	(168)
Futures	—	—	—	—	—	—	—	—	—
Options on futures	186	(78)	(78)	78	108	—	—	108	108
Other/Collateral	—	—	—	—	—	—	344	344	344
Total crude oil, petroleum products and freight rates	**910**	**(1,047)**	**(372)**	**372**	**538**	**(675)**	**344**	**207**	**207**
TOTAL	**25,125**	**(18,879)**	**(2,713)**	**2,713**	**22,412**	**(16,166)**	**726**	**6,972**	**6,972**
Total of fair value non recognized in the balance sheet									—

(a) Forwards: contracts resulting in physical delivery are accounted for as derivative commodity contracts and included in the amounts shown.
(b) When the fair value of derivatives listed on an organized exchange market (futures, options on futures and swaps) is offset with the margin call received or paid in the balance sheet, this fair value is set to zero.
(c) Amounts offset in accordance with IAS 32.

Commitments on crude oil and refined products have, for the most part, a short-term maturity (less than one year).

The changes in fair value of financial instruments related to commodity contracts are detailed as follows:

For the year ended December 31, (M$)	Fair value as of January 1,	Impact on income	Settled contracts	Other	Fair value as of December 31,
Gas & Power activities					
2023	**2,347**	**(5,792)**	**3,681**	**(197)**	**39**
2022	6,383	11,406	(15,628)	186	2,347
2021	(1,928)	6,817	1,408	86	6,383
Crude oil, petroleum products and freight rates activities					
2023	**(901)**	**11,033**	**(10,812)**	**3**	**(677)**
2022	(137)	5,891	(6,655)	–	(901)
2021	(310)	3,950	(3,777)	–	(137)

The fair value hierarchy for financial instruments related to commodity contracts is as follows:

As of December 31, 2023 (M$)	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
Gas & Power activities	1,054	1,677	(2,692)	39
Crude oil, petroleum products and freight rates activities	73	(750)	—	(677)
TOTAL	**1,127**	**927**	**(2,692)**	**(638)**

As of December 31, 2022 (M$)	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
Gas & Power activities	1,034	1,678	(365)	2,347
Crude oil, petroleum products and freight rates activities	98	(999)	–	(901)
TOTAL	**1,132**	**679**	**(365)**	**1,446**

As of December 31, 2021 (M$)	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
Gas & Power activities	3,716	(3,563)	6,230	6,383
Crude oil, petroleum products and freight rates activities	134	(271)	–	(137)
TOTAL	**3,850**	**(3,834)**	**6,230**	**6,246**

Financial instruments classified as level 3 are mainly composed of long-term liquefied natural gas purchase and sale contracts which relate to the trading activity.

The management of positions is carried out on the basis of a net value of LNG purchase and sale commitments; the valuation of contracts is based on observable market data, such as commodity forward prices, but it also takes into account unobservable data on contract performance (assumptions on the variable terms of the contracts, on the availability of infrastructures, on the performance of counterparties).

The valuation of LNG contracts is sensitive to changes in oil and natural gas prices on North American, Asian and European markets, as well as to these assumptions on contract performance.

TotalEnergies' management horizon is 12 months in 2023 (as in 2022 and 2021), and includes the full annual delivery program of LNG cargoes for the following year.

The analysis of the fair value of the LNG portfolio over the period beyond 12 months carried out by the Company, allows to verify that there is no material asset or liability to be recognized in its accounts for that period. This analysis, which takes into account the specific characteristics of LNG contracts and of the gas market, including its liquidity, incorporates valuation parameters that are unobservable over this period, in particular Company internal assumptions on the long-term evolution of hydrocarbon prices, the execution of contracts and the performance of counterparties, the renegotiation of price terms in contracts or the exercise of their contractual flexibilities.

The description of each fair value level is presented in Note 15 to the Consolidated Financial Statements.

Cash Flow hedge

The impact on the income statement and other comprehensive income of the hedging instruments related to commodity contracts and qualified as cash flow hedges is detailed as follows:

As of December 31

(M$)	2023	2022	2021
Profit (Loss) recorded in other comprehensive income of the period	2,770	(5,524)	445
Recycled amount from other comprehensive income to the income statement of the period	117	1,317	(56)

These financial instruments are mainly European gas, power and CO_2 emission rights derivatives.

As of December 31, 2023, the ineffective portion of these financial instruments is $124 million (in 2022 the ineffective portion of the financial instruments was $132 million and nil in 2021).

16.2 Oil, Gas and Power markets related risks management

Due to the nature of its business, TotalEnergies has significant oil and gas trading activities as part of its day-to-day operations in order to optimize revenues from its oil and gas production and to obtain favorable pricing to supply its refineries.

In its international oil trading business, TotalEnergies usually follows a policy of not selling its future production. However, in connection with this trading business, TotalEnergies, like most other oil companies, uses energy derivative instruments to adjust its exposure to price fluctuations of crude oil, refined products, natural gas, and power. TotalEnergies also uses freight rate derivative contracts in its shipping business to adjust its exposure to freight-rate fluctuations. To hedge against this risk, TotalEnergies uses various instruments such as futures, forwards, swaps and options on organized markets or over-the-counter markets. The list of the different derivatives held by TotalEnergies in these markets is detailed in Note 16.1 to the Consolidated Financial Statements.

As part of its gas and power trading activity, TotalEnergies also uses derivative instruments such as futures, forwards, swaps and options in both organized and over-the-counter markets. In general, the transactions are settled at maturity date through physical delivery. TotalEnergies measures its market risk exposure, *i.e.* potential loss in fair values, on its trading business using a “value-at-risk” technique. This technique is based on a historical model and makes an assessment of the market risk arising from possible future changes in market values over a one-day period. The calculation of the range of potential changes in fair values takes into account a snapshot of the end-of-day exposures and the set of historical price movements for the past two years for all instruments and maturities in the global trading business.

Gas & Power division trading: “value-at-risk” with a 97.5% probability

As of December 31,

(M$)	High	Low	Average	Year end
2023	**111**	**16**	**54**	**54**
2022	119	15	53	92
2021	80	9	28	30

The Trading & Shipping division measures its market risk exposure, *i.e.* potential loss in fair values, on its crude oil, refined products and freight rates trading activities using a “value-at-risk” technique. This technique is based on a historical model and makes an assessment of the market risk arising from possible future changes in market values over a 24-hour period. The calculation of the range of potential changes in fair values is based on the end-of-day exposures and historical price movements of the last 400 business days for all traded instruments and maturities. Options are systematically re-evaluated using appropriate models.

The “value-at-risk” represents the most unfavorable movement in fair value obtained with a 97.5% confidence level. This means that TotalEnergies’ portfolio result is likely to exceed the value-at-risk loss measure once over 40 business days if the portfolio exposures were left unchanged.

Trading & Shipping: “value-at-risk with” a 97.5% probability

As of December 31,

(M$)	High	Low	Average	Year end
2023	**74**	**17**	**37**	**28**
2022	48	9	22	27
2021	36	9	18	12

TotalEnergies has implemented strict policies and procedures to manage and monitor these market risks. These are based on the separation of control and front-office functions and on an integrated information system that enables real-time monitoring of trading activities.

Limits on trading positions are approved by TotalEnergies’ Executive Committee and are monitored daily. To increase flexibility and encourage liquidity, hedging operations are performed with numerous independent operators, including other oil companies, major energy producers or consumers and financial institutions. TotalEnergies has established counterparty limits and monitors outstanding amounts with each counterparty on an ongoing basis.

Note 17 Post closing events

The transactions related to the service station networks of TotalEnergies in the Netherlands, Belgium, and Luxembourg were finalized in January 2024 for 1.4 billion dollars. (see Note 2.3 “Divestment projects”)

In February 2024, TotalEnergies and his partner SOCAR have completed the transaction to sell 15% interest each in the Absheron gas field to ADNOC. After this transaction, TotalEnergies owns a 35% interest in Absheron gas field alongside SOCAR (35%) and ADNOC (30%) (see Note 2.3 “Divestment projects”).

There are no other post closing events.

Note 18 Consolidation scope

As of December 31, 2023, 1,367 entities are consolidated of which 192 are accounted for under the equity method (E).

The table below presents a comprehensive list of the consolidated entities:

Business segment	Statutory corporate name	% Company interest	Method	Country of incorporation	Country of operations
Exploration & Production					
	Abu Dhabi Gas Industries Limited	15.00 %	E	United Arab Emirates	United Arab Emirates
	Angola LNG Supply Services, LLC	13.60 %	E	United States	United States
	Bonny Gas Transport Limited	15.00 %	E	Bermuda	Nigeria
	Brass Holdings B.V.	100.00 %		Netherlands	Nigeria
	Brass LNG Limited	20.48 %	E	Nigeria	Nigeria
	Congo Forest Company (CFC)	100.00 %		Congo	Congo
	Dolphin Energy Limited	24.50 %	E	United Arab Emirates	United Arab Emirates
	E.F. Oil And Gas Limited	100.00 %		United Kingdom	United Kingdom
	East African Crude Oil Pipeline (EACOP) Ltd	62.00 %	E	United Kingdom	Uganda
	Elf E&P	100.00 %		France	France
	Elf Exploration UK Limited	100.00 %		United Kingdom	United Kingdom
	Elf Petroleum Iran	100.00 %		France	Iran
	Elf Petroleum UK Limited	100.00 %		United Kingdom	United Kingdom
	Gas Investment and Services Company Limited	10.00 %	E	Bermuda	Oman
	Global Forestry Development (GFD)	49.00 %	E	Belgium	Belgium
	Luna Carbon Storage ANS	40.00 %	E	Norway	Norway
	Mabruk Oil Operations	49.02 %		France	Libya
	Norpipe Oil AS	34.93 %	E	Norway	Norway
	Norpipe Petroleum UK Limited	45.22 %	E	United Kingdom	Norway
	Norpipe Terminal Holdco Limited	45.22 %	E	United Kingdom	Norway
	Norsea Pipeline Limited	45.22 %	E	United Kingdom	Norway
	North Oil Company	30.00 %	E	Qatar	Qatar
	Northern Lights JV DA	33.33 %	E	Norway	Norway
	Pars LNG Limited	40.00 %	E	Bermuda	Iran
	Private Oil Holdings Oman Limited	10.00 %	E	United Kingdom	Oman
	Stogg Eagle Funding B.V.	100.00 %		Netherlands	Nigeria
	TOQAP Guyana B.V.	60.00 %		Netherlands	Guyana
	Total Austral	100.00 %		France	Argentina
	Total E&P Al Shaheen A/S	100.00 %		Denmark	Qatar
	Total E&P Angola Block 15/06	100.00 %		France	Angola
	Total E&P Angola Block 16	100.00 %		France	Angola
	Total E&P Angola Block 16 Holdings	100.00 %		France	Angola
	Total E&P Angola Block 33	100.00 %		France	Angola
	Total E&P Angola Block 39	100.00 %		France	Angola
	Total E&P Chine	100.00 %		France	China
	Total E&P Chissonga	100.00 %		France	Angola
	Total E&P East El Burullus Offshore B.V.	100.00 %		Netherlands	Egypt
	Total E&P Egypt Block 2 B.V.	100.00 %		Netherlands	Egypt
	Total E&P Egypt Offshore Western Desert B.V.	100.00 %		Netherlands	Egypt
	Total E&P Egypte	100.00 %		France	Egypt
	Total E&P Guyane Francaise	100.00 %		France	France
	Total E&P Jutland Denmark B.V.	100.00 %		Netherlands	Denmark
	Total E&P Kurdistan Region of Iraq (Harir) B.V.	100.00 %		Netherlands	Iraq
	Total E&P Kurdistan Region of Iraq (Safen) B.V.	100.00 %		Netherlands	Iraq
	Total E&P Kurdistan Region of Iraq (Taza) B.V.	100.00 %		Netherlands	Iraq
	Total E&P Kurdistan Region of Iraq B.V.	100.00 %		Netherlands	Iraq
	Total E&P M2 Holdings Limited	100.00 %		South Africa	South Africa
	Total E&P Myanmar	100.00 %		France	Myanmar
	Total E&P Participations Petrolieres Congo	100.00 %		Congo	Congo
	Total E&P Philippines B.V.	100.00 %		Netherlands	Philippines
	Total E&P Services China Company Limited	100.00 %		China	China
	Total E&P South Pars	100.00 %		France	Iran
	Total E&P South Sudan	100.00 %		France	South Sudan
	Total E&P Syrie	100.00 %		France	Syria
	Total E&P Tajikistan B.V.	100.00 %		Netherlands	Tajikistan
	Total Oil and Gas South America	100.00 %		France	France
	Total Pars LNG	100.00 %		France	France
	Total South Pars	100.00 %		France	Iran
	TotalEnergies Anchor USA LLC	100.00 %		United States	United States
	TotalEnergies BTC B.V.	100.00 %		Netherlands	Azerbaijan
	TotalEnergies Carbon Solutions	100.00 %		France	France
	TotalEnergies CCS UK Ltd	100.00 %		United Kingdom	United Kingdom
	TotalEnergies Denmark ASW	100.00 %		United States	Denmark
	TotalEnergies Denmark ASW Pipeline ApS	100.00 %		Denmark	Denmark
	TotalEnergies E&P Algerie	100.00 %		France	Algeria
	TotalEnergies E&P Algerie Berkine A/S	100.00 %		Denmark	Algeria
	TotalEnergies E&P Americas LLC	100.00 %		United States	United States
	TotalEnergies E&P Colombie	100.00 %		France	Colombia
	TotalEnergies E&P New Ventures Inc.	100.00 %		United States	United States
	TotalEnergies E&P North Sea UK Ltd	100.00 %		United Kingdom	United Kingdom
	TotalEnergies E&P Research & Technology USA LLC	100.00 %		United States	United States
	TotalEnergies E&P UK Ltd	100.00 %		United Kingdom	United Kingdom
	TotalEnergies E&P USA Inc.	100.00 %		United States	United States
	TotalEnergies E&P USA Oil Shale LLC	100.00 %		United States	United States

TotalEnergies E&P USA Well Containment LLC	100.00 %	United States	United States
TotalEnergies East Africa Midstream B.V.	100.00 %	Netherlands	Uganda
TotalEnergies EP (Brunei) B.V.	100.00 %	Netherlands	Brunei
TotalEnergies EP Absheron B.V.	100.00 %	Netherlands	Azerbaijan
TotalEnergies EP Abu Al Bu Khoosh	100.00 %	France	United Arab Emirates
TotalEnergies EP Angola	100.00 %	France	Angola
TotalEnergies EP Angola Block 17.06	100.00 %	France	Angola
TotalEnergies EP Angola Block 20	100.00 %	France	Angola
TotalEnergies EP Angola Block 25	100.00 %	France	Angola
TotalEnergies EP Angola Block 29	100.00 %	France	Angola
TotalEnergies EP Angola Block 32	100.00 %	France	Angola
TotalEnergies EP Angola Block 40	100.00 %	France	Angola
TotalEnergies EP Angola Block 48 B.V.	100.00 %	Netherlands	Angola
TotalEnergies EP Asia Pacific Pte. Ltd	100.00 %	Singapore	Singapore
TotalEnergies EP Azerbaijan B.V.	100.00 %	Netherlands	Azerbaijan
TotalEnergies EP Block 9	100.00 %	France	Lebanon
TotalEnergies EP Bolivie	100.00 %	France	Bolivia
TotalEnergies EP Brasil Ltda	100.00 %	Brazil	Brazil
TotalEnergies EP Bulgaria B.V.	100.00 %	Netherlands	Bulgaria
TotalEnergies EP Cambodge	100.00 %	France	Cambodia
TotalEnergies EP Company UK Ltd	100.00 %	United Kingdom	United Kingdom
TotalEnergies EP Congo	85.00 %	Congo	Congo
TotalEnergies EP Cyprus B.V.	100.00 %	Netherlands	Cyprus
TotalEnergies EP Danmark A/S	100.00 %	Denmark	Denmark
TotalEnergies EP Danmark A/S - CPH	100.00 %	Denmark	Denmark
TotalEnergies EP Dolphin Holdings	100.00 %	France	France
TotalEnergies EP Dolphin Midstream	100.00 %	France	France
TotalEnergies EP Dolphin Upstream	100.00 %	France	Qatar
TotalEnergies EP France	100.00 %	France	France
TotalEnergies EP Gabon	58.28 %	Gabon	Gabon
TotalEnergies EP Gass Handel Norge AS	100.00 %	Norway	Norway
TotalEnergies EP Gastransport Nederland B.V.	100.00 %	Netherlands	Netherlands
TotalEnergies EP Golfe	100.00 %	France	Qatar
TotalEnergies EP Greece B.V.	100.00 %	Netherlands	Greece
TotalEnergies EP Guyana B.V.	100.00 %	Netherlands	Guyana
TotalEnergies EP Holding UAE B.V.	100.00 %	Netherlands	United Arab Emirates
TotalEnergies EP Holdings Russia	100.00 %	France	France
TotalEnergies EP International K1 Ltd	100.00 %	United Kingdom	Kenya
TotalEnergies EP International K2 Ltd	100.00 %	United Kingdom	Kenya
TotalEnergies EP International K3 Ltd	100.00 %	United Kingdom	Kenya
TotalEnergies EP International Ltd	100.00 %	United Kingdom	Kenya
TotalEnergies EP Iran B.V.	100.00 %	Netherlands	Iran
TotalEnergies EP Iraq	100.00 %	France	Iraq
TotalEnergies EP Italia S.p.A.	100.00 %	Italy	Italy
TotalEnergies EP Kazakhstan	100.00 %	France	Kazakhstan
TotalEnergies EP Kenya B.V.	100.00 %	Netherlands	Kenya
TotalEnergies EP Liban S.A.L.	100.00 %	Lebanon	Lebanon
TotalEnergies EP Libye	100.00 %	France	Libya
TotalEnergies EP Lower Zakum B.V.	100.00 %	Netherlands	United Arab Emirates
TotalEnergies EP Malaysia	100.00 %	France	Malaysia
TotalEnergies EP Mauritania Block C18 B.V.	100.00 %	Netherlands	Mauritania
TotalEnergies EP Mauritania Block C9 B.V.	100.00 %	Netherlands	Mauritania
TotalEnergies EP Mauritania Blocks DW B.V.	100.00 %	Netherlands	Mauritania
TotalEnergies EP Mauritanie	100.00 %	France	Mauritania
TotalEnergies EP M'Bridge B.V.	100.00 %	Netherlands	Angola
TotalEnergies EP Mexico S.A. de C.V.	100.00 %	Mexico	Mexico
TotalEnergies EP Namibia B.V.	100.00 %	Netherlands	Namibia
TotalEnergies EP Nederland B.V.	100.00 %	Netherlands	Netherlands
TotalEnergies EP Nigeria Deepwater A Ltd	100.00 %	Nigeria	Nigeria
TotalEnergies EP Nigeria Deepwater B Ltd	100.00 %	Nigeria	Nigeria
TotalEnergies EP Nigeria Deepwater C Ltd	100.00 %	Nigeria	Nigeria
TotalEnergies EP Nigeria Deepwater D Ltd	100.00 %	Nigeria	Nigeria
TotalEnergies EP Nigeria Deepwater E Ltd	100.00 %	Nigeria	Nigeria
TotalEnergies EP Nigeria Deepwater F Ltd	100.00 %	Nigeria	Nigeria
TotalEnergies EP Nigeria Deepwater G Ltd	100.00 %	Nigeria	Nigeria
TotalEnergies EP Nigeria Deepwater H Ltd	100.00 %	Nigeria	Nigeria
TotalEnergies EP Nigeria Ltd	100.00 %	Nigeria	Nigeria
TotalEnergies EP Nigeria S.A.S.	100.00 %	France	France
TotalEnergies EP Norge AS	100.00 %	Norway	Norway
TotalEnergies EP Oman Block 11 B.V.	100.00 %	France	Oman
TotalEnergies EP Oman S.A.S.	100.00 %	France	Oman
TotalEnergies EP Petroleum Angola	100.00 %	France	Angola
TotalEnergies EP Pipelines Danmark A/S	100.00 %	Denmark	Denmark
TotalEnergies EP Profils Petroliers	100.00 %	France	France
TotalEnergies EP Qatar	100.00 %	France	Qatar
TotalEnergies EP Qatar 2	100.00 %	France	Qatar
TotalEnergies EP Ratawi Hub	100.00 %	France	Iraq
TotalEnergies EP Russie	100.00 %	France	Russia
TotalEnergies EP Sao Tome and Principe B.V.	100.00 %	Netherlands	Angola
TotalEnergies EP Sebuku	100.00 %	France	Indonesia
TotalEnergies EP Senegal	100.00 %	France	Senegal
TotalEnergies EP Services Brazil B.V.	100.00 %	Netherlands	Netherlands
TotalEnergies EP South Africa B.V.	100.00 %	Netherlands	South Africa
TotalEnergies EP South Africa Block 567 (Pty) Ltd	100.00 %	South Africa	South Africa

	TotalEnergies EP Suriname B.V.	100.00 %		Netherlands	Suriname
	TotalEnergies EP Thailand	100.00 %		France	Thailand
	TotalEnergies EP UAE Unconventional Gas B.V.	100.00 %		Netherlands	United Arab Emirates
	TotalEnergies EP Uganda S.A.S.	100.00 %		France	Uganda
	TotalEnergies EP Umm Lulu SARB	100.00 %		France	United Arab Emirates
	TotalEnergies EP Umm Shaif Nasr B.V.	100.00 %		Netherlands	United Arab Emirates
	TotalEnergies EP Venezuela B.V.	100.00 %		Netherlands	Venezuela
	TotalEnergies EP Vostok LLC	100.00 %		Russia	Russia
	TotalEnergies EP Waha	100.00 %		France	Libya
	TotalEnergies EP Well Response	100.00 %		France	France
	TotalEnergies EP Yemen	100.00 %		France	Yemen
	TotalEnergies EP Yemen Block 3 B.V.	100.00 %		Netherlands	Yemen
	TotalEnergies Holdings EACOP S.A.S.	100.00 %		France	Uganda
	TotalEnergies Holdings International B.V.	100.00 %		Netherlands	Netherlands
	TotalEnergies Holdings Nederland B.V.	100.00 %		Netherlands	Netherlands
	TotalEnergies Jack USA LLC	100.00 %		United States	United States
	TotalEnergies LNG Supply Services USA	100.00 %		United States	United States
	TotalEnergies Nature Based Solutions	100.00 %		France	France
	TotalEnergies Nature Based Solutions II	100.00 %		France	France
	TotalEnergies Nederland Facilities Management B.V.	100.00 %		Netherlands	Netherlands
	TotalEnergies Offshore GB Ltd	100.00 %		United Kingdom	United Kingdom
	TotalEnergies Offshore UK Ltd	100.00 %		United Kingdom	United Kingdom
	TotalEnergies Petróleo & Gás Brasil Ltda	100.00 %		Brazil	Brazil
	TotalEnergies Shipping Brazil B.V.	100.00 %		Netherlands	Brazil
	TotalEnergies Termokarstovoye S.A.S.	100.00 %		France	France
	TotalEnergies Upstream Danmark A/S	100.00 %		Denmark	Denmark
	TotalEnergies Upstream Nigeria	100.00 %		Nigeria	Nigeria
	TotalEnergies Upstream UK Ltd	100.00 %		United Kingdom	United Kingdom
	Uintah Colorado Resources II, LLC	100.00 %		United States	United States
	Uintah Colorado Resources, LLC	66.67 %		United States	United States

Business segment	Statutory corporate name	% Company interest	Method	Country of incorporation	Country of operations
Integrated LNG					
	Abu Dhabi Gas Liquefaction Company Limited	5.00 %	E	United Arab Emirates	United Arab Emirates
	Adani Total Gas Ltd	37.40 %	E	India	India
	Adani Total LNG Singapore Pte. Ltd	50.00 %	E	Singapore	Singapore
	Adani Total Private Limited (d)	50.00 %	E	India	India
	Angola LNG Ltd	13.60 %	E	Bermuda	Angola
	BioBearn S.A.S.	100.00 %		France	France
	BioDeac S.A.S.	65.00 %	E	France	France
	BioGasconha S.A.S.	100.00 %		France	France
	Biogaz Breuil	100.00 %		France	France
	Biogaz Chatillon	100.00 %		France	France
	Biogaz Corcelles	100.00 %		France	France
	Biogaz Epinay	100.00 %		France	France
	Biogaz Libron	100.00 %		France	France
	Biogaz Milhac	100.00 %		France	France
	Biogaz Soignolles	100.00 %		France	France
	Biogaz Torcy	100.00 %		France	France
	Biogaz Vert Le Grand	100.00 %		France	France
	Biogaz Viriat	100.00 %		France	France
	BioLoie S.A.S.	55.00 %	E	France	France
	BioPommeria S.A.S.	100.00 %		France	France
	BioQuercy S.A.S.	66.00 %	E	France	France
	Bioroussillon S.A.S.	100.00 %		France	France
	Biovilleneuvois S.A.S.	100.00 %		France	France
	Cameron LNG Holdings LLC	16.60 %	E	United States	United States
	Colón LNG Marketing S. de R. L.	50.00 %	E	Panama	Panama
	Côte d'Ivoire GNL	34.00 %	E	Côte d'Ivoire	Côte d'Ivoire
	Del Rio Funding LLC (a)	59.55 %	E	United States	United States
	Ductor oy	20.00 %	E	Finland	Finland
	ECA LNG Holdings B.V.	16.60 %	E	Netherlands	Netherlands
	Fonroche Energies Renouvelables S.A.S.	100.00 %		France	France
	Gas Del Litoral SRLCV	25.00 %	E	Mexico	Mexico
	Global LNG Armateur S.A.S.	100.00 %		France	France
	Global LNG Downstream S.A.S.	100.00 %		France	France
	Global LNG North America Corporation	100.00 %		United States	United States
	Global LNG S.A.S.	100.00 %		France	France
	Greenflex Actirent Group, S.L.	100.00 %		Spain	Spain
	Greenflex S.A.S.	100.00 %		France	France
	Gulf Total Tractebel Power Company PSJC	20.00 %	E	United Arab Emirates	United Arab Emirates
	Ichthys LNG PTY Limited	26.00 %	E	Australia	Australia
	Margeriaz Energie	100.00 %		France	France
	Marsa LNG, LLC	80.00 %		Oman	Oman
	Methanergy	100.00 %		France	France
	Moz LNG1 Co-Financing Company	26.50 %		Mozambique	Mozambique
	Moz LNG1 Financing Company Ltd	26.50 %		United Arab Emirates	United Arab Emirates
	Moz LNG1 Holding Company Ltd	26.50 %		United Arab Emirates	United Arab Emirates
	Mozambique LNG Marine Terminal Company S.A.	26.50 %		Mozambique	Mozambique
	Mozambique MOF Company S.A.	26.50 %		Mozambique	Mozambique
	National Gas Shipping Company Limited	5.00 %	E	United Arab Emirates	United Arab Emirates
	Nigeria LNG Limited	15.00 %	E	Nigeria	Nigeria
	Nyk Armateur S.A.S.	50.00 %	E	France	France

Oman LNG, LLC	5.54 %	E	Oman	Oman
Papua LNG Development Pte Ltd	100.00 %		Singapore	Papua New Guinea
PGB Energetyka	100.00 %		Poland	Poland
PGB Energetyka 1	100.00 %		Poland	Poland
PGB Energetyka 10	100.00 %		Poland	Poland
PGB Energetyka 11	100.00 %		Poland	Poland
PGB Energetyka 12	100.00 %		Poland	Poland
PGB Energetyka 13	100.00 %		Poland	Poland
PGB Energetyka 14	100.00 %		Poland	Poland
PGB Energetyka 15	100.00 %		Poland	Poland
PGB Energetyka 16	100.00 %		Poland	Poland
PGB Energetyka 17	100.00 %		Poland	Poland
PGB Energetyka 18	100.00 %		Poland	Poland
PGB Energetyka 19	100.00 %		Poland	Poland
PGB Energetyka 2	100.00 %		Poland	Poland
PGB Energetyka 20	100.00 %		Poland	Poland
PGB Energetyka 21	100.00 %		Poland	Poland
PGB Energetyka 22	100.00 %		Poland	Poland
PGB Energetyka 23	100.00 %		Poland	Poland
PGB Energetyka 24	100.00 %		Poland	Poland
PGB Energetyka 25	100.00 %		Poland	Poland
PGB Energetyka 26	100.00 %		Poland	Poland
PGB Energetyka 27	100.00 %		Poland	Poland
PGB Energetyka 28	100.00 %		Poland	Poland
PGB Energetyka 3	100.00 %		Poland	Poland
PGB Energetyka 4	100.00 %		Poland	Poland
PGB Energetyka 5	100.00 %		Poland	Poland
PGB Energetyka 6	100.00 %		Poland	Poland
PGB Energetyka 7	100.00 %		Poland	Poland
PGB Energetyka 8	100.00 %		Poland	Poland
PGB Energetyka 9	100.00 %		Poland	Poland
PGB Inwestycje	100.00 %		Poland	Poland
PGB Serwis	100.00 %		Poland	Poland
Polska Grupa Biogazowa S.A.	100.00 %		Poland	Poland
Qatar Liquefied Gas Company Limited	10.00 %	E	Qatar	Qatar
Qatar Liquefied Gas Company Limited (II)	16.70 %	E	Qatar	Qatar
Qatar Liquified Gas Company Limited 10 (QG10) - NFS Project	25.00 %	E	Qatar	Qatar
Qatar Liquified Gas Company Limited 5 (QG5) - NFE Project	25.00 %	E	Qatar	Qatar
Rio Grande LNG Intermediate Holdings, LLC (b)	20.31 %	E	United States	United States
South Hook LNG Terminal Company Limited	8.35 %	E	United Kingdom	United Kingdom
Total E&P Indonesie	100.00 %		France	Indonesia
Total Energies Biogaz France	100.00 %		France	France
Total Eren H2	80.00 %	E	France	France
Total Shenergy LNG (Shanghai) Co., Ltd.	49.00 %	E	China	China
TotalEnergies Australia Unit Trust (c)	0.00 %		Australia	Australia
TotalEnergies Biogas Holdings USA, LLC	100.00 %		United States	United States
TotalEnergies CCS Australia Pty Ltd	100.00 %		Australia	Australia
TotalEnergies E&P Yamal	100.00 %		France	France
TotalEnergies EP Angola Developpement Gaz	100.00 %		France	Angola
TotalEnergies EP Australia	100.00 %		France	Australia
TotalEnergies EP Australia II	100.00 %		France	Australia
TotalEnergies EP Australia III	100.00 %		France	Australia
TotalEnergies EP Barnett USA	100.00 %		United States	United States
TotalEnergies EP Holding Mauritius Ltd	100.00 %		Mauritius Island	Mauritius Island
TotalEnergies EP Holdings Australia Pty Ltd	100.00 %		Australia	Australia
TotalEnergies EP Ichthys Holdings	100.00 %		France	France
TotalEnergies EP Ichthys Pty Ltd	100.00 %		Australia	Australia
TotalEnergies EP Mozambique Area1, Ltda	100.00 %		Mozambique	Mozambique
TotalEnergies EP Oman Block 12 B.V.	100.00 %		Netherlands	Oman
TotalEnergies EP Oman Development B.V.	100.00 %		Netherlands	Oman
TotalEnergies EP PNG Ltd	100.00 %		Papua New Guinea	Papua New Guinea
TotalEnergies EP PNG2 B.V.	100.00 %		Netherlands	Papua New Guinea
TotalEnergies EP Salmanov	100.00 %		France	France
TotalEnergies EP Singapore Pte. Ltd.	100.00 %		Singapore	Singapore
TotalEnergies EP Tengah	100.00 %		France	Indonesia
TotalEnergies EP Transshipment S.A.S.	100.00 %		France	France
TotalEnergies Exploration Australia Pty Ltd	100.00 %		Australia	Australia
TotalEnergies Gas & Power Asia Private Limited	100.00 %		Singapore	Singapore
TotalEnergies Gas & Power Brazil	100.00 %		France	France
TotalEnergies Gas & Power Holdings UK Ltd	100.00 %		United Kingdom	United Kingdom
TotalEnergies Gas & Power Ltd	100.00 %		United Kingdom	United Kingdom
TotalEnergies Gas & Power Ltd, London, Meyrin - Geneva branch	100.00 %		United Kingdom	Switzerland
TotalEnergies Gas & Power North America, Inc.	100.00 %		United States	United States
TotalEnergies Gas & Power Services UK Ltd	100.00 %		United Kingdom	United Kingdom
TotalEnergies Gas Holdings Andes	100.00 %		France	France
TotalEnergies Gas Pipeline USA, Inc.	100.00 %		United States	United States
TotalEnergies Gas y Electricidad Argentina S.A.	100.00 %		Argentina	Argentina
TotalEnergies Gaz & Electricite Holdings	100.00 %		France	France
TotalEnergies GLNG Australia	100.00 %		France	Australia
TotalEnergies GLNG Holdings Australia S.A.S.	100.00 %		France	Australia
TotalEnergies LNG Angola	100.00 %		France	France

	TotalEnergies LNG services France	100.00 %		France	France
	TotalEnergies Sviluppo Italia S.R.L.	100.00 %		Italy	Italy
	TotalEnergies USA International LLC	100.00 %		United States	United States
	TotalEnergies Ventures Emerging Markets	100.00 %		France	France
	TotalEnergies Ventures Europe	100.00 %		France	France
	TotalEnergies Ventures International	100.00 %		France	France
	TotalEnergies Yemen LNG Company Ltd	100.00 %		Bermuda	Bermuda
	Transportadora de Gas del Mercosur S.A.	32.68 %	E	Argentina	Argentina
	Yamal LNG	20.02 %	E	Russia	Russia
	Yemen LNG Company Limited	39.62 %	E	Bermuda	Yemen

Business segment	Statutory corporate name	% Company interest	Method	Country of incorporation	Country of operations
Integrated Power					
	Abarloar Solar S.L.U.	100.00 %		Spain	Spain
	Abeto Solar, S.L.	100.00 %		Spain	Spain
	Access Building Egypt Solar One	100.00 %		Egypt	Egypt
	Access Egypt Solar One	100.00 %		Egypt	Egypt
	Adani Green Energy Ltd	19.75 %	E	India	India
	Adani Green Energy Twenty Three Limited	50.00 %	E	India	India
	Adani Renewable Energy Holding Nine Limited	50.00 %	E	India	India
	Advanced Thermal Batteries Inc.	50.00 %	E	United States	United States
	Aerospatiale Batteries (ASB)	50.00 %	E	France	France
	Aerowatt Energies	65.00 %	E	France	France
	Aerowatt Energies 2	51.00 %	E	France	France
	Al Kharsaa Solar Holdings B.V.	49.00 %	E	Netherlands	Netherlands
	Alamo Solarbay S.L.U.	100.00 %		Spain	Spain
	Alberche Conex, S.L.	100.00 %		Spain	Spain
	Alcad AB	100.00 %		Sweden	Sweden
	Alicante	50.00 %	E	France	France
	Alicante 2	50.00 %	E	France	France
	Altergie Territoires 2	44.58 %	E	France	France
	Altergie Territoires 3	50.00 %	E	France	France
	Amber Solar Power Cinco, S.L.	65.00 %	E	Spain	Spain
	Amber Solar Power Cuatro, S.L.	65.00 %	E	Spain	Spain
	Amber Solar Power Dieciseis, S.L.	65.00 %	E	Spain	Spain
	Amber Solar Power Diez, S.L.	65.00 %	E	Spain	Spain
	Amber Solar Power Nueve, S.L.	65.00 %	E	Spain	Spain
	Amber Solar Power Quince, S.L.	65.00 %	E	Spain	Spain
	Amber Solar Power Tres, S.L.	65.00 %	E	Spain	Spain
	Amber Solar Power Uno, S.L.	65.00 %	E	Spain	Spain
	Amura Solar, S.L.U.	100.00 %		Spain	Spain
	Anayet Solar, S.L.U.	100.00 %		Spain	Spain
	Anclote Solar, S.L.U.	100.00 %		Spain	Spain
	Ancora Solar, S.L.U.	100.00 %		Spain	Spain
	Andromeda Solarbay HP S.L.	100.00 %		Spain	Spain
	Anemopetra	100.00 %		Greece	Greece
	Arbotante Solar, S.L.U.	100.00 %		Spain	Spain
	Armada Solar, S.L.U.	100.00 %		Spain	Spain
	Atolón Solar, S.L.U.	100.00 %		Spain	Spain
	Attentive Energy, LLC	56.00 %	E	United States	United States
	Auriga Generacion S.L.	100.00 %		Spain	Spain
	Automotive Cells Company, S.E.	33.33 %	E	France	France
	Avenir Solaire Portfolio	100.00 %		France	France
	Baker Creek Solar, LLC	100.00 %		United States	United States
	Ballupur Solar Power Projects Private Ltd	50.00 %	E	India	India
	Baser Comercializadora de Referencia	100.00 %		Spain	Spain
	Bidasoa Conex, S.L.	100.00 %		Spain	Spain
	BJL11	90.00 %		Brazil	Brazil
	BJL4	90.00 %		Brazil	Brazil
	Brazoria Solar I, LLC	100.00 %		United States	United States
	Brazoria Solar II, LLC	100.00 %		United States	United States
	Brur LP	44.64 %		Israel	Israel
	Budeshte Agro	100.00 %		Bulgaria	Bulgaria
	Caramulo SE	100.00 %		Portugal	Portugal
	Castellaneta	100.00 %		Italy	Italy
	Castille	50.00 %	E	France	France
	CDV Holding S.A.	34.00 %	E	Brazil	Brazil
	Cefeo Solar S.L.	100.00 %		Spain	Spain
	Centaurus Environment S.L.U.	100.00 %		Spain	Spain
	Centrale Eolienne De La Vallee Gentillesse	74.80 %		France	France
	Centrale Hydrolique Alas	100.00 %		France	France
	Centrale Hydrolique Ardon	90.00 %		France	France
	Centrale Hydrolique Arvan	100.00 %		France	France
	Centrale Hydrolique Barbaira	100.00 %		France	France
	Centrale Hydrolique Bonnant	100.00 %		France	France
	Centrale Hydrolique Gavet	100.00 %		France	France
	Centrale Hydrolique Miage	100.00 %		France	France
	Centrale Hydrolique Previnquieres	100.00 %		France	France
	Centrale Photovoltaique De Merle Sud	40.58 %	E	France	France
	Centrale Solaire 2	100.00 %		France	France
	Centrale Solaire 21.09-3	100.00 %		France	France
	Centrale Solaire 21.09-4	100.00 %		France	France

Centrale Solaire APV R&D	100.00 %		France	France
Centrale Solaire Autoprod	100.00 %		France	France
Centrale Solaire Bayet	100.00 %		France	France
Centrale Solaire Beauce Val de Loire	60.00 %		France	France
Centrale Solaire CET La Babiniere	100.00 %		France	France
Centrale Solaire Chemin De Melette	51.00 %	E	France	France
Centrale Solaire De Cazedarnes	75.00 %		France	France
Centrale Solaire de La Bezassade	100.00 %		France	France
Centrale Solaire Dom	100.00 %		France	France
Centrale Solaire Du Centre Ouest	100.00 %		France	France
Centrale Solaire Du Lavoir	60.00 %		France	France
Centrale Solaire Estarac	35.00 %	E	France	France
Centrale Solaire Golbey	51.05 %	E	France	France
Centrale Solaire Guinots	60.00 %	E	France	France
Centrale Solaire Heliovale	59.63 %	E	France	France
Centrale Solaire La Castello	100.00 %		France	France
Centrale Solaire La Potence	100.00 %		France	France
Centrale Solaire La Roquette	100.00 %		France	France
Centrale Solaire La Tastere	60.00 %	E	France	France
Centrale Solaire Lacoste	100.00 %		France	France
Centrale Solaire Le Carteyrou	100.00 %		France	France
Centrale Solaire Le Trabet	100.00 %		France	France
Centrale Solaire Les Cordeliers	83.98 %		France	France
Centrale Solaire Les Cordeliers 2	75.00 %		France	France
Centrale Solaire Lodes	50.00 %	E	France	France
Centrale Solaire Lot 1	100.00 %		France	France
Centrale Solaire Macouria	100.00 %		France	France
Centrale Solaire Mazeran Lr	50.00 %	E	France	France
Centrale Solaire Merle Sud 2	60.00 %	E	France	France
Centrale Solaire Moussoulens	100.00 %		France	France
Centrale Solaire Olinoca	10.00 %	E	France	France
Centrale Solaire Ombrieres Cap Agathois	83.98 %		France	France
Centrale Solaire Ombrieres De Blyes	60.00 %		France	France
Centrale Solaire Plateau De Pouls	51.00 %		France	France
Centrale Solaire Pouy Negue	100.00 %		France	France
Centrale Solaire Pouy Negue 2	100.00 %		France	France
Centrale Solaire RENFR 331	100.00 %		France	France
Centrale Solaire RENFR 397	100.00 %		France	France
Centrale Solaire RENFR 628	100.00 %		France	France
Centrale Solaire Solarshare Bordeaux	100.00 %		France	France
Centrale Solaire SRG Energy	80.00 %	E	France	France
Centrale Solaire Terre du Roi	100.00 %		France	France
Centrale Solaire Toiture Josse	60.00 %	E	France	France
Centrale Solaire Touzery	100.00 %		France	France
Centrale Solaire TQ 3	100.00 %		France	France
Centrale Solaire TQ 5	100.00 %		France	France
Centrale Solaire Vauvoix	60.00 %	E	France	France
Cerezo Solar, S.L.U.	100.00 %		Spain	Spain
Chudiala Solar Power Projects Private Ltd	50.00 %	E	India	India
Cidra Solar, S.L.U.	100.00 %		Spain	Spain
Circinus Energy S.L.	100.00 %		Spain	Spain
Clean Energy	100.00 %		Italy	Italy
Clean Energy 1	100.00 %		Italy	Italy
Clinton Solar, LLC	100.00 %		United States	United States
Columba Renovables S.L.U.	100.00 %		Spain	Spain
Comanche Solar, LLC	100.00 %		United States	United States
Core Energy Development, LLC	100.00 %		United States	United States
Core Fund 1, LLC	100.00 %		United States	United States
Core Solar Capital, LLC	100.00 %		United States	United States
Core Solar Data, LLC	100.00 %		United States	United States
Core Solar Development, LLC	100.00 %		United States	United States
Core Solar DG, LLC	100.00 %		United States	United States
Core Solar Holdings I, LLC	100.00 %		United States	United States
Core Solar Land Holdings I, LLC	100.00 %		United States	United States
Core Solar SPV X, LLC	100.00 %		United States	United States
Core Solar SPV XV, LLC	100.00 %		United States	United States
Core Solar SPV XXIV, LLC	100.00 %		United States	United States
Core Solar, LLC	100.00 %		United States	United States
Cottonwood Bayou Solar, LLC	100.00 %		United States	United States
Cottonwood Bayou Storage, LLC	100.00 %		United States	United States
Cowtown Solar, LLC	100.00 %		United States	United States
Crc Kern Front Tugboat, LLC	100.00 %		United States	United States
CS Carrefour de l'Europe	100.00 %		France	France
CS QUADRAO 2	100.00 %		United States	United States
Cygnus Environment S.L.	100.00 %		Spain	Spain
Danish Fields Solar, LLC	100.00 %		United States	United States
Danish Fields Storage, LLC	100.00 %		United States	United States
Dracena I	100.00 %		Brazil	Brazil
Dracena II	100.00 %		Brazil	Brazil
Dracena IV	100.00 %		Brazil	Brazil
Driza Solar, S.L.	100.00 %		Spain	Spain
Dubovo	100.00 %		Bulgaria	Bulgaria
Eclipse Solar SPA	100.00 %		Chile	Chile
Ecosol	100.00 %		Argentina	Argentina

Edelweis Solar, S.L.U.	100.00 %		Spain	Spain
Eden Mumbai Solar Private Ltd	50.00 %	E	India	India
Eden Renewable Cite Private Ltd	50.00 %	E	India	India
Eden Renewable Ranji Private Ltd	50.00 %	E	India	India
Eden Solar Energy Gurgaon Private Ltd	50.00 %	E	India	India
Eden Solar Rajdhani Private Ltd	50.00 %	E	India	India
Elliniki Aioliki Energeiaki EAE	86.00 %		Greece	Greece
EMV	100.00 %		Greece	Greece
ENEOS TotalEnergies Renewables Solar Development Japan G.K.	50.00 %	E	Japan	Japan
Energeiaki Ptoon	100.00 %		Greece	Greece
Energia SI	100.00 %		Italy	Italy
Energie Developpement	50.00 %	E	France	France
Eneryo S.A.S.	100.00 %		France	France
Enwind	98.00 %		Poland	Poland
Eole Boin	100.00 %		France	France
Eole Champagne Conlinoise	66.00 %	E	France	France
Eole Dadoud	100.00 %		France	France
Eole Fonds Caraibes	100.00 %		France	France
Eole Grand Maison	100.00 %		France	France
Eole La Montagne	87.60 %		France	France
Eole La Perriere S.A.R.L.	100.00 %		France	France
Eole Morne Carriere	100.00 %		France	France
Eole Yate	100.00 %		France	France
Eólica da Boneca	33.00 %	E	Portugal	Portugal
Eolmed	20.00 %	E	France	France
Eren Development Asia	100.00 %		Singapore	Singapore
Eren Dracena	100.00 %		Brazil	Brazil
Eren Grece	100.00 %		Greece	Luxembourg
Eren India	100.00 %		Luxembourg	Luxembourg
Eren Maral	100.00 %		Brazil	Brazil
Eren Re Participacoes	99.81 %		Brazil	Brazil
Eren Terra Santa	94.22 %		Brazil	Brazil
Essakane Solar S.A.S.	90.00 %		Burkina Faso	Burkina Faso
Etoile	100.00 %		France	France
E - Vento Cirò	100.00 %		Italy	Italy
Evergreen Solar, LLC	100.00 %		United States	United States
Falla Solar, S.L.U.	100.00 %		Spain	Spain
Fast Jung KB	100.00 %		Sweden	Sweden
Fleming Solar, LLC	100.00 %		United States	United States
Fluxsol	100.00 %		France	France
Fotovoras	100.00 %		Greece	Greece
FPV Blanchard	100.00 %		France	France
Frieman & Wolf Batterietechnick GmbH	100.00 %		Germany	Germany
G Sol do Alentejo	100.00 %		Portugal	Portugal
G Sol do Alentejo2	100.00 %		Portugal	Portugal
G.K. Succeed Tsu Haze	45.00 %	E	Japan	Japan
G.P.E	100.00 %		Portugal	Portugal
Galibier	50.00 %	E	France	France
Gallocanta, S.L.	100.00 %		Spain	Spain
Gardunha SE	100.00 %		Portugal	Portugal
Garonne-et-Canal Energies	100.00 %		France	France
Generg International	100.00 %		Portugal	Portugal
Generg Novos Desenvolvimentos	100.00 %		Portugal	Portugal
Generg Portfolio	100.00 %		Portugal	Portugal
Generg Servicos de Engenharia e Gestão	100.00 %		Portugal	Portugal
Generg Ventos da Gardunha	100.00 %		Portugal	Portugal
Generg Ventos de Proenca - a - Nova	100.00 %		Portugal	Portugal
Generg Ventos de Trancoso	100.00 %		Portugal	Portugal
Generg Ventos do Caramulo	100.00 %		Portugal	Portugal
Genergreen	100.00 %		Portugal	Portugal
GIP III Zephyr Holdings, LLC	50.00 %	E	United States	United States
Glaciere De Palisse	100.00 %		France	France
Global Energy	100.00 %		Bulgaria	Bulgaria
Global Solar Services	100.00 %		France	France
Go Electric	100.00 %		United States	United States
Golden Triangle Solar, LLC	100.00 %		United States	United States
Goleta Solar, S.L.	100.00 %		Spain	Spain
Goodfellow Solar III, LLC	100.00 %		United States	United States
Goritsa Aiolos	100.00 %		Greece	Greece
Gray Whale Offshore Wind Power No.1 Co., Ltd	42.50 %	E	South Korea	South Korea
Gray Whale Offshore Wind Power No.2 Co., Ltd	42.50 %	E	South Korea	South Korea
Gray Whale Offshore Wind Power No.3 Co. Ltd	42.50 %	E	South Korea	South Korea
Greenwind S.A.	100.00 %		Argentina	Argentina
Grillete Solar, S.L.U.	100.00 %		Spain	Spain
GT R4 Holding Limited	50.00 %	E	United Kingdom	United Kingdom
GV Beira Baixa	100.00 %		Portugal	Portugal
GV Pinhal	100.00 %		Portugal	Portugal
GV Seixo	90.00 %		Portugal	Portugal
GV Sines	100.00 %		Portugal	Portugal
GV Viana	100.00 %		Portugal	Portugal
Haiding one international investment co Ltd	50.00 %	E	Taiwan	Taiwan
Haiding three international investment co Ltd	50.00 %	E	Taiwan	Taiwan
Haiding two international investment co Ltd	50.00 %	E	Taiwan	Taiwan

Hanwha Total Solar II, LLC	50.00 %	E	United States	United States
Hanwha Total Solar, LLC	50.00 %	E	United States	United States
Helio 100 Kw	100.00 %		France	France
Helio 971	100.00 %		France	France
Helio 974 Sol 1	100.00 %		France	France
Helio 974 Toiture 2	100.00 %		France	France
Helio Fonds Caraibes	100.00 %		France	France
Helio L'R	100.00 %		France	France
Helio Prony Resources New Caledonia	100.00 %		New Caledonia	New Caledonia
Helio Saint Benoit	100.00 %		France	France
Helio Wabealo	100.00 %		France	France
Helix Project V, LLC	100.00 %		United States	United States
HETTY	100.00 %		France	France
HFV Montenero	100.00 %		Italy	Italy
HFV Salentina	50.00 %	E	Italy	Italy
Hid. Grela	100.00 %		Portugal	Portugal
Hid. Manteigas	90.00 %		Portugal	Portugal
Hid. Monte	100.00 %		Portugal	Portugal
Hidrinveste	100.00 %		Portugal	Portugal
Hill Solar I, LLC	100.00 %		United States	United States
Hill Solar II, LLC	100.00 %		United States	United States
HT Solar Holdings II, LLC	50.00 %	E	United States	United States
HTS Holdings LLC	50.00 %	E	United States	United States
Hydro 974	100.00 %		France	France
Hydro Tinee	50.00 %	E	France	France
Hydromons	100.00 %		France	France
Inov	100.00 %		Italy	Italy
Ise Total Nanao Power Plant G.K.	50.00 %	E	Japan	Japan
Jingdan New Energy investment (Shanghai) Co. Ltd	50.00 %	E	China	China
Jmcp	50.05 %		France	France
Keith Solar I, LLC	100.00 %		United States	United States
Kidds Store	100.00 %		United States	United States
Komundo Offshore Wind Power Co., Ltd	42.50 %	E	South Korea	South Korea
KSF Holding Nominees	57.50 %		Australia	Australia
KSF Holding Trust	57.50 %		Australia	Australia
KSF Project Nominees Pty Ltd	57.50 %		Australia	Australia
KSF Project Trust	57.50 %		Australia	Australia
KSF Syncon Trust	57.50 %		Australia	Australia
LA Basin Solar I, LLC	100.00 %		United States	United States
La Compagnie Electrique de Bretagne	50.00 %	E	France	France
La Metairie Neuve	25.00 %	E	France	France
La Seauve	40.00 %	E	France	France
Lanuza Solar, S.L.U.	100.00 %		Spain	Spain
Lauderdale Solar, LLC	100.00 %		United States	United States
Laurens Solar I, LLC	100.00 %		United States	United States
Le Bois Joli	100.00 %		France	France
Lemoore Stratford Land Holdings IV, LLC	100.00 %		United States	United States
Les ailes de Taillard	50.00 %	E	France	France
Les vents de la Moivre 1	100.00 %		France	France
Les Vents de la Moivre 2	100.00 %		France	France
Les Vents de la Moivre 3	100.00 %		France	France
Les Vents de la Moivre 4	100.00 %		France	France
Les Vents de la Moivre 5	100.00 %		France	France
Leuret	50.00 %	E	France	France
Lithos Aiolos	100.00 %		Greece	Greece
Lorca	50.00 %	E	France	France
Lorrain	100.00 %		France	France
Luce Solar SPA	100.00 %		Chile	Chile
Luminora Solar 5	65.00 %	E	Spain	Spain
Luminora Solar cuatro, S.L.	65.00 %	E	Spain	Spain
Luminora Solar Dos, S.L.	65.00 %	E	Spain	Spain
Luminora Solar Tres, S.L.	65.00 %	E	Spain	Spain
Maenggoldo Offshore Wind Power Co., Ltd	42.50 %	E	South Korea	South Korea
Malaspina	100.00 %		Argentina	Argentina
Maral I	100.00 %		Brazil	Brazil
Maral II	100.00 %		Brazil	Brazil
Martianez Solar, S.L.U.	100.00 %		Spain	Spain
Marysville Unified School District Solar, LLC	100.00 %		United States	United States
Mastil Solar, S.L.	100.00 %		Spain	Spain
Mauricio Solar, S.L.U.	100.00 %		Spain	Spain
Maxeon Solar Technologies, Pte. Ltd	16.41 %	E	Singapore	Singapore
Meco 8	100.00 %		France	France
Medha Energy Private Ltd	50.00 %	E	India	India
Megavento	100.00 %		Portugal	Portugal
Merysol	50.00 %	E	France	France
Mishmar LP	44.64 %		Israel	Israel
Missiles & Space Batteries Limited	50.00 %	E	United Kingdom	United Kingdom
Miyagi Osato Solar Park G.K.	45.00 %	E	Japan	Japan
Miyako Kuzakai Solarpark G.K.	50.00 %	E	Japan	Japan
MKAT	100.00 %		Kazakhstan	Kazakhstan
Morena Solar, S.L.	100.00 %		Spain	Spain
Mulilo Prieska PV (RF) Proprietary Limited	27.00 %	E	South Africa	South Africa
Mustang Creek Solar, LLC	100.00 %		United States	United States

Myrtle Solar TE HoldCo	100.00 %		United States	United States
Myrtle Solar, LLC	100.00 %		United States	United States
Myrtle Storage, LLC	100.00 %		United States	United States
Nevada Joint Union High School District Solar, LLC	100.00 %		United States	United States
New Green Energy Services	100.00 %		France	France
Nomad Solar	100.00 %		Kazakhstan	Kazakhstan
Nouvelle Centrale Eolienne de Lastours	50.00 %	E	France	France
NovEnergia Bulgaria Services	100.00 %		Bulgaria	Bulgaria
NovEnergia Holding Company	100.00 %		Luxembourg	Luxembourg
NovEnergia Holding Italia	100.00 %		Italy	Italy
NovEnergia II Bulgaria	100.00 %		Bulgaria	Bulgaria
NovEnergia Italia	100.00 %		Italy	Italy
NovEnergia Poland	100.00 %		Poland	Poland
NovEnergia Poland Services	100.00 %		Poland	Poland
Nuza Solar, S.L.U.	100.00 %		Spain	Spain
Ophelia Solar, LLC	100.00 %		United States	United States
Parc Eolien de Cassini	50.00 %	E	France	France
Parc Eolien Du Coupru	50.00 %	E	France	France
Parc Eolien Du Vilpion	50.00 %	E	France	France
Parc Photovoltaique de Puyloubier	100.00 %		France	France
Parque Fotovoltaico Alicahue Solar SPA	100.00 %		Chile	Chile
Parque Fotovoltaico Santa Adriana Solar SPA	100.00 %		Chile	Chile
PE La Guardia	100.00 %		Italy	Italy
Piedra Solar, LLC	100.00 %		United States	United States
Pigeon Run Solar, LLC	100.00 %		United States	United States
Pilastra Solar, S.L.U.	100.00 %		Spain	Spain
Pinhal Interior SE	100.00 %		Portugal	Portugal
Planta solar OPDE Andalucía 3, S.L.U.	100.00 %		Spain	Spain
Pontenure	100.00 %		Italy	Italy
Portalon Solar, S.L.U.	100.00 %		Spain	Spain
Pos Production Ii	60.00 %		France	France
Pos Production Iii	70.00 %		France	France
Pos Production Iv	70.00 %		France	France
Pos Production V	70.00 %		France	France
Poste HTB du Mont de L'Arbre	100.00 %		France	France
Postigo Solar, S.L.U.	100.00 %		Spain	Spain
Postor Solar S.L.	100.00 %		Spain	Spain
PT TATS Indonesia	100.00 %		Indonesia	Indonesia
Quadrica	51.00 %	E	France	France
Quilla Solar, S.L.U.	100.00 %		Spain	Spain
Rabiza Solar, S.L.U.	100.00 %		Spain	Spain
Randolph Solar I, LLC	100.00 %		United States	United States
Rececho Solar, S.L.	100.00 %		Spain	Spain
Recova Solar, S.L.U.	100.00 %		Spain	Spain
Regata Solar, S.L.U.	100.00 %		Spain	Spain
Renoptipower	75.25 %		Greece	Greece
Rhea	100.00 %		France	France
Risen Bangladesh	100.00 %		Bangladesh	Singapore
Risen Energy Battambang	100.00 %		Cambodia	Cambodia
RLA Solar SPA	100.00 %		Chile	Chile
Rolling Plains Solar, LLC	100.00 %		United States	United States
Rönesans Enerji Üretim ve Ticaret Anonim Şirketi	50.00 %	E	Turkey	Turkey
S.E.R.E.	100.00 %		Portugal	Portugal
Saft (Zhuhai FTZ) Batteries Company Limited	100.00 %		China	China
Saft (Zhuhai) Energy Storage Co	100.00 %		China	China
Saft AB	100.00 %		Sweden	Sweden
Saft America Inc.	100.00 %		United States	United States
Saft AS	100.00 %		Norway	Norway
Saft Australia PTY Limited	100.00 %		Australia	Australia
Saft Batterias SL	100.00 %		Spain	Spain
Saft Batterie Italia S.R.L.	100.00 %		Italy	Italy
Saft Batterien GmbH	100.00 %		Germany	Germany
Saft Batteries Pte Limited	100.00 %		Singapore	Singapore
Saft Batteries PTY Limited	100.00 %		Australia	Australia
Saft Batterijen B.V.	100.00 %		Netherlands	Netherlands
Saft Do Brasil Ltda	100.00 %		Brazil	Brazil
Saft EV S.A.S.	100.00 %		France	France
Saft Ferak AS	100.00 %		Czech Republic	Czech Republic
Saft Groupe S.A.S.	100.00 %		France	France
Saft Hong Kong Limited	100.00 %		Hong Kong	Hong Kong
Saft India Private Limited	100.00 %		India	India
Saft Japan KK	100.00 %		Japan	Japan
Saft Limited	100.00 %		United Kingdom	United Kingdom
Saft LLC	100.00 %		Russia	Russia
Saft Nife ME Limited	100.00 %		Cyprus	Cyprus
Saft S.A.S.	100.00 %		France	France
Sanabria Solar, S.L.	100.00 %		Spain	Spain
Sanders Creek Solar, LLC	100.00 %		United States	United States
Seagreen HoldCo 1 Limited	51.00 %	E	United Kingdom	United Kingdom
SEC	100.00 %		Italy	Italy
Shakumbhari Solar Power Projects Private Ltd	50.00 %	E	India	India
Shams Power Company PJSC	20.00 %	E	United Arab Emirates	United Arab Emirates
SIIF EDF EN	51.02 %		Israel	Israel
Societe Champenoise d'Energie	16.00 %	E	France	France

Societe d'Exploitation du Soleil du Haut - Deffens	100.00 %		France	France
Societe Economie Mixte Production Energetique Renouvelable	35.92 %	E	France	France
Sol Holding, LLC	50.00 %	E	United States	United States
Solaire Habitat Social	100.00 %		France	France
Solar Barocco	100.00 %		Italy	Italy
Solar Carport NJ, LLC	100.00 %		United States	United States
Solar Energies	65.00 %	E	France	France
Solar Life Energy	100.00 %		Italy	Italy
Solar Star Academia 1, LLC	100.00 %		United States	United States
Solar Star Addison North, LLC	100.00 %		United States	United States
Solar Star Alleghany South, LLC	100.00 %		United States	United States
Solar Star Always Low Prices Hi, LLC	100.00 %		United States	United States
Solar Star Arizona HMR-1, LLC	100.00 %		United States	United States
Solar Star Baltimore Carney, LLC	100.00 %		United States	United States
Solar Star Baltimore Roofs, LLC	100.00 %		United States	United States
Solar Star Bay City 2, LLC	100.00 %		United States	United States
Solar Star Big Apple BTM, LLC	100.00 %		United States	United States
Solar Star Big Apple CDG, LLC	100.00 %		United States	United States
Solar Star Big Apple CDGB,LLC	100.00 %		United States	United States
Solar Star Blakeslee 2, LLC	100.00 %		United States	United States
Solar Star Buchanan 1, LLC	100.00 %		United States	United States
Solar Star Buchanan 2, LLC	100.00 %		United States	United States
Solar Star California LXXV, LLC	100.00 %		United States	United States
Solar Star California LXXVI, LLC	100.00 %		United States	United States
Solar Star California LXXVIII, LLC	100.00 %		United States	United States
Solar Star California XXXV, LLC	100.00 %		United States	United States
Solar Star California XXXVI, LLC	100.00 %		United States	United States
Solar Star California XXXVIII, LLC	100.00 %		United States	United States
Solar Star Cambridge 1, LLC	100.00 %		United States	United States
Solar Star Cantil 1, LLC	100.00 %		United States	United States
Solar Star Carbondale 1, LLC	100.00 %		United States	United States
Solar Star Carlsbad 1, LLC	100.00 %		United States	United States
Solar Star Central Light, LLC	100.00 %		United States	United States
Solar Star Charles City 1, LLC	100.00 %		United States	United States
Solar Star Charles City 2, LLC	100.00 %		United States	United States
Solar Star Charlotte 1, LLC	100.00 %		United States	United States
Solar Star Clovis Curry North, LLC	100.00 %		United States	United States
Solar Star Clovis Curry South, LLC	100.00 %		United States	United States
Solar Star Co Co 2500, LLC	100.00 %		United States	United States
Solar Star Coastal Pirate, LLC	100.00 %		United States	United States
Solar Star Colorado II, LLC	100.00 %		United States	United States
Solar Star CRC Kern Front, LLC	100.00 %		United States	United States
Solar Star CRC Mt. Poso, LLC	100.00 %		United States	United States
Solar Star CRC North Shafter, LLC	100.00 %		United States	United States
Solar Star CRC Pier A West, LLC	100.00 %		United States	United States
Solar Star CRC Yowlumne 1 North, LLC	100.00 %		United States	United States
Solar Star CRC Yowlumne 2 South, LLC	100.00 %		United States	United States
Solar Star Deer Island, LLC	100.00 %		United States	United States
Solar Star Dornsife 1, LLC	100.00 %		United States	United States
Solar Star Fort Atkinson South, LLC	100.00 %		United States	United States
Solar Star George Gift, LLC	100.00 %		United States	United States
Solar Star Gloucester 1, LLC	100.00 %		United States	United States
Solar Star Gloucester 2, LLC	100.00 %		United States	United States
Solar Star Golden Empire, LLC	100.00 %		United States	United States
Solar Star Goochland 1, LLC	100.00 %		United States	United States
Solar Star Goodwin Storage, LLC	100.00 %		United States	United States
Solar Star Halifax 1, LLC	100.00 %		United States	United States
Solar Star Harbor, LLC	100.00 %		United States	United States
Solar Star Harpst Arcata, LLC	100.00 %		United States	United States
Solar Star Hartford South, LLC	100.00 %		United States	United States
Solar Star Hawley 1, LLC	100.00 %		United States	United States
Solar Star HD Maryland, LLC	100.00 %		United States	United States
Solar Star HD New Jersey, LLC	100.00 %		United States	United States
Solar Star HD New York, LLC	100.00 %		United States	United States
Solar Star Healthy 1, LLC	100.00 %		United States	United States
Solar Star Healthy Lake, LLC	100.00 %		United States	United States
Solar Star Herald Square 1, LLC	100.00 %		United States	United States
Solar Star Hernwood, LLC	100.00 %		United States	United States
Solar Star Hubbardson South, LLC	100.00 %		United States	United States
Solar Star Irondale, LLC	100.00 %		United States	United States
Solar Star Jal, LLC	100.00 %		United States	United States
Solar Star Kennedale Storage, LLC	100.00 %		United States	United States
Solar Star Khsd, LLC	100.00 %		United States	United States
Solar Star LA County High Desert, LLC	100.00 %		United States	United States
Solar Star Lake Mills 1, LLC	100.00 %		United States	United States
Solar Star LCR Culver City, LLC	100.00 %		United States	United States
Solar Star LCR Irvine, LLC	100.00 %		United States	United States
Solar Star LCR Split 2, LLC	100.00 %		United States	United States
Solar Star Light Park, LLC	100.00 %		United States	United States
Solar Star Lincoln School, LLC	100.00 %		United States	United States
Solar Star Lompoc Diatomite 1, LLC	100.00 %		United States	United States
Solar Star Los Lunas 2 LLC	100.00 %		United States	United States
Solar Star Los Lunas, LLC	100.00 %		United States	United States

Solar Star MA - Tewksbury, LLC	100.00 %		United States	United States
Solar Star Massachusetts II, LLC	100.00 %		United States	United States
Solar Star Massachusetts III, LLC	100.00 %		United States	United States
Solar Star Maxx 1, LLC	100.00 %		United States	United States
Solar Star Mayfield 1, LLC	100.00 %		United States	United States
Solar Star Maynard 1, LLC	100.00 %		United States	United States
Solar Star Mifflinburg 1, LLC	100.00 %		United States	United States
Solar Star Millville Rohrsburg, LLC	100.00 %		United States	United States
Solar Star Millville, LLC	100.00 %		United States	United States
Solar Star Mount Crawford 1, LLC	100.00 %		United States	United States
Solar Star Mountain Post, LLC	100.00 %		United States	United States
Solar Star North Herty Storage, LLC	100.00 %		United States	United States
Solar Star Orangeville 2, LLC	100.00 %		United States	United States
Solar Star Orangeville Eagle, LLC	100.00 %		United States	United States
Solar Star Palmyra North, LLC	100.00 %		United States	United States
Solar Star Parent CRC Kern Front, LLC	100.00 %		United States	United States
Solar Star Parent CRC Mt. Poso, LLC	100.00 %		United States	United States
Solar Star Parent CRC North Shafter, LLC	100.00 %		United States	United States
Solar Star Parent CRC Pier A West, LLC	100.00 %		United States	United States
Solar Star Parent CRC Yowlumne 1 North, LLC	100.00 %		United States	United States
Solar Star Parent CRC Yowlumne 2 South, LLC	100.00 %		United States	United States
Solar Star Parkton, LLC	100.00 %		United States	United States
Solar Star Pennsauken, LLC	100.00 %		United States	United States
Solar Star Petersburg 1, LLC	100.00 %		United States	United States
Solar Star Philipsburg 1, LLC	100.00 %		United States	United States
Solar Star Pleasant Mount 1, LLC	100.00 %		United States	United States
Solar Star Pleasant Mount 2, LLC	100.00 %		United States	United States
Solar Star Prime 2, LLC	100.00 %		United States	United States
Solar Star Prime 4, LLC	100.00 %		United States	United States
Solar Star Prime SCK3, LLC	100.00 %		United States	United States
Solar Star PTC 1, LLC	100.00 %		United States	United States
Solar Star PTC 2, LLC	100.00 %		United States	United States
Solar Star Serving Science 2, LLC	100.00 %		United States	United States
Solar Star Serving Science, LLC	100.00 %		United States	United States
Solar Star South Deering, LLC	100.00 %		United States	United States
Solar Star State of CT Solar 1, LLC	100.00 %		United States	United States
Solar Star Storage Texas, LLC	100.00 %		United States	United States
Solar Star Timberville 1, LLC	100.00 %		United States	United States
Solar Star Timberville 2, LLC	100.00 %		United States	United States
Solar Star Track Southern Ave 1, LLC	100.00 %		United States	United States
Solar Star Tranquility, LLC	100.00 %		United States	United States
Solar Star Unkety Brook, LLC	100.00 %		United States	United States
Solar Star Urbana Landfill South, LLC	100.00 %		United States	United States
Solar Star Vegas I, LLC	100.00 %		United States	United States
Solar Star Virginia Holdco, LLC	100.00 %		United States	United States
Solar Star Ware 1, LLC	100.00 %		United States	United States
Solar Star Western Hills Storage, LLC	100.00 %		United States	United States
Solar Star Whitewater South, LLC	100.00 %		United States	United States
Solar Star Wholesome Portland, LLC	100.00 %		United States	United States
Solar Start Bear Creek, LLC	100.00 %		United States	United States
Solarstar Ma I, LLC	100.00 %		United States	United States
Solarstar Prime I, LLC	100.00 %		United States	United States
SolarStorage Fund A, LLC	100.00 %		United States	United States
SolarStorage Fund B, LLC	100.00 %		United States	United States
SolarStorage Fund C, LLC	100.00 %		United States	United States
SolarStorage Fund D, LLC	100.00 %		United States	United States
Solenergy	100.00 %		Italy	Italy
Sombrero Solar, LLC	100.00 %		United States	United States
Spinnaker Solar, S.L.U.	100.00 %		Spain	Spain
SPWR SS 1, LLC	100.00 %		United States	United States
Strongstown Solar, LLC	100.00 %		United States	United States
SunPower Bobcat Solar, LLC	100.00 %		United States	United States
SunPower Commercial FTB Construction, LLC	100.00 %		United States	United States
SunPower Commercial Holding Company FTB SLB Parent, LLC	100.00 %		United States	United States
SunPower Commercial Holding Company FTB SLB, LLC	100.00 %		United States	United States
SunPower Helix I, LLC	100.00 %		United States	United States
SunPower NY CDG 1, LLC	100.00 %		United States	United States
SunPower Revolver HoldCo I Parent, LLC	100.00 %		United States	United States
SunPower Revolver HoldCo I, LLC	100.00 %		United States	United States
Sunzil	50.00 %	E	France	France
Swingletree Operations, LLC	100.00 %		United States	United States
Tadiran Batteries GmbH	100.00 %		Germany	Germany
Tadiran Batteries Limited	100.00 %		Israel	Israel
Talmei Eliyahu	46.94 %		Israel	Israel
Terra Santa I	88.77 %		Brazil	Brazil
Terra Santa II	88.77 %		Brazil	Brazil
Tethys	100.00 %		France	France
Tianneng Saft Energy Joint Stock Company	40.00 %	E	China	China
Titan	100.00 %		France	France
TNE Holdco 1 Ltd	100.00 %		United Kingdom	United Kingdom
Total Envision Energy Services (Shanghai) CO., Ltd	50.00 %	E	China	China
Total Eren	100.00 %		France	France
Total Eren Australia	100.00 %		Australia	Australia

Total Eren Chile	100.00 %		Chile	Chile
Total Eren Holding	100.00 %		France	France
Total Eren Nov	100.00 %		France	France
Total Strong, LLC	50.00 %	E	United States	United States
Total Tractebel Emirates O&M Company	50.00 %	E	France	United Arab Emirates
Total Tractebel Emirates Power Company	50.00 %	E	France	United Arab Emirates
TotalEnergies - Centrale Electrique Bayet	100.00 %		France	France
TotalEnergies - Centrale Electrique Marchienne-au-Pont	100.00 %		Belgium	Belgium
TotalEnergies - Centrale Electrique Pont-sur-Sambre	100.00 %		France	France
TotalEnergies - Centrale Electrique Saint-Avold	100.00 %		France	France
TotalEnergies - Centrale Electrique Toul	100.00 %		France	France
TotalEnergies B HoldCo, LLC	100.00 %		United States	United States
TotalEnergies C HoldCo, LLC	100.00 %		United States	United States
TotalEnergies Carolina Long Bay, LLC	100.00 %		United States	United States
TotalEnergies Clientes	100.00 %		Spain	Spain
TotalEnergies CW I Solar, LLC	100.00 %		United States	United States
TotalEnergies DF Solar, LLC	100.00 %		United States	United States
Totalenergies Distributed Generation Assets Usa, LLC	100.00 %		United States	United States
TotalEnergies Distributed Generation Philippines Inc.	100.00 %		United States	United States
Totalenergies Distributed Generation Usa, LLC	100.00 %		United States	United States
TotalEnergies Electricidad y Gas España	100.00 %		Spain	Spain
TotalEnergies Electricite et Gaz France	100.00 %		France	France
TotalEnergies Flexible Power Solutions	100.00 %		France	France
TotalEnergies H Solar, LLC	100.00 %		United States	United States
TotalEnergies HI Holdco, LLC	100.00 %		United States	United States
TotalEnergies Integrated Power ESS Belgium	100.00 %		Belgium	Belgium
TotalEnergies M Solar, LLC	100.00 %		United States	United States
TotalEnergies Mercado España	100.00 %		Spain	Spain
TotalEnergies New Ventures USA, Inc.	100.00 %		United States	United States
TotalEnergies Offshore Wind Korea	100.00 %		France	France
TotalEnergies OFW US 1, LLC	100.00 %		United States	United States
TotalEnergies OFW US 4, LLC	100.00 %		United States	United States
TotalEnergies Power & Gas Belgium	100.00 %		Belgium	Belgium
TotalEnergies Power Generation France	100.00 %		France	France
TotalEnergies Renewables	100.00 %		France	France
TotalEnergies Renewables (Cambodia) Co., Ltd	100.00 %		Cambodia	Cambodia
TotalEnergies Renewables Asia	100.00 %		Singapore	Singapore
TotalEnergies Renewables Development Middle East	100.00 %		France	France
TotalEnergies Renewables Development Partnership, LLC	100.00 %		United States	United States
TotalEnergies Renewables Development Philippines Corporation	100.00 %		Philippines	Philippines
TotalEnergies Renewables DG Asia Assets PTE Ltd	100.00 %		Singapore	Singapore
TotalEnergies Renewables DG Development Asia Pte. Ltd.	100.00 %		Singapore	Singapore
TotalEnergies Renewables DG Holdings Asia PTE Ltd	100.00 %		Singapore	Singapore
TotalEnergies Renewables DG MEA - Assets 1 FZE	100.00 %		United Arab Emirates	United Arab Emirates
TotalEnergies Renewables DG MEA FZE	100.00 %		United Arab Emirates	United Arab Emirates
TotalEnergies Renewables ESS Carling	100.00 %		France	France
TotalEnergies Renewables ESS Flandres	100.00 %		France	France
TotalEnergies Renewables ESS Grandpuits	100.00 %		France	France
TotalEnergies Renewables Iberica, S.L.U	100.00 %		Spain	Spain
TotalEnergies Renewables Indian Ocean Ltd	100.00 %		Mauritius Island	Mauritius Island
TotalEnergies Renewables International	100.00 %		France	France
TotalEnergies Renewables Latin America	100.00 %		Chile	Chile
TotalEnergies Renewables Malaysia Sdn. Bhd.	100.00 %		Malaysia	Malaysia
TotalEnergies Renewables Projects Philippines Corporation	100.00 %		Philippines	Philippines
TotalEnergies Renewables Projects Singapore Pte. Ltd	100.00 %		Singapore	Singapore
TotalEnergies Renewables Projects Vietnam	100.00 %		Singapore	Singapore
Totalenergies Renewables R4 Holdco Ltd	100.00 %		United Kingdom	United Kingdom
Totalenergies Renewables Seagreen Holdco Ltd	100.00 %		United Kingdom	United Kingdom
TotalEnergies Renewables Singapore Pte. Ltd	100.00 %		Singapore	Singapore
TotalEnergies Renewables Thailand	100.00 %		Thailand	Thailand
TotalEnergies Renewables UK Limited	100.00 %		United Kingdom	United Kingdom
TotalEnergies Renewables USA, LLC	100.00 %		United States	United States
TotalEnergies Renouvelables Danemark ApS	100.00 %		Denmark	Denmark
TotalEnergies Renouvelables France	100.00 %		France	France
TotalEnergies Renouvelables Nogara	50.00 %	E	France	France
TotalEnergies Renouvelables Pacific	100.00 %		France	France
TotalEnergies Solar DG Nederland B.V.	100.00 %		Netherlands	Netherlands
TotalEnergies Solar France	100.00 %		France	France
TotalEnergies Solar Intl	100.00 %		France	France
TotalEnergies Solar Wind Indian Ocean Ltd	100.00 %		Mauritius Island	Mauritius Island
TotalEnergies Wire 3, LLC	100.00 %		United States	United States
TQN Hydro	100.00 %		France	France
TQN Solar	100.00 %		France	France
TQN Solar Nogara	50.00 %	E	France	France
TQN Wind	100.00 %		France	France
Trancoso SE	100.00 %		Portugal	Portugal
Trofeo Solar, S.L.U.	100.00 %		Spain	Spain
TSGF SpA	100.00 %		Chile	Chile
TSSDG India Private Limited	100.00 %		India	India
Tutly Solar	100.00 %		Uzbekistan	Uzbekistan
Valencia Solar 1, LLC	100.00 %		United States	United States
Valencia Solar 2, LLC	100.00 %		United States	United States
Valencia Solar 3, LLC	100.00 %		United States	United States

	Valencia Solar 4, LLC	100.00 %		United States	United States
	Valorene	66.00 %		France	France
	Varadero Solar, S.L.	100.00 %		Spain	Spain
	Vents d'Oc Centrale d'Energie Renouvelable 16	100.00 %		France	France
	Vents D'Oc Centrale D'Energie Renouvelable 17	50.00 %	E	France	France
	Vents D'Oc Centrale D'Energie Renouvelable 18	100.00 %		France	France
	Vertigo	25.00 %	E	France	France
	Viana Castelo SE	100.00 %		Portugal	Portugal
	Vientos Los Hercules	100.00 %		Argentina	Argentina
	Vientos Solutions S.L.	100.00 %		Spain	Argentina
	Wichita Data, LLC	100.00 %		United States	United States
	Wichita Solar I, LLC	100.00 %		United States	United States
	Winche Solar, S.L.U.	100.00 %		Spain	Spain
	Wind 1026 GmbH	100.00 %		Germany	France
	Wind 1029 GmbH	100.00 %		Germany	Germany
	Winergy	100.00 %		France	France
	Woodbury Solar, LLC	100.00 %		United States	United States
	WP France 21	100.00 %		France	France
	Yunlin Holding Gmbh	23.00 %	E	Germany	Germany
	Yunlin Ukco Limited	29.46 %	E	United Kingdom	United Kingdom
	Zenith Solar, LLC	100.00 %		United States	United States

Business segment	Statutory corporate name	% Company interest	Method	Country of incorporation	Country of operations
Refining & Chemicals					
	Appryl S.N.C	50.00 %		France	France
	Atlantic Trading and Marketing Financial Inc.	100.00 %		United States	United States
	Atlantic Trading and Marketing Inc.	100.00 %		United States	United States
	Balzatex S.A.S.	100.00 %		France	France
	Barry Controls Aerospace S.N.C.	100.00 %		France	France
	BASF Total Petrochemicals LLC	40.00 %		United States	United States
	Bay Junction Inc.	100.00 %		United States	United States
	Bayport Polymers LLC	50.00 %	E	United States	United States
	Borrachas Portalegre Ltda	100.00 %		Portugal	Portugal
	BOU Verwaltungs GmbH	100.00 %		Germany	Germany
	Buckeye Products Pileline LP	14.66 %	E	United States	United States
	Catelsa-Caceres S.A.U.	100.00 %		Spain	Spain
	Composite Industrie Maroc S.A.R.L.	100.00 %		Morocco	Morocco
	Composite Industrie S.A.	100.00 %		France	France
	Cosden, LLC	100.00 %		United States	United States
	COS-MAR Company	50.00 %		United States	United States
	Cray Valley (Guangzhou) Chemical Company, Limited	100.00 %		China	China
	Cray Valley Czech	100.00 %		Czech Republic	Czech Republic
	Cray Valley HSC Asia Ltd	100.00 %		China	China
	Cray Valley S.A.	100.00 %		France	France
	CSSA - Chartering and Shipping Services S.A.	100.00 %		Switzerland	Switzerland
	EcoMotion JV GmbH	49.90 %	E	Germany	Germany
	Elf Aquitaine Fertilisants	100.00 %		France	France
	Espa S.A.R.L.	100.00 %		France	France
	Ethylene Est	99.98 %		France	France
	Feluy Immobati	100.00 %		Belgium	Belgium
	Fina Pipeline Co	100.00 %		United States	United States
	Fina Technology, Inc.	100.00 %		United States	United States
	Gasket (Suzhou) Valve Components Company, Limited	100.00 %		China	China
	Gasket International S.R.L.	100.00 %		Italy	Italy
	Grande Paroisse S.A.	100.00 %		France	France
	Gulf Coast Pipeline LP	14.66 %	E	United States	United States
	Hanwha TotalEnergies Petrochemical Co., Ltd	50.00 %	E	South Korea	South Korea
	HBA Hutchinson Brasil Automotive Ltda	100.00 %		Brazil	Brazil
	Hutchinson (UK) Limited	100.00 %		United Kingdom	United Kingdom
	Hutchinson (Wuhan) Automotive Rubber Products Company Limited	100.00 %		China	China
	Hutchinson Aeronautique & Industrie Limited	100.00 %		Canada	Canada
	Hutchinson Aerospace & Industry Inc.	100.00 %		United States	United States
	Hutchinson Aerospace GmbH	100.00 %		Germany	Germany
	Hutchinson Antivibration Systems Inc.	100.00 %		United States	United States
	Hutchinson Automotive Systems Company, Limited	100.00 %		China	China
	Hutchinson Autopartes Mexico S.A. de C.V.	100.00 %		Mexico	Mexico
	Hutchinson Borrachas de Portugal Ltda	100.00 %		Portugal	Portugal
	Hutchinson Corporation	100.00 %		United States	United States
	Hutchinson d.o.o Ruma	100.00 %		Serbia	Serbia
	Hutchinson Do Brasil S.A.	100.00 %		Brazil	Brazil
	Hutchinson Fluid Management Systems Inc.	100.00 %		United States	United States
	Hutchinson GmbH	100.00 %		Germany	Germany
	Hutchinson Holding GmbH	100.00 %		Germany	Germany
	Hutchinson Holdings UK Limited	100.00 %		United Kingdom	United Kingdom
	Hutchinson Iberia S.A.	100.00 %		Spain	Spain
	Hutchinson Industrial Rubber Products (Suzhou) Company, Limited	100.00 %		China	China
	Hutchinson Industrias Del Caucho SAU	100.00 %		Spain	Spain
	Hutchinson Industries Inc.	100.00 %		United States	United States
	Hutchinson Japan Company Limited	100.00 %		Japan	Japan
	Hutchinson Korea Limited	100.00 %		South Korea	South Korea
	Hutchinson Malta Ltd	100.00 %		Malta	Malta

Hutchinson Maroc S.A.R.L. AU	100.00 %		Morocco	Morocco
Hutchinson Poland SP ZO.O.	100.00 %		Poland	Poland
Hutchinson Polymers S.N.C.	100.00 %		France	France
Hutchinson Porto	100.00 %		Portugal	Portugal
Hutchinson Precision Sealing Systems Inc.	100.00 %		United States	United States
Hutchinson Research & Innovation Singapore PTE. Limited	100.00 %		Singapore	Singapore
Hutchinson Rubber Products Private Limited Inde	100.00 %		India	India
Hutchinson S.A.	100.00 %		France	France
Hutchinson S.N.C.	100.00 %		France	France
Hutchinson S.R.L. (Italie)	100.00 %		Italy	Italy
Hutchinson S.R.L. (Roumanie)	100.00 %		Romania	Romania
Hutchinson Seal De Mexico S.A. de CV.	100.00 %		Mexico	Mexico
Hutchinson Sealing Systems Inc.	100.00 %		United States	United States
Hutchinson SRO	100.00 %		Czech Republic	Czech Republic
Hutchinson Stop - Choc GmbH & CO. KG	100.00 %		Germany	Germany
Hutchinson Technologies (Maanshan) Co., Ltd.	100.00 %		China	China
Hutchinson Technologies (Shenyang) Co., Ltd.	100.00 %		China	China
Hutchinson Transferencia de Fluidos S.A. de C.V.	100.00 %		Mexico	Mexico
Hutchinson Tunisie S.A.R.L.	100.00 %		Tunisia	Tunisia
Hutchinson Vietnam Company Limited	100.00 %		Vietnam	Vietnam
Iber Resinas S.L.	100.00 %		Spain	Spain
Industrias Tecnicas De La Espuma SL	100.00 %		Spain	Spain
Industrielle Desmarquoy S.N.C.	100.00 %		France	France
Jehier S.A.S.	99.89 %		France	France
Joint Precision Rubber	100.00 %		France	France
KTN Kunststofftechnik Nobitz GmbH	100.00 %		Germany	Germany
Laffan Refinery Company Limited 1	10.00 %	E	Qatar	Qatar
LaPorte Pipeline Company LP	19.96 %	E	United States	United States
LaPorte Pipeline GP LLC	19.96 %	E	United States	United States
Le Joint Francais S.N.C.	100.00 %		France	France
Legacy Site Services Funding Inc.	100.00 %		United States	United States
Legacy Site Services LLC	100.00 %		United States	United States
Les Stratifies S.A.S.	100.00 %		France	France
Lone Wolf Land Company	100.00 %		United States	United States
Machen Land Limited	100.00 %		United Kingdom	United Kingdom
Mide Technology Corporation	100.00 %		United States	United States
Naphtachimie	50.00 %		France	France
National Petroleum Refiners of South Africa (PTY) Limited	18.22 %	E	South Africa	South Africa
Olutex Oberlausitzer Luftfahrttextilien GmbH	100.00 %		Germany	Germany
Pamargan Products Limited	100.00 %		United Kingdom	United Kingdom
Paulstra S.N.C.	100.00 %		France	France
PFW Aerospace GmbH	100.00 %		Germany	Germany
PFW Havacilik Sanayi ve Dis Ticaret Limited Sirtketi	100.00 %		Turkey	Turkey
PFW Uk Machining Ltd.	100.00 %		United Kingdom	United Kingdom
Polyblend GmbH	100.00 %		Germany	Germany
Qatar Petrochemical Company Q.S.C. (QAPCO)	20.00 %	E	Qatar	Qatar
Qatofin Company Limited	49.08 %	E	Qatar	Qatar
Resilium	100.00 %		Belgium	Belgium
Retia	100.00 %		France	France
Retia USA LLC	100.00 %		United States	United States
San Jacinto Rail Limited	17.00 %	E	United States	United States
Saudi Aramco Total Refining & Petrochemical Company	37.50 %	E	Saoudia Arabia	Saoudia Arabia
Societe Bearnaise De Gestion Industrielle	100.00 %		France	France
Societe du Pipeline Sud-Europeen	35.14 %	E	France	France
Southeast Texas Pipelines LLC	40.00 %		United States	United States
Stillman Seal Corporation	100.00 %		United States	United States
Stop-Choc (UK) Limited	100.00 %		United Kingdom	United Kingdom
Synova	100.00 %		France	France
TankOpslag en PijpleidingenNet N.V.	55.00 %		Netherlands	Netherlands
Techlam S.A.S.	100.00 %		France	France
TESSAF S.A.S.	49.90 %		France	France
Thermal Control Systems Automotive Sasu	100.00 %		France	France
Total Activites Maritimes	100.00 %		France	France
Total Atlantic Trading Mexico SA De CV	100.00 %		Mexico	Mexico
Total Corbion PLA B.V.	50.00 %	E	Netherlands	Netherlands
Total Energy Marketing A/S	100.00 %		Denmark	Denmark
Total Petrochemicals (Shangai) Limited	100.00 %		China	China
TotalEnergies Belgium Services	100.00 %		Belgium	Belgium
TotalEnergies Fluids	100.00 %		France	France
TotalEnergies Laffan Refinery Holdco	100.00 %		France	France
TotalEnergies Laffan Refinery Holdco II B.V.	100.00 %		Netherlands	Netherlands
TotalEnergies Marketing Deutschland GmbH Refining [(d)]	100.00 %		Germany	Germany
TotalEnergies Olefins Antwerp	100.00 %		Belgium	Belgium
TotalEnergies Petrochemicals & Refining SA/NV	100.00 %		Belgium	Belgium
TotalEnergies Petrochemicals Development Feluy	100.00 %		Belgium	Belgium
TotalEnergies Petrochemicals Ecaussinnes	100.00 %		Belgium	Belgium
TotalEnergies Petrochemicals Feluy	100.00 %		Belgium	Belgium
TotalEnergies Petrochemicals France	100.00 %		France	France
TotalEnergies Petrochemicals Hong Kong Ltd	100.00 %		Hong Kong	Hong Kong
TotalEnergies Petrochemicals Iberica	100.00 %		Spain	Spain
TotalEnergies Petrochemicals UK Ltd	100.00 %		United Kingdom	United Kingdom
TotalEnergies Pipeline USA, Inc.	100.00 %		United States	United States
TotalEnergies Plastic Energy Advanced Recycling S.A.S.	60.00 %		France	France
TotalEnergies Polymers Antwerp	100.00 %		Belgium	Belgium

	TotalEnergies Raffinage Chimie	100.00 %		France	France
	TotalEnergies Raffinage France	100.00 %		France	France
	TotalEnergies Raffinerie Mitteldeutschland GmbH	100.00 %		Germany	Germany
	TotalEnergies Refinery Antwerp	100.00 %		Belgium	Belgium
	TotalEnergies Refinery Port Arthur, LLC	100.00 %		United States	United States
	TotalEnergies Refining & Chemicals Arabia	100.00 %		France	France
	TotalEnergies Splitter USA, Inc.	100.00 %		United States	United States
	TotalEnergies Trading Asia Pte. Ltd	100.00 %		Singapore	Singapore
	TotalEnergies Trading Europe	100.00 %		France	France
	TotalEnergies Trading Products S.A.	100.00 %		Switzerland	Switzerland
	TotalEnergies Trading Storage S.A.	100.00 %		Switzerland	Switzerland
	TOTSA TotalEnergies Trading S.A.	100.00 %		Switzerland	Switzerland
	Totseanergy	49.00 %	E	Belgium	Belgium
	Transalpes S.N.C.	67.00 %		France	France
	Trans-Ethylene	99.98 %		France	France
	Vibrachoc S.A.U.	100.00 %		Spain	Spain
	Zeeland Refinery NV	55.00 %		Netherlands	Netherlands

Business segment	Statutory corporate name	% Company interest	Method	Country of incorporation	Country of operations
Marketing & Services					
	Antilles Gaz	100.00 %		France	France
	Argedis	100.00 %		France	France
	Aristea	51.00 %	E	Belgium	Belgium
	Arteco	49.99 %	E	Belgium	Belgium
	AS 24	100.00 %		France	France
	AS24 Belgie N.V.	100.00 %		Belgium	Belgium
	AS24 Espanola S.A.	100.00 %		Spain	Spain
	AS24 Fuel Cards Limited	100.00 %		United Kingdom	United Kingdom
	AS24 Lithuanie	100.00 %		Lithunia	Lithunia
	AS24 Polska SP ZO.O.	100.00 %		Poland	Poland
	AS24 Tankservice GmbH	100.00 %		Germany	Germany
	BlueCharge Pte. Ltd	100.00 %		Singapore	Singapore
	Clean Energy	19.10 %	E	United States	United States
	Elf Oil UK Aviation Limited	100.00 %		United Kingdom	United Kingdom
	Elf Oil UK Properties Limited	100.00 %		United Kingdom	United Kingdom
	Fioulmarket.fr	100.00 %		France	France
	Gapco Kenya Limited	100.00 %		Kenya	Kenya
	Gapco Tanzania Limited	100.00 %		Tanzania	Tanzania
	Guangzhou Elf Lubricants Company Limited	77.00 %		China	China
	Gulf Africa Petroleum Corporation	100.00 %		France	France
	Lubricants Vietnam Holding Limited	100.00 %		Hong Kong	Hong Kong
	Quimica Vasca S.A.U.	100.00 %		Spain	Spain
	Saudi Total Petroleum Products	51.00 %	E	Saoudia Arabia	Saoudia Arabia
	Servauto Nederland B.V.	100.00 %		Netherlands	Netherlands
	Societe d'exploitation de l'usine de Rouen	98.98 %		France	France
	Societe mahoraise de stockage de produits petroliers	100.00 %		France	France
	Societe Urbaine des Petroles	100.00 %		France	France
	S-OIL TotalEnergies Lubricants Co. Ltd	50.00 %	E	South Korea	South Korea
	South Asia LPG Private Limited	50.00 %	E	India	India
	Stedis	100.00 %		France	France
	Tas'Helat Marketing Company	50.00 %	E	Saoudia Arabia	Saoudia Arabia
	TEVGO	100.00 %		France	France
	TotaEnergies Marketing Botswana (Pty) Ltd	50.10 %		Botswana	Botswana
	Total Bitumen UK Limited	100.00 %		United Kingdom	United Kingdom
	Total China Investment Company Limited	100.00 %		China	China
	Total Energies Charging Solutions UK Ltd	100.00 %		United Kingdom	United Kingdom
	Total Especialidades Argentina	100.00 %		Argentina	Argentina
	Total Freeport Corporation	51.00 %	E	Philippines	Philippines
	Total Lubricants (China) Company Limited	77.00 %		China	China
	Total Marketing Uganda	100.00 %		Uganda	Uganda
	Total Parco Pakistan Limited	50.00 %	E	Pakistan	Pakistan
	Total Philippines Corporation	51.00 %	E	Philippines	Philippines
	Total Tianjin Manufacturing Company Limited	77.00 %		China	China
	TotalEnergies Additives and Fuels Solutions	100.00 %		France	France
	TotalEnergies Aviation	100.00 %		France	France
	TotalEnergies Aviation Suisse S.A.	100.00 %		Switzerland	Switzerland
	TotalEnergies Aviation Zambia Ltd	100.00 %		Zambia	Zambia
	TotalEnergies Bitumen Deutschland GmbH	100.00 %		Germany	Germany
	TotalEnergies Charging Services	100.00 %		France	France
	TotalEnergies Charging Solutions Belgium	100.00 %		Belgium	Belgium
	TotalEnergies Charging Solutions Deutschland GmbH	100.00 %		Germany	Germany
	TotalEnergies Charging Solutions Nederland B.V.	100.00 %		Netherlands	Netherlands
	TotalEnergies Diesel Comercio e Transportes Brasil Ltda	100.00 %		Brazil	Brazil
	TotalEnergies Distribuidora Brasil LTDA	100.00 %		Brazil	Brazil
	TotalEnergies Glass Lubricants Europe GmbH	100.00 %		Germany	Germany
	TotalEnergies Holdings Deutschland GmbH	100.00 %		Germany	Germany
	TotalEnergies LPG Vietnam Company Ltd	100.00 %		Vietnam	Vietnam
	TotalEnergies Lubrifiants	99.98 %		France	France
	TotalEnergies Lubrifiants Algerie SPA	78.90 %		Algeria	Algeria
	TotalEnergies Lubrifiants Service Automobiles	99.98 %		France	France

TotalEnergies Marine Fuels Pte. Ltd	100.00 %		Singapore	Singapore
TotalEnergies Marketing & Services	100.00 %		France	France
TotalEnergies Marketing (Cambodia) Co. Ltd	100.00 %		Cambodia	Cambodia
TotalEnergies Marketing (Fiji) Pte Ltd	100.00 %		Fiji Islands	Fiji Islands
TotalEnergies Marketing (Hubei) Co., Ltd	100.00 %		China	China
TotalEnergies Marketing (Shanghai) Co., Ltd	100.00 %		China	China
TotalEnergies Marketing African Holdings Ltd	100.00 %		United Kingdom	United Kingdom
TotalEnergies Marketing Afrique	100.00 %		France	France
TotalEnergies Marketing Angola S.A.	50.00 %	E	Angola	Angola
TotalEnergies Marketing Antilles-Guyane	100.00 %		France	France
TotalEnergies Marketing Asia-Pacific Middle East Pte. Ltd	100.00 %		Singapore	Singapore
TotalEnergies Marketing Belgium	100.00 %		Belgium	Belgium
TotalEnergies Marketing Burkina	100.00 %		Burkina Faso	Burkina Faso
TotalEnergies Marketing Cameroun S.A.	67.01 %		Cameroon	Cameroon
TotalEnergies Marketing Ceská republika S.R.O.	100.00 %		Czech Republic	Czech Republic
TotalEnergies Marketing Congo	100.00 %		Congo	Congo
TotalEnergies Marketing Corse	100.00 %		France	France
TotalEnergies Marketing Côte d'Ivoire	72.99 %		Côte d'Ivoire	Côte d'Ivoire
TotalEnergies Marketing Denmark A/S	100.00 %		Denmark	Denmark
TotalEnergies Marketing Dominicana, S.A.	50.00 %		Dominican Republic	Dominican Republic
TotalEnergies Marketing Egypt	50.00 %	E	Egypt	Egypt
TotalEnergies Marketing España, S.A.U.	100.00 %		Spain	Spain
TotalEnergies Marketing Eswatini (Pty) Ltd	50.10 %		Swaziland	Swaziland
TotalEnergies Marketing Ethiopia Share Company	100.00 %		Ethiopia	Ethiopia
TotalEnergies Marketing France	100.00 %		France	France
TotalEnergies Marketing Gabon	90.00 %		Gabon	Gabon
TotalEnergies Marketing Ghana PLC	76.74 %		Ghana	Ghana
TotalEnergies Marketing Guinea Ecuatorial	70.00 %		Equatorial Guinea	Equatorial Guinea
TotalEnergies Marketing Guinee	100.00 %		Guinea	Guinea
TotalEnergies Marketing Holdings Africa	100.00 %		France	France
TotalEnergies Marketing Holdings Asia	100.00 %		France	France
TotalEnergies Marketing Holdings India	100.00 %		France	France
TotalEnergies Marketing India Private Ltd	100.00 %		India	India
TotalEnergies Marketing Italia SpA	100.00 %		Italy	Italy
TotalEnergies Marketing Jamaica Ltd	100.00 %		Jamaica	Jamaica
TotalEnergies Marketing Jordan	100.00 %		Jordan	Jordan
TotalEnergies Marketing Kenya PLC	93.96 %		Kenya	Kenya
TotalEnergies Marketing Lebanon	100.00 %		Lebanon	Lebanon
TotalEnergies Marketing Luxembourg S.A.	100.00 %		Luxembourg	Luxembourg
TotalEnergies Marketing Madagasikara S.A.	79.44 %		Madagascar	Madagascar
TotalEnergies Marketing Malawi Ltd	100.00 %		Malawi	Malawi
TotalEnergies Marketing Mali	100.00 %		Mali	Mali
TotalEnergies Marketing Maroc	55.00 %		Morocco	Morocco
TotalEnergies Marketing Mauritius Ltd	55.00 %		Mauritius Island	Mauritius Island
TotalEnergies Marketing Mayotte	100.00 %		France	Mayotte
TotalEnergies Marketing Mexico S.A. de C.V.	100.00 %		Mexico	Mexico
TotalEnergies Marketing Middle East FZE	100.00 %		United Arab Emirates	United Arab Emirates
TotalEnergies Marketing Mocambique S.A.	100.00 %		Mozambique	Mozambique
TotalEnergies Marketing Namibia (Pty) Ltd	50.10 %		Namibia	Namibia
TotalEnergies Marketing Nederland NV	100.00 %		Netherlands	Netherlands
TotalEnergies Marketing Nigeria PLC	61.72 %		Nigeria	Nigeria
TotalEnergies Marketing Pacifique	100.00 %		France	New Caledonia
TotalEnergies Marketing Polska	100.00 %		Poland	Poland
TotalEnergies Marketing Polynesie	100.00 %		France	French Polynesia
TotalEnergies Marketing Puerto Rico	100.00 %		Puerto Rico	Puerto Rico
TotalEnergies Marketing RDC	60.00 %		Democratic Republic of Congo	Democratic Republic of Congo
TotalEnergies Marketing Reunion	100.00 %		France	Reunion
TotalEnergies Marketing Romania S.A.	100.00 %		Romania	Romania
TotalEnergies Marketing Senegal	69.14 %		Senegal	Senegal
TotalEnergies Marketing South Africa (Pty) Ltd	50.10 %		South Africa	South Africa
TotalEnergies Marketing Taiwan Ltd	63.00 %		Talwan	Talwan
TotalEnergies Marketing Tanzania Ltd	100.00 %		Tanzania	Tanzania
TotalEnergies Marketing Togo	76.72 %		Togo	Togo
TotalEnergies Marketing Tunisie	100.00 %		Tunisia	Tunisia
TotalEnergies Marketing UAE LLC	100.00 %		United Arab Emirates	United Arab Emirates
TotalEnergies Marketing Uganda Ltd	100.00 %		Uganda	Uganda
TotalEnergies Marketing UK Limited	100.00 %		United Kingdom	United Kingdom
TotalEnergies Marketing Ukraine	100.00 %		Ukraine	Ukraine
TotalEnergies Marketing USA Inc.	100.00 %		United States	United States
TotalEnergies Marketing Vietnam Company Ltd	100.00 %		Vietnam	Vietnam
TotalEnergies Marketing Zambia Ltd	100.00 %		Zambia	Zambia
TotalEnergies Marketing Zimbabwe (Private) Ltd	80.00 %		Zimbabwe	Zimbabwe
TotalEnergies MKG Luxembourg S.A.	100.00 %		Luxembourg	Luxembourg
TotalEnergies Proxi Nord Est	100.00 %		France	France
TotalEnergies Proxi Nord Ouest	100.00 %		France	France
TotalEnergies Proxi Sud Est	100.00 %		France	France
TotalEnergies Proxi Sud Ouest	100.00 %		France	France
TotalEnergies Retail Belgium	100.00 %		Belgium	Belgium
TotalEnergies Retail Nederland B.V.	100.00 %		Netherlands	Netherlands
TotalEnergies Singapore Services Pte Ltd	100.00 %		Singapore	Singapore
TotalEnergies Sinochem Retail Company Ltd	49.00 %	E	China	China
TotalEnergies Supply Marketing Services S.A.	100.00 %		Switzerland	Switzerland
TotalEnergies Turkey Pazarlama A.S.	100.00 %		Turkey	Turkey

	TotalEnergies Warme&Kraftstoff Deutschland GmbH	100.00 %		Germany	Germany
	TotalEnergies Wash France	100.00 %		France	France
	Trapil	5.50 %	E	France	France
	Upbeatprops 100 PTY Limited	50.10 %		South Africa	South Africa
	Yangtze Gorges Green Way Charging Technology (Hubei) Co., Ltd.	50.00 %	E	China	China

Business segment	Statutory corporate name	% Company interest	Method	Country of incorporation	Country of operations
Corporate					
	Albatros	100.00 %		France	France
	Elf Aquitaine Inc.	100.00 %		United States	United States
	Elf Forest Products LLC	100.00 %		United States	United States
	Institut Photovoltaique D'Ile De France (IPVF)	43.00 %		France	France
	Omnium Reinsurance Company S.A.	100.00 %		Switzerland	Switzerland
	Pan Insurance Limited	100.00 %		Ireland	Ireland
	Septentrion Participations	100.00 %		France	France
	Socap S.A.S.	100.00 %		France	France
	Societe Civile Immobiliere CB2	100.00 %		France	France
	Sofax Banque	100.00 %		France	France
	Total Energy Investments Tianjin	100.00 %		China	China
	Total International NV	100.00 %		Netherlands	Netherlands
	Total Investment Management Tianjin	100.00 %		China	China
	Total Operations Canada Limited	100.00 %		Canada	Canada
	Total Resources (Canada) Limited	100.00 %		Canada	Canada
	TotalEnergies (Beijing) Corporate Management Co., Ltd.	100.00 %		China	China
	TotalEnergies American Services, Inc.	100.00 %		United States	United States
	TotalEnergies Capital	100.00 %		France	France
	TotalEnergies Capital Canada Ltd	100.00 %		Canada	Canada
	TotalEnergies Capital International	100.00 %		France	France
	TotalEnergies Consulting	100.00 %		France	France
	TotalEnergies Delaware, Inc.	100.00 %		United States	United States
	TotalEnergies Developpement Regional S.A.S.	100.00 %		France	France
	TotalEnergies Digital Factory	100.00 %		France	France
	TotalEnergies EP Gestion Filiales	100.00 %		France	France
	TotalEnergies Facilities Management Services (TFMS)	100.00 %		France	France
	TotalEnergies Finance	100.00 %		France	France
	TotalEnergies Finance Corporate Services Ltd	100.00 %		United Kingdom	United Kingdom
	TotalEnergies Finance Europe	100.00 %		France	France
	TotalEnergies Finance International B.V.	100.00 %		Netherlands	Netherlands
	TotalEnergies Finance USA, Inc.	100.00 %		United States	United States
	TotalEnergies Funding Nederland B.V.	100.00 %		Netherlands	Netherlands
	TotalEnergies Gestion USA	100.00 %		France	France
	TotalEnergies Global Financial Services	100.00 %		France	France
	TotalEnergies Global Human Resources Services	100.00 %		France	France
	TotalEnergies Global Information Technology Services Belgium	99.98 %		Belgium	Belgium
	TotalEnergies Global IT Services (TGITS)	100.00 %		France	France
	TotalEnergies Global Procurement (TGP)	100.00 %		France	France
	TotalEnergies Global Procurement Belgium S.A. (TGPB)	100.00 %		Belgium	Belgium
	TotalEnergies Global Services Bucharest	100.00 %		Romania	Romania
	TotalEnergies Global Services Philippines Inc.	100.00 %		Philippines	Philippines
	TotalEnergies Holding Allemagne	100.00 %		France	France
	TotalEnergies Holdings	100.00 %		France	France
	TotalEnergies Holdings Europe	100.00 %		France	France
	TotalEnergies Holdings UK Ltd	100.00 %		United Kingdom	United Kingdom
	TotalEnergies Holdings USA, Inc.	100.00 %		United States	United States
	TotalEnergies Investments	100.00 %		France	France
	TotalEnergies Learning Solutions (TLS)	100.00 %		France	France
	TotalEnergies Marketing Holdings Nederland B.V.	100.00 %		Netherlands	Netherlands
	TotalEnergies Marketing Holdings South Africa ZA (Pty) Ltd	100.00 %		South Africa	Netherlands
	TotalEnergies One Tech Belgium	100.00 %		Belgium	Belgium
	TotalEnergies OneTech	100.00 %		France	France
	TotalEnergies Participations	100.00 %		France	France
	TotalEnergies Petrochemicals & Refining USA, Inc. (d)	100.00 %		United States	United States
	TotalEnergies SE	–		France	France
	TotalEnergies Security USA, Inc.	100.00 %		United States	United States
	TotalEnergies Treasury	100.00 %		France	France
	TotalEnergies Treasury Belgium	100.00 %		Belgium	Belgium
	TotalEnergies UK Finance Ltd	100.00 %		United Kingdom	United Kingdom

(a) Del Rio Funding LLC, % of control different from % of interest : 50.00%
(b) Rio Grande LNG Intermediate Holdings LLC, % of control different from % of interest : 16.67%
(c) TotalEnergies Australia Unit Trust, % of control different from % of interest : 75.16%
(d) Multi-segment entities

EXHIBIT 1

This translation is a non-binding translation into English of the Articles of Association in French.
In case of discrepancies, only the French version prevails.

TotalEnergies SE

EUROPEAN COMPANY WITH A CAPITAL OF €5,967,116,185.00

REPRESENTED BY 2,386,846,474 SHARES OF €2.50 EACH

NANTERRE TRADE AND COMPANIES REGISTER 542 051 180

Registered Office

2 Place Jean Millier
La Défense 6
92400 Courbevoie
France

ARTICLES OF ASSOCIATION

(Last update on February 12, 2024)

CONTENTS

TITLE I

Form – Name – Purpose – Registered Office – Duration

ARTICLE 1 – FORM

The Company, initially formed as a French limited liability company (*société anonyme*), was converted into a European company (*Societas Europaea* or SE) by decision of the Extraordinary Shareholders' Meeting of May 29, 2020.

The Company is governed by applicable EU and national provisions and by these Articles of Association.

ARTICLE 2 – NAME

The Company has the following name:

TotalEnergies SE

In all official deeds and other documents issued by the Company, the corporate name shall be preceded or followed by an indication of the amount of the share capital as well as the location and number of registration on the Trade and Companies Register.

ARTICLE 3 - PURPOSE

The Company's purpose is, directly or indirectly, in all countries:

1° - To conduct all activities relating to production and distribution of all forms of energy, including electricity from renewable energies;

2° - To search for and extract mining deposits, and particularly hydrocarbons in all forms, and to perform manufacturing, refining, transportation, processing and trading in the said materials, as well as their derivatives and by-products;

3° - To conduct all activities relating to the chemical sector in all of its forms, as well as all activities relating to the rubber sector;

and generally, to conduct all financial, commercial and industrial operations and operations relating to any fixed or unfixed assets and real estate, acquisitions of interests or holdings, in any form whatsoever, in any business or company existing or to be created that may relate, directly or indirectly, to any of the above-mentioned purposes or to any similar or related purposes, of such nature as to promote the Company's extension or its development.

ARTICLE 4 - REGISTERED OFFICE

The Company's registered office is: 2 Place Jean Millier
La Défense 6
92400 COURBEVOIE - France

Transfer of the registered office falls within the competence of the Shareholders' Meeting under the conditions stipulated by the applicable regulations.

Relocation of the registered office within the French territory may be decided by the Board of Directors, subject to ratification of this decision by the next Ordinary Shareholders' Meeting.

ARTICLE 5 - DURATION

The Company's duration, initially set at 99 years starting with the date of its definitive constitution, namely 28 March 1924, is extended until 28 March 2119. Hence the Company's existence shall continue until 28 March 2119, in the absence of early dissolution or of further extension.

TITLE II

Share Capital – Shares

ARTICLE 6 - SHARE CAPITAL

The share capital is set at an amount of € 5,967,116,185.00, represented by 2,386,846,474 shares of 2.50 euros each.

ARTICLE 7 - PAYING UP OF SHARES

Shares are subscribed according to applicable law.

The Board of Directors determines the amount and the payment due dates of any cash sums remaining to be paid on the shares.

Any calls for funds are published at least fifteen days in advance in a newspaper for legal notices in the department of the registered office.

Any payment not made by the applicable due date shall automatically bear interest, without further notice, in favour of the Company at the legal rate increased by one percent from the due date and without any formal notice.

ARTICLE 8 - FORM AND TRANSFER OF SHARES

Fully paid-up shares may be held as registered shares or bearer shares, at the shareholder's option.

The shares are entered in a stock ledger.

Bearer shares and registered shares are freely transferable.

ARTICLE 9 - IDENTIFICATION OF SHAREHOLDERS – DECLARATION OF CROSSING OWNERSHIP THRESHOLDS

The Company is authorized, to the extent permitted under applicable law, to identify the holders of securities that grant immediate or future voting rights at the Company's Shareholders' Meetings.

In addition to obligations that shareholders may have under applicable law to notify the Company upon crossing certain percentages of share ownership or voting rights, any person, whether a natural person or a legal entity, who comes to hold, directly or indirectly, 1% or more, or any multiple of 1%, of the share capital or the voting rights or of securities that may include future voting rights or future access to share capital or voting rights, is required to inform the Company by registered mail with return receipt requested, indicating the number of securities or voting rights held, within a period of 15 days from the date of crossing each of the said thresholds.

In determining the ownership or voting rights percentages provided for in the previous paragraph, shares or voting rights held by controlled companies, as defined in Article L. 233-3 of the French Commercial Code, must be included if applicable.

In the event of a failure to declare ownership of shares or voting rights as described above, any shares or voting rights exceeding the fraction that should have been declared may be deprived of voting rights at a Shareholders' Meeting if, at the meeting, the failure to declare ownership of such shares or voting rights has been noted and if one or several shareholders holding, collectively, at least 3% of the Company's capital or voting rights so request at such meeting.

Any natural person or legal entity is also required to inform the Company in the manner and within the time periods set forth above in the second paragraph of this article when his or her direct or indirect holdings fall below each of the applicable thresholds in said paragraph.

ARTICLE 10 – RIGHTS AND OBLIGATIONS ATTACHED TO SHARES

In addition to a voting right, each share entitles the holder to an ownership interest in the business assets, in the sharing of profits and of liquidation surpluses, in proportion to the number of shares outstanding from time to time.

Whenever it is necessary to possess several shares in order to exercise a right, shares held in a number below the requisite number of shares do not entitle their holder to any right against the Company, it being up to the shareholder in such a case to personally seek to collect or group together the requisite number of shares.

TITLE III

Administration – General Management – Auditing

ARTICLE 11 - COMPOSITION OF THE BOARD OF DIRECTORS

1) The Company is administered by a Board of Directors, the minimum and maximum number of members of which are defined by applicable law in effect from time to time.

2) The permanent representative of a legal entity appointed as a Director must be approved in advance by the Board of Directors. Such representatives must be less than 70 years old.

3) Each Director must own at least 1,000 shares during his or her term of office.

4) The term of office for Directors is set by the shareholders acting in an Ordinary Shareholders' Meeting for a term of office not to exceed three years, subject to applicable law that may allow extension of the duration of a given term until the next Ordinary Shareholders' Meeting held to approve the financial statements.

5) The number of Directors, being natural persons and more than 70 years old, may not exceed one-third of the sitting Directors as determined on the last day of each fiscal year. If this proportion is exceeded, the oldest Board member is automatically considered to have resigned.

6) When at the close of a financial year, the portion of capital owned by the Company's employees and those of companies affiliated to it as per Article L. 225-180 of the French Commercial Code, determined according to the provisions of Article L. 225-102 of said Code (after taking into account the registered shares held directly by employees and governed by Article L. 225-197-1 of the French Commercial Code, regardless of their grant date) represents more than 3%, a Director is elected at the Ordinary Shareholders' Meeting upon proposal of the shareholders referred to in Article L. 225-102 of the French Commercial Code (hereafter the "Director representing employee shareholders") in accordance with the procedures provided by the applicable regulations and these Articles of Association.

7) Candidates for appointment to the office of Director representing employee shareholders are selected on the following basis:

   a) When voting rights linked to shares held by employees or by employee mutual investment funds of which they are beneficiaries are exercised by the members of the Supervisory Board of such employee mutual investment funds, candidates are selected by such Board among its members.

   b) When voting rights linked to shares held by employees (or by employee mutual investment funds of which they are beneficiaries) are exercised directly by such employees, candidates shall be appointed further to the consultation as per Article L. 225-106 of the French Commercial Code, either by employee shareholders in a meeting convened specifically for such purpose, or by a written consultation. Only candidates put forward by a group of shareholders representing at least 5% of the shares held by employees exercising their individual voting rights shall be admissible.

8) Procedures for appointing candidates when such provisions are not laid down in law and regulations in force, or by these Articles of Association, shall be determined by the Chairman of the Board of Directors, in particular with respect to the timing of the appointment of such candidates.

9) A list of all validly appointed candidates shall be prepared. This list shall comprise at least two names. The list of candidates shall be appended to the notice convening the Shareholders' Meeting called to appoint the Director representing employee shareholders.

10) The Director representing employee shareholders shall be elected at the Ordinary Shareholders' Meeting on the same terms as those applicable to all appointments of Directors, upon proposal from the shareholders as provided for by Article L. 225-102 of the French Commercial Code (as referred to in the sixth paragraph of the present article). The Board of Directors shall table the list of candidates at the Shareholders' Meeting by order of preference, and may give its approval to the first candidate appearing on such list. The candidate referred to above who shall have received the greatest number of votes from shareholders present or represented at the Ordinary Shareholders' Meeting shall be appointed as the Director representing employee shareholders.

11) Such Director shall be disregarded for the purposes of determining the maximum number of Directors stipulated under Article L. 225-17 of the French Commercial Code and for the purposes of applying the first paragraph of Article L. 225-18-1 of the said Code.

12) The term of office of any Director representing employee shareholders shall be three years. However, his or her term of office shall end forthwith, and the Director representing employee shareholders shall be considered to have resigned automatically upon his or her ceasing to be an employee of the Company (or of a company or economic interest group affiliated to it as per Article L. 225-180 of the French Commercial Code) or a shareholder (or a member of an investment fund, at least 90% of whose assets comprise the Company's shares). Until the date of appointment or replacement of any Director representing employee shareholders, the Board of Directors may hold meetings and vote validly.

13) In the event the seat of the Director representing employee shareholders shall become vacant, for any reason whatsoever, such Director shall be replaced in the manner specified above, such Director to be appointed at the Ordinary Shareholders' Meeting for a new three-year term.

14) The provisions governing the sixth paragraph of this article shall cease to apply when, at the close of any given financial year, the percentage of equity held by the Company's employees and those of the companies affiliated to it as per aforementioned Article L. 225-180, within the framework stipulated by the provisions of aforementioned Article L. 225-102, is equal to less than 3% of all issued share capital of the Company; notwithstanding the foregoing, the term of any Director appointed pursuant to the sixth paragraph of this article shall only expire at its term.

15) The provisions governing the third paragraph of this article shall not apply to the Director representing employee shareholders. Nonetheless, this Director representing employee shareholders shall hold, either individually, or through an employee mutual investment fund (FCPE) governed by Article L. 214-165 of the French Monetary and Financial Code, at least one share or a number of stocks in such employee mutual investment fund amounting to at least one share.

16) When the Company satisfies the provisions of Article L. 225-27-1 of the French Commercial Code, the Board of Directors shall also include one or two Directors representing employees.

17) A Director representing employees is appointed by the Company's Central Social and Economic Works Council ("Central Social and Economic Works Council"). When the number of Directors appointed by the Shareholders' Meeting is greater than eight, a second Director representing employees is appointed by the European Company Committee ("SE Committee"). The procedures for voting in the Central Social and Economic Works Council and the SE Committee to appoint Directors are the same rules used to appoint the Secretaries of those Council and Committee.

18) Pursuant to Article L. 225-28 of the French Commercial Code, the Director appointed by the Central Social and Economic Works Council must hold an employment contract with the Company or one of its direct or indirect subsidiaries whose registered head office was located on French territory at least two years before his or her appointment. Notwithstanding, the second Director appointed by the SE Committee must hold an employment contract with the Company or one of its direct or indirect subsidiaries at least two years before his or her appointment.

19) The Central Social and Economic Works Council and the SE Committee shall be informed of changes in the number of Directors appointed by the Shareholders' Meeting taken into account for purposes of applying the seventeenth paragraph of this article.

20) Neither the Director representing employee shareholders elected by the Shareholders' Meeting pursuant to Article L. 225-23 of the French Commercial Code and these Articles of Association, nor the Director or Directors representing employees designated pursuant to Article L. 225-27-1 of the French Commercial Code are taken into account to define the eight-member threshold mentioned above, since this eight-member threshold is determined when the employee Director or employee Directors are appointed.

21) The term of office of a Director representing employees is three years. Nevertheless, his or her term of office ends at the close of the Ordinary Shareholders' Meeting that approves the financial statements for the previous fiscal year during which the said Director's term of office expired.

22) If the number of Directors appointed by the Ordinary Shareholders' Meeting falls to eight or less, the term of office of the Director appointed by the SE Committee continues to the end of his or her term.

23) If, at the close of a Shareholders' Meeting, the number of Directors appointed by the Meeting increases to more than eight, the SE Committee shall appoint the second Director representing employees no later than within six months following the said Meeting.

24) The provisions governing the third paragraph of this article shall not apply to the Directors appointed by the Central Economic and Social Works Council and the SE Committee.

25) In the event that the obligation to appoint one or more Directors representing employees pursuant to L. 225-27-1 of the French Commercial Code should cease to apply, the term of office of the Director or Directors representing employees shall end at the close of the Ordinary Shareholders' Meeting that approves the financial statements for the year during which the obligation ceased to apply.

26) The Directors representing employees shall be disregarded for the purposes of determining the maximum number of Directors stipulated under Article L. 225-17 of the French Commercial Code and for purposes of applying the first paragraph of Article L. 225-18-1 of the said Code.

ARTICLE 12 - ORGANIZATION OF THE BOARD OF DIRECTORS

The Board appoints a Chairman (*Président du Conseil d'administration*) from among its members who must be a natural person.

The Chairman of the Board of Directors represents the Board of Directors. He or she organizes and directs the Board's work and reports thereon to the shareholders at Shareholders' Meetings. He or she ensures the proper functioning of the Company's bodies and ensures, in particular, that the Directors are able to carry out their duties.

The Board may also appoint one or two Vice Chairmen (*Vice Président du Conseil d'administration*) who must be natural persons. The rights and duties of the Chairman and of the Vice Chairman or Chairmen may be withdrawn from them at any time by the Board. The Chairman's rights and duties cease automatically no later than on the date of his or her 70^{th} birthday.

The Board also designates a natural person to act as secretary, who is not required to be a Board member.

The Board may establish one or more committees responsible for considering questions submitted by the Board or by its Chairman for their consideration and opinion. The Board determines the composition and the powers of the committees, which carry on their activity under the supervision of the Board.

Within the limit of a global amount set by the Shareholders' Meeting which remains in effect until a new decision is taken, the Directors receive for their duties a compensation determined in accordance with applicable legal and regulatory provisions.

The Board may allocate a larger share to Directors who are members of the above-mentioned committees than the amount apportioned to other Directors.

ARTICLE 13 - BOARD OF DIRECTORS' DECISIONS

The Board of Directors meets as often as required to serve the Company's interests and at least every three months to deliberate on the progress of the Company's business and foreseeable developments.
A Board meeting may be called by any means, even orally, and even on short notice depending on the urgency, at the initiative of either the Chairman or a Vice Chairman, or by one-third of its members. Such meeting may be called to be held either at the registered office or at any other place indicated in the notice.

At least half of the members must be present or represented for the Board's decisions to be valid.

Decisions are taken based on the majority of votes by the members present or represented. In the case of a tie vote, the Chairman of the meeting holds a casting vote.

When permitted by applicable regulations, Directors participating in meeting by video-conference or means of telecommunication determined by decree, shall be deemed to be present for calculation of the quorum and majority.

ARTICLE 14 - BOARD OF DIRECTORS' POWERS

The Board of Directors determines the guidelines governing the Company's activity and oversees their application in accordance with its corporate interest, taking into consideration the social and environmental challenges of its activity. Subject to the powers explicitly attributed to shareholders and within the limits of the business purpose, the Board considers any question affecting the proper operation of the Company and its decisions settle the matters concerning it.

The Board of Directors takes all decisions and exercises any prerogative within its remits according to applicable regulations, these Articles of Association, the delegations of the Shareholders' Meeting and its Rules of Procedure.

The prior authorization of the Board of Directors is required for the commitments in the name of the Company in the form of sureties, endorsements and guarantees given under the conditions determined by Article L. 225-35 paragraph 4 of the French Commercial Code.

The Board of Directors performs such auditing and verification as it considers appropriate.

Each Director is entitled to receive all information required for the performance of his or her duties and may obtain any documents he or she considers useful. His or her requests must be addressed to the Chairman of the Board of Directors.

ARTICLE 15 - GENERAL MANAGEMENT OF THE COMPANY

1) General management of the Company is performed under the responsibility of either the Chairman of the Board of Directors (*Président du Conseil d'administration*) or by another natural person appointed by the Board of Directors and bearing the title of Chief Executive Officer (*Directeur Général*).

   The Board of Directors selects one of the aforementioned methods of exercising general management under the quorum and majority provisions set forth in article 13 of these Articles of Association. The Company shall inform its shareholders and third parties of its determination in accordance with applicable regulations.

   Once the Board makes such a determination, it remains in effect until a contrary decision is made pursuant to the same procedure.

   Any change in the method of exercise of general management will not in and of itself effect any change in these Articles of Association.

   The Board is required to meet to consider a possible change of methods for exercising general management either at the request of the Chairman or of the Chief Executive Officer, or at the request of one-third of the Board members.

2) When general management of the Company is assumed by the Chairman, the legal, regulatory or statutory provisions relating to the Chief Executive Officer are applicable to him or her, and he or she takes the title of Chairman and Chief Executive Officer (*Président-Directeur Général*).

   When the Board of Directors determines to separate the functions of Chairman of the Board of Directors (*Président du Conseil d'administration*) and Chief Executive Officer (*Directeur Général*), the Board appoints a Chief Executive Officer, sets the term for his or her appointment and the extent of his or her powers. Decisions by the Board of Directors limiting the extent of the powers of the Chief Executive Officer are not enforceable against third parties.

   The Chief Executive Officer must be less than 67 years old in order to exercise his or her duties. Upon reaching this age limit during the exercise of his or her duties, his or her appointment terminates automatically and the Board of Directors appoints a new Chief Executive Officer. Notwithstanding the foregoing, his or her duties as Chief Executive Officer are extended until the date of the meeting of the Board of Directors asked to appoint his or her successor. Subject to the age limit specified above, a Chief Executive Officer remains eligible for reappointment.

   The Chief Executive Officer may be dismissed at any time by the Board of Directors.

   In the event that the Chief Executive Officer is temporarily unable to exercise his or her duties, the Board of Directors may delegate his or her functions to a Director.

3) The Chief Executive Officer is invested with the most extensive powers to act in the Company's name under all circumstances. He or she exercises those powers within the limits of the business purpose and subject to the powers explicitly assigned by law to Shareholders' Meetings and to the Board of Directors. He or she represents the Company in its relations with third parties.

   The Chief Executive Officer may request the Chairman to call a meeting of the Board of Directors regarding a specified agenda.

   If the Chief Executive Officer is not also a member of the Board of Directors, he or she may attend meetings of the Board of Directors in an advisory capacity.

4) On the basis of a proposal by the Chief Executive Officer, the Board may appoint one to five natural persons at most responsible for assisting the Chief Executive Officer and bearing the title of Deputy Chief Executive Officer (*Directeur Général Délégué*). The Board determines the extent of their

powers and their term of office, it being understood that Deputy Chief Executive Officers hold the same powers as the Chief Executive Officer.

The Deputy Chief Executive Officer or Deputy Chief Executive Officers may be dismissed by the Board of Directors at any time, upon motion by the Chief Executive Officer.

In the event that the Chief Executive Officer is temporarily unable to perform his or her duties or ceases his or her duties, the Deputy Chief Executive Officer or the Deputy Chief Executive Officers retain their duties and powers until the appointment of a new Chief Executive Officer, unless the Board of Directors decides otherwise.

5) The Chief Executive Officer and, if applicable, one or more Deputy Chief Executive Officers, may be authorized to grant delegations of their authority within the limit of applicable laws and regulations.

Fixed or variable remuneration, or fixed and variable remuneration, may be granted by the Board of Directors, to the Chairman, the Chief Executive Officer, any Deputy Chief Executive Officer or, generally, to any other persons to whom any authority or mandate is assigned. Such compensation shall be charged to business expenses.

ARTICLE 16 – AUDITORS

The shareholders acting in a Shareholders' Meeting designate the statutory and deputy auditors in accordance with applicable law.

TITLE IV

Shareholders' Meetings

ARTICLE 17 - NOTICE – PARTICIPATION IN SHAREHOLDERS' MEETINGS

1) Shareholders' Meetings are called in accordance with applicable law.

The meetings take place at the registered office or at any other place indicated in the notice of meeting.

All shareholders may attend Shareholders' Meetings, irrespective of the number of shares held.

Any shareholder may vote by mail, using a form containing the regulatory notices.

Any shareholder may delegate voting authority at Shareholders' Meetings in accordance with the terms and conditions provided for by applicable regulations.

Legal entities that are shareholders take part in the meetings through their legal representatives or through any agent designated for that purpose.

2) Participation in Shareholders' Meetings, in any form whatsoever, shall be subject to registering or recording shares under the conditions and within the time periods provided for by applicable regulations.

The Board of Directors has the option to accept voting forms and proxies that reach the Company after the deadline provided for by applicable regulations.

It also has the option to decide that shareholders may participate and vote in any meeting by video-conference or other means of telecommunication under the conditions established by applicable regulations; the electronic signature that may result from any reliable identification process shall guarantee its connection with the instrument related thereto.

ARTICLE 18 - HOLDING SHAREHOLDERS' MEETINGS – DECISIONS

The Shareholders' Meeting is chaired by the Chairman of the Board of Directors or, failing that, by a Vice Chairman or, in his or her absence, by a Director designated by the Board.

Shareholders' Meetings, whether ordinary, extraordinary or combined, make their decisions pursuant to the quorum and majority conditions applicable to the provisions governing the type of meeting and they may exercise the powers attributed to them by law.

There is secret voting when such voting is demanded by several shareholders representing at least one quarter of the share capital.

Subject to the following provisions, each member of the Meeting is entitled to as many votes as he or she possesses or the number of shares for which he or she holds proxies.

In accordance with the option offered by Article L. 22-10-46 of the French Commercial Code, no double voting rights are attached to the Company's shares.

At Shareholders' Meetings, no shareholder may cast, personally or via a proxy, in connection with the simple voting rights attached to the shares he or she holds directly or indirectly and in connection with the powers of attorney granted to him or her, more than 10% of the total number of voting rights attached to the Company's shares.

For application of the above provision:

- the total number of voting rights attached to the Company's shares taken into account is calculated on the date of the Shareholders' Meeting and is brought to the shareholders' attention at the opening of said Meeting,

- the number of voting rights held directly and indirectly is to be understood to include those that are attached to the shares held by a natural person on his or her own behalf, either on a personal basis or in connection with joint ownership, or held by a company, grouping, association or foundation, and including those that are attached to the shares held by a controlled company within the meaning of Article L. 233-3 of the French Commercial Code, by another company or by a natural person, association, grouping or foundation,

- for the voting rights cast by the Chairman of the Shareholders' Meeting, the voting rights attached to shares for which a power of attorney has been returned to the Company without any indication of a representative and which, individually, do not violate the prescribed limitations, are not taken into account for the above limits.

The limitations provided for in the above paragraphs have no effect on the calculation of the total number of voting rights attached to the Company's shares and which shall be taken into account for application of the legislative, regulatory and statutory provisions stipulating special obligations with reference to the number of voting rights existing in the Company or to the number of shares having voting rights.

In addition, the limitations provided for above shall lapse, without any need for a new decision by an Extraordinary Shareholders' Meeting, when a natural person or legal entity, acting alone or in concert with one or several natural persons or legal entities, comes to hold at least two-thirds of the total number of Company shares following a public offer for all of the Company's shares. In such a case, the Board of Directors would take note of the said lapse and carry out the related formalities concerning modification of the Articles of Association.

TITLE V

Regulated Agreements

ARTICLE 19 - REGULATED AGREEMENTS

Pursuant to Article L. 229-7 paragraph 6 of the French Commercial Code, the provisions of Articles L. 225-38 to L. 225-42 of the French Commercial Code are applicable to agreements concluded by the Company.

TITLE VI

Company Financial Statements

ARTICLE 20 - FINANCIAL YEAR – FINANCIAL STATEMENTS

The financial year begins on January 1 and ends on December 31.

At the end of each financial year, the Board of Directors draws up an inventory, an income statement and a balance sheet, as well as the notes supplementing them, and establishes a management report. It also establishes the Group's consolidated financial statements.

ARTICLE 21 - ALLOCATION OF RESULTS

The net income for the financial year, after deduction of overheads and other social charges, as well as of any amortization of the business assets and of any provisions for commercial and industrial contingencies, constitutes the net profit.

From the said profit, reduced by the prior losses, if any, the following items are deducted in the indicated order:

1°/ 5% to constitute the legal reserve fund until the said fund reaches one-tenth of the share capital;

2°/ The amount set by the shareholders at a Shareholders' Meeting with a view to constitution of reserves of which it determines the allocation or the use;

3°/ The amounts that the shareholders decide at a Shareholders' Meeting to carry forward.

The remainder is paid to the shareholders as dividends.

The Board of Directors may pay out interim dividends.

The Shareholders' Meeting held to approve the financial statements for the financial year may decide to grant an option to each shareholder, with respect to all or part of the dividend or of the interim dividends, between payment of the dividend in cash and payment in shares.

The Shareholders' Meeting may decide at any time, but only on the basis of a proposal by the Board of Directors, to effect a complete or partial distribution of the amounts appearing in the reserve accounts, either in cash or in Company shares.

TITLE VII

Dissolution – Disputes

ARTICLE 22 – DISSOLUTION – LIQUIDATION

At the time of the Company's expiration or early dissolution, the shareholders acting at a Shareholders' Meeting determine the liquidation procedure and appoint one or several liquidators whose powers and compensation it determines.

ARTICLE 23 - DISPUTES

Any disputes that may arise during the Company's existence or at the time of its liquidation, either between the shareholders and the Company or among the shareholders themselves, on the subject of business matters, shall be subject to the jurisdiction of the competent courts of the registered office.

EXHIBIT 2.2

DESCRIPTION OF SECURITIES
REGISTERED UNDER SECTION 12 OF THE EXCHANGE ACT

As of December 31, 2023, TotalEnergies SE had the following series of securities registered pursuant to Section 12(b) of the Exchange Act.

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class	Trading symbol	Name of each exchange on which registered
Shares	TTE	New York Stock Exchange*
American Depositary Shares		New York Stock Exchange

*Not for trading, but only in connection with the registration of American Depositary Shares, pursuant to the requirements of the Securities and Exchange Commission.

Capitalized terms used but not defined herein have the meanings given to them in TotalEnergies SE's annual report on Form 20-F for the fiscal year ended December 31, 2023.

SHARES

The following description of TotalEnergies shares is a summary and does not purport to be complete. It is subject to and qualified in its entirety by TotalEnergies SE's articles of association (updated as at February 12, 2022) and by law and regulations applicable in France.

A copy of TotalEnergies SE's articles of association (updated as at February 12, 2022) is filed as an exhibit to TotalEnergies SE's annual report on Form 20-F for the fiscal year ended December 31, 2023, as Exhibit 1.

GENERAL (*Item 9.A.5*)

TotalEnergies SE is a European Company (*societas europaea* or SE), whose share capital is publicly traded. As at December 31, 2023, the share capital of TotalEnergies SE amounted to €6,030,629,587.50 and consisted of 2,412,251,835 ordinary shares of nominal value of €2.50 each.

TotalEnergies shares are listed on the regulated market of Euronext Paris (France), on the market of Euronext Brussels (Belgium) and on the London Stock Exchange (United Kingdom). TotalEnergies SE's American depositary shares ("ADS"), as described further below, representing one TotalEnergies SE share each, are listed on the New York Stock Exchange ("NYSE", United States) under the symbol "TTE".

TotalEnergies SE's fully paid up shares may be held as registered shares or bearer shares, at the shareholder's option. TotalEnergies shares are not subject to any sinking fund or redemption provisions.

RESTRICTIONS ON TRANSFERS OF TOTALENERGIES SHARES

Shares of TotalEnergies SE, either in the bearer or registered form, are freely transferable.

PRE-EMPTION RIGHTS (*Item 9.A.3*)

Not applicable.

LIMITATIONS OR QUALIFICATIONS (*Item 9.A.6*)

Not applicable.

OTHER RIGHTS (*Item 9.A.7*)

Not applicable.

RIGHTS AND OBLIGATIONS ATTRIBUTABLE TO TOTALENERGIES SHARES (*Items 10.B.3*)

Whenever it is necessary to possess several TotalEnergies shares in order to exercise a right, TotalEnergies shares held in a number below the requisite number of TotalEnergies shares do not entitle their holder to any right against TotalEnergies SE, it being up to the shareholder in such a case to personally seek to collect or group together the requisite number of TotalEnergies shares.

Allocation of results, liquidation rights and dividend rights

Each TotalEnergies SE share entitles its holder to an ownership interest in the business assets, in the sharing of profits and of liquidation surpluses, in proportion to the number of shares outstanding from time to time.

The net income for the financial year, after deduction of the overhead and other social charges, as well as of any amortization of the business assets and of any provisions for commercial and industrial contingencies, constitutes the net profit.

From the said profit, reduced by the prior losses, if any, the following items are deducted in the indicated order:

1. 5% to constitute the legal reserve fund until the said fund reaches one-tenth of the share capital;

2. the amount set by the shareholders of TotalEnergies SE at a shareholders' meeting of TotalEnergies SE with a view to constitution of reserves of which it determines the allocation or the use; and

3. the amounts that the shareholders of TotalEnergies SE decide at a shareholders' meeting of TotalEnergies SE to carry forward. The remainder is paid to the shareholders of TotalEnergies SE as dividends.

The board of directors of TotalEnergies SE may pay out interim dividends.

The shareholders' meeting of TotalEnergies SE held to approve the financial statements for the financial year may decide to grant an option to each shareholder of TotalEnergies SE, with respect to all or part of the dividend or of the interim dividends, between payment of the dividend in cash and payment in shares of TotalEnergies SE.

The shareholders' meeting of TotalEnergies SE may decide at any time, but only on the basis of a proposal by the board of directors of TotalEnergies SE, to effect a complete or partial distribution of the amounts appearing in the reserve accounts, either in cash or in TotalEnergies shares.

Voting rights

Each TotalEnergies SE share entitles its holder to participate in shareholders' meetings of TotalEnergies SE, in any form whatsoever, subject to registering or recording its TotalEnergies shares under the conditions and within the time periods provided for by regulations in effect.

All shareholders of TotalEnergies SE may attend shareholders' meetings of TotalEnergies SE, irrespective of the number of TotalEnergies shares held. Any shareholder of TotalEnergies SE may vote by mail, by using a form conforming to applicable regulations.

Any shareholder of TotalEnergies SE may delegate voting authority at shareholders' meetings of TotalEnergies SE in accordance with the terms and conditions provided for by applicable regulations.

Legal entities that are shareholders of TotalEnergies SE take part in the meetings through their legal representatives or through any agent designated for that purpose.

Shareholders' meetings of TotalEnergies SE, whether ordinary, extraordinary or combined, make their decisions pursuant to the quorum and majority conditions applicable to the provisions governing the type of meeting, and they may exercise the powers attributed to them by law.

Subject to the following provisions, each shareholders' meeting member is entitled to as many votes as he possesses or as many TotalEnergies shares as he holds proxies for.

At shareholders’ meetings of TotalEnergies SE, no shareholder of TotalEnergies SE may cast, by himself and through a proxy, in connection with the simple voting rights attached to the TotalEnergies shares he holds directly or indirectly and in connection with the powers of attorney granted to him, more than 10% of the total number of voting rights attributable to TotalEnergies shares.

In accordance with Article L. 22-10-46 of the French Commercial Code, no double voting rights are attached to the Company's shares.

BOARD OF DIRECTORS OF TOTALENERGIES SE

TotalEnergies SE is administered by a board of directors, the minimum and maximum number of members of which are defined by applicable law, as amended from time to time. The terms of office of the members of the board of directors are staggered to more evenly space the renewal of appointments and to ensure the continuity of the work of the board of directors and its committees.

The permanent representative of a legal person appointed as a director of TotalEnergies SE must be approved in advance by the board of directors of TotalEnergies SE. Such representatives must be less than 70 years old.

Each director of TotalEnergies SE must own at least 1,000 shares during his term of office.

The term of office for directors of TotalEnergies SE is set by the shareholders acting in an ordinary shareholders’ meeting of TotalEnergies SE for a term of office not to exceed three years, subject to applicable law that may allow extension of the duration of a given term until the next ordinary shareholders’ meeting of TotalEnergies SE held to approve the financial statements.

The number of directors of TotalEnergies SE acting in their own capacity or as permanent representatives of a legal entity that are aged more than 70 years old may not exceed one-third of the sitting directors of TotalEnergies SE as determined on the last day of each fiscal year. If this proportion is exceeded, the oldest member of the board of directors of TotalEnergies SE is automatically considered to have resigned.

When at the close of a financial year, the portion of capital owned by TotalEnergies SE’s employees and those of the companies affiliated to it, as per article L. 225-180 of French commercial code, determined according to the provisions of article L. 225-102 of said code (after taking into account the registered shares held directly by employees and governed by article L. 22-10-59 of the French commercial code (formerly article L. 225-197-1), regardless of their grant date), represents more than 3%, a director of TotalEnergies SE is elected at the ordinary shareholders’ meeting of TotalEnergies SE upon proposal of the shareholders referred to in article L. 225-102 of the French commercial code in accordance with the procedures provided by the applicable regulations and the articles of association.

When TotalEnergies SE satisfies the provisions of article L. 22-10-7 of the French commercial code (formerly article L. 225-27-1), the board of directors of TotalEnergies SE shall also include one or two directors of TotalEnergies SE representing employees.

A director representing employees is appointed by the central social and economic works council. When the number of directors of TotalEnergies SE appointed by the shareholders’ meeting of TotalEnergies SE is greater than eight, a second director of TotalEnergies SE is appointed by the European Company committee.

REQUIREMENTS FOR AMENDMENTS *(Item 10.B.4)*

The rights of holders of TotalEnergies shares are set in the articles of association of TotalEnergies SE. The conditions upon which the articles of association of TotalEnergies can be amended are set in article L. 22-10-31 of the French commercial code (formerly article L. 225-96).

LIMITATIONS ON THE RIGHTS TO OWN SHARES (*Item 10.B.6*)

Not applicable.

PROVISIONS AFFECTING ANY CHANGE OF CONTROL *(Item 10.B.7)*

Not applicable.

DISCLOSURE OF INTERESTS IN TotalEnergies shares (*Item 10.B.8*)

TotalEnergies SE is authorized, to the extent permitted under applicable law, to identify the holders of securities that grant immediate or future voting rights at the shareholders' meetings of TotalEnergies SE.

In addition to obligations that shareholders of TotalEnergies SE may have to notify TotalEnergies SE upon crossing certain percentages of share ownership or voting rights pursuant to articles L. 233-7 *et seq*. of the French commercial code and 223-11 *et seq.* of the general regulations of the *Autorité des marchés financiers*, any person, whether a natural person or a legal entity, who comes to hold, directly or indirectly, 1% or more, or any multiple of 1%, of the share capital or the voting rights of TotalEnergies SE or of securities that may include future voting rights or future access to share capital or voting rights of TotalEnergies SE, is required to inform TotalEnergies SE by registered mail with return receipt requested, indicating the number of securities or voting rights of TotalEnergies SE held, within a period of 15 days from the date of crossing each of the said thresholds.

In determining the ownership or voting rights percentages provided for in the above paragraph, shares or voting rights of TotalEnergies SE held by controlled companies, as defined in article L. 233-3 of the French commercial code, must be included if applicable.

In the event of a failure to declare ownership of shares or voting rights of TotalEnergies SE as described above, any shares or voting rights of TotalEnergies SE exceeding the fraction that should have been declared may be deprived of voting rights at a shareholders' meeting of TotalEnergies SE if, at the meeting, the failure to declare ownership of such shares or voting rights of TotalEnergies SE has been noted and if one or several shareholders of TotalEnergies SE holding, collectively, at least 3% of capital or voting rights of TotalEnergies SE so request at such meeting.

Any natural person or legal entity is also required to inform TotalEnergies SE in the manner and within the time periods set forth above in the second paragraph above when his direct or indirect holdings fall below each of the applicable thresholds in said paragraph.

Article 19 of regulation (EU) 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (market abuse regulation) further requires persons discharging managerial responsibilities within TotalEnergies (and their persons closely associated) to notify TotalEnergies SE of transactions conducted on their own account in TotalEnergies shares or derivatives or certain financial instruments relating to TotalEnergies shares.

DIFFERENCES BETWEEN THE LAW OF DIFFERENT JURISDICTIONS (*Item 10.B.9*)

Not applicable.

CHANGES IN CAPITAL (*item 10.B.10*)

Not applicable.

REPURCHASE OF SHARES

For additional information on share buybacks, please refer to point 6.3 ("Share buybacks") of chapter 6 (starting on page 398) of the Universal Registration Document 2023, incorporated herein by reference.

AMERICAN DEPOSITARY SHARES

(*Items 12.D.1 and 12.D.2*)

GENERAL

The shares of TotalEnergies SE may be issued in the form of ADS. Each TotalEnergies ADS represents one share of TotalEnergies SE.

JPMorgan Chase Bank, N.A. is the depositary with respect to TotalEnergies ADS (the “Depositary”), which are evidenced by American depositary receipts (“ADR”). Each ADS represents an ownership interest in one TotalEnergies SE share deposited with the custodian, as agent of the depositary, under the amended and restated deposit agreement, dated November 12, 2014, and further amended on August 25, 2021, entered into between TotalEnergies SE, JPMorgan Chase Bank, N.A. and all holders, from time to time, of ADS issued pursuant to the deposit agreement (the “Deposit Agreement”).

The principal executive office of JPMorgan Chase Bank, N.A. is located at 383 Madison Avenue, Floor 11, New York, New York, 10179.

You may hold ADS either directly or indirectly through a broker or other financial institution. If you hold ADS directly, by having ADS registered in your name on the books of the depositary, you are an ADS holder. This description assumes you hold ADS directly. If you hold the ADS indirectly, you must rely on the procedures of your broker or other financial institution to assert your rights as an ADS holder described in this section. You should consult with your broker or financial institution to find out what those procedures are. Your ADS will be issued on the books of the depositary in book- entry form, in which case your ADS will be held through the Depositary’s direct registration system reflecting their ownership of these ADS. Your ADS will be evidenced by one ADR.

As an ADS holder, you will not be treated as one of TotalEnergies SE’s shareholders and you will not have shareholder rights. The Depositary or its nominee will be the holder of record of the TotalEnergies shares underlying your ADS. As an ADS holder, you will have ADS holder rights. The Deposit Agreement entered or to be entered into between TotalEnergies SE, the Depositary, you, as an ADS holder, and the other holders and beneficial owners of ADS sets out ADS holders’ rights as well as the rights and obligations of the Depositary. New York law governs the Deposit Agreement and the ADR. Because the Depositary or its nominee will actually be the record owner of the TotalEnergies shares, you must rely on it to exercise the rights of a shareholder of TotalEnergies SE on your behalf.

The following description is a summary of the material provisions of the Deposit Agreement. Because it is a summary, it does not contain all the information that may be important to you. For more complete information, you should read the entire form of Deposit Agreement form and the ADR form, which contain the terms of the ADS. Please refer to exhibit 99.A on Form F-6 (File No. 333-199737) filed with the Securities and Exchange Commission on October 31, 2014 and exhibit 99.A(2) on Post-Effective Amendment No.1 to Form F-6 (File No. 333-199737) filed with the Securities and Exchange Commission on July 30, 2021. Copies of the Deposit Agreement are also available for inspection at the offices of the Depositary and the custodian.

DIVIDENDS AND OTHER DISTRIBUTIONS

How will you receive dividends and other distributions on TotalEnergies shares?

The Depositary has agreed to pay to you the cash dividends or other distributions it or the custodian receives on TotalEnergies shares, after converting any cash received into U.S. dollars, and, in all cases, deducting its fees and expenses and any taxes required to be withheld. You will receive these distributions in proportion to the number of TotalEnergies shares your ADS represent.

Cash. Whenever the Depositary or the custodian shall receive any cash dividend or other cash distribution by TotalEnergies SE, the Depositary shall, after any necessary conversion of such distribution into U.S. dollars pursuant to section 4.06 of the Deposit Agreement, and after fixing a record date pursuant to section 4.07 of the Deposit Agreement, promptly distribute to the extent practicable the amount thus received to any persons in whose names an ADR is registered on the books of the Depositary maintained for such purpose (an “Owner”) as of such record date in proportion to the number of ADS held by them on an averaged or other practicable basis, subject to such distribution being impermissible or impracticable with respect to certain Owners.

The Depositary shall make appropriate adjustments in the amounts so distributed in respect of any amounts withheld or requested to be withheld by TotalEnergies SE, the custodian or the Depositary from any such distribution on account of (i) taxes or other governmental charges or (ii) charges of the Depositary in the conversion of foreign currency into U.S. dollars pursuant to section 4.06 of the Deposit Agreement and any other charges of the Depositary pursuant to section 5.09 of the Deposit Agreement.

The Depositary shall distribute only such amount, however, as can be distributed without attributing to any Owner a fraction of one cent. Any such fractional amounts shall be withheld without liability and dealt with by the Depositary in accordance with its then current practices.

TotalEnergies SE or its agent will remit to the appropriate governmental agency in the Republic of France all amounts withheld and owing to such agency.

Shares. If any distribution upon any TotalEnergies SE share consists of a dividend in, or free distribution of, TotalEnergies shares, including pursuant to any program under which Owners may elect to receive cash or TotalEnergies shares, the Depositary may, upon TotalEnergies SE's prior consultation and approval, and shall if TotalEnergies SE requests so, distribute additional ADR evidencing whole ADS representing the amount of TotalEnergies shares received as such dividend or free distribution, and distribute to the Owners as of the record date fixed pursuant to section 4.07 of the Deposit Agreement, in proportion to the number of ADS held by them as of such date, additional ADS evidenced by one or more ADR, subject to the terms and conditions of the Deposit Agreement with respect to the deposit of TotalEnergies shares and the issuance of ADR evidencing ADS, including the withholding of any tax or other governmental charge as provided in section 4.12 of the Deposit Agreement and the payment of fees of the Depositary as provided in section 5.09 of the Deposit Agreement.

In any case involving fractional ADS, the Depositary shall sell the amount of TotalEnergies shares represented by the aggregate of such fractions and distribute the net proceeds, all in the manner and subject to the conditions described in section 4.01 of the Deposit Agreement. If additional ADS are not so distributed or sold, each ADS shall thenceforth also represent the additional TotalEnergies shares distributed. Except as otherwise provided, TotalEnergies SE and the Depositary will not offer TotalEnergies shares to Owners unless a registration statement is in effect with respect to the securities represented by such TotalEnergies shares under the Securities Act of 1933, or the offer and sale of such TotalEnergies shares to Owners are exempt from registration under the provisions of such Act.

Other than cash or shares. Subject to the provisions of sections 4.12 and 5.09 of the Deposit Agreement, whenever the Depositary shall receive any distribution other than cash, TotalEnergies shares or rights upon any TotalEnergies SE share, the Depositary shall to the extent practicable cause the securities or property received by it to be distributed to the Owners as of the record date fixed pursuant to section 4.07 of the Deposit Agreement in proportion to the number of ADS held by them in any manner that the Depositary, after TotalEnergies SE's prior consultation if practicable, may deem equitable and practicable for accomplishing such distribution.

If, in the opinion of the Depositary, such distribution cannot be made proportionately among such Owners, or if for any other reason (including, but limited to, any requirement that TotalEnergies SE or the Depositary withhold an amount on account of taxes or other governmental charges or that such securities must be registered under the Securities Act of 1933 in order to be distributed to Owners or holders) the Depositary reasonably deems such distribution not to be feasible, the Depositary may, after TotalEnergies SE's consultation if practicable, adopt such method as it may deem equitable and practicable for the purpose of effecting such distribution (including, but not limited to, the public or private sale) of the securities or property thus received, or any part thereof, and the net proceeds of any such sale (net of the fees of the Depositary as provided in section 5.09 of the Deposit Agreement) shall be distributed by the Depositary to such Owners as in the case of a distribution received in cash.

Charges of Depositary

The Depositary may charge, and collect from, (i) each person to whom ADS are issued, including, without limitation, issuances against deposits of TotalEnergies shares, issuances in respect of distributions of shares, rights and other securities and/or property, issuances pursuant to a stock dividend or stock split declared by TotalEnergies SE, or issuances pursuant to a merger, exchange of securities or any other transaction or event affecting the ADS or deposited securities, and (ii) each person surrendering ADS for withdrawal of deposited securities or whose ADS are cancelled or reduced for any other reason, U.S.$5.00 for each 100 ADS (or portion thereof) issued, delivered, reduced, cancelled or surrendered (as the case may be).

The Depositary may sell (by public or private sale) sufficient securities and property received in respect of distributions of shares, rights and other securities and/or property prior to such deposit to pay such charge. The following additional charges shall be incurred by the Owners, by any party depositing or withdrawing TotalEnergies shares or by any party surrendering ADS, to whom ADS are issued (including, without limitation, issuances pursuant to a stock dividend or stock split declared by TotalEnergies SE or an exchange of stock regarding the ADS or the deposited securities or a distribution of ADS pursuant to section 4 of the Deposit Agreement, whichever is applicable) (i) a fee of U.S.$0.05 or less per ADS for any cash distribution made pursuant to the Deposit Agreement, (ii) a fee of U.S.$1.50 per one or more ADR for transfers made pursuant to section 2.04 of the Deposit Agreement, (iii) a fee for the distribution or sale of securities pursuant to section 4 of the Deposit Agreement, such fee being in an amount equal to the fee for the execution and delivery of ADS referred to above which would have been charged as a result of the deposit of such securities but which securities or the net cash proceeds from the sale thereof are instead distributed by the Depositary to Owners entitled thereto, (iv) fees, charges and expenses of the Depositary in connection with the conversion of foreign currency into U.S. dollars (which are paid out of such foreign currency).

Additionally, to facilitate the administration of various depositary receipt transactions, including disbursement of dividends or other cash distributions and other corporate actions, the Depositary may engage the foreign exchange desk within JPMorgan Chase Bank, N.A. and/or its affiliates in order to enter into spot foreign exchange transactions to convert foreign currency into U.S. dollars ("FX Transactions"). For certain currencies, FX Transactions are entered into with JPMorgan Chase Bank, N.A or an affiliate, as the case may be, acting in a principal capacity. For other currencies, FX Transactions are routed directly to and managed by an unaffiliated local custodian (or other third party local liquidity provider), and neither JPMorgan Chase Bank, N.A nor any of its affiliates is a party to such FX Transactions.

The foreign exchange rate applied to an FX Transaction will be either (a) a published benchmark rate, or (b) a rate determined by a third party local liquidity provider, in each case plus or minus a spread, as applicable. The Depositary will disclose which foreign exchange rate and spread, if any, apply to such currency on the "Disclosure" page (or successor page) of www.adr.com. Such applicable foreign exchange rate and spread may (and neither the Depositary, JPMorgan Chase Bank, N.A nor any of their affiliates is under any obligation to ensure that such rate does not) differ from rates and spreads at which comparable transactions are entered into with other customers or the range of foreign exchange rates and spreads at which JPMorgan Chase Bank, N.A or any of its affiliates enters into foreign exchange transactions in the relevant currency pair on the date of the FX Transaction. Additionally, the timing of execution of an FX Transaction varies according to local market dynamics, which may include regulatory requirements, market hours and liquidity in the foreign exchange market or other factors. Furthermore, JPMorgan Chase Bank, N.A and its affiliates may manage the associated risks of their position in the market in a manner they deem appropriate without regard to the impact of such activities on TotalEnergies SE, the Depositary, Owners or beneficial owners of ADSs. The spread applied does not reflect any gains or losses that may be earned or incurred by JPMorgan Chase Bank, N.A and its affiliates as a result of risk management or other hedging related activity.

Notwithstanding the foregoing, to the extent TotalEnergies SE provides U.S. dollars to the Depositary, neither JPMorgan Chase Bank, N.A nor any of its affiliates will execute an FX Transaction as set forth herein. In such case, the Depositary will distribute the U.S. dollars received from TotalEnergies SE.

VOTING RIGHTS

How do you vote?

Upon receipt of notice of any meeting or solicitation of consents or proxies of holders of TotalEnergies shares, the Depositary shall, as soon as practicable thereafter, send to the Owners:

(a) such information as is contained in the notice of such meeting and any solicitation material sent by TotalEnergies SE to the Depositary pursuant to section 5.06 of the Deposit Agreement;

(b) a statement that the Owners of ADR as of the close of business on a record date established by the Depositary pursuant to section 4.07 of the Deposit Agreement will be entitled, subject to any applicable provisions of French law, the articles of association of TotalEnergies SE and TotalEnergies shares (which provisions, if any, shall be summarized in writing by TotalEnergies SE and then summarized in pertinent part in such statement), to instruct the Depositary as to the exercise of the voting rights, if any, pertaining to the TotalEnergies shares represented by such Owner's ADS;

(c) summaries prepared by TotalEnergies SE in English of any materials or other documents provided by TotalEnergies SE for the purpose of enabling such owner to exercise such voting rights; and

(d) a statement as to the manner in which such instructions may be given to the Depositary (including, without limitation, any blocking requirements), including a statement as to the manner in which TotalEnergies shares with respect to which the Depositary does not receive properly completed voting instructions or receives a blank proxy will be voted, and setting forth the date established by the Depositary for the receipt of such instructions (the "Receipt Date").

Upon actual receipt by the ADR Department of the Depositary of properly completed voting instructions, from an Owner on such record date in the manner and on or before the time established by the Depositary for such purpose, the Depositary shall endeavor, insofar as practicable and permitted under any applicable provisions of French law, the articles of association of TotalEnergies SE and TotalEnergies shares, to vote or cause to be voted TotalEnergies shares in accordance with such instructions. The Depositary shall not itself exercise any voting discretion in respect of any TotalEnergies shares. If the Depositary timely receives a signed voting instruction card from an Owner which fails to specify the manner in which the Depositary is to vote the TotalEnergies shares represented by such Owner's ADS on one or more matters at a meeting, to the extent not prohibited by applicable law, rule or regulation, such voting instruction card shall constitute a procuration *en blanc* and shall be counted as a vote in favor of resolutions approved by the board of directors of TotalEnergies SE. TotalEnergies shares represented by ADS for which an executed voting instruction card was not timely received by the Depositary shall not be voted.

Notwithstanding anything in the Deposit Agreement to the contrary, the Depositary and TotalEnergies SE may modify or amend the above voting procedures or adopt additional voting procedures from time to time as they determine may be necessary or appropriate to comply with French or United States law or TotalEnergies SE's articles of association.

Voting instructions will not be deemed received until such time as the ADR Department responsible for proxies and voting has received such instructions notwithstanding that such instructions may have been physically received by JPMorgan Chase Bank, N.A., as Depositary, prior to such time.

Reports

The Depositary shall make available for inspection by Owners at its transfer office any reports and written communications, including any proxy solicitation material, received from TotalEnergies SE which are both (a) received by the custodian or its nominee as the holder of TotalEnergies shares and (b) made generally available to the holders of such TotalEnergies shares by TotalEnergies SE.

The Depositary shall also send to the Owners copies of such reports and communications (or English translations or summaries thereof) when furnished by TotalEnergies SE pursuant to section 5.06. Any such reports and communications, including any such proxy solicitation material, furnished to the Depositary by TotalEnergies SE will be furnished in French, unless TotalEnergies SE determines in its discretion to furnish such materials or any of them in English. The Depositary shall have no obligation to translate into English or any other language any documents provided by, for or on behalf of TotalEnergies SE.

TotalEnergies SE is subject to the periodic reporting requirements of the Securities Exchange Act of 1934 and, accordingly, files certain reports with the Securities and Exchange Commission (hereinafter called the “Commission”). Such reports and communications will be available for inspection and copying at the public reference facilities maintained by the Commission located at 100 F Street, N.E., Washington, D.C. 20549.

Lists of Owners

Promptly upon written request by TotalEnergies SE, the Depositary shall furnish TotalEnergies SE with a list, as of a recent date, of the names, addresses and holdings of ADS by all persons in whose names ADR are registered on the transfer books of the Depositary.

Notices and Reports

On or before the first date on which TotalEnergies SE makes any communication available to holders of TotalEnergies shares or any securities regulatory authority or stock exchange, by publication or otherwise, including without limitation a notice of any meeting of holders of TotalEnergies shares, or of any adjourned meeting of such holders, or of the taking of any action in respect of any cash or other distributions or the offering of any rights, TotalEnergies SE agrees to transmit to the Depositary or custodians a copy of such communication in English in the form given or to be given to holders of TotalEnergies shares, or with an English translation or summary.

Without limiting the generality of the foregoing, TotalEnergies SE shall furnish to the Depositary, or otherwise make publicly available, in English annual reports (including audited consolidated financial statements), semi-annual reports (including unaudited interim consolidated financial statements), and summaries in English of notices of shareholders’ meetings and other reports and communications that are made generally available by TotalEnergies SE to holders of TotalEnergies shares.

If requested in writing by TotalEnergies SE, the Depositary will arrange for the distribution of one or more of the above-referenced reports and summaries to all Owners. TotalEnergies SE will timely provide the Depositary with such quantity of such reports and summaries as shall be requested by the Depositary from time to time in order for the Depositary to effect such distributions.

Transfer Books by the Depositary

Until termination of the Deposit Agreement in accordance with its terms, the Depositary or its agent shall maintain, at a designated transfer office facilities for the execution, delivery and surrender of ADR in accordance with the provisions of the Deposit Agreement and a register for the registration, registration of transfer, combination and split-up of ADR which, in the case of Direct Registration ADR, shall include the Direct Registration System (the system administered by DTC pursuant to which the Depositary may register the ownership of uncertificated ADRs, which ownership shall be evidenced by periodic statements issued by the Depositary to the Owners entitled thereto). Such register shall at all reasonable times be open for inspection by the Owners and TotalEnergies SE; provided, however, that such inspection shall not be for the purpose of communicating with Owners in the interest of a business or object other than the business of TotalEnergies SE or a matter related to the Deposit Agreement or the ADR.

The Depositary may close the issuance and cancellation books, at any time or from time to time, when it deems expedient in connection with the performance of its duties hereunder or when reasonably requested by TotalEnergies SE solely in order to enable TotalEnergies SE to comply with applicable law.

DEPOSIT, WITHDRAWAL AND CANCELLATION

How are ADS issued?

The Depositary will issue ADS if you or your broker deposits TotalEnergies shares or evidence of rights to receive TotalEnergies shares with the custodian and pays fees and expenses and any taxes or charges, such as share transfer registration fees owing to the Depositary under the Deposit Agreement. TotalEnergies shares deposited with the custodian must be accompanied by certain delivery documentation, including documentation showing confirmation of the book-entry transfer and recordation of the TotalEnergies shares to the custodian or that such irrevocable instructions have been given and any necessary governmental approvals have been obtained. Upon each deposit of TotalEnergies shares, receipt of related delivery documentation and compliance with the other provisions of the Deposit Agreement, including the payment of the fees and charges of the depositary and any taxes or other fees or charges owing, the Depositary will issue ADS in the name or upon the order of the person entitled thereto.

All of the ADS issued will be part of the Depositary's direct registration system, and a registered holder will receive periodic statements from the Depositary which will show the number of ADS registered in such holder's name. An ADS holder can request that the ADS not be held through the Depositary's direct registration system and that an ADR be issued. The custodian will not accept a deposit of fractional TotalEnergies shares or a number of TotalEnergies shares which would give rise to fractional ADS.

The custodian will hold all TotalEnergies shares for the account of the Depositary. ADS holders thus have no direct ownership interest in TotalEnergies shares and only have such rights as are contained in the Deposit Agreement. The custodian will also hold any additional securities, property and cash received on or in substitution for the deposited shares. TotalEnergies SE's deposited shares and any such additional items are referred to as "deposited securities".

Requirements for depositary actions

Before the Depositary will issue, execute and deliver, register, register the transfer, split-up, combine or return any ADR, deliver any distribution thereon, or withdraw any deposited securities, the Depositary may require:

- payment of share transfer or other taxes or other governmental charges and transfer or registration fees charged by third parties for the transfer of any deposited securities;

- satisfactory proof of the identity and genuineness of any signature or other information it deems necessary; and

- compliance with any laws or governmental regulations, or such reasonable regulations that the Depositary and TotalEnergies SE may establish consistent with the Deposit Agreement.

The delivery of ADR against deposits of TotalEnergies shares generally or against deposits of particular TotalEnergies shares may be suspended and the transfer of ADR may be refused or the registration of transfer, split-up or combination of outstanding ADR may be suspended, generally or in particular instances, (i) during any period when the transfer books of the Depositary or any register for deposited securities are closed, or (ii) if any such action is deemed necessary or advisable by the Depositary or TotalEnergies SE at any time or from time to time because of any requirement of law or of any government or governmental body or commission, or under any provision of the Deposit Agreement.

The surrender of outstanding ADR and withdrawal of deposited securities may not be suspended subject only to (i) temporary delays caused by closing the transfer books of the Depositary or TotalEnergies SE or the deposit of TotalEnergies shares in connection with voting at a shareholders' meeting or the payment of dividends, (ii) the payment of fees, taxes and similar charges, (iii) compliance with any U.S. or foreign laws or governmental regulations relating to the ADR or to the withdrawal of the deposited securities, and (iv) any other circumstances specifically contemplated by Section IA(1) of the General Instructions to the Registration Statement on Form F-6, as amended from time to time, under the Securities Act of 1933.

RECLASSIFICATION, RECAPITALIZATION AND MERGERS

The Depositary may, in its discretion, and shall if requested by TotalEnergies SE, amend the form of ADR or distribute additional or amended ADR (with or without calling the ADR for exchange) or cash, securities or property on the record date set by the Depositary therefor to reflect any change in par value, split-up, consolidation, cancellation or other reclassification of deposited securities, any share distribution or distribution of other securities or property not distributed to Owners or any cash, securities or property available to the Depositary in respect of deposited securities from (and the Depositary is hereby authorized to surrender any deposited securities to any person and, irrespective of whether such deposited securities are surrendered or otherwise cancelled by operation of law, rule, regulation or otherwise, to sell by public or private sale any property received in connection with) any recapitalization, reorganization, merger, consolidation, liquidation, receivership, bankruptcy or sale of all or substantially all the assets of TotalEnergies SE, and to the extent the Depositary does not so amend the form of ADR or make a distribution to Owners to reflect any of the foregoing, or the net proceeds thereof, whatever cash, securities or property results from any of the foregoing shall constitute deposited securities and each ADS evidenced by the ADR shall automatically represent its pro rata interest in the deposited securities as then constituted.

Promptly upon the occurrence of any of the aforementioned changes affecting deposited securities, TotalEnergies SE shall notify the Depositary in writing of such occurrence and as soon as practicable after receipt of such notice from TotalEnergies SE, may instruct the Depositary to give notice thereof, at TotalEnergies SE's expense, to Owners in accordance with the provisions of the Deposit Agreement. Upon receipt of such instruction, the Depositary shall give notice to the Owners in accordance with the terms of the Deposit Agreement, as soon as reasonably practicable.

AMENDMENT AND TERMINATION

How may the Deposit Agreement be amended?

The form of the ADR and any provisions of the Deposit Agreement may at any time and from time to time be amended or supplemented by agreement in writing between TotalEnergies SE and the Depositary without the consent of the Owners in any respect which they may deem necessary or desirable.

Any amendment or supplement which shall impose or increase any fees or charges (other than taxes and other governmental charges, transfer or registration fees, cable, telex, or facsimile transmission costs, deliver costs or other such expenses), or which shall otherwise prejudice any substantial existing right of Owners, shall, however, not become effective as to outstanding ADR until the expiration of 30 days after notice of such amendment shall have been given to the Owners of outstanding ADR. Every Owner at the time any amendment so becomes effective, if such Owner shall have been given such notice, shall be deemed, by continuing to hold such ADR, to consent and agree to such amendment and to be bound by the Deposit Agreement as amended thereby.

In no event shall any amendment impair the right of the Owner of any ADR to surrender such ADR and receive therefor the deposited securities represented thereby, except in order to comply with mandatory provisions of applicable law.

Any amendments or supplements which (i) are reasonably necessary (as agreed between TotalEnergies SE and the Depositary) in order for (a) the ADS to be registered on Form F-6 under the Securities Act of 1933 or (b) the ADS or TotalEnergies shares to be traded solely in electronic book-entry form and (ii) do not in either such case impose or increase any fees or charges to be borne by Owners, shall be deemed not to prejudice any substantial rights of Owners.

How may the Deposit Agreement be terminated?

The Depositary shall at any time at the direction of TotalEnergies SE terminate the Deposit Agreement by mailing notice of such termination to the Owners of all ADR then outstanding at least 30 days prior to the date fixed in such notice for such termination. The Depositary may likewise terminate the Deposit Agreement by mailing notice of such termination to TotalEnergies SE and the Owners of all ADR then outstanding if at any time 150 days after the Depositary shall have delivered to TotalEnergies SE a written notice of its resignation, a successor depositary shall not have been appointed and accepted its appointment as provided in section 5.04 of the Deposit Agreement.

The Depositary shall mail notice of such termination to the Owners of all ADR then outstanding at least 30 days prior to the date fixed in such notice for such termination. On and after the date of termination, each Owner shall, upon (i) surrender of each of its ADR at the Depositary's transfer office, (ii) payment of the fees of the Depositary for the surrender of ADR provided herein and (iii) payment of any applicable taxes and governmental charges, be entitled to delivery, to him or upon his order, of the amount of deposited securities represented by such ADR. If any ADR shall remain outstanding after the date of termination, the Depositary and its agents thereafter shall discontinue the registration of transfers of ADR, shall suspend the distribution of dividends to the Owners thereof, and shall not give any further notices or perform any further acts under the Deposit Agreement and the ADR, except that the Depositary shall continue to receive and hold (or sell) dividends and other distributions pertaining to deposited securities, and shall continue to deliver deposited securities, together with any dividends or other distributions received with respect thereto and/or the net proceeds of the sale of any rights or other property, in exchange for ADR surrendered to the Depositary (after deducting, in each case, the fee of the Depositary for the surrender of an ADR, any expenses for the account of the Owner of such ADR in accordance with the terms and conditions of the Deposit Agreement, and any applicable taxes or governmental charges).

At any time after the expiration of six months from the date of termination, the Depositary may sell the deposited securities then held hereunder and may thereafter hold uninvested the net proceeds of any such sale, together with any other cash then held by it hereunder, in a segregated account and without liability for interest, for the pro rata benefit of the Owners which have not theretofore surrendered their ADR.

LIMITATION ON OBLIGATIONS AND LIABILITY TO ADR HOLDERS

Neither the Depositary nor TotalEnergies SE nor any of their respective directors, employees, agents or controlling persons (as defined under the Securities Act of 1933) shall incur any liability, if by reason of any provision of any present or future law, rule, regulation, fiat, order or decree of the United States, the Republic of France or any other country, or of any governmental or regulatory authority or stock exchange or market or automated quotation system, or by reason of any provision, present or future, of the articles of association of TotalEnergies SE or the deposited securities, or by reason of any act of God or war or terrorism, nationalization or other circumstances beyond their control, the Depositary or TotalEnergies SE or any of their respective directors, employees, agents or controlling persons (as defined under the Securities Act of 1933) shall be prevented or forbidden from or be subject to any civil or criminal penalty on account of doing or performing any act or thing which by the terms of the Deposit Agreement it is provided shall be done or performed; nor shall the Depositary or TotalEnergies SE or any of their respective directors, employees, agents or controlling persons (as defined under the Securities Act of 1933) incur any liability by reason of any non-performance or delay, caused as aforesaid, in the performance of any act or thing which by the terms of the Deposit Agreement it is provided shall or may be done or performed, or by reason of any exercise of, or failure to exercise, any discretion provided for in the Deposit Agreement or the ADR.

BOOKS OF DEPOSITARY

Promptly upon written request by TotalEnergies SE, the Depositary shall furnish TotalEnergies SE with a list, as of a recent date, of the names, addresses and holdings of ADS by all persons in whose names ADR are registered on the transfer books of the Depositary.

EXHIBIT 12.1

CERTIFICATIONS

I, Patrick Pouyanné, certify that:

1. I have reviewed this annual report on Form 20-F of TotalEnergies SE;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;

4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and

5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: March 29, 2024

By: /s/ Patrick Pouyanné
Name: Patrick Pouyanné
Title: Chairman and Chief Executive Officer

EXHIBIT 12.2

CERTIFICATIONS

I, Jean-Pierre Sbraire, certify that:

1. I have reviewed this annual report on Form 20-F of TotalEnergies SE;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;

4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and

5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: March 29, 2024

By: /s/ Jean-Pierre Sbraire
Name: Jean-Pierre Sbraire
Title: Chief Financial Officer

EXHIBIT 13.1

CERTIFICATIONS

Pursuant to 18 U.S.C. § 1350, the undersigned officer of TotalEnergies SE, a European company incorporated under the laws of the Republic of France (“TotalEnergies”), hereby certifies, to such officer’s knowledge, that TotalEnergies’ Annual Report on Form 20-F for the year ended December 31, 2023 (the “Report”), fully complies with the requirements of § 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of TotalEnergies.

Date: March 29, 2024

By: /s/ Patrick Pouyanné
Name: Patrick Pouyanné
Title: Chairman and Chief Executive Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. § 1350 and is not being filed as part of the Report or as a separate disclosure document.

EXHIBIT 13.2

CERTIFICATIONS

Pursuant to 18 U.S.C. § 1350, the undersigned officer of TotalEnergies SE, a European company incorporated under the laws of the Republic of France (“TotalEnergies”), hereby certifies, to such officer’s knowledge, that TotalEnergies’ Annual Report on Form 20-F for the year ended December 31, 2023 (the “Report”), fully complies with the requirements of § 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of TotalEnergies.

Date: March 29, 2024

By: /s/ Jean-Pierre Sbraire
Name: Jean-Pierre Sbraire
Title: Chief Financial Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. § 1350 and is not being filed as part of the Report or as a separate disclosure document.

Exhibit 15.1 contains the excerpts of the pages and section of TotalEnergies SE's Universal Registration Document 2023 that are incorporated by reference into the Annual Report on Form 20-F[1]. References in Exhibit 15.1 to TotalEnergies' Consolidated Financial Statements presented in chapter 8 are to TotalEnergies Consolidated Financial Statements presented beginning on page F-7 of this Annual Report.

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[1] Where information has been deleted from TotalEnergies SE's Universal Registration Document 2023, such deletion is indicated in this exhibit with a notation that such information has been redacted.

Contents

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

1

Presentation of the Company – Integrated report

1.1 TotalEnergies at a glance

1.1.1 An integrated energy company

TotalEnergies is a global integrated energy company that produces and markets energies: oil and biofuels, natural gas and green gases, renewables and electricity. Our more than 100,000 employees are committed to provide as many people as possible with energy that is more reliable, more affordable and more sustainable. Active in about 120 countries, TotalEnergies places sustainability at the heart of its strategy, its projects and its operations.

VALUES ANCHORED IN OUR DAILY ACTIVITIES

Safety, Respect for Each Other, Pioneer Spirit, Stand Together and Performance-Minded are what drive us. These values guide daily the actions and relations of the Company with its stakeholders.

These five strong values also require all of TotalEnergies' employees to behave in an exemplary manner. Priority is given to safety, security, health, the environment, integrity in all its forms (including the fight against corruption, fraud and anti-competitive practices) and human rights.

It is through the strict adherence of our employees to these values and to this course of action that our Company intends to build strong and sustainable growth for ourselves and for all of our stakeholders.

In this way, we deliver on our commitment to better energy.

OUR PROFILE

Our employees

Employees breakdown by geographical area

Workforce as of December 31, 2023: 102,579

Employees breakdown by gender

36.9% Women

63.1% Men

Proven expertise in 2023

- **102,579** employees
- Nearly **170 nationalities**
- More than **740 business-related competencies**
- More than **461,000 days** of training
- More than **400 talent developers** to help employees along their professional development path

Employees in 2023

- **$9.2 billion** payroll (including social security charges)
- More than **€200 M** for training
- **92.1%** of employees on permanent contracts, and women account for **41.2%** of employees hired on permanent contracts
- **85.6%** of employees hired by the Company and **67.1%** of managers hired were non-French nationals

Our shareholders

Shareholding structure by geographical area [(1)]

Estimate as of December 31, 2023, based on the request for the identification of shareholders made on that date, pursuant to Article L. 228-2 of the French Commercial Code.

Shareholding structure by shareholder type

Estimate as of December 31, 2023, based on the request for the identification of shareholders made on that date, pursuant to Article L. 228-2 of the French Commercial Code.

13.6%	7.4%	76.5%	2.5%
Individual shareholders	Company employees [(2)]	Institutional shareholders	Treasury shares

Approximately 1,600,000 Number of individual shareholders

(1) Excluding treasury shares.

(2) On the basis of employee shareholding as defined in Article L. 225-102 of the French Commercial Code and Article 11 paragraph 6 of the Articles of Association of the Corporation.

Our climate ambition: **NET ZERO EMISSIONS BY 2050, together with society**

2023 KEY FIGURES

Financial indicators[1]

$23.2 billion
Adjusted net income (TotalEnergies share)

$21.4 billion
Net income (TotalEnergies share)

20.4%
Return on equity (ROE)

18.9%
Return on average capital employed (ROACE)

$35.9 billion
Cash flow from operations excluding working capital (CFFO)

€3.01
Dividend per share for the fiscal year 2023[2]

5.0%
Gearing ratio[3]

$16.8 billion
Net investment (**35%** for low-carbon energies mainly in power)

$22.2/b
Pre-dividend organic cash breakeven

Extra-financial indicators

Greenhouse gas (GHG) emissions Scope 1+2 of operated facilities *(Mt CO_2e)*

- 2021: 37*
- 2022: 40
- **2023: 35**

* Excluding the COVID-19 effect.

Total recordable injury rate

- **2023: 0.63**
- 2022: 0.67
- 2021: 0.73

Share of women among senior executives *(%)*

- 2021: 26.5
- 2022: 27.5
- **2023: 28.3**

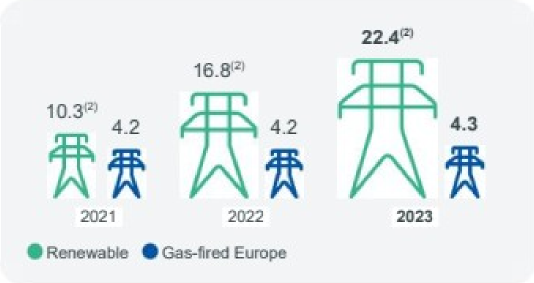
Share of non-French nationals among senior executives *(%)*

- 2021: 36.6
- 2022: 37.4
- **2023: 37.7**

(1) Refer to the glossary for definitions and additional information on alternative performance measures (APM, Non-GAAP measures) and to point 1.9 of this chapter for reconciliation tables.
(2) Subject to approval by the Shareholders' Meeting on May 24, 2024.
(3) Excluding leases; 10.9% including leases.

OUR OPERATIONAL PERFORMANCE

Gross installed power generation capacities[1]
(GW)



Portfolio of gross renewable power generation capacities at year-end 2023[2] *(GW)*

Net power production[3]
(TWh)

Power sales - number of BtB and BtC client sites
(millions)

Gas sales - number of BtB and BtC client sites
(millions)

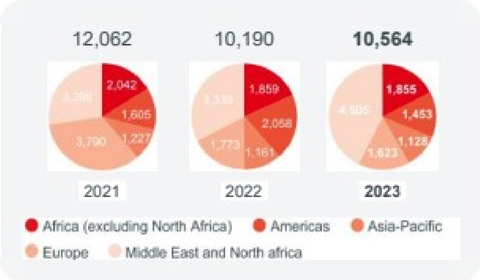
LNG sales volumes
(Mt)

LNG production
(Mt)

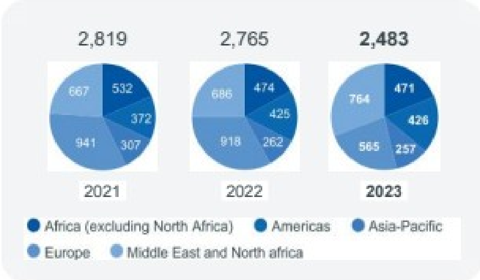
(1) Excluding combined-cycle gas plant in Taweelah, United Arab Emirates.
(2) Includes 20% of Adani Green Energy Ltd's gross capacity effective first quarter 2021, 50% of Clearway Energy Group's gross capacity effective third quarter 2022, and 49% of Casa dos Ventos' gross capacity effective first quarter 2023.
(3) Solar, wind, hydroelectric and gas flexible capacities.

OUR OPERATIONAL PERFORMANCE

Hydrocarbon proved reserves[1] by geographic areas
(Mboe)



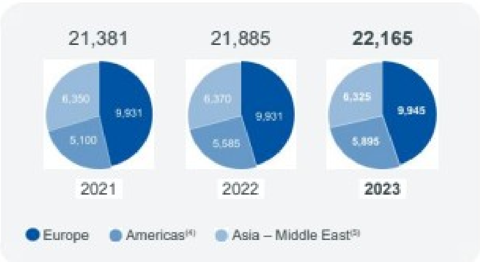
Hydrocarbon production by geographic area
(kboe/d)



Crude oil refining capacity[2]
(kb/d)

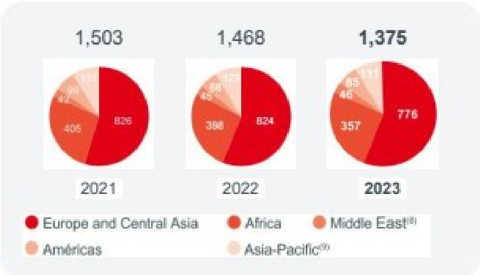
Refinery throughput[3]
(kb/d)

Petrochemical production capacity by geographic area
(kt)



Petrochemical products production volume
(kt)

Marketing & Services[7] petroleum product sales by geographic area *(kb/d)*



Production of biofuels
(kt)

(1) Based on SEC rules (Brent at \$83.27/b in 2023, \$101.24/b in 2022 and \$69.23/b in 2021).
(2) Capacity data based on crude distillation unit stream-day capacities under normal operating conditions, less the average impact of shutdowns for regular repair and maintenance activities.
(3) Includes refineries in Africa that are reported in the Marketing & Services segment.
(4) Including 50% of the joint venture between TotalEnergies and Borealis.
(5) Including interests in Qatar, 50% of the capacities of Hanwha TotalEnergies Petrochemical Co. Limited and 37.5% of SATORP in Saudi Arabia.
(6) Olefins.
(7) Excluding trading and bulk refining sales.
(8) Including Turkey.
(9) Including Indian Ocean islands.

1.1.2 Our history: an energy transition in progress

The Company was founded on March 28, 1924. Ever since it took its first steps in oil production in Iraq back in 1927, the Company has continually transformed and forged a reputation for its pioneering spirit, whether extending its geographical reach or innovating and pushing back the boundaries of technology. This ability to constantly adapt has also been demonstrated over the years through its successful partnerships with such companies as Petrofina, Elf Aquitaine and, more recently, Saft, Mærsk Oil and Direct Energie.

In an effort to meet the challenges of a largely net zero future, the Company is pursuing a new strategy to become an integrated energy company by developing its activities in electricity, mainly renewables, which will play a key role in the energy system of tomorrow's world.

By changing its name to TotalEnergies in 2021, the Company has ensured that its identity reflects the strong ambition driving the Company, namely to be a world-class player in leading the energy transition and reaching net zero by 2050, together with society. The pioneering spirit that has powered it since day one continues to guide it in achieving this transition.

1920

Creation in Brussels of the Compagnie Financière belge des Pétroles, known as PetroFina.

1924

Creation of the Compagnie française des Pétroles (CFP)
On September 20, 1923, the French President of the Council Raymond Poincaré entrusts an important mission to Ernest Mercier: create a «tool capable of carrying out a national oil policy». Six months later, the Compagnie française des Pétroles is born on March 28, 1924.

1925

The IPC is awarded a 75-year concession on March 14.

1927

Initial discovery at the Kirkuk field in Iraq
CFP makes its first discovery, under an agreement with the government of Iraq. Oil rises to the surface in Kirkuk, a field with considerable reserves. This marks the beginning of TOTAL's adventure in the Middle East.

1929

CFP shares are first traded on the Paris Stock Exchange.

1933

Start of production of the Gonfreville refinery in Normandy (France), with an annual capacity of 900,000 tons of crude oil.

1939

Discovery of the Saint-Marcet gas field, the first hydrocarbon reserves found in France
Creation of Régie Autonome des Pétroles (RAP), which later becomes the Elf Group, to explore a vast area around Saint Gaudens.

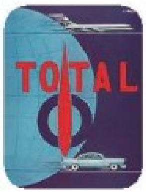
1941

Creation of Société nationale des pétroles d'Aquitaine (SNPA).

1951

SNPA discovers the Lacq gas field in France
The gas rises from a depth of 3,450 meters at extremely high pressure. The specialist crews take five days and four nights to harness the eruption. Lacq is later found to be a gigantic natural gas field containing some 262 billion cubic meters.

1954



Launch of the TOTAL brand by CFP
At the beginning of the 1950s, the leaders of CFP and CFR (Compagnie Française de Raffinage) decide to create their own distribution network, and a brand for it. The new TOTAL brand and logo are adopted in 1954.

1956

Discovery of the Edjeleh, Hassi R'Mel (gas) and Hassi Messaoud (oil) fields in the Algerian Sahara
The exploration campaigns that SN Repal and CFP-A had initiated in 1946 result in the discovery, in 1956, of huge oil fields in Edjeleh and Hassi Messaoud and gas reserves in Hassi R'Mel.

1958

First offshore well on Umm Shaif (Abu Dhabi).

1961

Discovery of the first offshore fields in Gabon
The Anguille field is the first one found.

1967

Launch of the Elf brand
A countrywide campaign, "Red circles are coming" introduces France to the Elf brand starting on the night of April 27, 1967.

1970

Elf takes control of Antar.

TOTAL takes a permit in Indonesia, and goes on to find the Bekapai field in 1972 and the gigantic Handil field in 1974.

1971

The Ekofisk field in the North Sea starts production.

1974

The Group acquires Hutchinson-Mapa, a specialist in rubber processing.

1976

Creation of Société nationale Elf Aquitaine (SNEA), the merger of ERAP and SNPA.

1983

Birth of the company Atochem, an SNEA subsidiary, the merger of ATO Chimie, Chloé Chimie and part of Péchiney Ugine Kuhlmann.

1991

CFP, which had become Total-CFP in 1985, becomes TOTAL.

2000

Following the merger of Fina in 1999, TOTAL acquires Elf Aquitaine
The new Group is called TotalFinaElf and is the world's fourth largest oil major.

2001

The Girassol field on Block 17 in Angola starts production.

2003

TotalFinaElf changes its name to TOTAL.

2011

Investment in the solar energy sector with the acquisition of 60% of the US company SunPower
On June 15, 2011, TOTAL and SunPower Corp. announce the success of TOTAL's friendly tender on SunPower to create a new global leader in the solar industry.

2016

Acquisition of Saft Groupe
On July 18, 2016, TOTAL acquires Saft Groupe, a world leading designer and manufacturer of advanced technology batteries for industry, complementing its portfolio with electricity storage solutions, a key component of the future growth of renewable energies.

Acquisition of Lampiris in Belgium.

2017

Launch of Total Spring in France.

2018

Acquisition of Direct Energie
On July 6, 2018, TOTAL announces the completion of the acquisition of Direct Energie and the launch of a tender offer on the company. This operation enables the Group to accelerate its integration downstream along the full gas and power value chain and to reach critical mass in the French and Belgium markets, where it is growing fast.

TOTAL acquires Engie's LNG business and becomes the world's number-two liquefied natural gas player.

TOTAL acquires exploration and production company Mærsk Oil & Gas A/S in a share and debt transaction. This acquisition makes TOTAL the second largest operator in the offshore North Sea.

2019

Acquisition of 26.5% in the Mozambique LNG project
This acquisition stems from an agreement with Occidental to acquire Anadarko's assets in Africa, and expands TOTAL's position in liquefied natural gas.

2020

TOTAL states its new climate ambition: carbon neutrality by 2050
On May 5, 2020, TOTAL announces its ambition of reaching net zero emissions by 2050, together with society, from the production to the use of the energy products by the customers.

PARIS CLIMATE AGREEMENT

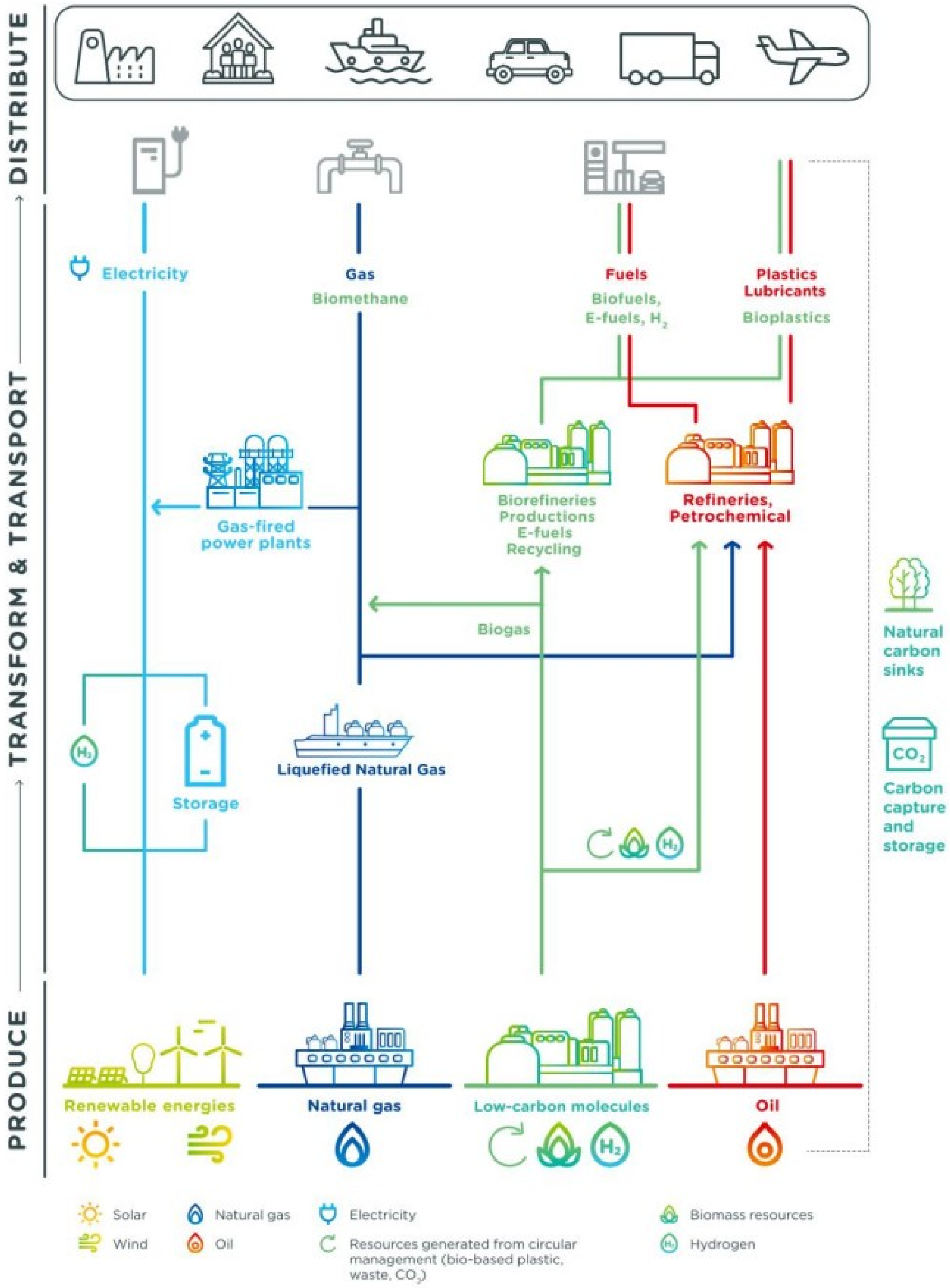
2050
net zero emissions, together with society

2021

TOTAL becomes TotalEnergies and turns into a multi-energy company with the ambition of being a major player in the energy transition.

1.1.3 Our business model

Integrated value chain



Resources and ecosystem

Proven expertise

- **102,579** employees
- Nearly **170** nationalities
- More than **740** business-related competencies
- More than **461,000** days of training
- More than **400** talent developers to help employees along their professional development path

A responsible innovation

- R&D budget: **$774 million**
- **15** R&D centers worldwide
- More than **250** patent applications in 2023

Top-tier industrial and commercial assets

- **22.4 GW**[(1)] of gross installed renewable power generation capacities
- More than **60,000** operated and supervised EV charging points
- Proved reserves of **10.6 Bboe** and hydrocarbon production of **2,483 kboe/d**
- **16** refineries including **1** biorefinery (La Mède); 1 biorefinery currently being converted (Grandpuits) ○ **26** petrochemical sites including **6** integrated platforms (refining-petrochemicals) ○ **84** specialty chemicals production sites ○ **37** production sites operated (lubricants and greases)
- Close to **14,600** service stations in approximately **60** countries

Solid financials

- Cash flow from operations excluding working capital (CFFO): **$35.9 billion**
- Net investments: **$16.8 billion**
- Gearing ratio (excluding leases): **5.0%**
- Pre-dividend organic cash breakeven: **$22.2/b**

Geographic reach

- Present in about **120** countries
- Hydrocarbon exploration and production in about **50** countries

Environment

- Fresh water withdrawal: **102 Mm^3**
- Net primary energy consumption: **157 TWh** (operated perimeter)

Data as of December 31, 2023.

Shared value creation

Employees

- **$9.2 billion** payroll (including social security charges)
- More than **€200 million** for training
- **92.1%** of employees on permanent contracts and women account for **41.2%** of employees hired on permanent contracts
- **85.6%** of employees hired by the Company and **67.1%** of managers hired were non-French nationals

Customers

- Sales: **$237 billion**
- **3rd** largest LNG player worldwide with **44.3 Mt** of LNG sold in 2023, including **15.2 Mt** from equity production of the Company
- **33.4 TWh** of net power production, including **18.9 TWh** from renewable sources
- **100.9 TWh** of gas delivered to **2.8 million** BtB and BtC clients sites
- **52.1 TWh** of power delivered to **5.9 million** BtB and BtC clients sites
- Close to **75** products and solutions bearing the Ecosolutions label by TotalEnergies
- More than **10,000** patents in force worldwide

Suppliers

- **$30 billion** worth of purchases of goods and services, from a network of more than **100,000** suppliers, supporting hundreds of thousands of direct and indirect jobs worldwide

Shareholders

- **$7.5 billion** distributed as dividends[(2)]
- Approximately **1.6 million** individual shareholders
- More than **65%** of employees are shareholders

Communities

- Fostering social and economic development in host countries with contributions amounting to **$12,745 million** in income tax, **$11,909 million** in production taxes paid by EP activities, **$2,342 million** in employer social charges and **$18,183 million** in excise taxes
- A global integrated local development approach (in-country value)

Climate

- Reducing GHG emissions (Scope 1+2) from operated facilities from 46 Mt CO_2e in 2015 to **35 Mt CO_2e** in 2023
- Reducing methane emissions[(3)] from operated facilities by **50%** between 2010 and 2020 and by **47%** between 2020 and 2023
- Scope 3[(4)] GHG emissions at **355 Mt CO_2e** in 2023, below the level of 2015
- Reducing Scope 3 GHG emissions of the petroleum products sold worldwide by **35%** in 2023, compared to 2015
- Reducing life carbon intensity[(5)] of energy products sold by **13%** between 2015 and 2023

(1) Includes 20% of Adani Green Energy Ltd's gross capacity effective first quarter 2021, 50% of Clearway Energy Group's gross capacity effective third quarter 2022 and 49% of Casa dos Ventos' gross capacity effective first quarter 2023.
(2) Excluding dividends paid to non-controlling minority interests.
(3) Excluding biogenic methan.
(4) GHG Protocol – Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(5) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).

1.2 Our ambition and our progress

1.2.1 Global challenges: more energy, less emissions

Energy is an essential resource, everywhere indispensable for living: for food, lighting, heating and cooling, transport, healthcare, construction and trade.

Historically, energy demand has grown in line with demographic growth and rising living standards, as illustrated hereafter since 2000.

The world's population is set to grow by almost 2 billion additional inhabitants by 2050. This prospect will have significant implications for achieving the UN's Sustainable Development Goals (SDGs) to improve prosperity and social well-being while protecting the environment and biodiversity.

In the **countries of the Global South,** where access to energy is already one of the limiting factors in human development, populations aspire to improve their quality of life.

In **OECD countries,** energy has enabled socio-economic development that no country is prepared to forego.

The IPCC reiterated in 2021[1] that global warming is the consequence of greenhouse gases (GHG) emissions linked to human activities, and warned of the environmental and socio-economic impacts of this already tangible climate change.

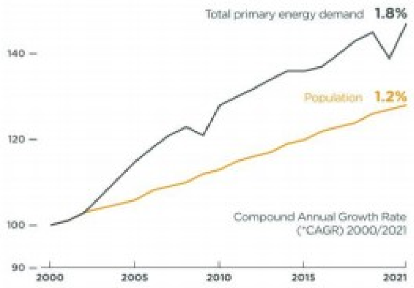
"TotalEnergies supports the Paris Agreement."

Since the Paris Agreement in 2015, States have jointly pledged *"to strengthen the global response to the threat of climate change, in the context of sustainable development and the fight to eradicate poverty, in particular by holding the increase in global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels".*

The energy system must therefore be transformed, because energy is at the heart of this global climate challenge: GHG emissions linked to the production or use of energy account for over 60% of global emissions in 2021 (ref. IPCC & IEA), as the global energy system is still 80% relying on fossil fuels.

There is an urgent need to accelerate the development of a decarbonized energy system, while maintaining the current energy system at a level sufficient to meet global demand and organize a just, orderly and equitable transition of energy systems.

Evolution of total primary energy demand (TPED) and world population growth[2] *(Base 2000 = 100)*



1.2.2 Global challenges: COP28 and actions to be taken

TotalEnergies welcomes the agreement reached in Dubai that calls for "*transitioning away from fossil fuels*" in a "*just, orderly and equitable manner.*" Within this framework, TotalEnergies notes with interest the agreement's reference to transitional fuels such as gas.

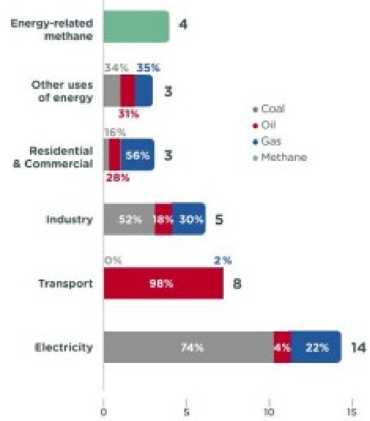
TotalEnergies supports the objectives of tripling the amount of renewable energy and doubling energy efficiency by 2030, as well as slashing methane emissions within that time frame. These objectives are at the heart of TotalEnergies' roadmap for 2030.

This agreement reinforces TotalEnergies' transition strategy, which aims, on the one hand, to contribute to the development of a new decarbonized energy system based on electricity and renewables, in which gas plays a useful role as a flexible transitional energy; and, on the other hand, to support a just, orderly and equitable transition away from fossil fuels, notably in emerging countries that legitimately aspire to economic and social development for their populations.

Given the energy-related emissions as shown in the chart hereafter, **reducing the associated emissions implies in the short term:**

- Minimising the share of coal in the electricity mix, starting from OECD countries,
- Decarbonizing the road transport sector (currently 90% powered by petroleum products),
- Aiming for the elimination of methane emissions from fossil fuel production processes.

Global GHG emissions from fossil fuel combustion in 2021 - 37 Gt CO_2e[3]



To achieve this, massive investments are needed, not only in renewable energy, but also in electricity networks and systems enabling to ensure the availability of the new electricity system.

Another challenge is to **reduce fossil fuel consumption at the right pace.** In the Global South, fossil fuels remain an affordable solution for providing growing populations with access to energy, and therefore greater prosperity.

(1) Climate Change 2021: The Physical Science Basis and other assessment reports 6.
(2) Oxford Economics, TPED-Enerdata.
(3) IEA, CO_2 Emissions in 2022, Greenhouse Gas Emissions from Energy Data Explorer (update 2023).

In OECD countries, an accelerated transition means retiring existing assets at country, industry and household levels, and investing in new low-carbon assets.

The transition will not take place without **social acceptability** (both between North and South and within OECD countries) and without genuine efforts in terms of **climate justice.**

Accelerating the pace of investment in low-carbon energies requires **strong cooperation between the private and public sectors:**

- In OECD countries, simplify and speed up the permitting process to accelerate the deployment of grids and renewable energies.
- Actively support the transition of the Global South through (i) the development of multilateral financial guarantees essential to project financing and (ii) the deployment of training programs to support the local implementation of new technological solutions.

1.2.3 A two-pillar multi-energy strategy

1.2.3.1 TotalEnergies stays the course of its balanced integrated multi-energy strategy...

TotalEnergies reaffirms the relevance of its balanced integrated multi-energy strategy considering the developments in the oil, gas and electricity markets. Anchored on two pillars, Oil & Gas, notably LNG, and electricity, the energy at the heart of the energy transition, the Company is in a very favorable position to take advantage of energy prices evolution. Thanks to the refocusing of the Oil & Gas portfolio on assets and projects with low breakeven and low GHG emissions, and to the diversification into electricity, notably renewable, through an integrated strategy from production to customer, the Company is implementing its transition strategy while ensuring an attractive shareholder return policy.

1.2.3.2 ...responsibly producing low cost, low emission Oil & Gas

While drastically lowering the emissions from its operations, TotalEnergies plans to grow its Oil & Gas production by 2-3% per year over the next five years, predominantly from LNG, thanks to its rich low cost low emission Upstream portfolio.

The Company plans notably to develop a top-tier pipeline of LNG projects (Qatar North Field Expansion, Papua LNG, Energía Costa Azul LNG and Rio Grande in the US, Mozambique LNG) while leveraging its leading position in Europe in regasification and its leading LNG exporter position in the United States.

TotalEnergies plans to launch the production of its portfolio of high-return oil projects (Brazil, Gulf of Mexico, Iraq, Uganda) recently enriched with exploration successes in Suriname and Namibia.

The key indicator of our progress on this pillar is the reduction in Scope 1+2 emissions because our first duty as a producer of hydrocarbons is to reduce the GHG emissions linked to their production.

1.2.3.3 ...and developing a profitable and differentiated Integrated Power model to create a future cash engine of the Company

TotalEnergies is replicating its integrated Oil & Gas business model into the electricity value chain to achieve a profitability (ROACE[1]) of ~12% for the Integrated Power segment, equivalent to Upstream Oil & Gas ROACE at 60 $/b, above the returns of the traditional Utilities model.

The Company is building a world class cost-competitive portfolio combining renewable (solar, onshore wind, offshore wind) and flexible assets (CCGT, storage) to deliver low-carbon electricity available 24/7. In particular, TotalEnergies is leveraging its scale effect in equipment purchase to optimize its investment costs and industrialize its renewable assets through digital to lower operating costs. TotalEnergies also uses the strength of its balance sheet to keep market exposure, allowing it to capture additional margins in a market exposure.

The Company aims to grow its power generation to more than 100 TWh by 2030, investing around $4 billion per year; the generated cash flow of this segment was $2.2 billion in 2023 and will be more than $4 billion in 2028, becoming net cash-flow positive at that time.

Additionally, TotalEnergies invests in low-carbon molecules (biofuels and biogas, as well as hydrogen and its derivatives: e-fuels and SAF).

The key indicator of our progress to measure our transition towards low-carbon energy products is the lifecycle carbon intensity[2] of the products used by the Company's customers. It divides the lifecycle emissions (from production to final use) of our energy products sold (Scope 1+2+3) by the quantity of energy supplied (g CO_2e/MJ). The reduction in carbon intensity[3] reflects the lower carbon content of the energy sold to our customers and the Company's progress in implementing its transition strategy.

1.2.4 A Net Zero Company by 2050 together with society

TotalEnergies reaffirms its ambition to be a major player in the energy transition and shares a vision of what its activities could be to achieve carbon neutrality by 2050, together with society.

By 2050, TotalEnergies would produce:

- about 50% of its energy in the form of electricity, including the corresponding storage capacity, totaling around 500 TWh/year, on the premise that TotalEnergies would develop about 400 GW of gross renewable capacity;
- about 25% of its energy, equivalent to 50 Mt/year of low-carbon energy molecules in the form of biogas, hydrogen, or synthetic liquid fuels from the circular reaction: $H_2 + CO_2 \rightarrow$ e-fuels;
- around 1 Mboe/d of Oil & Gas (about a quarter of the production in 2030, consistent with the decline envisaged by the IEA's Net Zero scenario), primarily liquefied natural gas (about 0.7 Mboe/d, or 25-30 Mt/year) with very low-cost oil accounting for the rest. Most of that oil would be used in the petrochemicals industry to produce about 10 Mt/year of polymers, of which two thirds would come from the circular economy.

(1) Refer to the glossary for definitions and additional information on alternative performance measures (APM, Non-GAAP measures) and to point 1.9 for reconciliation tables.
(2) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(3) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).

That Oil and Gas would represent:

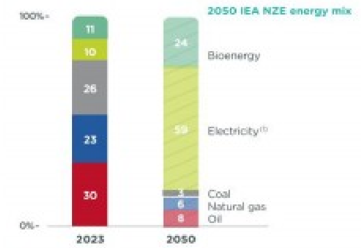
- about 10 Mt CO_2e/year of Scope 1 residual emissions, with methane emissions aiming towards zero (below 0.1 Mt CO_2e/year); those emissions would be offset in full by projects using nature-based solutions (natural carbon sinks).
- Scope 3[(1)] emissions totaling about 100 Mt CO_2e/year. To get to net zero together with society, TotalEnergies would contribute to "eliminate" the equivalent of 100 Mt/year of CO_2 generated by its customers by developing carbon utilization (CCU) and carbon capture and storage (CCS) solutions of approximately 100 Mt CO_2e/year.

In 2050, our trading portfolio would be aligned with our productions and sales portfolio.

TotalEnergies net zero vision 2050 *(Mt CO_2e)*

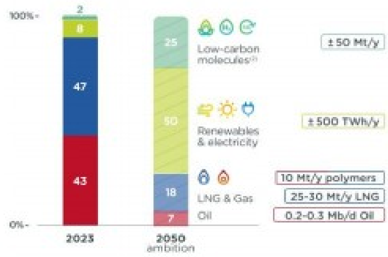
(1) From operated facilities.
(2) GHG Protocol - Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(3) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).

Global energy system according to the IEA in 2050
Total primary energy demand mix - Worldwide



(1) Hydro, solar, wind and nuclear.

Vision of TotalEnergies sales in 2050
TotalEnergies energy sales mix



(2) Biofuels, biogas, hydrogen and e-fuels/e-gas.

1.2.5 2030: Our objectives for more energy and less emissions

Over the decade 2020-2030, TotalEnergies' energy transition strategy based on two pillars is reflected in the production and sales targets shown below.

Production

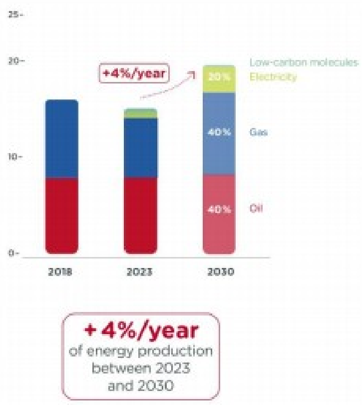
We plan to increase our energy production (oil, gas and electricity) by 4% per year between 2023 and 2030, while reducing emissions (Scope 1+2 and methane) from our operated facilities.

Sales

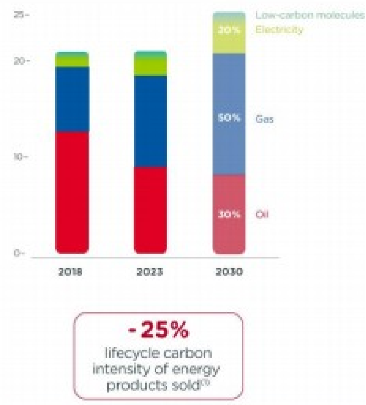
We are aiming to reduce the carbon intensity[(2)] of our sales by 25% by 2030 compared to 2015.

Taking these factors into account, we are developing our sales mix to reach 20% electricity by 2030, with a higher proportion of gas sales than oil sales.

Energy production *(in PJ/d)*



Energy sales *(in PJ/d)*



(1) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).

(1) GHG Protocol - Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(2) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).

1.2.6 How TotalEnergies' 2030 objectives compare to the IEA scenarios

Reducing GHG emissions at our operated facilities (Scope 1+2) is key to our ambition to supply more energy while curbing GHG emissions. Our objective of cutting net Scope 1+2 emissions from our operated activities by 40% is consistent with the reduction targets of the European Union's "Fit-for-55" program (a 37% decrease between 2015 and 2030) and the IEA's 2023 Net Zero Emissions (NZE) scenario (a 31% decrease between 2015 and 2030).

Our targets for lowering the lifecycle carbon intensity[1] of energy products sold (a 15% reduction by 2025 and a 25% reduction by 2030) put the Company on a trajectory close to the Announced Pledges Scenario (APS) in the IEA's World Energy Outlook 2023, which assumes that the States parties to the Paris Agreement fulfill all their net zero objectives.

An independent third party (Wood Mackenzie) has audited the calculations made and the trajectories presented.

1.2.7 A strategy to reduce our client's emissions

By 2030, we intend to reduce the emissions linked to the energy we supply to our customers by 25% compared to 2015. In other words, we intend to decrease by 25% the carbon intensity[2] of energy products sold, which accounts for the lifecycle emissions (Scope 1+2+3) of our energy products per unit of energy sold (g CO_2e/MJ).

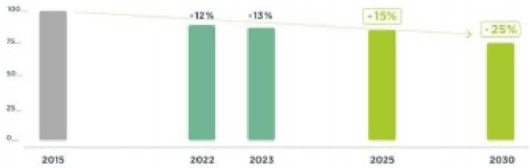
Indeed, by offering to our clients an increasingly **decarbonized** portfolio, we contribute to the energy transition and help our clients **reduce their emissions.**

In 2023 we maintained our progress thanks to sales growth of renewable energy by notching a 13% reduction in the lifecycle carbon intensity[3] of our products compared to 2015.

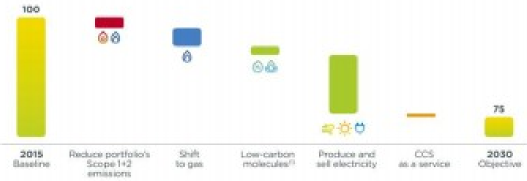
Growth in electricity will drive more than half the reduction in its lifecycle carbon intensity[4] between 2015 and 2030. The other factors will be the reduction in sales of petroleum products **coupled with an increase in gas production** (particularly LNG) and sales of products derived from biomass. Lastly, lower emissions from our facilities will contribute to 10% of the intensity[5] reduction.

Lifecycle carbon intensity[6] of energy products sold

(base 100 in 2015)



Levers for reducing the lifecycle carbon intensity[7] of energy products sold (2015-2030)



(1) Biofuels, biogas, hydrogen and e-fuels/e-gas.

1.2.8 Supporting our customers in their decarbonization journey

As a producer of renewable power, biogas and biofuels, a supplier of natural gas and electricity and a leader in electric mobility, we are also helping our customers reduce their emissions with our customized solutions and developing CO_2 storage solutions for industrial customers.

Established in 2022, TotalEnergies OneB2B Solutions boasts more than thirty experts who assist our largest customers across nearly a dozen industries in fulfilling their ambitions for the energy transition, thanks to solutions tailored to their needs. Over the past 2 years, we engaged 334 large B2B clients on their Scope 1+2.

(1) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(2) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(3) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
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(6) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(7) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).

1.3 Our orderly energy transition

1.3.1 Climate Impact of our strategy: Our 2023 Progress and 2025-2030 Objectives

					Objectives	
			2022	**2023**	**2025**	**2030**
Scope 1+2 Emissions on Operated Activities Net Zero in 2050	Scope 1+2 emissions	Mt CO_2e	40	35	< 38	25-30[a]
		vs 46 Mt in 2015	-13%	-24%		> -40%[a]
	Methane emissions	kt CH_4	42	34	**-50%**	**-80%**
		vs 64 kt in 2020	-34%	-47%		
Indirect Emissions Net Zero in 2050, together with society	Lifecycle carbon intensity[b] of energy products sold Scope 1+2+3	100 in 2015	-12%	-13%	-15%	-25%
	Scope 3[c] Worldwide	Mt CO_2e 410 Mt in 2015	389[d]	355	< 400	< 400
		out of which Scope 3 Oil	*254[d]*	*227*		
		350 Mt in 2015	*-27%*	*-34%*		*-40%*

(a) Net emissions, including nature-based carbon sinks from 2030.
(b) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(c) GHG Protocol – Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(d) Excluding COVID-19 impact during first half of 2022.

1.3.2 Oil: Today's energy

1.3.2.1 Producing oil differently: focus on low cost and low-carbon intensity oil assets

In 2023, global demand for petroleum products reached 101.8 Mb/d, i.e. +2.3 Mb/d compared to 2022, and should continue to grow over the decade according to the IEA (105.7 Mb/d by 2028)[1]. These demand forecasts remain dependent in particular on population and economic growth, market penetration pace of low-carbon technology innovations such as electric vehicles and changes in behavior.

In addition, it will evolve in a differentiated way according to the specific energy transition roadmaps of the various countries.

Thus, demand for oil could start to decline around 2030, but at a slower rate than the current natural decline rate of existing fields (around 4% per year).

TotalEnergies therefore believes that new oil projects are still needed to meet this demand and to keep prices at an acceptable level in order to create the conditions for a just transition that allows people time to adapt their energy use. In 2023, TotalEnergies produced 1.4 Mb/d of oil, equivalent to its 2019 level, representing around 1.5% of world production.

The first responsibility of TotalEnergies as an oil producer is to produce differently, meaning while minimizing emissions.

To that end, we approve hydrocarbon projects on the basis of performance criteria, notably technical costs and carbon intensity (Scope 1+2). We operate our fields in accordance with strict requirements concerning safety, emissions reduction and environmental impact. The cash flow generated by these Oil & Gas activities contributes to accelerating our investments in renewable energy.

1.3.2.2 Relentlessly reducing our Scope 1+2 emissions, Oil & Gas

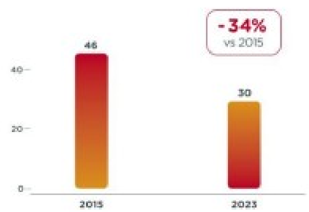
Our primary responsibility as a producer of fossil fuels is to substantially reduce emissions on our facilities. We are resolutely continuing to reduce emissions from our operated sites. Across the 2015 scope of our Oil & Gas activities, emissions from our operated assets fell by more than 34% from 2015 levels, dropping from 46 to 30 Mt CO_2e in 2023 (a decrease by 36% for Oil & Gas operated upstream and a decrease by 32% in Refining & Chemicals).

In 2023, with more than 140 GHG emissions reduction projects coming to fruition, we reduced our emissions by 1.5 Mt CO_2e across our operated assets.

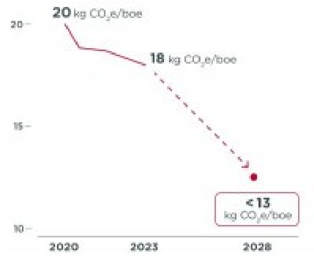
These ongoing reduction efforts have made it possible to reduce the Scope 1+2 equity intensity of our Upstream Oil & Gas assets, from 20 kg CO_2e/boe in 2020 to 18 kg CO_2e/boe in 2023[2]. These results put us among the players with the best intensities in the industry.

(1) Source IEA Oil June 2023.
(2) Equity Oil & Gas Upstream intensity is calculated excluding integrated LNG assets.

Scope 1+2 from operated Oil & Gas facilities
(Mt CO_2e)



Scope 1+2 Upstream intensity, equity basis
(kg CO_2e/boe)



1.3.2.3 Scope 1+2 emissions reduction by 2030

Scope 1+2 emissions reduction objectives

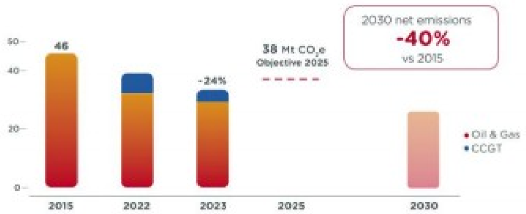
TotalEnergies reaffirms its decarbonization objective, which aims to reduce its Scope 1+2 net emissions by -40% to 2030 compared to 2015, net of 5-10 Mt of natural carbon sinks.

Our objectives include emissions generated by the growth strategy in electricity we have pursued since 2015, which has prompted us to create a flexible power generation portfolio of plants (CCGT).

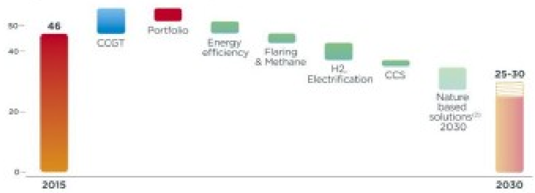
In 2023, GHG emissions from our operated assets were 24% lower than in 2015, standing at close to 35 million tons of CO_2e. Between 2022 and 2023, the reduction in these emissions is 13%. It is mainly due to lower utilization rate of CCGTs, emissions reduction projects, such as for example the reduction of burning in Angola and Nigeria, and the improvement of energy efficiency.

To achieve our 2030 target, we are mobilizing every tool at our disposal to avoid and reduce emissions from our operations. Compensation from natural carbon sinks will only begin from 2030 onwards, to offset residual emissions in pursuit of our objective, on the basis of a consumption of about 10% of our stock of carbon credit units per year.

Scope 1+2 emissions from operated facilities *(Mt CO_2e)*



Scope 1+2 from operated facilities: levers to reach our -40% target in 2030[1] *(Mt CO_2e)*



(1) Net of nature-based carbon sinks.
(2) NBS credits will be used from 2030, from 5 to 10 Mt/y.

1.3.2.4 Our energy efficiency plan: $1 Billion over 2 years

Energy efficiency plan – 2023 Progress

Generating energy savings in our operations is beneficial in several ways: we contribute to the collective campaign for energy efficiency, we help to reduce our carbon emissions and we lower our costs.

In September 2022, TotalEnergies launched a plan to accelerate energy efficiency gains at its operated sites worldwide. We are investing $1 billion in efforts to further reduce our energy use.

This plan, centered on four key levers, will support the measures adopted over the past several years within the Company's business segments. Each business segment has developed a plan to accelerate its energy savings, with more than 150 initiatives logged at Exploration & Production, over 200 projects at Refining & Chemicals and more than 40 initiatives at Marketing & Services and Gas, Renewables & Power.

To keep up with these efforts, a growing number of sites are ISO 50001 certified. The projects already identified which will be launched in 2024 should make it possible to achieve the reduction objective of 2 Mt CO_2e.

Enhancing energy efficiency at our operated facilities

OPERATIONS OPTIMIZATION

- In E&P[1], deployment of high-performance air filters to improve the operation of gas turbines on all our operated assets.
- Optimization of steam networks in all refineries and petrochemical sites.
- CCGT shutdown and restart procedures in France revised to reduce GHG emissions.

ELECTRICITY AND RENEWABLES

- In Argentina, preparation for the connection of the Neuquen E&P[1] installations to the electricity network.
- In Nigeria, launch of the solarization project on OML58 (Upstream asset).
- In the Marketing & Services segment, pursuing and accelerating the solarization of our service station networks which can be combined with storage capacities (batteries).

DIGITAL AND MONITORING

- Digital twins of our CCGTs developed to optimize their operation.
- In the Marketing & Services business unit in France, implementation of electrical sub-metering on new station sites to manage consumption by zone on the same installation.

ASSET DESIGN IMPROVEMENT

- In European refineries: electrification of compressors, thermal integration and optimization of furnace efficiency.
- In our CCGTs in France, installation of variators on pumps and compressors.

(1) Exploration & Production.

1.3.3 Gas: a transition fuel

1.3.3.1 Liquified Natural Gas: a key fuel for the energy transition

In the gas markets, TotalEnergies focuses on Liquefied Natural Gas (LNG), which can be shipped everywhere in the world and thus contributes to energy security, as it has been the case in Europe since 2022 with the strong reduction of Russian pipeline gas deliveries.

The growth of renewable electricity, intermittent and seasonal by nature, will require an increase in flexible power generation resources. The flexible production of gas-fired power plants, which emit half as much GHG as coal-fired power plants for the same amount of electricity produced[1], enables to secure electricity generation which does not depends on weather conditions contrary to renewable energy, and to face demand fluctuations.

In addition, natural gas plays an essential role in reducing emissions from power generation as a replacement of coal, particularly in Asia where this one still accounts for a very large part of the electricity mix of many countries (e.g. 63% in China, 72% in India)[2].

With diversified positions, and in particular its leading position of exporter in the United States - over 10 Mt in 2023 - TotalEnergies is the 3rd world's largest LNG player, with 44 Mt sold in 2023. The Company intends to consolidate its position as an integrated player by developing a first-class portfolio that will enable it to achieve 50% growth in volumes between 2023 and 2030.

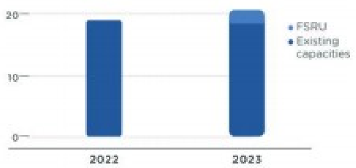
Reducing the carbon footprint of the LNG portfolio

TotalEnergies aims to gradually reduce GHG emissions of the value chain, from the production of the gas to end use.

In addition to efforts to reduce methane emissions, initiatives are being implemented throughout the whole chain. The electrification of liquefaction plant processes is helping to reduce LNG's carbon footprint today, and tomorrow this reduction will be reinforced by CO_2 capture and storage projects.

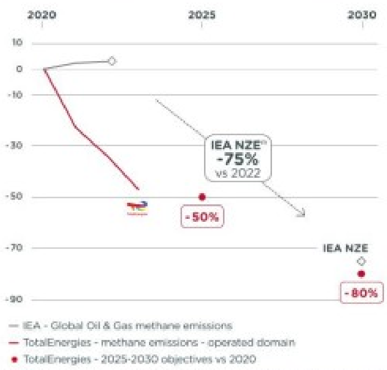
We are also working to reduce shipping emissions by renewing our fleet of chartered LNG carriers with modern, high-performance vessels.

Growing LNG regasification capacity in Europe *(in Mt)*



1.3.3.2 Aiming for Zero methane emissions

Methane emissions on operated facilities *(in % vs 2020)*



(1) 2023 Update, *"Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach"* report.

Methane is a greenhouse gas with a global warming potential 30 times higher than that of CO_2 and a much shorter atmospheric lifetime[3]. This makes reducing methane emissions a priority in efforts to mitigate global warming. To date, more than 150 countries have signed the Global Methane Pledge launched in Glasgow in 2021, which aims to reduce methane emissions by 30% from 2020 levels by 2030. Anthropogenic methane emissions come mostly from energy, waste and agriculture. Around 25%[4] come from the Oil & Gas industry. TotalEnergies believes that it is the industry's responsibility to aim for zero methane emissions by 2030 and wants to set an example for the industry. Our plan is based on three actions: eliminating routine flaring, eliminating vents and repairing leaks as soon as they are detected.

Continuous excellence in our operations

TotalEnergies has already reduced its operated methane emissions by more than 60% since 2015, date of the Paris Agreement, even though the Oil & Gas industry as a whole has maintained an almost constant level of emissions over this period, according to IEA estimates. In early 2022, TotalEnergies set very ambitious, specific targets for the decade ahead that call for a 50% reduction from 2020 levels by 2025 and 80% by 2030[5]. These targets cover all of the Company's operated assets and go beyond the 75% reduction in methane emissions from Oil & Gas by 2030 (vs 2020) as recommended by the IEA when creating the NZE scenario. TotalEnergies is making rapid progress towards this objective: in 2023, our operated methane emissions were 34 kt, down 47% vs 2020. TotalEnergies now aims to reach its 2025 target of -50%, one year ahead of schedule, in 2024.

TotalEnergies is a signatory of the Oil & Gas Decarbonization Charter launched at COP28, which includes the ambition "Aiming for near-zero Upstream methane emissions by 2030". In line with this collective ambition, TotalEnergies is strengthening its methane intensity[6] target of less than 0.1% by 2030 on its gas facilities, by extending it to all its operated Upstream Oil and Gas facilities.

At the same time, TotalEnergies is fully assuming its leadership role in the fight to collectively reduce methane emissions.

Our drone-based methane detection and quantification technology made available to several national oil companies

TotalEnergies works alongside its partners to implement best practices on its non-operated assets.

The Company is a pioneer in the detection and quantification of emissions in real-life conditions. After deploying its AUSEA (Airborn Ultralight Spectrometer for Environmental Application) drones at all its upstream operated sites worldwide, TotalEnergies has performed in 2023 the first AUSEA flights on non-operated assets during four campaigns in: Qatar, Brazil, Azerbaijan and the United Arab Emirates.

(1) IEA 2023, Life Cycle Upstream Emission Factors (Pilot Edition).
(2) Source: Enerdata.
(3) Around 12 years compared with centuries for CO_2. Global Warming Potential of 80 over 20 years and 30 over 100 years (Source: IPCC 6th Assessment Report).
(4) IEA Global Methane Tracker 2023, License CC BY 4.0.
(5) Excluding biogenic methane.
(6) Methane emissions intensity in relation to commercial gas produced.

TotalEnergies has also announced in recent months the signing of five cooperation agreements with national oil companies to make its AUSEA methane emissions detection and quantification technology available: Petrobras in Brazil, SOCAR in Azerbaijan, Sonangol in Angola, NNPC[1] in Nigeria and ONGC[2] in India.

Highlights

- OGMP 2.0 Gold standard

In its "An Eye on Methane" report for 2023, the United Nations Environment Programme (UNEP)[3] confirmed TotalEnergies' Gold Standard status for the 3rd year in a row, and rated our strategy for engaging partners in our non-operated assets as "all-stars"[4]. Each year, this report reviews the deployment by Oil & Gas companies of the Oil & Gas Methane Partnership's OGMP 2.0 framework, which was created in 2020 to guide reporting on methane in the Oil & Gas industry. The framework encourages companies to continue improving their reporting of operated and non-operated emissions and focuses on performing on-site measurements to verify that estimates are exhaustive and accurate.

- Support for the World Bank's new methane trust fund

TotalEnergies was the first company to announce a contribution of $25 million over the period 2024-2030 to the Global Flaring and Methane Reduction (GFMR) trust fund launched by the World Bank at COP28. The GFMR will target, finance and support strategic projects to eliminate routine flaring and reduce methane emissions in countries with the greatest emissions reduction potential.

1.3.3.3 Expanding geological carbon storage to reduce our emissions and those of our customers

The IEA's NZE scenario[5] includes the use of CCS[6] up to of 6 Gt CO_2 per year in 2050, to reduce part of the emissions from residual Oil & Gas consumption, as well as those from industrial processes (cement, lime, steel, etc.). This capacity is more than 100 times greater than the 45 Mt CO_2 per year currently captured worldwide.

Our CCS strategy gives priority to decarbonizing our activities in order to reduce Scope 1+2 emissions from our Upstream Oil & Gas assets, refining and LNG plants. For example, at the Snøhvit liquefaction plant, where we are a partner alongside Equinor, around 8 Mt of native CO_2 have been stored since 2008. Similarly, the native CO_2 separated in the new NFE and NFS LNG liquefaction trains currently under development will be stored by QatarEnergy. The same will be true for the native CO_2 separated on Cameron LNG to be stored in the Hackberry CCS storage facility in the context of a new train project by Cameron LNG. Finally, for our Ichthys LNG asset in Australia, we are studying a native CO_2 storage solution for start-up before 2030. The study of CCS solutions on our assets therefore complements the efforts already mentioned to reduce emissions (electrification, energy efficiency, flaring reduction, etc.).

The Company also invests in CO_2 storage projects for third parties ("Storage as a Service"), offering CO_2 storage solutions to large industrial customers who can thus reduce their Scope 1 emissions and secure the future of their activities. By 2023, we have already invested around $100 million in this business. We will continue to invest heavily in storage projects, both for our own assets and for third parties, to achieve our objective of developing more than 10 Mt CO_2 of storage capacity by 2030.

Europe is at the heart of this CCS strategy. Our Company is one of the incumbent operators in the North Sea and has recognized operational and geological expertise in the area. The United Kingdom, Norway and Europe have set themselves objectives, regulations and provided significant financial support to promote the cross-border deployment of CCUS[7]. We are currently developing five projects in the North Sea that will provide decarbonization solutions for our assets and those of our customers. Our ambition is to continue to acquire new exploration permits to increase our CO_2 storage capacity after 2030.

We are also investigating the use of carbon in various forms (CCU[8]).

Carbon storage projects in Europe

1.3.3.4 Offsetting residual emissions with natural carbon sinks

Natural areas preservation and restoration can be a lever for achieving net zero emissions worldwide by 2050.

Only in 2030 will TotalEnergies begin voluntary offsetting of its residual emissions via NBS (Nature Based Solutions) carbon credits, and will offset only Company's Scope 1+2 residual emissions.

We are working to build a high-quality portfolio and are paying close attention to the integrity and permanence of the emissions reductions and sequestration achieved by the activities financed in this way.

We are in favor of strengthening a global framework of trust to further reinforce robust and recognized voluntary crediting mechanisms.

We are investing in forestry, regenerative agriculture and wetlands protection projects. Our strategy aims to combine and balance the value of people's financial revenue from agriculture and forestry and the value of the benefits to soil, biodiversity, the water cycle and the production of carbon credits. When that approach is successful, the local standard of living improves and degradation of the land diminishes – as do emissions. This search for balance among different practices makes a just transition possible.

(1) Nigerian National Petroleum Company Limited.
(2) Oil and Natural Gas Corporation.
(3) 3rd International Methane Emissions Observatory report.
(4) « *All-stars of non-operated joint venture engagement: TotalEnergies has submitted one of the most comprehensive strategies for engaging its non-operated joint ventures. The company has provided detailed information on how it is supporting, progressing and collaborating with each non-operated joint venture. It has also provided detailed observations on its reconciliation attempts and a gap analysis process. In addition, TotalEnergies is providing technology access and support to its non-operated joint venture operators.* » (Source IMEO report 2023).
(5) IEA 2023; Net Zero Roadmap, 2023 update, License CC BY 4.0.
(6) Carbon Capture & Storage.
(7) Carbon Capture Utilization & Storage.
(8) Carbon Capture & Utilization.

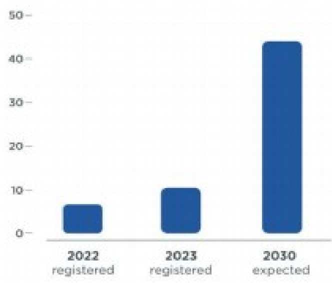
At 2023 year end, our stock of credits stood at just under 11 million out of which the very large majority is certified by VERRA VCS standard (> 99%; the remaining < 1% being certified by the Australian Carbon Credit Units Scheme of the Australian Government). We have allocated $100 million annually for these projects, and the cumulative budget pledged for all of these campaigns amounts to nearly $725 million over their cumulated lifespan, with the accumulated credits expected to total 44 million in 2030 and 71 million in 2050.

The final tally of credits obtained will be determined once the projects have been completed. If such a stock of 44 million credits is built up in 2030 and on the basis of a consumption of 10% of the stock per year from 2030, then TotalEnergies would use around 5 million credits per year from 2030 onwards.

Highlight: Invest in a fund

In 2023, the Company has made the decision to invest $100 million over 15 years in the projects of the Nature Based Carbon fund managed by Climate Asset Management, which focuses on preserving or restoring three types of ecosystems: degraded natural forests, grasslands impacted by human activity and wetlands.

Cumulated credits generated from the 11 sanctioned projects by the end of 2023 *(million credits)*



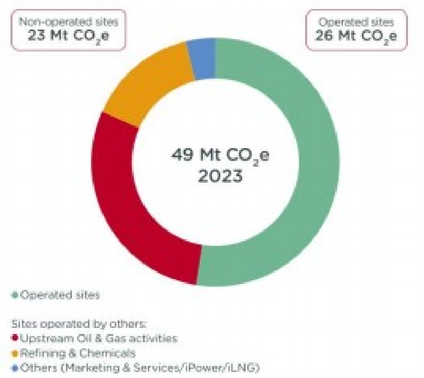
1.3.3.5 Actively working with our partners on non-operated assets

Our Scope 1+2 emissions based on equity share amounted to 49 Mt CO_2e in 2023. Half of those emissions are attributable to our interests in sites we operate; the remaining being from our interests in sites operated by our partners. We are actively mobilizing our partners to reduce emissions from assets they operate.

At Exploration & Production, a dedicated team is tasked with sharing best practices with our partners at non-operated assets, such as deploying a decarbonization roadmap that includes an energy assessment, reduction of methane venting and routine flaring, and improving energy efficiency, particularly for gas turbines and compressors. We use the projects conducted at our operated sites to illustrate ways our partners can reduce their Scope 1+2 emissions and encourage uptake.

Upstream emissions can also be reduced by reinjecting the CO_2 extracted with the gas produced. This reinjected volume currently represents almost 2 Mt per year, in Company's equity share, particularly in Brazil, and is set to grow significantly as associated gas production increases.

Scope 1+2 based on equity share - 2023



COP28: signing of the Oil & Gas Decarbonization Charter

At COP28, a major initiative between national and international oil companies was launched to reduce the industry's GHG emissions: the Oil & Gas Decarbonization Charter (OGDC). This initiative brings together more than 50 companies, two-thirds of which we are partner with, representing over 40% of the world's oil production. This is an historic step forward, as it brings together for the first time international oil companies (IOCs) & national oil companies (NOCs) from this sector around concrete objectives not only to act on their emissions (net-zero operations by 2050 or earlier, elimination of routine flaring by 2030 and aiming for near zero Upstream methane by 2030) but also to report on their actions. TotalEnergies was one of the first companies to sign the Charter, and its CEO Patrick Pouyanné was chosen to represent the IOCs on the OGDC's three-person co-chairmanship, formed by the CEOs of ADNOC, Aramco and TotalEnergies.

1.3.3.6 What are the relevant indicators for reducing GHG emissions worldwide?

We are ambitious in our targets for direct emissions (Scope 1+2), which are controlled in our operated facilities. We have defined medium and long-term targets and action plans aimed at Net Zero by 2050.

We are also ambitious in helping our customers reduce their emissions - through our multi-energy strategy, which makes a wider range of energies available to our customers, including low-carbon energies. We track progress through the decarbonization index of our sales (life cycle carbon intensity[1] of energy products sold). We have been leading among our peers in terms of actually achieving decarbonization of our energy products sales mix since 2015.

As part of its contribution to the energy transition of its clients, we are thus developing activities in the production and sales of low-carbon electricity. We also produce and sell liquified natural gas, which is a necessary transition fuel for building a reliable, low-carbon power system, complementing renewable energies that are intermittent by nature. Moreover, gas helps to decarbonize power generation in many countries, since burning gas rather than coal to produce electricity emits half as much CO_2 for the same amount of energy produced (refer to point 1.3.3.9).

(1) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).

In this respect, setting objectives to drastically reduce TotalEnergies's global indirect emissions (Scope 3)[1] in absolute value, without an evolution of the overall structure of energy demand, is in reality not relevant to reduce global GHG emissions.

Most of the emissions reported under Scope 3 by TotalEnergies correspond to the direct emissions (Scope 1) of the consumers of these products: the use of these products depends on their decisions and needs.

In this context, an absolute reduction target for Scope 3 for a company like TotalEnergies, without any change in energy systems and therefore without the reduction of the corresponding Scope 1 of energy users, would lead to a shift of this demand towards other suppliers, notably the national oil companies of producing countries which account for more than 70% of the world market (compared with around 1.5% for TotalEnergies).

This strategy would have no effect on lowering global greenhouse gas emissions, and therefore no positive impact on climate, and would be contrary to the interests of our Company and its shareholders.

This strategy could be counter-productive for TotalEnergies' customers, as the Company has set as a goal to ensure their energy supply security while supporting them in their own decarbonization journey.

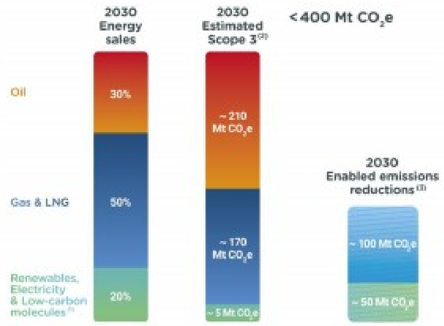
Reminder: under Scope 3, since 2016 TotalEnergies has reported Category 11 emissions related to the end use by its customers of products sold, i.e. linked to their combustion to obtain energy. Since 2023, TotalEnergies has published an estimate of indirect emissions related to the other Scope 3 categories, in accordance with the classification used by the GHG Protocol and Ipieca. We are also implementing action plans to reduce the emissions of the other categories.

1.3.3.7 Helping our customers reduce their own emissions

By 2030, the Company's two-pillars balanced transition strategy aims to result in a sales mix of energy products with the view to final use whose lifecycle carbon intensity[2] of energy products sold would be reduced by 25%, which means:

- for an equivalent quantity of energy, the carbon content of energy products would be reduced by 25% ("less emissions for same energy")
- for an equivalent quantity of emissions (Scope 1+2+3), the Company would supply 33% more energy to its customers ("more energy for same emissions").

Furthermore, by 2030, energy products sold such as LNG and low-carbon electricity might contribute to enabled emissions reductions[3] of around 150 Mt CO_2e (around 100 Mt CO_2e coming from Gas & LNG sales and around 50 Mt CO_2e coming from Renewables). These reductions, which will result from our customers decisions to substitute more carbon-intensive energy products with less carbon-intensive ones, and therefore reduce their own Scope 1+2 (use of gas or renewables to generate electricity instead of fossil fuels), will definitely contribute to lower global GHG emissions.



(1) Biofuels, biogas, hydrogen and e-fuels/e-gas.
(2) GHG Protocol – Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(3) Calculation methodology described in point 5.11.4 of chapter 5.

1.3.3.8 Anticipating changes in demand by adapting our sales of petroleum products

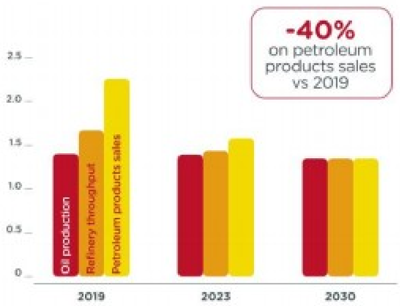
A significant part of TotalEnergies' Downstream refining and marketing activities are located in Europe.

The European Union with its Green Deal and its "Fit for 55" regulatory package, has the ambition to be the first carbon-neutral continent by 2050.

These major trends are leading us to accelerate the transition of our Downstream activities in Europe to reduce our exposure to petroleum products and to develop in new mobilities. Thus, at a global level, we expect to reduce our sales of petroleum products by 40% by 2030, so that we do not sell or refine more fuel than our oil production. This means, in particular, that our service-station networks have to adapt to lower demand for fuels, notably through disposals in Europe.

Conversely, this strategy is leading us to develop actively in new mobilities: in low-carbon molecules, we have initiated the conversion of its refineries into biorefineries in Europe; in electric mobility, the Company is accelerating our growth with a plan to deploy charging points on major corridors and motorways and in large cities in Europe. In hydrogen, we are notably developing a European network of hydrogen stations for trucks, in partnership with Air Liquide.

Oil production, refinery throughput and petroleum product sales *(Mboe/d)*



(1) GHG Protocol – Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(2) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(3) Calculation methodology described in point 5.11.4 of chapter 5.

1.3.3.9 Reduction of emissions enabled by our sales of gas

Gas-fired power plants are a flexible resource for power generation and can be mobilized quickly; as a result, they offer a secure backup for grids designed to be powered increasingly by intermittent renewable sources. CCGTs discharge half the greenhouse gases of the coal or fuel oil-powered plants[1] that still, in some countries, account for the majority of power generation capacity. The use of coal accounts for 36% of power generation and 74% of GHG emissions associated with electricity, while natural gas accounts for 23% of generation and 22% of emissions[2].

LNG, which can be shipped by sea, can flexibly supply many gas-fired power plants. A large percentage of the natural gas we sell goes to the electricity industry.

Given the positive role played by natural gas, TotalEnergies is aiming to increase its share of the sales mix by 2030, and has made the decision not to set a gas Scope 3[3] reduction target. When fuel-oil or coal-fired power generation is replaced by gas-fired power generation, GHG emissions fall, whereas TotalEnergies' gas Scope 3[4] increases.

We have estimated the reductions of emissions enabled to which our 2023 sales of LNG may have contributed. To do that, we identified the likely competing source of flexible power generation for each LNG-receiving country. The calculation is based on generation mix and emission factors issued by Enerdata and IEA[5], for each country[6] and generation mean.

We estimate that our customers' use of LNG has enabled emissions reduction by about 70 Mt CO_2e in 2023.

Estimated enabled emissions reductions by renewable electricity sales by 2030

Similar approach as the one described above-mentioned has been taken to estimate enabled emissions reductions for our sales of renewable electricity: the methodology compares emissions from the country's alternative non-renewable mix (following the methodology applied by IRENA) and the ones from solar and wind generation. The applied emission factors (published by IEA) cover the entire life cycle of power generation[7]. Non-renewable production mixes are based on IEA[8] projections by country[9] or, if unavailable, by region[10]. Thus, by 2030, the emissions reductions enabled by a portfolio of 100 GW of gross capacity have been estimated at around 50 Mt CO_2e.

1.3.4 Electricity: the energy of decarbonation

1.3.4.1 Our major development in electricity: an integrated approach

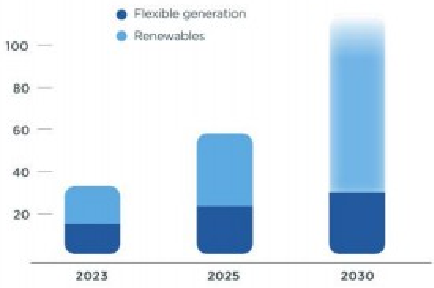
Electricity demand, which is vital to the success of the energy transition, is expected to grow sharply, as decarbonization is at the heart of the roadmaps of countries committed to carbon neutrality by 2050.

In response, Integrated Power, a new pillar of the Company's strategy, is developing an integrated model encompassing the entire value chain, from power generation to sales and trading activities, with a profitability target of ~12% ROACE[11].

TotalEnergies net electricity production target is to produce more than 100 TWh by 2030, thanks to a 4 to 5-fold increase in renewable production (19 TWh in 2023) and a 2-fold increase in flexible assets production (15 TWh in 2023). As part of its ambition to achieve carbon neutrality by 2050, TotalEnergies is building a competitive portfolio of renewable (solar, onshore and offshore wind) and flexible (CCGT, storage) assets to provide its customers with less and less carbon-intensive electricity available 24/7.

The Company's levers to grow with a return on average capital employed of ~12% are selectivity in its choices of projects; integration across the entire electricity value chain; cost control using our project management and offshore development skills; mobilizing external financing at competitive rates and making partial divestments to accelerate cash flow generation and diversify our portfolio's exposure.

Development of a differentiated profitable integrated model Electricity generation - Company share *(TWh)*



(1) IEA 2023; Life Cycle Upstream Emission Factors (Pilot Edition).
(2) The rest of power generation is generated by hydro (15%), solar and wind (10%), nuclear (10%) and fuel-oil and other renewables. Data for 2021 provided in WEO 2023 from IEA and confirmed for 2022 by Enerdata.
(3) GHG Protocol – Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(4) GHG Protocol – Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(5) Generation mix for 2022 issued by Enerdata and emission factors for 2021 issued by IEA (data published in September 2023).
(6) For this calculation, Germany, France, Belgium Luxemburg and the Netherlands are considered as a single power and gas system. For France, emission factors published by RTE have been considered.
(7) Combustion and upstream emission factors published in September 2023 by IEA for the year 2021.
(8) STEPS scenario of the World Energy Outlook 2023.
(9) For Brazil, India and the United States.
(10) For Subsaharian Africa, rest of America, Asia-Pacific (excluding China), Europe and Middle-East North Africa.
(11) Refer to the glossary for definitions and additional information on alternative performance measures (APM, Non-GAAP measures) and to point 1.9 for reconciliation tables.

1.3.4.2 Our renewable electricity capacity build-up

We are executing our roadmap in renewable electricity.

At year-end 2023, TotalEnergies reached a gross installed production capacity of 22 GW of renewable electricity and intends to continue developing these activities to reach 35 GW by 2025 and 100 GW by 2030, a level that would bring us among the world's top five producers of renewable electricity (wind and solar) excluding China.

Gross installed capacity of renewable electricity generation
(GW)

1.3.4.3 Developing electric mobility

TotalEnergies plans to invest more than $1 billion in electric mobility between 2024 and 2028, developing a network of high-power electric charging stations along motorways, major roads and in urban hubs in Europe. By 2028, the Company's ambition is to have 1,000 high power charging sites in Europe.

In addition to this network adapted to road roaming, TotalEnergies supports its B2B customers in their transition to electric mobility by offering services for the deployment and supervision of charging stations at the workplace, as well as at employees' homes. For heavy duty trucks in particular, the Company is developing a tailor-made offer for road haulers, with smart charging and green electricity supply solutions in addition to in-depot charging. To meet their charging needs outside their depots, TotalEnergies plans to install high power charging points suited to this type of vehicles along European corridor from 2024 onwards.

The Company is also developing its recharging network in a number of cities around the world, with a portfolio of over 30,000 charging points in operation or under deployment in Paris, London, Brussels and Singapore.

Finally, TotalEnergies supports its individual customers at home, with home charging solutions that include an energy supply contract or on the road with subscription offers allowing access to a very large network of charging stations.

From the production of renewable electricity to the operation of charging services, the Company is present across the entire electric mobility value chain.

1.3.5 New low-carbon energy and innovations to achieve Net Zero by 2050

1.3.5.1 New low-carbon energy

The energy transition also requires the development of low-carbon energy based on the conversion of biomass and waste or the production of e-fuels combining hydrogen with CO_2 used as a raw material.

TotalEnergies is thus developing these new energy: biofuels, biogas, hydrogen and e-fuels.

Transforming our industrial sites to produce new low-carbon energy

Biofuels

Today, biofuels emit 50% less CO_2 than their fossil fuel equivalents[1], making them a decarbonization pathway for liquid fuels. Because demand is strong, this is a high-margin market, but access to feedstocks (plants, residues, sugar, etc.) remains a barrier to growth. Among these biofuels, TotalEnergies favors the production of Sustainable Aviation Fuel (SAF) to decarbonize the aviation industry. To avoid land use conflicts, TotalEnergies is developing solutions based on primarily food industry waste and residues (used oils, animal fats). Our aim is to increase the share of circular feedstocks to more than 75% as from 2024 in its production of biofuels.

Biogas

Biogas, produced from the decomposition of organic waste, is a renewable gas. Injected into gas networks in the form of biomethane, it contributes to the decarbonization of natural gas uses.

TotalEnergies' gross production capacity of 1.1 TWh/year eq. biomethane has almost doubled compared with 2022. The Company now intends to pursue its development through growth, mainly in Europe and the United States, with a 2030 target of 10 TWh of net production.

Hydrogen and e-fuels

a. Hydrogen

The production of green hydrogen will require the massive deployment of renewable electricity production capacities, to which TotalEnergies is contributing through its investments and the development of the Integrated Power segment. For our operations, our priority is to decarbonize the hydrogen consumed in our European refineries by 2030. TotalEnergies aims to replace carbon based or grey hydrogen by green hydrogen, produced by electrolysis of water using electricity from renewable energy sources.

b. Synthetic fuels, e-fuels

CO_2 can be combined, in reaction with renewable hydrogen, to produce synthetic fuels or gas. In 2023, TotalEnergies is setting milestones in its synthetic fuels roadmap.

1.3.5.2 Focus Sustainable Aviation Fuel (SAF)

TotalEnergies intends to become a major player in the production of SAF (Sustainable Aviation Fuel), with a target of 1.5 Mt/year by 2030.

This production is currently being developed on our existing platforms in Europe, the Middle East and Asia, notably Grandpuits, Normandie, La Mède and SATORP.

- **Grandpuits:** The biorefinery is scheduled to come on stream in 2025. It plans to process 420 kt/year of feedstock, mainly waste and residues, to produce up to 285 kt/year of SAF by 2028. In 2022, TotalEnergies has joined forces with SARIA (European leader in the collection and valorization of organic materials into sustainable products) to guarantee the supply of lipidic feedstock.
- **Normandy:** TotalEnergies plans to increase SAF production from 130 kt/year in 2025 to 160 kt/year by 2027.
- **La Mède:** Since 2022, biodiesel produced at La Mède has already been used to produce SAF at the TotalEnergies plant in Oudalle, near Le Havre. In 2024, TotalEnergies plans to continue to invest in the site, so as to be able to process up to 100% waste from the circular economy (used oils and animal fats) and will produce locally 14 kt/year of SAF by 2025.
- **SATORP:** For the first time in the Middle East, SATORP has succeeded in co-processing used cooking oil to produce a fuel that meets all the quality criteria of the SAF ISCC+ certified specifications.
- **Partnerships**
  - In Japan, TotalEnergies has partnered with ENEOS Corporation to study the feasibility of a SAF production unit at the ENEOS refinery in Wakayama. The planned unit, which would have a production capacity of 335 kt/year of SAF, would process waste or residues from the circular economy.
  - In China, TotalEnergies is studying with its partner Sinopec the development of SAF production of around 230kt/year. This unit would mainly process local residues and waste.

Beyond the SAF currently produced from used cooking oil, our mission is to prepare the next generation of aviation fuels, such as e-SAF.

Together with Masdar, the UAE Civil Aviation Authority, Airbus, Falcon Aviation Services and Axens, TotalEnergies has demonstrated the potential for converting methanol into SAF. Based on the use of renewable electricity, it could enable the production of e-SAF from CO_2 converted into methanol.

SUSTAINABLE AVIATION FUELS PRODUCED FROM USED COOKING OIL MAKE IT POSSIBLE TO

-80%[1]

OF CO_2 EMISSIONS OVER THE ENTIRE LIFE CYCLE, COMPARED TO THEIR FOSSIL FUEL EQUIVALENT

AMBITION TO PRODUCE

1.5Mt of SAF

IN 2030, WORLDWIDE

(1) Panorama 2020 - Biofuels incorporated into fuels in France, published by the Ministry of Ecological Transition and Territorial Cohesion.

1.3.5.3 Innovating to accelerate the energy transition

Each year, TotalEnergies devotes around $1 billion[2] to R&D and innovation and mobilizes more than 3,500 employees.

R&D at TotalEnergies

In 2023, 65% of our R&D focused on new energies (renewable electricity, low-carbon molecules), batteries and reducing our environmental footprint (methane, CCUS, water, biodiversity, etc.). This evolution of our research and innovation towards new low-carbon energy points to the Company's future.

One of the missions of our new OneTech branch, created in 2021 to meet the Company's new challenges and mobilize the teams, is to provide solutions for reducing CO_2 emissions and improving the energy efficiency of our projects from the design phase, as well as to accelerate innovation in all our assets. To that end, OneTech mobilizes integrated teams working on the design, construction and operation of our energy facilities, right including R&D, reinforced by the development, testing and deployment of innovative external solutions for our assets to cope with identified issues in our operations.

Leveraging digital technology to reduce our emissions

TotalEnergies' Digital Factory brings together around 300 developers, data scientists and other digital specialists with the objective to develop digital solutions to optimize our industrial assets (environmental impact, availability, costs) or to offer new services to our customers.

(1) According to the European Directive 2018/2001 named RED II.
(2) R&D budget excluding Hutchinson.

1.4 Our sustainability ambitions and targets

OUR APPROCH TO SUSTAINABLE DEVELOPMENT

Energy is at the heart of the most daunting challenges of the 21st century, defined in the U.N.'s 2030 Agenda in the form of its 17 Sustainable Development Goals (SDGs).

To achieve its 2050 Net Zero Ambition, together with society, the Company affirms its purpose: to provide as many people as possible with energy that is more reliable, more affordable and more sustainable, and places sustainability at the heart of its strategy, its projects and its operations.

Our commitment is based on the values defined in our Code of Conduct and our approach to sustainability is structured around 4 axes:

- climate and sustainable energy,
- caring for the environment,
- acting for the well-being of employees,
- having a positive impact for stakeholders.

To help our collective corporate culture evolve in favour of sustainable development, we have mobilized our 100,000 employees through the progress plans defined at each of our sites as part of the Sustainab'ALL program, in which the Company sets out its material contribution to sustainability.

Through workshops, more than 27,000 employees took part in 2022 in the setting up of 10 indicators related to the SDGs. In 2023, nearly 250 of the Company's most important sites, business units, divisions or subsidiaries(1) representing 94.4% of employees, defined a local action plan built around the 10 sustainable development indicators with objectives to be achieved within their own scope by 2025. These action plans are linked to the activities of the entity concerned, its specificities and local issues. These plans form the Sustainab'ALL program through which TotalEnergies gives concrete expression to its contribution to sustainable development.

BUSINESS ETHICS COMMITMENTS

TotalEnergies operates in many different countries with disparate and complex economic, social and cultural environments, where governments and civil society have especially high expectations of the Company as an exemplar. Within this context, TotalEnergies strives to act as a vehicle for positive change in society by helping to promote ethical principles in every region where it operates.

Accordingly, TotalEnergies is committed to respecting internationally recognized human rights wherever it operates, especially the Universal Declaration of Human Rights, the Fundamental Conventions of the International Labour Organization (ILO), the U.N. Guiding Principles on Business and Human Rights, the OECD Guidelines for Multinational Enterprises and the Voluntary Principles on Security and Human Rights (VPSHR).

The Company refrains from resorting to artificial or aggressive tax planning and in particular is committed not to create subsidiaries in countries generally acknowledged as tax havens and to repatriate or liquidate existing subsidiaries, where feasible.

Furthermore, TotalEnergies is fully committed to fighting corruption and has adopted a policy of zero tolerance in that area.

In addition to that commitment, it lends active support to initiatives promoting greater transparency. TotalEnergies publishes in its Universal Registration Document an annual report covering the payments made by the Company's extractive companies (fully consolidated entities) to governments and the full list of its consolidated entities, together with their countries of incorporation and operations.

The Company also publishes a tax transparency report which provides additional information on the taxes paid in its main countries of operation.

TotalEnergies publishes a report based on the EITI (Extractive Industries Transparency Initiative) guidelines in November 2020 designed to promote transparency in the trade of raw materials. In accordance with the EITI framework, of which it has been a member since 2002, TotalEnergies advocates for the disclosure by countries of their petroleum contracts and licenses.

(1) Excluding Hutchinson.

VOLUNTEERING PROGRAM

In 2018, the Company introduced a worldwide employee community volunteering program called *Action!*, designed to give its employees the time and opportunity to do more to foster development in its host regions. *Action!* lets volunteer employees devote up to three workdays a year to local community projects that fall within the scope of the TotalEnergies Foundation program.

By the end of 2023, the program had been implemented in 100 countries, and more than 42,000 inclusive projects had been carried out by close to 20,000 employees since the program's launch.

TARGETS AND PROGRESS INDICATORS

Whether with regard to safety, health, climate, the environment or shared growth, TotalEnergies manages its operations with the aim of working in a sustainable, active and positive manner in all of the Company's host countries. The Company was one of the first in the industry to publish measurable improvement targets in these areas. Refer to point 5.13 of chapter 5 for a detailed presentation of the performance indicators of the Company.

Safety/Health

Protecting the safety of its employees, stakeholders and facilities is a priority for TotalEnergies, as is protecting the health of all people directly or indirectly involved in its activities.

SAFETY

Targets	Facts
Avoiding the occurrence of a major industrial accident	No major industrial accidents in 2023
Zero fatal accidents	2 fatalities in 2023
Continuously decrease the TRIR and achieve a TRIR of 0.62 by 2024. The 2023 target was 0.65	A TRIR[(1)] of 0.63 in 2023

HEALTH

Target	Facts
Protecting the health of employees at work	100% of employees with specific occupational risks received regular medical monitoring in 2023[(2)]

(a) TRIR (Total Recordable Incident Rate): number of recorded incidents per million hours worked.
(b) Data provided by the WHRS.

Climate

Targets	Facts
2030 worldwide targets (Scope 1+2)	
– Reduce GHG emissions (**Scope 1+2**) from operated facilities from 46 Mt CO_2e in 2015 to less than 38 Mt CO_2e by 2025. By 2030, the target is a reduction of at least 40% of the net emissions[(a)] compared to 2015 for its operated activities, *i.e.*, 25 Mt CO_2e to 30 Mt CO_2e	– A GHG emission reduction (Scope 1+2) from operated facilities from 46 Mt CO_2e in 2015 to **35 Mt CO_2e** in 2023
– Reduce **methane emissions**[(b)] from operated facilities by 50% between 2020 and 2025, and by 80% between 2020 and 2030	– Methane emissions[(2)] already reduced by **50%** between 2010 and 2020 and by **47%** between 2020 and 2023
– Maintain the **intensity of methane emissions** at less than 0.1% of commercial gas produced at operated gas	– A methane intensity of less than **0.1%** for operated gas facilities
– Reduce **routine flaring**[(c)] to less than 0.1 Mm^3/d by 2025, with the goal of eliminating it by 2030	– More than **96%** reduction in routine flaring between 2010 and 2023
2030 worldwide targets (Scope 3)	
– Maintain Scope 3[(d)] GHG emissions related to its customers' use of energy products to a level lower than 400 Mt CO_2e by 2025 and 2030	– Scope 3[(d)] emissions limited to **355 Mt CO_2e** in 2023, below the 2015 level
– Reduce **Scope 3**[(d)] GHG emissions from the **petroleum products** sold worldwide by more than 30% by 2025 compared to 2015. By 2030, the target is a reduction of at least 40%	– A decrease of the Scope 3[(d)] GHG emissions from the petroleum products sold worldwide in **35%** in 2023 compared to 2015
2030 worldwide target (carbon intensity)	
– Reduce the **lifecycle carbon intensity**[(e)] **of energy products** used by customers by more than 25% compared to 2015; by 2025, the target reduction is at least 15% (**Scope 1+2+3**)	– A decrease of the carbon intensity[(e)] of energy products used by customers of **13%** between 2015 and 2023

(a) The calculation of net emissions takes into account negative emissions from natural sinks like forests, regenerative agriculture and wetlands.
(b) Excluding biogenic methane.
(c) Routine flaring, as defined by the working group of the Global Gas Flaring Reduction program within the framework of the World Bank's Zero Routine Flaring initiative.
(d) GHG Protocol – Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(e) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).

Environment

TotalEnergies places the environment at the heart of its ambition of being a responsible company with a goal to improve the environmental performance of its facilities.

ENVIRONMENT MANAGEMENT SYSTEM

Target	Facts
Have the environment management systems of sites important for the environment[(1)]	**100%** of the 79 sites important for the environment certified to the ISO14001 standard in 2023

AIR

Target	Facts
Decrease sulfur dioxide (SO_2) emissions into the air by **75%** between 2015 and 2030, a target that amounts to not exceeding 15 kt emitted in 2030	**80%** reduction in SO_2 emissions into the air between 2015 and 2023

WATER

Targets	Facts
Reduce the freshwater withdrawal of the sites located in water stress area by **20%** between 2021 and 2030	**7.4%** of reduction in freshwater withdrawal in water stress area (base WRI Aqueduct 2030 V4.0)
Limit the hydrocarbon content of water discharges to below **30 mg/l** for offshore sites	**92%** of the Company's oil sites met the target for the quality of offshore discharges in 2023
Limit the hydrocarbon content of water discharges to below **1 mg/l** for onshore and coastal sites by 2030	**86%** of the Company's oil sites met the new target for the quality of onshore discharges in 2023

WASTE

Target	Facts
Recycle more than **70%** of the waste from sites operated by the Company's subsidiaries (excluding digestate from biogas units)	**61%** of the waste produced by sites operated by the Company's subsidiaries was recycled in 2023

(a) Production sites of the subsidiaries of the Exploration & Production segment, sites producing more than 250 kt/y in the Refining & Chemicals and Marketing & Services segments, as well as gas-fired power plants in the Integrated Power segment, operated by the Company.

Biodiversity

Commitments	Facts
– Implement a net zero deforestation policy in new projects on new sites approved from 2022 onwards – Implement the biodiversity ambition in the 4 areas presented in point 5.5.4 of chapter 5	– In 2023, 22 ha net deforestation (81 ha gross deforestation and 59 ha compensated). Projects to compensate for the difference are currently being implemented – No oil and gas exploration or production activity in the area of natural sites listed on the UNESCO World Heritage List – No exploration activity in oil fields under sea ice in the Arctic – **8** biodiversity action plans carried out or in preparation in 2023 for projects located in protected areas[(a)] or aligned with the International Finance Corporation PS6 standard – **70** biodiversity action plans initiated on sites important for the environment[(b)] at the end of 2023 (2025 objective reached at 90%). – 119 cumulated citations since 2020 in scientific publications of biodiversity data sets produced by the Company and shared in the database of the Global Biodiversity Information Facility (GBIF) database

(a) Sites located in an IUCN I to IV or Ramsar convention protected area.
(b) Production sites of the subsidiaries of the Exploration & Production segment, sites producing more than 250 kt/y in the Refining & Chemicals and Marketing & Services segments, as well as gas-fired power plants in the Integrated Power segment, operated by the Company.

Diversity

Targets	Facts
Women to account for **30%** of Executive Committee members and of the G70[(a)] by 2025	**25%** of Executive Committee members and **33.8%** of the G70 are women
Women to account for **30%** of senior executives by 2025 and **30%** of senior managers by 2025	**28.3%** of senior executives are women and **25.1%** of senior managers are women
Non-French nationals to account for **45%** of senior executives and non-French nationals to account for **40%** of senior managers	**37.7%** of senior executives are non-French nationals and **36.3%** of senior managers are non-French nationals

(a) Senior executives with the most important responsibilities.

ADVOCACY AND SECTOR INITIATIVES IN SUPPORT OF THE ENERGY TRANSITION

A successful energy transition requires closer collaboration between all the players involved.

Support for government action and climate sectorial initiatives and disclosures

TotalEnergies supports the pledges made by nations worldwide to combat global warming as part of the Paris Agreement and publishes its positions on its corporate website (heading sustainability/stakeholder-relationships-advocacy/advocacy-principles).

At COP28, we supported the goal of tripling renewable energy capacity and doubling energy efficiency measures by 2030. We also joined the Oil and Gas Decarbonization Charter (OGDC).

In Europe, TotalEnergies supports the "Fit-for-55" package and specifically some of its key components, such as the broader use of carbon pricing, the largescale expansion of renewable energies, deployment of infrastructure and the development of fuels and renewables for the transportation industry. Our responses to the European Commission's public consultations on climate are public and may be viewed online.

In France, TotalEnergies, along with 60 other major companies, signed the Entreprises Pour l'Environnement (EpE) association's statement calling for an acceleration of the ecological transition, ahead of COP28.

Collective initiatives supported by TotalEnergies

Axes	Name of the initiative	Perimeter
ENERGY & CLIMATE	• 3x Renewables	Worldwide
	• Oil and Gas Decarbonization Charter	Worldwide
	• OGMP 2.0	Worldwide
	• Aiming For Zero Methane	Worldwide
	• TCFD	Worldwide
	• UAE-France Bilateral Climate Investment Platform	UAE and France
ACTING FOR THE WELL-BEING OF EMPLOYEES	• Global Deal	Worldwide
	• Women's Empowerment Principles - Equality Means Business (UNGP)	Worldwide
	• Closing the gender gap - a call to action (WEF)	Worldwide
	• ILO Global Business and Disability Network Charter	Worldwide
	• The Valuable 500	Worldwide
	• Manifesto for the inclusion of people with disabilities in economic life	France
	• Inclusion and Diversity Pledge (ERT)	Europe
	• LGBT Commitment charter + de l'Autre Cercle (signed again in 2023)	France
	• Elles bougent	France
CARING FOR THE ENVIRONMENT	• Act4Nature International	Worldwide
	• CEO Water Mandate	Worldwide
	• Circular economy commitment AFEP	Worldwide
	• UN Global Compact Ocean Stewardship Coalition	Worldwide
HAVING A POSITIVE IMPACT FOR STAKEHOLDERS	• The Voluntary Principles on Security and Human Rights (VPSHR)	Worldwide
	• The United Nations Guiding Principles on Business and Human Rights as endorsed by the UN Human Rights Council in 2011	Worldwide
	• The United Nations Global Compact Principles	Worldwide
	• The B Team Responsible Tax Principles	Worldwide
	• Partnering Against Corruption Initiative (PACI)	Worldwide
	• Extractive Industries Transparency Initiative (EITI)	Worldwide

Review of affiliations

TotalEnergies has published a list of its industry affiliations on its website since 2016.

The Company typically cooperates with these organizations on technical subjects, but some take public stances on other issues, such as climate. Since 2019, TotalEnergies has conducted a biannual assessment of the public positions on climate and other issues of the main industry organizations of which it is a member. The Company examines whether those positions are aligned with its own, based on the six principles from its Advocacy Directive. A new review was carried out in 2023. In 2023, most of new associations in the energy field joined by our entities is related to renewable energies and low-carbon technologies.

Review of affiliations – 6 key principles

Scientific position

TotalEnergies recognizes the link established by science between human activities, in particular the use of fossil fuels, and climate change.

The Paris Agreement

TotalEnergies recognizes the Paris Agreement as a major step forward in the fight against global warming and supports the initiatives of the implementing States to fulfill its aims.

Carbon pricing

TotalEnergies supports the implementation of carbon pricing.

The development of renewable energies

TotalEnergies supports policies, initiatives and technologies aimed at promoting the development of renewable energies and sustainable bioenergies (biofuels, biogas) as well as energies and technologies aimed at decarbonizing industrial processes transportation, such as hydrogen, carbon capture and electric vehicles.

The role of natural gas

TotalEnergies promotes the role of natural gas as a transition fuel, in particular as a replacement for coal. TotalEnergies supports policies aimed at measuring and reducing methane emissions aiming for zero methane emissions. TotalEnergies promotes a policy of reducing greenhouse gas emissions: avoid; reduce by using the best available technologies; offset the minimized residual emissions.

Carbon offsetting

TotalEnergies supports the carbon offset mechanisms necessary to achieve carbon neutrality, through organized and certified markets ensuring the quality and sustainability of carbon credits.

1.5 Our investment policy

TotalEnergies' investment policy is designed to support the deployment of its balanced energy transition strategy and its ambition of achieving carbon neutrality (net zero emissions) by 2050, together with society. It is anchored on two pillars: investments for the maintenance and growth of oil and gas production, mainly LNG, on the one hand, and investments for the growth of low-carbon activities, mainly electricity from renewable sources, on the other hand.

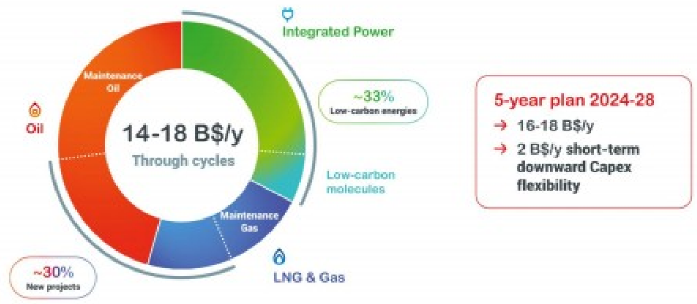
In 2023, given the strength of its cash flow generation and of its solid balance sheet, the Company accelerated its transition strategy and invested \$16.8 billion, of which \$5 billion was dedicated to Integrated Power (including in particular the residual acquisition of around 70% of Total Eren for \$1.6 billion, the acquisition of a 34% interest in Casa dos Ventos in Brazil for \$0.5 billion, and the creation of a new joint venture with AGEL in India for \$0.3 billion). In 2024, TotalEnergies expects net investments of \$17 billion to \$18 billion, of which \$5 billion dedicated to Integrated Power.

TotalEnergies plans net investments between \$16 and \$18 billion per year between 2024 and 2028 with downward flexibility of \$2 billion per year. Through cycles, TotalEnergies expects net investments between \$14 billion and \$18 billion per year, along the following lines:

- **investments in low-carbon energies** are expected to represent around 33% of net investments. They include investments in the Integrated Power, low-carbon molecules (including biofuels, biogas, recycled plastic, biopolymers, synthetic fuels, hydrogen and CCS) as well as the reduction of the Company's carbon footprint;
- **investments in natural gas, mainly LNG**, which are expected to account for more than 20% of net investments. These investments are expected to strengthen production capacity and allow new markets to be developed thanks to liquefaction or regasification plant projects;
- about 45% of the investments are expected to be allocated to **the oil chain**, dedicated to the maintenance of existing assets and the development of new projects. In downstream, TotalEnergies plans to continue to adapt its refining capacity and sales of petroleum products to changing demand, particularly in Europe.

The Company intends to dedicate approximately **30% of its net investments in the development of new oil and gas projects**. These investments are expected to focus on low-cost, or low break-even, and low-emission upstream projects.

A disciplined and sustainable investment policy



1.5.1 Main investments carried out over the period 2021-2023

Gross investments *(M$)*	2023	2022	2021
Exploration & Production	12,378	10,646	7,276
Integrated LNG	3,410	1,249	2,351
Integrated Power	5,497	5,226	3,990
Refining & Chemicals	2,149	1,391	1,638
Marketing & Services	1,273	1,186	1,242
Corporate	153	104	92
Total	24,860	19,802	16,589

Net investments[a] *(M$)*	2023	2022	2021
Exploration & Production	7,526	10,027	6,523
Integrated LNG	3,159	472	1,151
Integrated Power	4,945	3,521	3,355
Refining & Chemicals	1,922	1,281	1,285
Marketing & Services	(859)	914	923
Corporate	144	88	70
Total	16,837	16,303	13,307

Net acquisitions[a] *(M$)*	2023	2022	2021
Acquisitions	6,428	5,872	3,284
Assets sales	(7,717)	(1,421)	(2,652)
Other operations with non-controlling interests	–	–	–
Total	(1,289)	4,451	632

Organic investments[a] *(M$)*	2023	2022	2021
Exploration & Production	10,232	7,507	6,690
Integrated LNG	2,063	519	2,061
Integrated Power	2,582	1,385	1,280
Refining & Chemicals	2,040	1,319	1,502
Marketing & Services	1,065	1,035	1,074
Corporate	144	87	68
Total	18,126	11,852	12,675

(a) Refer to the glossary for definitions and additional information on alternative performance measures (APM, Non-GAAP measures) and to point 1.9 for reconciliation tables.

Organic investments in 2023

In the Integrated Power segment, organic investments were mainly allocated to solar and wind power plant construction projects, particularly in the United States, France and the United Kingdom.

In the Integrated LNG segment:

- organic investments were mainly allocated to LNG production projects under construction for which the final investment decision has been taken (such as NFE and NFS in Qatar and Rio Grande LNG in the United States), as well as projects under consideration (such as Papua LNG in Papua New Guinea and Marsa LNG in Oman);
- in hydrogen and biogas, organic investments were mainly dedicated to the financing of the joint venture TEH2 (80% TotalEnergies, 20% Eren) and the development of biomethane unit projects under construction or development in France and Poland.

In the Exploration & Production segment:

- most of the organic investments were allocated to the development of new hydrocarbon production facilities, the maintenance of existing facilities, infill well projects for assets already in production as well as exploration activities. Development investments were allocated in particular to the Mero 2 project which started up late 2023 in Brazil, the Absheron project in Azerbaijan commissioned in July 2023 and to the major projects under construction such as Tilenga and Kingfisher in Uganda and the associated cross-border EACOP pipeline project in Uganda/Tanzania, Anchor and Ballymore in the United States, Mero 3 and 4 in Brazil and the redevelopment of Tyra in Denmark;
- in CCS, TotalEnergies has invested in partnerships in the development of carbon storage projects located in the North Sea, which are under construction (Northern Lights in Norway) or under study, such as Aramis in the Netherlands, Northern Endurance in the United Kingdom and Bifrost in Denmark;
- in natural carbon sinks, the Company continued its investments, particularly in inclusive forestry and agricultural management projects.

In the Refining & Chemicals segment, organic investments were dedicated on the one hand to safety and maintenance of the installations (including major shutdowns) and to the energy efficiency program and, on the other hand to the development of new facilities. In particular, they were devoted to the construction, in partnership with the Saudi Arabian Oil Company, of Amiral, a world-scale petrochemical complex in Saudi Arabia, for which the final investment decision was taken in December 2022. They were also devoted to projects intended to improve plants' competitiveness, particularly in Europe such as in Donges (France) where the Company is building a diesel desulfurization unit and to the further development of the project to transform the Grandpuits refinery into a zero-crude platform focusing on new energies and low-carbon activities, which is expected to represent a total investment of more than €500 million by 2025.

In the Marketing & Services segment, organic investments were mainly dedicated to the maintenance of the worldwide network of service stations. TotalEnergies also increased the proportion of its investments dedicated to the deployment of charging infrastructure for electric mobility, mainly in Europe.

Acquisitions in 2023

In 2023, TotalEnergies' finalized acquisitions amounted to approximately $6.4 billion (compared to $5.9 billion in 2022 and $3.3 billion in 2021).

TotalEnergies accelerated its development in electricity with the residual acquisition of around 70% of Total Eren for a net investment of $1.6 billion, the acquisition of a 34% interest in a joint venture with Casa dos Ventos in Brazil for $0.5 billion, and the creation of a new joint venture with AGEL in India for $0.3 billion.

TotalEnergies continued its growth in LNG with the acquisition of 6.25% and 9.375% stakes respectively in the NFE and NFS LNG projects in Qatar and the acquisition of a 17.5% interest in NextDecade (developer of the Rio Grande LNG project).

In Exploration & Production, TotalEnergies focused its efforts on low-cost, low-emission oil projects, with the acquisition of 20% in the SARB and Umm Lulu concession in the United Arab Emirates for a consideration of about $1.5 billion.

Divestments in 2023

TotalEnergies completed asset sales amounting to about $7.7 billion in 2023 (compared to $1.4 billion in 2022 and $2.7 billion in 2021). They included in particular:

- in the Exploration & Production segment, for a total amount of approximately $4 billion, the sale to ConocoPhillips of the 50% interest in Surmont in Canada as well as the sale to Suncor of all the shares in TotalEnergies E&P Canada. TotalEnergies also sold a 40% interest in Block 20 in Angola;
- in the Marketing & Services segment, the sale to Alimentation Couche-Tard of the entire network of service stations in Germany for cash payment received after adjustments and before tax of approximately $2.4 billion.

Net investments thus amounted to $16.8 billion in 2023 (compared to $16.3 billion in 2022 and $13.3 billion in 2021).

1.5.2 Major planned investments

In accordance with its growth strategy in Integrated Power, TotalEnergies plans to continue its development in the electricity value chain and particularly in renewables with construction projects for solar and wind power plants (notably offshore) and the acquisition of flexible capacities (gas power plants in the United States, batteries in Germany). In particular, the Company intends to continue its investment efforts, particularly on solar and wind projects in the United States, wind projects in Brazil in partnership with Casa dos Ventos. The Company also plans to finalize in 2024 the acquisition of 1.5 GW of flexible power generation capacity in Texas, the acquisition of renewable energy aggregator Quadra Energy in Germany, the acquisition of German battery storage developer Kyon Energy, as well as to make the payment relating to the award of two maritime concessions to develop two wind farms for a total of 3 GW in Germany.

In Integrated LNG, TotalEnergies plans in particular to continue investments dedicated to major LNG production projects for which the final investment decision has already been taken (mainly North Field East and North Field South in Qatar and Rio Grande LNG in United States) as well as the development of LNG production projects that have started (Ichthys LNG and Gladstone LNG in Australia).

In Exploration & Production, investments in the development of oil and gas projects are planned to be dedicated essentially to the Tilenga and Kingfisher projects in Uganda and the associated EACOP cross-border oil pipeline project in Uganda/Tanzania, as well as to major development projects under way for which the final investment decision has already been taken (GGIP Phase 1 in Iraq, Anchor and Ballymore in the US, or Mero 3 and 4 in Brazil). In addition, TotalEnergies intends to pursue short-cycle development projects, particularly in West Africa and the North Sea.

In downstream, significant portions of the Refining & Chemicals segment's investment budget are earmarked on the one hand for facility safety and maintenance (including major shutdowns) and energy efficiency program and, on the other hand, for the continuation of the project to transform the Grandpuits refinery (France) into a zero-crude platform and the construction, in partnership with the Saudi Arabian Oil Company, of Amiral, a world-scale petrochemical complex in Saudi Arabia.

Investments in the Marketing & Services segment are expected to be mainly allocated, on the one hand, to the maintenance of the global network of service stations and, on the other, to the development of the European electric mobility network.

1.5.3 Financing mechanisms

TotalEnergies self-finances most of its investments with cash flow from operating activities and may occasionally access the bond market. Certain subsidiaries or specific projects may be financed through external financing, notably in the case of joint ventures. These include Ichthys LNG in Australia, Satorp in Saudi Arabia, Mozambique LNG, Cameron LNG and Rio Grande LNG in the United States and Hanwha TotalEnergies Petrochemical Co. in South Korea.

As part of certain project financing arrangements, TotalEnergies SE has provided guarantees. These guarantees ("Guarantees given on borrowings") as well as other information on TotalEnergies' off-balance sheet commitments and contractual obligations appear in Note 13 to the Consolidated Financial Statements (refer to point 8.7 of chapter 8). TotalEnergies believes that neither these guarantees nor the other off-balance sheet commitments of TotalEnergies SE or any other company of the Company have, or could reasonably have in the future, a material effect on TotalEnergies' financial position, income and expenses, liquidity, investments or financial resources.

1.6 Innovation for the transition strategy of TotalEnergies

1.6.1 OneTech

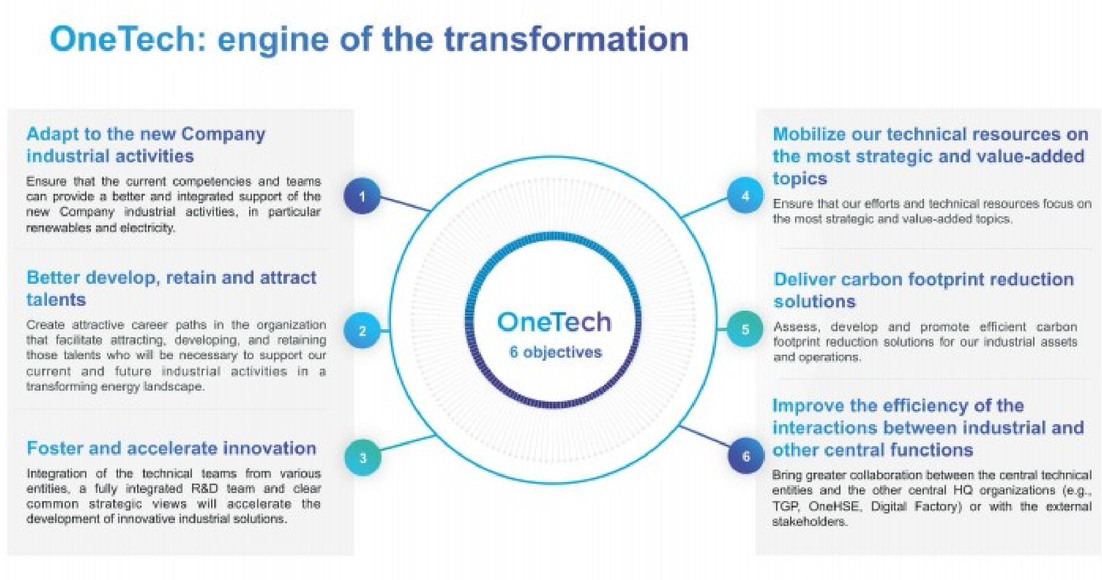
The creation of the OneTech branch, in September 2021, illustrates the dynamic initiated by General Management to mobilize the teams and respond to TotalEnergies' new challenges in the context of its transition strategy.

The industrial successes and technological advances of TotalEnergies have always been based on the values of the Company, in particular on its pioneering spirit, appetite for performance and on the technical and scientific skills of its teams, which are widely recognized by its peers and partners.

OneTech's mission is to provide all the technical and R&D expertise that TotalEnergies needs to implement its strategy.

OneTech supports TotalEnergies' various activities on a daily basis towards operational excellence and innovation with more than 3,000 engineers, technicians and researchers spread over various sites in Europe (France, Belgium and Denmark) and in R&D centers internationally.

OneTech pursues six objectives



The centralization of teams within OneTech provides clarity for stakeholders, with easier identification of the technical or R&D contact on each subject for the entire Company.

A DEDICATED ORGANIZATION

OneTech's organization is structured around three functional hubs: an Industrial hub, a Research & Development hub and a Support Functions hub.

- the Industrial Hub consists of:
  - the Customer Lines division, the entry point within OneTech for internal customers of the operational branches, coordinates the operational and technical support of OneTech and the mobilization of the resources of the associated Technical Lines that the business segments need. It also carries out technical evaluations of new business opportunities and studies for the preparation of new developments of business unit assets. A team within this division is dedicated to the development and implementation of projects to reduce the carbon footprint of the Company's assets. In 2023, this division set up an entity responsible for deploying new digital solutions to improve the efficiency of the Company's industrial operations. The deployment concerns in particular the solutions developed by the Digital factory to accelerate the digital transformation of the Company (refer to point 1.6.3);
  - the Technical Lines division, which includes the areas of expertise, is the core of the technical and industrial know-how. It brings together within common teams, all the specialists and players in the same technical field who might previously have been present in different entities or different branches, thus promoting synergies between the Company's sites, as well as the sharing of experience, best practices, innovative solutions, knowledge and know-how. In 2023, this direction has put in place a dedicated framework to accelerate innovation and address industrial problems directly linked to the gradual improvement of operations at the Company's sites by identifying and testing mature technological innovations to be deployed in less than a year.

– the Research & Development (R&D) hub consists of the R&D division, which brings together all the Company's R&D activities under a single entity. This hub designs and operates the Company's R&D in response to the needs of business units, anticipates with partners to explore and de-risk new avenues and innovative technologies and then develop prototypes with the Industrial hub once the proof of concept has been demonstrated. It also develops skills and technological intelligence to capture new business opportunities and emerging technologies in support of TotalEnergies' strategy.

1.6.2 R&D, lever of the transition strategy

To prepare for the future, the Company invested more than $1 billion in R&D, industrial innovation, digital developments in 2023.

The Company invested $774 million in 2023 in its own and its subsidiaries' R&D (compared to $762 million in 2022 and $849 million in 2021) with a dedicated workforce of more than 3,500 researchers.

In support of its transition strategy, TotalEnergies has significantly reoriented its R&D in recent years. Compared to 28% in 2017, TotalEnergies has decided to devote 65% of the 2024 R&D budget to low-carbon energy (renewables, biomass, batteries, etc.) and to reducing the environmental footprint through CCUS and sustainable development programs.

According to the different scenarios studied by TotalEnergies, achieving the ambition of carbon neutrality (zero net emissions) by 2050, together with society, requires not only the large-scale deployment of proven technologies such as solar photovoltaics, wind power and biofuels but also technological breakthroughs and the development of completely new industrial value chains such as hydrogen, synthetic fuels and carbon capture and storage. The Company is also investing in digital expertise and artificial intelligence (AI) through the development of solutions to accelerate its transition (see point 1.7.3) and that of its customers.

TotalEnergies' transition strategy requires agile R&D, resolutely committed to innovation. R&D activities thus break down according to the principles that underpin the growth strategy, the Company's carbon neutrality ambition and its commitment to sustainable development.

The R&D hub is organized along five lines in a single division:

– the **Power R&D** line focuses on renewable energy production, integrated energy system design and optimization of modes of distributed operation to balance renewable energy. The challenge is to reduce the production costs of low-carbon energy, decarbonize assets, and develop new processes and services. To accelerate the implementation of R&D programs, TotalEnergies has joined forces with the Technical University of Denmark to create a center of excellence in low-carbon energies. This center has three missions: the construction of a new generation hybrid electricity platform, research collaborations on next generation wind technologies and floating wind power, and multi-energy training for employees;
– the **CO_2 & Sustainability R&D** line develops innovative and competitive technologies focusing on increasingly sustainable solutions. These projects concern the capture, storage and use of CO_2, for sustainable synthetic fuels and the development of low environmental footprint technologies for the entire liquefied natural gas chain, biogas and the hydrogen sector. The work undertaken on water and soil management and the quantification of greenhouse gas emissions contribute to the deployment of technologies with a low-carbon footprint. The development of AUSEA(1) by R&D in partnership with the CNRS (the French National Center for Scientific Research) and the University of Reims is an example of the development of innovative and competitive technologies which reinforces the pioneering role of the Company in technologies for reducing methane emissions. This miniature drone-mounted sensor is capable of detecting and quantifying methane and carbon dioxide emissions and at the same time identifying the sources of these emissions. This innovative technology has been deployed on the Upstream oil and gas installations operated by the Company and may be deployed beyond its own operated assets within the framework of cooperation agreements;
– the **Fuels & Lubricants R&D** line supports the transformation of the world of transport, new forms of mobility and industry, by developing products to increase the performance of electrical systems and combustion engines and reduce the environmental footprint of existing solutions. TotalEnergies has recently developed an innovative coolant that can be in direct contact with battery cells, allowing more efficient battery cooling than fluids currently on the market. Building on this innovation, TotalEnergies has joined forces with the automotive supplier Valeo, a preferred partner of manufacturers around the world, for its expertise in associated thermal systems in order to design and dimension the best integration of this fluid in the battery pack of electric vehicles and to optimize its performance and reduce the carbon footprint of EVs;
– the **Downstream Processes & Polymers R&D** line pilots and operates research work on the development of sustainable aviation fuels (SAF), the separation of polymers and their recycling with a view to the circular economy and decarbonization of Refining-Chemical industrial units. The development of SAF is a major focus of R&D projects carried out for the decarbonization of the aviation sector. This axis covers the entire value chain, from raw materials to product specifications including conversion processes. Modeling plays a key role in optimizing this entire chain to maximize SAF production. To respond to the challenges of decarbonization of the aviation sector, TotalEnergies has signed a partnership with Safran in 2021 and a partnership with Airbus in early 2024, including an R&D component to accelerate the development of innovative technological solutions;
– the **Upstream R&D** line aims to improve the operational efficiency of exploration and production activities, both in terms of reducing GHG emissions and cutting costs in line with its strategy of portfolio optimization. To respond to the major challenge of geological storage of CO_2, TotalEnergies has partnered with INRIA (National Institute for Research in Digital Science and Technology) to develop new digital simulation tools to improve the geological characterization of reservoirs and thus monitor the CO_2 to be injected and stored in them. This set of tools combining high-performance computing, geoscience, seismic imaging and ultra-complex mathematical modeling is expected to make it possible to better understand the behavior of carbon stored in deep reservoir rocks and to predict its evolution and changes to the reservoir in the very long term;
– Transversally and in addition to the five R&D lines, the **Anticipation and Portfolio Performance** division carries out prospecting activities for the Company on emerging subjects while seeking to capture technologies that could be disruptive. It also carries out an exploratory activity of innovative solutions and technologies for the Company's existing and future businesses. This division also manages the R&D portfolio for maximum operational efficiency and value creation.

(1) Airborne Ultralight Spectrometer for Environmental Application: technology for detecting methane by drone.

Beyond OneTech's five R&D lines, the Hutchinson and Saft Groupe (Saft) subsidiaries carry out R&D specific to their activities.

- Hutchinson R&D develops solutions with high technological content that meet the challenges of future mobility with an emphasis on sustainable development and electrification. These multi-market solutions are based on five areas of expertise: NVH (Noise Vibration Harshness), Waterproofing, Thermal management, Materials and structures for extreme conditions of use, Power transmission; with the objective of improving customer performance in terms of sustainable development, safety, energy efficiency and comfort.

  In 2023, the development of sustainable materials was accelerated to achieve Hutchinson's goal, by 2025, of offering products containing at least 25% biosourced, recyclable or regenerated materials. This objective has already been largely exceeded for certain product lines such as bodywork seals (with more than 70% of materials biosourced), precision seals and pipes for cooling lines. In addition, an innovative elastomer "regeneration" technology is being industrialized, making it possible to regenerate materials from production scraps.
- Saft conducts research to develop ever safer and more efficient batteries, particularly in the field of mobility and storage of renewable energies, using artificial intelligence and big data. In 2023, Saft unveiled IBIS (Intelligent Battery Integrated System), a smart, more efficient battery for stationary storage and electric vehicles. This technology represents a real breakthrough in the field of mobile and stationary energy storage. Furthermore, an alliance supported by France 2030 and bringing together six partners from the academic and industrial worlds was launched in 2023, under the coordination of Saft, to carry out a research, development and industrialization program for solid lithium-ion batteries. The program aims to develop batteries intended for applications requiring high energy or high power while presenting appropriate safety performance. The program also takes into account issues related to lifecycle analysis and battery recycling in order to help reduce national dependence on critical materials.

To accelerate the Company's transition strategy, R&D activities are carried out relying on its talented people in its 15 R&D centers around the world and its pilot sites, all in a process of open innovation with industrial partners, start-ups and the best research and innovation ecosystems. TotalEnergies mobilizes nearly 1,000 partners per year.

In addition, the Company implements an active intellectual property policy to protect its innovations, maximize their use and differentiate its technology. In 2023, the Company filed more than 250 patent applications.

15 TotalEnergies research centers around the world

1.6.3 Digital acceleration as a performance lever

In early 2020, TotalEnergies opened a digital factory in Paris that brings together 300 developers, data scientists and other experts, to accelerate the Company's digital transformation. TotalEnergies' goal is to leverage the capabilities of digital tools to create value in all of its businesses.

The Digital Factory aims to develop the digital solutions that the Company needs to improve its operations in terms of both availability and cost, provide its customers with new services, particularly in managing and optimizing energy use, extend its reach to new distributed energies, and reduce its environmental impact. Its ambition is to generate as much as $1.5 billion in value per year for the company by 2025 through additional revenue and reductions in operating or investment expenses. Since 2020, more than 80 solutions have been created and are gradually being deployed in the relevant operational entities of the Company. More than 200 deployments have already been carried out.

1.7 Our strengths

1.7.1 Our employees

OUR EMPLOYEES' COMMITMENT AND GROWTH ARE KEY TO OUR SUCCESS

The Company is committed to a transition strategy and can rise to the challenges it faces thanks to the commitment of its workforce. Therefore, TotalEnergies strives to uphold the strictest standards of safety, ethics and integrity, management and social performance wherever its subsidiaries operate. The goal of this approach is to create an environment in which every employee can reach his or her potential and TotalEnergies can continue to drive its transition strategy and to pursue its growth.

TotalEnergies maintains a dialogue with the Company's employees and their representatives, who have a privileged position and role, particularly in discussions with management teams. Social dialogue is one of the pillars of the Corporate project. In order to associate the employees to the major challenges of the Company, the expectations of employees are regularly listened to and discussed. TotalEnergies regularly involves them in participatory processes. For example, the Company is developing exchange formats between members of the Executive Committee and employees, in order to listen and hear to their proposals on key issues for the Company (refer to point 5.6.2.2).

In addition, every two years TotalEnergies conducts an internal opinion survey (TotalEnergies Survey) of employees in order to gather their opinions and expectations regarding their professional situation and their perception of the company, on a local or Company-wide level. By decision of the Executive Committee, an additional short survey, launched in 2023, the TotalEnergies Pulse Survey[(1)], will take place every other year, to make it possible to measure employee engagement and well-being once a year. The results of this survey, to which nearly 45,000 employees (a participation rate of 77%) responded, indicate that employees have an engagement rate of 82.4% up by 2 points compared to 2022), compared with the benchmark[(2)] of 71.3%. 86% of employees state they are proud to work for TotalEnergies. The results were communicated within all the entities concerned.

As a responsible employer, the Company is convinced that the well-being of employees is an essential source of professional fulfillment, long-term performance and contributes to the protection of mental health. The Company promotes decent employment and social protection in a work environment that combines performance and conviviality. In 2019, the Company launched "Better Together", the human part of its Company project, in response to employees' expectations and in order to raise the Company's human ambitions to the same height as its business ambition. This project has three ambitions: to develop the talents of every employee, to promote the coaching dimension of managers and to build a company where it is a good place to work together. These ambitions have been translated into concrete projects, in order to quickly anchor the changes in the daily lives of employees. More than 400 talent developers are actively assisting individual employees in their professional development by offering personalized support. Job mobility is now an internal recruitment process that allows employees to apply for available positions in complete transparency. Close to 10,000 vacancies were published in 2023. Functional, geographic mobility and lifelong training are essential levers in order to develop everyone's skills and employability and meet business challenges. Actions to develop the managerial culture have also been taken to empower managers in their role as manager-coaches, to support team development and to improve collective performance.

TotalEnergies launched in 2024 *Care Together by TotalEnergies*. This program foresees a social standards for all employees worldwide, and is part of the Company's drive to develop a culture that fosters well-being, helping each and every one of its employees to maintain their balance in a safe working environment.

To promote a just transition and support TotalEnergies' employees at every stage of the Company's transformation to new energies, the Transforming with our people program was launched in 2022. This program includes not only the implementation of listening, informing and training measures, but also an upskilling and reskilling initiative, and the implementation of a skills map in order to build bridges between current jobs and the jobs of renewables & electricity, and to target key skills.

A DIVERSE AND INCLUSIVE COMPANY CULTURE

The diversity of its employees and management is crucial to the Company's competitiveness, appeal and capacity for innovation. TotalEnergies promotes an inclusive corporate culture, at the highest level by the Company Diversity and Inclusion Council, which is chaired by a member of the Executive Committee.

TotalEnergies intends to propose an inclusive working environment to create the collective conditions allowing everyone, whoever they are, to assert their personality, their ideas and their energy to bring the best of themselves to the common project and promote the development of everyone's potential. The variety of opinions and career paths yield both innovative solutions and new opportunities. Thanks to its motivated, enterprising workforce, the Company can carry out ambitious projects and provide every employee with the opportunity to give meaning to their work and find professional fulfillment. With nearly 170 nationalities represented in its workforce, a presence in about 120 countries and more than 740 professional skills, the Company boasts genuine human potential.

In order to continue the existing momentum, the Diversity roadmap, sets out the targets on gender balance and internationalizing management bodies and senior management:

- 30% of women in the Executive Committee (25% in 2023),
- 30% of women in the G70[(3)] (33.8% in 2023),
- 30% of female senior executives (28.3% in 2023),
- 30% of female senior managers (25.1% in 2023),
- 45% of non-French nationals senior executives (37.7% in 2023),
- 40% of non-French nationals senior managers (36.3% in 2023).

(1) Excluding Hutchinson.
(2) Benchmark established by IPSOS of companies with over 10,000 employees worldwide
(3) Senior executives with the most important responsibilities. Together with the Executive Committee, they form part of the Company's management bodies within the meaning of point 8.1 of the AFEP-MEDEF Code.

The Company has a long-standing commitment to promoting equal opportunity, diversity and inclusion, which constitute, for everyone, a source of development where only expertise and talent count. In 2018, the Company decided to adhere to the Global Business and Disability Network Charter of the International Labour Organization (ILO) and is gradually implementing these principles in its subsidiaries. In France, TotalEnergies has been a signatory to the LGBT+ (lesbian, gay, bisexual and transgender) commitment charter since 2014. Created by an organization called *L'Autre Cercle*, the charter provides a framework for combating workplace discrimination in France based on an individual's sexual orientation or gender identity. To reaffirm its commitment to inclusion, TotalEnergies re-signed this Charter in 2023.

1.7.2 Our integrated multi-energy model

TotalEnergies' model of value creation is based on integration across the energy value chain, from exploration and production of oil, gas and electricity to energy distribution to the end customer, and including refining, liquefaction, petrochemicals, trading, and energy transportation and storage.

This integrated business model enables the Company to capitalize on synergies among the various businesses while responding to volatility infeed stock prices. Thanks to this business model, the Company's Upstream activities, which are more dependent on the price of oil, can complement its Downstream activities, which – at the bottom of the cycle – enable the Company to generate value-added untapped by the Upstream part of the business. With this integration of its operations across the entire value chain, the Company can manage the bottom of the cycle more effectively and capture margins when the market improves.

TotalEnergies is applying this integrated model to the new electricity and renewables businesses within Integrated Power in which the Company has positioned itself, as the second pillar of its growth, in association with the historic Oil & Gas pillar. The Company can leverage those businesses with the know-how and resources inherent in its business model, including a global brand and presence, technical expertise (e.g., in offshore operations and trading) and partnerships with governments and local communities.

Accelerating growth in electricity and renewables will strengthen TotalEnergies' model of value creation and diversify the Company's geographical risk profile. That transition enables to cement the sustainability and resilience of TotalEnergies' value creation model bolstering its ambition of getting to Net Zero (net zero emission).

1.7.3 Our operational excellence

Energy is an industrial sector that demands state-of-the-art know-how and complex facilities that are both flexible and reliable.

ACKNOWLEDGED TECHNICAL EXPERTISE

Thanks to the technical expertise wielded by the Company's women and men and their ability to manage large-scale projects, TotalEnergies has been able to forge trust-based partnerships with the world's primary producing countries and global consumers. The Company's expertise allows it to provide convincing support to its customers and partners in even the most demanding fields, such as liquefied natural gas, electricity, offshore wind and renewables, deep offshore, refining and petrochemicals, where the Company has developed platforms that are among the industry's top performers.

HIGH-PERFORMANCE INDUSTRIAL STREAMLINED ASSETS

TotalEnergies boasts streamlined, high-performance industrial assets portfolio that enable its resilience in its traditional businesses. Moreover, the flexibility of those assets allows the Company to adapt to changing markets. TotalEnergies is one of the world's top 10 integrated producers[1]. Its refining and petrochemicals operations are structured around six major integrated complexes (Port Arthur in the United States, Normandy and Antwerp in Europe, Jubail and Qatar in the Middle East and Daesan in South Korea), which provide opportunities for synergies and enhance value creation between those two businesses. The Antwerp facility is the Company's largest refining and petrochemicals complex in Europe.

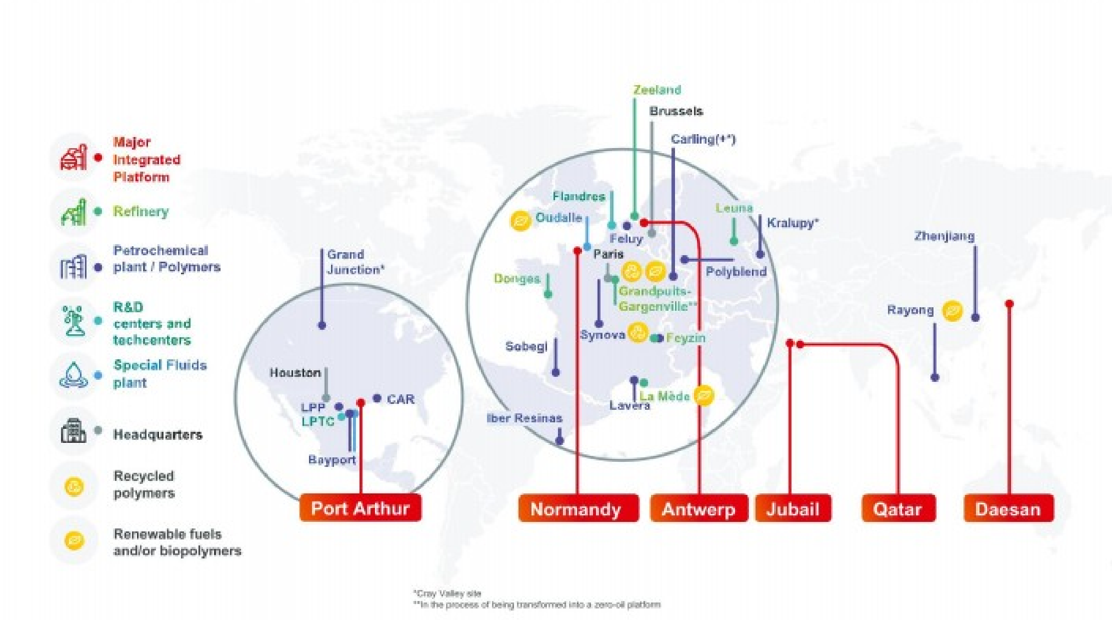
To meet a growing global demand and respond to market trends, the Company has upgraded and adapted its sites to focus production on higher-value-added products that meet the most stringent environmental standards. TotalEnergies has also invested in making its petrochemicals sites more flexible so they can use the most advantageous feedstocks. Most of those sites can now process both naphtha and ethane, to ensure a reliable, cost-competitive supply.

The La Mède biorefinery aims to meet the growing demand for biofuels. Operational as of July 2019, it has a capacity of 500 kt/y of HVO-type[2] biodiesel. The HVO technology the Company has selected is French, developed by IFP Énergies nouvelles and marketed by its Axens subsidiary. It produces a sustainable, premium biofuel similar to fossil fuels that can be blended into regular fuels in any proportion and has no adverse effect on engines.

TotalEnergies is ramping up its renewable electricity generation capacity – solar, wind and hydroelectricity – to satisfy the surge in electric power needs responsibly.

(1) Based on publicly available information, production capacity at year-end 2021 (refer to point 2.5 of chapter 2).
(2) Hydrotreated vegetable oil.

Main sites of Refining & Chemicals at year-end 2023



As part of its strategy to support its Climate ambition to get to carbon neutrality (net zero emissions) by 2050, together with society, TotalEnergies plans to convert its refinery in Grandpuits, France, into a zero-crude platform. By 2024, following an investment totaling more than €500 million, the complex will focus on four new industrial activities: production of renewable diesel mainly for the aviation industry, production of bioplastics, plastics recycling and operation of two photovoltaic solar power plants.

Moreover, the Company is moving ahead with projects to convert its deep offshore oil production complexes into offshore wind power platforms, a strategy that is wholly aligned with its goal of profitable growth in renewables & electricity.

TotalEnergies can also take specific steps to support the conversion of its industrial sites through additional projects that can be conducted at the same time:

- a forward-looking project, led by the relevant segment based on an analysis of market trends, with the goal of modifying a given site's industrial infrastructure in order to restore a long-term competitiveness of the Company;
- a Voluntary Agreement for Economic and Social Development (CVDES), implemented to support the site and its ecosystem (subcontractors, stakeholders, etc.) during this period of change.

1.7.4 A global footprint, with local roots

A GLOBAL PRESENCE

TotalEnergies has an industrial and retail presence in about 120 countries spanning five continents.

Three regions in particular are the long-standing cornerstones of TotalEnergies' strategy: Europe, the Company's decision-making center; the Middle East, where TotalEnergies is recognized as a preferred partner among producing countries and national companies; and Africa, with its substantial oil and gas production and Company-branded service stations.

The deep geographic roots of the Company and its partnerships built over time are real strengths for accelerating its operational ambitions and moving into the new businesses of renewables and electricity. Over the past few years, this historic presence has been supplemented by strong development on the American continent through our presence in Upstream in Brazil and LNG in the United States. In addition, TotalEnergies reinforced its presence on the American continent with major acquisitions in Brazil and the United States since 2022.

That global footprint yields the benefits that accrue from economies of scale for the Company's industrial, marketing and retail operations, and also enables a detailed knowledge of end markets, giving TotalEnergies a competitive advantage in addressing the manifold needs of its customers worldwide.

CUSTOMER PROXIMITY ACROSS THE WORLD

To cement its strong bond with its customers – both businesses and consumers – the Company strives to focus on close, effective and direct customer relationships. Beyond its sales of products and services, TotalEnergies aims to draw on its retail networks to make its Company-branded service stations "true community hubs," with a comprehensive array of services for users that encompass every form of energy and respect the environment.

In its renewables & electricity businesses, TotalEnergies intends to become integrated across the entire value chain and develop direct, personalized relationships with business and residential customers alike through the use of digital technology.

TotalEnergies is recognized for its know-how in customer service in France. In 2023, TotalEnergies' Consumer Services division won the "Best Customer Service of the year 2024" award, for the fifteenth year in the category Services to motorists[1], which makes the Company the most awarded company of this competition. TotalEnergies Electricité et Gaz France finished on the podium of multi award-winners brands in the field of Customer Experience in 2023 with the award Customer service of the year 2024 in the categories of energy supplier for individuals and energy supplier for businesses[2], the Customer Relationship Podium (6th consecutive year), in the category of optimization of customer relationship.

SUSTAINABLE VALUE CREATION ALONGSIDE REGIONS AND COMMUNITIES

TotalEnergies' success in building and expanding partnerships worldwide can also be attributed to its strategy of generating value at the local level as part of its growth model. That commitment – carried out systematically and professionally – is a major competitive asset. Whether they target continued growth in LNG or renewable electricity generation, the partnerships with governments and local communities serve a critical function.

The Company maintains a comprehensive, integrated policy, rooted in dialogue with communities and public and private stakeholders, for supporting local growth and in-country value. It forges synergies among the various sources of value generation for host countries (employment, subcontracting, infrastructure, support for local industry, socioeconomic development projects, education, energy access, etc.) by capitalizing on the Company's industrial expertise. TotalEnergies intends to maintain this approach over the long term to ensure that its presence in these regions and the major projects it develops to create shared prosperity.

THE ABILITY TO COPE WITH GEOPOLITICAL UNCERTAINTY

In the face of political and geopolitical uncertainty, including tensions sparked by war and conflict, TotalEnergies intends to conduct its operations by leveraging its skills and expertise to benefit each host country, in compliance with applicable legislation and all international economic sanctions that may be in effect. The Company also ensures that the amount of capital invested in the most sensitive countries to remain at a level that limits its exposure in each country.

1.7.5 An ongoing dialogue with our stakeholders

In TotalEnergies' view, dialogue with its internal and external stakeholders is essential for the Company to conduct its business responsibly and integrate the long-term challenges of sustainable development in its strategy and policies.

This dialogue contributes to the identification of the main risks and impacts of the Company's activities, and more broadly to a better understanding of changing trends and the main societal expectations of each of the major categories of stakeholders. It is also a prerequisite to ensuring that the Company is firmly integrated in its host regions, as well as an effective tool for identifying ways to generate value at the local level.

TotalEnergies believes that transparency is an essential principle of action in building a trust-based relationship with its stakeholders and ensuring that the Company is on a path of continuous improvement.

Pending the adoption of an international, standardized extra-financial reporting framework, TotalEnergies is making every effort to report its performance on the basis of the various commonly used extra-financial reporting frameworks. As such, TotalEnergies refers to the Global Reporting Initiative (GRI) standards and those of the Sustainability Accounting Standards Board (SASB), for which detailed tables of correspondence are available on the TotalEnergies website. TotalEnergies' also includes in its reporting the World Economic Forum's core indicators[3] (refer to chapter 11). Furthermore, it also follows the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) for its climate reporting.

Wanting to provide the performance indicators to its stakeholders, TotalEnergies publishes additional information on its website on the pages dedicated to its sustainable development approach.

TotalEnergies has structured its dialogue processes with its stakeholders at different levels of the Company, through relays within the organization, requirements included in internal reference frameworks, the deployment of a methodology for conducting local dialogue and a dedicated attention to the professionalization of the teams responsible for fostering that dialogue.

Those measures are designed to develop a long-term, trust-based relationship founded on principles of respect, attentiveness, constructive dialogue, proactive engagement and transparency, consistent with the legitimate need for confidentiality as appropriate. They also ensure that stakeholder warnings or grievances to be gathered and addressed quickly and that potential controversial situations defused.

At a corporate level, each group of stakeholders (employees, employee representatives, customers, investors, shareholders and the financial sector, government officials, suppliers, academics, NGOs and civil society, and the media) has a single point of contact at the corporate level, responsible for responding to their requests, keeping them informed and maintaining an ongoing dialogue in formats appropriate to each concern.

Those stakeholder liaisons also provide advice and support to Company subsidiaries when needed. The One MAESTRO framework provides that subsidiaries should conduct a stakeholder mapping and engage in a structured, ongoing process of dialogue with stakeholders to keep them informed, hear and address their concerns and expectations, report on mitigation actions or compensation, measure their satisfaction and identify ways the subsidiaries can improve their community outreach. This commitment to local dialogue puts special emphasis on residents and communities located near Company facilities.

(1) Category Services to motorists - BVA study. Viséo CI.
(2) Categories energy supplier for individuals and business energy supplier - BVA study. Viséo CI.
(3) Measuring Stakeholder Capitalism: Towards Common Metrics and Consistent Reporting of Sustainable Value Creation, white paper, September 2020.

1.8 Our governance

1.8.1 A fully committed Board of Directors

A MOBILIZED BOARD OF DIRECTORS SERVING THE COMPANY'S AMBITION

The Board of Directors defines TotalEnergies' strategic vision and supervises its implementation in accordance with the corporate interest of the Corporation, by taking into consideration the social and environmental challenges of its business activities.

It approves investments or divestments for amounts greater than 3% of shareholders' equity and it is informed of those greater than 1%. The Board may address any issue related to the Company's operations. It monitors the management of both financial and extra-financial matters and ensures the quality of the information provided to shareholders and financial markets.

The Board of Directors is assisted by the four committees it has created: the Audit Committee, the Governance and Ethics Committee, the Compensation Committee, and the Strategy & CSR Committee. The duties of the Board of Directors and of the Committees are described in point 4.1.2 of chapter 4.

The composition of the Board of Directors reflects the diversity and complementary of experience, skills, nationalities and cultures that are critical to addressing the interests of all of the Company's shareholders and stakeholders.

Composition as of March 13, 2024

14	1	82%	5.7 years	45.5%	7
directors	Lead Independent Director	independent directors[(a)]	Average years of service on the Board	of women[(b)]	nationalities represented

(a) Excluding the director representing employee shareholders and the directors representing employees, in accordance with the recommendations of the AFEP-MEDEF Code (point 10.3). For more information, refer to point 4.1.1.4 in chapter 4.
(b) Excluding the directors representing employees in accordance with Article L. 225-27-1 of the French Commercial Code and the director representing employee shareholders in accordance with Articles L. 225-23 and L. 22-10-5 of the French Commercial Code.

Complementary skills to meet strategic challenges of the Company

The Governance and Ethics Committee conducts its work within the framework of a formal procedure so as to ensure that the directors' skills are complementary and their backgrounds are diverse, to maintain an overall proportion of independent members that is appropriate to the Corporation's governance structure and shareholder base, to allow for a balanced representation of women and men on the Board, and to promote an appropriate representation of directors of different nationalities. These principles underpin the selection process for directors.

As part of a process undertaken for several years, the composition of the Board of Directors has changed significantly since 2010 to achieve better gender balance and an openness to more international profiles.

Skills of the directors

	Patrick Pouyanné	Jacques Aschenbroich	Marie-Christine Coisne-Roquette	Lise Croteau	Mark Cutifani	Romain Garcia-Ivaldi	Glenn Hubbard	Maria van der Hoeven	Anne-Marie Idrac	Emma de Jonge	Anelise Lara	Jean Lemierre	Dierk Paskert	Angel Pobo	Total	Total (%)
Corporate management	✓	✓	✓	✓	✓				✓		✓	✓	✓		9	64%
International	✓		✓	✓	✓	✓	✓	✓	✓			✓	✓		10	71%
Finance, accounting, economics	✓	✓	✓	✓		✓	✓				✓	✓	✓		9	64%
Risk management			✓	✓				✓			✓	✓	✓		6	43%
Governance	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		12	86%
Climate - sustainable development	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓		11	79%
Industry	✓	✓	✓	✓	✓	✓				✓	✓		✓		9	64%
Energy	✓		✓	✓		✓		✓		✓	✓		✓	✓	9	64%
Public affairs, geopolitics	✓	✓	✓		✓		✓	✓	✓		✓	✓	✓		10	71%

The skills of directors are detailed in points 4.1.1.1 and 4.1.1.5 of chapter 4.

A Board committed to meeting the Company's strategic priorities, with dedicated and involved directors

9 meetings of the Board of Directors 97.6% attendance	**1** executive session chaired by the Lead Independent Director	**7** meetings of the Audit Committee 100% attendance	**5** meetings of the Governance and Ethics Committee 96% attendance	**3** meetings of the Compensation Committee 100% attendance	**3** meetings of the Strategy & CSR Committee 100% attendance

Main activities of the Board of Directors in 2023

Major investments/divestments

- Spin off project of Canadian oil sands
- Approval of the sale of the Canadian subsidiary of TotalEnergies specializing in the production of oil sands to Suncor
- Update on the sale project of station networks and fuel card activities in Germany and Benelux
- Exercise of the purchase option on the entire capital of Total Eren
- Update on the calls for tenders won by the Company in Brazil in the contractual areas of Sépia and Atapu

Audit – Risks

- Update on the 2022 internal audit and 2023 audit plan
- Risk mapping
- Cybersecurity risk

Governance

- Terms of mandate of directors and Committees members
- Unified management form and renewal of the terms of office of Mr. Patrick Pouyanné
- Succession plan
- Proposal to be submitted to the Shareholders' Meeting on May 26, 2023 to eliminate double voting rights
- Corporate sustainability reporting directive
- 2024 work program for the Board of Directors

Strategy – CSR

- The Company's 5-year plan
- Shareholder return policy
- Sustainability & Climate – Progress Report 2023, reporting on the progress made in the implementation of the Corporation's ambition with respect to sustainable development and energy transition towards carbon neutrality and its related targets by 2030 and complementing this ambition
- Strategic seminar
- The Corporation's policy on gender equality and pay equity
- Ethics and Compliance Policy and review of ethics and compliance activities in the Company
- Update on relationships between TotalEnergies and Adani Group

Compensation

- Determination of the compensation for the Chairman and Chief Executive Officer and directors for the 2022 fiscal year
- Compensation policy for the Chairman and Chief Executive Officer and directors for the 2023 fiscal year
- 2023 performance share plan
- Adoption of a clawback policy
- Obligation to hold a higher number of shares for the Chairman and Chief Executive Officer and for members of the Executive Committee
- 2023 share capital increase reserved for employees

A UNIFIED MANAGEMENT STRUCTURE, TAILORED TO THE COMPANY'S REQUIREMENTS

Management of the Corporation is assumed either by the Chairperson of the Board of Directors (who then holds the title of Chairman and Chief Executive Officer), or by another person appointed by the Board of Directors with the title of Chief Executive Officer. It is the responsibility of the Board of Directors to choose between these two forms of management under the majority rules described above.

At its meeting on December 16, 2015, the Board of Directors decided to reunify the positions of Chairperson and Chief Executive Officer of the Corporation as from December 19, 2015. Since that date, Mr. Pouyanné has held the position of Chairman and Chief Executive Officer of TotalEnergies SE. After his term of office as director was renewed for a three-year period at the Shareholders' Meeting on May 28, 2021, the Board of Directors reappointed Mr. Pouyanné as Chairman and Chief Executive Officer for the same period, expiring at the end of the 2024 Shareholders' Meeting called to approve the financial statements for fiscal year 2023.

The Board of Directors, at its meeting held on September 21, 2023, after having reaffirmed its support to the quality and the relevance of the strategy implemented, considered that it was highly desirable that Mr. Patrick Pouyanné, Chairman and Chief Executive Officer, continues to drive this strategy's deployment at the helm of the Company. On the proposal of the Governance and Ethics Committee, it therefore unanimously decided to propose the renewal of the mandate of Mr. Patrick Pouyanné to the Shareholders' Meeting to be held on May, 24 2024. In the frame of the balanced governance implemented since 2015, it also unanimously decided to propose the renewal of the mandate of Mr. Jacques Aschenbroich, who has held the position of Lead Independent Director since May 2023.

Unified management form

The discussions held with the Governance and Ethics Committee in the best interests of the Corporation had led to a firm proposal to continue to combine the functions of Chairman and Chief Executive Officer. Indeed, this management form of the Corporation is considered to be the most appropriate for dealing with the challenges and specificities of the energy sector, which is facing major transformations. More than ever, this context requires agility of movement, which the unity of command reinforces, by giving the Chairman and Chief Executive Officer the power to act and increased representation of the Corporation in its strategic negotiations with States and partners of the Company.

Balance of power

The unity of the power to manage and represent the Corporation is also particularly well regulated by the Corporation's governance.

The balance of power is established through the quality, complementarity and independence of the members of the Board of Directors and its four Committees, as well as through the Articles of Association and the Board's Rules of procedure, which define the means and prerogatives of the Lead Independent Director, notably:

- in his relations with the Chairman and Chief Executive Officer: contribution to the agenda of Board meetings or the possibility of requesting a meeting of the Board of Directors and sharing opinions on major issues;
- in his contribution to the work of the Board of Directors: chairing meetings in the absence of the Chairman and Chief Executive Officer, or when the examination of a subject requires his abstention, evaluation and monitoring of the functioning of the Board, prevention of conflicts of interest, and dialogue with the directors and Committee Chairpersons;
- in his relations with shareholders: the possibility, with the approval of the Chairman and Chief Executive Officer, of meeting with them on corporate governance issues, a practice that has already been used on several occasions.

The balance of power within the governance bodies, in addition to the independence of its members, is further strengthened by the full involvement of the directors, whose participation in the work of the Board and its Committees is exemplary. The diversity of their skills and expertise also enables the Chairman and Chief Executive Officer to benefit from a wide range of contributions.

In addition, the Board's rules of procedure provide that any investment or divestment transactions contemplated by the Company involving amounts in excess of 3% of shareholders' equity must be approved by the Board, which is also kept informed of all significant events concerning the Corporation's operations, in particular investments and divestments in excess of 1% of shareholders' equity.

Lastly, the Corporation's Articles of Association provide the necessary guarantees of compliance with good governance practices in the context of a unified management structure. In particular, they provide that the Board may be convened by any means, including orally, or even at short notice depending on the urgency of the matter, by the Chairman or by one third of its members, including the Lead Independent Director, at any time and as often as the interests of the Corporation require.

THE LEAD INDEPENDENT DIRECTOR, REFLECTING A BALANCED DISTRIBUTION OF POWER

Listening to investors and stakeholders, the Board of Directors pays special attention to the balance of power within the Company. It is in this context that the Board of Directors in 2015 amended the provisions of its rules of procedure to provide for the appointment of a Lead Independent Director in the event that the positions of Chairman of the Board of Directors and Chief Executive Officer are combined.

The Lead Independent Director's duties, resources and prerogatives which are described in the Rules of Procedure of the Board are extensive:

- the Chairman and Chief Executive Officer and the Lead Independent Director are the shareholders' dedicated contacts on issues that fall within the remit of the Board of Directors. In his relations with shareholders, the Lead Independent Director has the possibility, with the approval of the Chairman and Chief Executive Officer, to meet with shareholders on corporate governance issues, a practice that has already been used on several occasions;
- in his relations with the Chairman and Chief Executive Officer, the Lead Independent Director contributes to the agenda of Board meetings and has the possibility to request a meeting of the Board of Directors and to share opinions on major issues;
- in his contribution to the work of the Board of Directors, the Lead Independent Director chairs meetings in the absence of the Chairman and Chief Executive Officer, or when the examination of a subject requires his abstention. He is in charge of the assessment and monitoring of the functioning of the Board, the prevention of conflicts of interest, and dialogue with the directors and Committee Chairpersons.

Since 2016, the Lead Independent Director has organized executive sessions with the directors who do not hold executive or salaried positions on the Board of Directors, during which the directors may discuss the Company's strategic challenges and working practices. The directors are also in regular contact with the members of the management team, including members of the Executive Committee during Board meetings and operational managers during Company site visits. Through those interactions between directors and managers, the directors gain a practical understanding of the Company's activities.

The duties of the Lead Independent Director

A COMPENSATION POLICY OF THE EXECUTIVE DIRECTOR ALIGNED WITH THE COMPANY'S STRATEGIC TARGETS

The compensation awarded to the Chairman and Chief Executive Officer is indexed to key performance indicators used to measure the success of the Company's strategy.

In order to determine a compensation aligned with the Company's performance, the variable portion of the Chairman and Chief Executive Officer's compensation takes into account both quantifiable targets (financial, Safety and GHG emission evolution parameters) and qualitative criteria (personal contribution).

Conscious of the importance of climate challenges, the Board of Directors decided, starting in 2019, to change the criteria for determining the variable portion of the Chairman and Chief Executive Officer's compensation, in particular by integrating a quantifiable criterion related to the change in GHG emissions (Scope 1+2) from operated facilities. This criterion supplements those introduced in 2016 to better take into account the achievements of Corporate Social Responsibility (CSR) and HSE targets of the Company.

The Board of Directors has a proactive approach to this issue. Refer to point 4.3. of chapter 4.

1.8.2 An Executive Committee entrusted with implementing the Company's transition strategy

The Executive Committee, under the responsibility of the Chairman and Chief Executive Officer, is the decision-making body of the Company.

It implements the strategic vision defined by the Board of Directors and authorizes the corresponding capital expenditures, subject to the Board of Directors' approval for investments exceeding 3% of shareholders' equity and any significant transaction outside the scope of the Company's stated strategy, and subject to the Board's review for investments involving amounts exceeding 1% of shareholders' equity.

The Executive Committee meets as often as necessary and generally twice a month.

1.8.3 An operational structure built around the Company's business segments

As of December 31, 2023, the Company's organization was based on five business segments:

- an Exploration & Production segment that encompasses the activities of exploration and production of oil and natural gas, conducted in about 50 countries;
- an Integrated LNG segment covering the integrated gas chain (including upstream and midstream LNG activities) as well as biogas, hydrogen and gas trading activities;
- an Integrated Power segment covering electricity generation, storage, electricity trading and B2B-B2C distribution of gas and electricity;
- a Refining & Chemicals segment constituting a major industrial hub comprising the activities of refining, petrochemicals and specialty chemicals. This segment also includes the activities of oil supply, trading and marine shipping;
- a Marketing & Services segment including the global activities of supply and marketing in the field of petroleum products.

The Corporate segment includes the functional and financial activities of a holding company. The Holding's corporate entities include in particular Finance, Security, People & Social Engagement, Communications and Strategy & Sustainability divisions.

TotalEnergies SE is the parent company. It acts as a holding company and drives the Company's strategy.

The Company's operations are conducted through subsidiaries that are directly or indirectly owned by TotalEnergies SE and through interests in joint ventures that are not necessarily controlled by TotalEnergies. TotalEnergies SE has three secondary establishments in France, located in Lacq, Pau and Paris.

Corporate name: TotalEnergies SE

Headquarters: 2, place Jean Millier, La Défense 6, 92400 Courbevoie, France

Registered in Nanterre: RCS 542 051 180

LEI (Legal Entity Identifier): 529900S21EQ1BO4ESM68

EC Registration Number: FR 59 542 051 180

Date of incorporation: March 28, 1924

Term of the Corporation: extended for 99 years from March 22, 2000

Fiscal year: from January 1 to December 31 of each year

APE Code (NAF): 7010Z

totalenergies.com

The scope of consolidation of TotalEnergies SE as of December 31, 2023, consisted of 1,367 companies, including 192 equity companies. The principles of consolidation are described in Note 1.1 to the Consolidated Financial Statements and the list of companies included in the scope of consolidation can be found in Note 18 to the Consolidated Financial Statements (refer to point 8.7 of chapter 8).

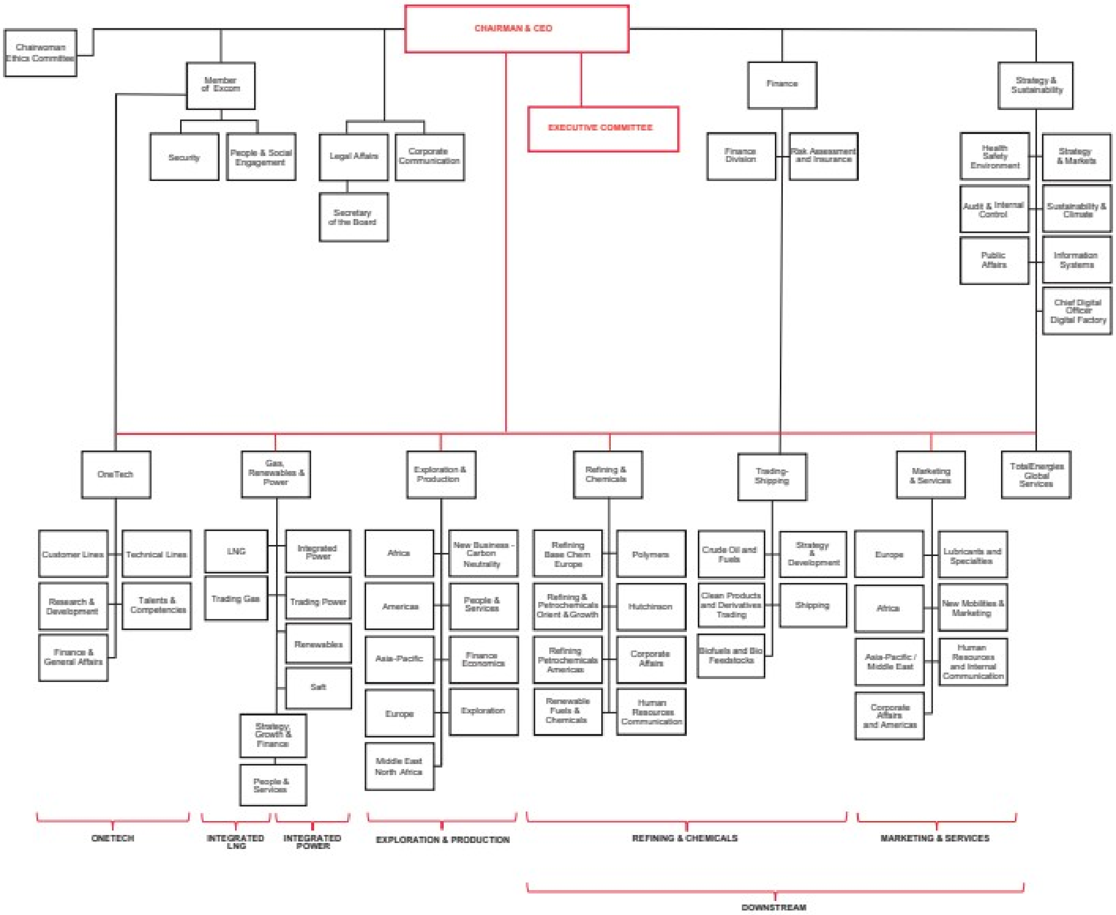
[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

TotalEnergies holds interests in a limited number of companies that issue financial instruments in France or abroad or whose financial instruments are listed in France or abroad. These companies are mainly the Company's financing vehicles (TotalEnergies Capital, TotalEnergies Capital International, TotalEnergies Capital Canada Ltd) or the operational subsidiaries in its business segments, in particular in Africa, such as TotalEnergies EP Gabon[1]. TotalEnergies also holds minority interests in other companies. The changes in the composition of the Company in 2023 are explained in Note 2 to the Consolidated Financial Statements (refer to point 8.7 of chapter 8).

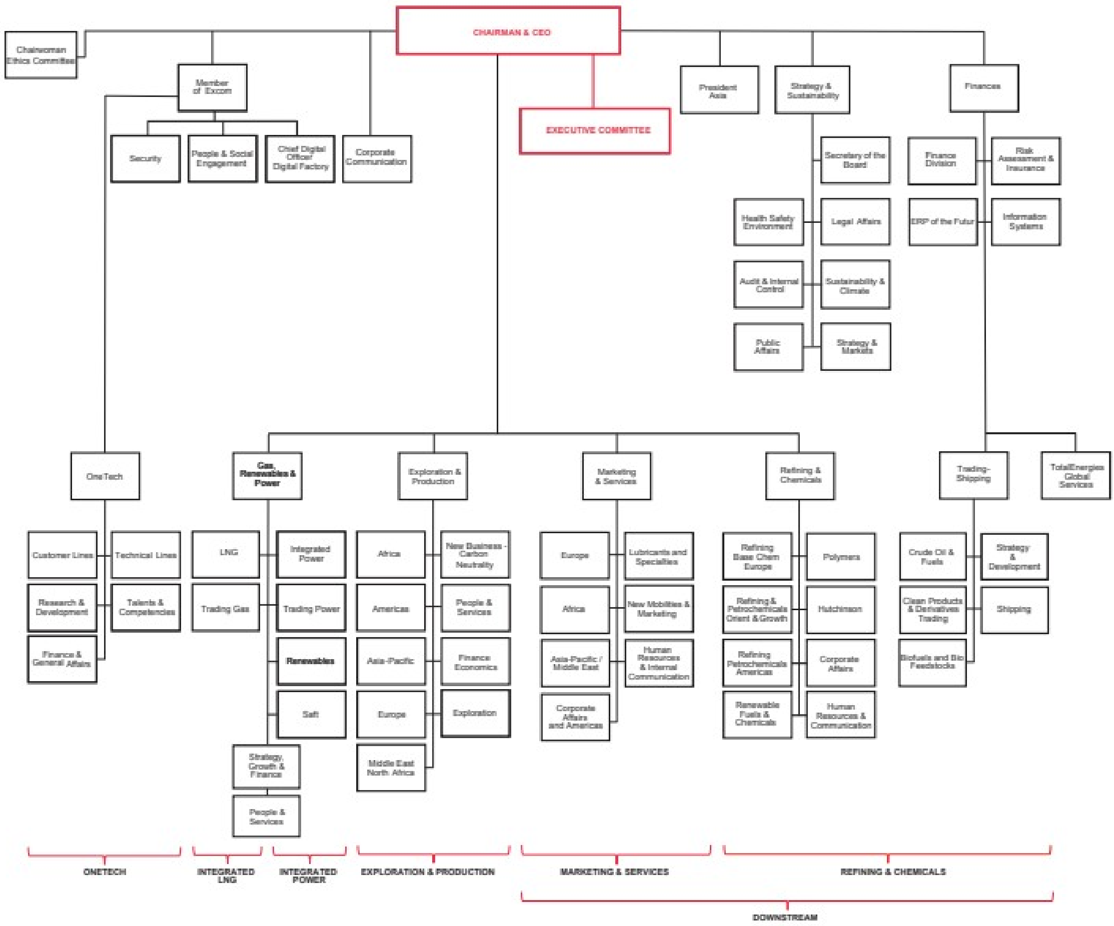
During fiscal year 2023, after exercising its option, TotalEnergies SE, bought the outstanding shares of Total Eren Holding bringing its direct interest to 100%, as well as an additional interest of 24.90% of Total Eren bringing its direct interest to 30.63% and its indirect interest to 100%. TotalEnergies SE did not acquire any other interest in companies with their registered office in France representing more than one twentieth, one tenth, one fifth, one third or one half of the capital of these companies or obtained control of such companies.

(1) TotalEnergies EP Gabon is a company under Gabonese law, listed on Euronext Paris. TotalEnergies holds 58.28%, the Republic of Gabon holds 25% and the public holds 16.72%.

Organisation chart as of December 31, 2023



Organisation chart as of February 1, 2024



1.8.4 Risk management system

TotalEnergies implements a comprehensive risk management system that is an essential factor in the deployment of its strategy. This system relies on an organization at Company level and in the business segments, on a continuous process of identifying and analyzing risks in order to determine those that could prevent the achievement of the goals as well as the analysis of management systems.

The Executive Committee is responsible for identifying and analyzing internal and external risks that could impact the achievement of the Company's objectives. For this purpose, it is assisted by the TotalEnergies Risk Management Committee (TRMC), which makes sure that the Company has mapped the risks to which it is exposed and that efficient risk management systems are suitable.

The TRMC relies notably on the work done by the business segments and functional divisions. The business segments are responsible for defining and implementing a risk management policy suited to their specific activities. However, the handling of certain cross-functional risks is more closely coordinated by the respective functional divisions.

Regarding commitments, General Management exercises operational control through the Executive Committee's approval of investments and expenses that exceed defined thresholds. The Risk Committee (Corisk) is tasked with reviewing these projects in advance, and in particular, with verifying the analysis of the various associated risks.

The Board of Directors' Audit Committee is responsible for monitoring the effectiveness of the risk management systems as well as of the internal audit. The audit plan, based on an analysis of risks and the risk management systems, is submitted annually to the Executive Committee and the Audit Committee.

For a detailed description of how the internal control and risk management procedures are structured, refer to point 3.3 of chapter 3.

1.9 Our financial performance

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

1.9.2 Liquidity and capital resources

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

BORROWING REQUIREMENTS AND FUNDING STRUCTURE

The Company's policy consists in incurring long-term debt at a floating or fixed rate, depending on its general corporate needs and the interest rate environment at the time of issue, mainly in dollars or euros. Long-term interest rate and currency swaps may be entered into for the purpose of hedging bonds at the time of issuance, synthetically resulting in the incurrence of variable or fixed rate debt. In order to partially alter the interest rate exposure of its long-term indebtedness, the Company may also enter into long-term interest rate swaps on an ad-hoc basis.

Long-term financial indebtedness is generally raised by central corporate treasury entities either directly in dollars or euros, or in other currencies exchanged for dollars or euros through currency swaps at issuance, in accordance with the Company's general corporate needs.

As of December 31, 2023, the Company's long-term financial debt, after taking into account the effect of currency and interest rate swaps, was 92% in US dollars and 20% at floating rates; as of December 31, 2022, these ratios were 91% and 21%, respectively.

In addition to its ongoing bond issuance activity, TotalEnergies SE regularly issues perpetual subordinated notes in one or several tranches and also regularly launches tender offers on some of its perpetual subordinated notes as part of their early refinancing. In May 2023, TotalEnergies SE reimbursed €1 billion of perpetual subordinated notes which were reaching their repayment date, without refinancing them. Thus, the outstanding amount of perpetual subordinated notes issued by TotalEnergies SE as of December 31, 2023, stood at €11.25 billion (amount of €12.25 billion as of December 31, 2022). The details of the portfolio of perpetual subordinated notes issued by TotalEnergies SE is disclosed in Note 9 of chapter 8, in the paragraph "Issuances of Perpetual subordinated notes".

In accordance with IAS 32 provisions "*Financial instruments – Presentation*" and given their characteristics (notably the absence of mandatory repayment and no obligation to pay a coupon except under certain circumstances specified into the documentation of the notes) the perpetual subordinated notes issued by TotalEnergies SE were accounted for as equity.

TotalEnergies has established standards for market transactions under which any banking counterparty must be approved in advance, based on an assessment of the counterparty's financial solidity (multi-criteria analysis including notably a review of its Credit Default Swap (CDS) level, credit ratings, which must be of high standing, and general financial situation).

An overall credit limit is set for each authorized financial counterparty and is allocated amongst the affiliates and the TotalEnergies central treasury entities, according to the financial needs.

To reduce the market valuation risk on its commitments, in particular relating to derivative financial instruments, the Treasury Department has entered into margin call agreements with its counterparties, in compliance with applicable regulations. Moreover, since December 21, 2018 and pursuant to Regulation (EU) No. 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR), any new interest rate hedging swap (excluding cross currency swaps) entered into by a TotalEnergies entity is now subject to central clearing.

Finally, since September 1, 2021, TotalEnergies has been applying Delegated Regulation (EU) N° 2016/2251 (supplementing Regulation (EU) N° 648/2012), regarding initial margin calls on certain OTC derivatives not cleared by a central counterparty.

CONDITIONS OF USE OF EXTERNAL FINANCINGS

As of December 31, 2023, the aggregate amount of the main committed credit facilities granted by international banks to TotalEnergies SE or some of its subsidiaries was $11,988 million (compared to $18,963 million as of December 31, 2022), of which $11,605 million was unutilized (compared to $18,510 million unutilized as of December 31, 2022).

TotalEnergies SE has committed credit facilities granted by international banks enabling it to benefit from significant liquidity reserves. As of December 31, 2023, these credit facilities amounted to $10,559 million (compared to $17,527 million as of December 31, 2022), of which $10,559 million was unutilized (compared to $17,527 million unutilized as of December 31, 2022).

The agreements underpinning credit facilities granted to TotalEnergies SE do not contain conditions related to the Corporation's financial ratios, to its credit ratings from specialized agencies, or to the occurrence of events that could have a material adverse effect on its financial position.

Credit facilities granted to the companies of the Company other than TotalEnergies SE are not intended to fund the Company's general corporate purposes; they are intended to fund either general corporate purposes of the borrowing affiliate, or a specific project.

ANTICIPATED SOURCES OF FINANCING

Investments, working capital, dividend payments and buybacks of its own shares by the Corporation are financed by cash flow from operating activities, asset disposals and, if necessary, by net borrowings.

For the coming years and based on the current financing conditions available in the financial markets, the Corporation intends to maintain this policy.

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

2

Business overview for fiscal year 2023

2.1 Upstream oil and gas activities

TotalEnergies' Upstream oil and gas activities encompass the oil and gas exploration and production activities of the Exploration & Production (E&P) and Integrated LNG segments. They are conducted in about 50 countries.

Main indicators

2.5 Mboe/d
of hydrocarbons produced in 2023

10.6 Gboe
of proved reserves of hydrocarbons as of December 31, 2023[1]

$5.5 /boe
Production costs (ASC932) in 2023[2]

18 kg/boe
Intensity of GHG emissions of Upstream oil & gas activities[3] based on equity share in 2023

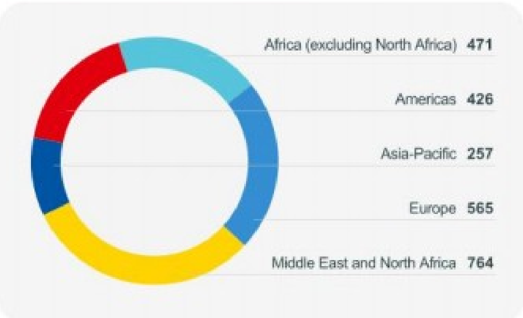
Production[4]

Hydrocarbon production	2023	2022	2021
Combined production *(kboe/d)*	2,483	2,765	2,819
Oil (including bitumen) *(kb/d)*	1,388	1,307	1,274
Gas (including condensates and associated NGL) *(kboe/d)*	1,095	1,458	1,545

Hydrocarbon production	2023	2022	2021
Combined production *(kboe/d)*	2,483	2,765	2,819
Liquids *(kb/d)*	1,550	1,519	1,500
Gas *(Mcf/d)*	5,028	6,759	7,203

Hydrocarbon production excluding Novatek	2023	2022	2021
Combined production *(kboe/d)*	2,483	2,437	2,508

Hydrocarbon production by geographical zone in 2023 *(kboe/d)*



Hydrocarbon production was 2,483 thousand barrels of oil equivalent per day in 2023, up 2% year-on-year (excluding Novatek) and was comprised of:

- +4% due to start-ups and ramp-ups, including Johan Sverdrup Phase 2 in Norway, Mero 1 in Brazil, Ikike in Nigeria, Block 10 in Oman, and Absheron in Azerbaijan;
- +1% due to improved security conditions in Nigeria and Libya;
- +1% due to lower planned maintenance and unplanned shutdowns, including at the Kashagan field in Kazakhstan;
- -1% portfolio effect related to the end of the Bongkot operating licenses in Thailand, exit from Termokarstovoye in Russia, disposal of the Canadian oil sands assets and effective withdrawal from Myanmar, partially offset by the entries in the producing fields of SARB Umm Lulu in the United Arab Emirates, of Sépia and Atapu in Brazil, of Ratawi in Iraq, and the increased participation in the Waha concessions in Libya;
- -3% due to the natural field declines.

(1) Based on a Brent price of $83.27/b (reference price in 2023) in accordance with the rules established by the Securities and Exchange Commission (see point 2.1.1 of this chapter).
(2) Production costs for the consolidated subsidiaries, calculated in accordance with ASC 932 standards, excluding special items (refer to point 9.1.5 of chapter 9).
(3) Excluding LNG assets. The GHG emissions intensity of Upstream oil & gas activities is reported on the asset scope, depending on the share of TotalEnergies stake in each asset, whether or not it is operated by the Company.
(4) TotalEnergies production = EP production + production of Integrated LPG.

Technical costs[a]

	2023	2022	2021
Production costs *($/boe)*	5.5	5.5	5.3
Exploration costs *($/boe)*	0.7	0.7	0.9
DD&A *($/boe)*	10.2	11.1	11.5
Technical costs *($/boe)*	16.4	17.3	17.7

(a) Technical costs for the consolidated subsidiaries, calculated in accordance with ASC 932[1] standards, excluding special items (refer to point 9.1.5 of chapter 9).

Production costs of the consolidated subsidiaries, calculated in accordance with ASC 932[1], amounted to $5,5/boe in 2023, same in 2022 and compared to $5.3/boe in 2021.

Liquids and gas sale price

Price realizations[a]	2023	2022	2021
Average liquids sales price *($/b)*	76.2	91.3	65.0
Average gas sales price *($/Mbtu)*	6.64	13.15	6.60

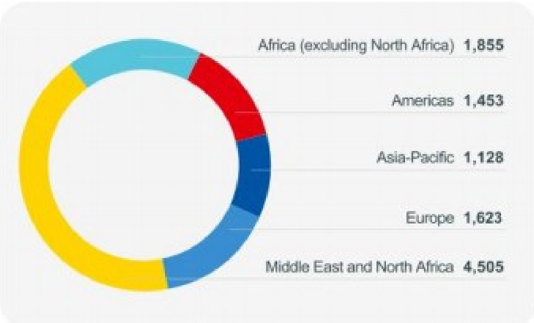
(a) Consolidated subsidiaries.

Proved reserves

As of December 31	2023	2022	2021
Hydrocarbon reserves *(Mboe)*	10,564	10,190	12,062
Oil (including bitumen) *(Mb)*	4,731	5,183	5,050
Gas (including Condensates and associated NGL) *(Mboe)*	5,833	5,007	7,012

As of December 31	2023	2022	2021
Hydrocarbon reserves *(Mboe)*	10,564	10,190	12,062
Liquids *(Mb)*	5,487	5,716	5,843
Gas *(Bcf)*	27,517	24,093	33,450

Hydrocarbon proved reserves by geographical zone *(in Mboe)*



Proved reserves of hydrocarbons established under the SEC rules (Brent at $83.27/b in 2023) were 10,564 Mboe as of December 31, 2023. The proved reserve replacement rate[2], based on SEC rules (Brent at $83.27/b in 2023), was 141% in 2023 and 40% over three years. Excluding Novatek, the 3-years proved reserves replacement rates was 106%.

2.1.1 Oil and gas reserves

The definitions used for proved, proved developed and proved undeveloped crude oil and natural gas reserves are in accordance with the United States Securities & Exchange Commission (SEC) Rule 4-10 of Regulation S-X as amended by the SEC Modernization of Oil and Gas Reporting release issued on December 31, 2008. Proved reserves are estimated using geological and engineering data to determine with reasonable certainty whether the crude oil or natural gas in known reservoirs is economically producible under existing regulatory, economic and operating conditions.

TotalEnergies' oil and natural gas reserves are consolidated annually, taking into account among other factors, levels of production, field reassessments, additional reserves from discoveries and extensions, disposals and acquisitions of reserves and other economic factors.

Unless otherwise indicated, any reference to TotalEnergies' proved reserves, proved developed reserves, proved undeveloped reserves and production reflects the TotalEnergies' entire share of such reserves or such production. TotalEnergies' worldwide proved reserves include the proved reserves of its consolidated entities as well as its proportionate share of the proved reserves of equity affiliates. The reserves estimation process involves making subjective judgments. Consequently, estimates of reserves are not exact measurements and are subject to revision under well-established control procedures.

(1) FASB Accounting Standards Codification 932, Extractive industries – Oil and Gas.
(2) Variation of reserves, excluding production: (revisions + discoveries & extensions + acquisitions - disposals)/production for the period.

The reserves booking process requires, among other actions:

- that an internal peer review of technical evaluations is carried out to ensure that the SEC definitions and guidance are followed; and
- that prior to booking proved reserves, management makes the necessary funding commitments required for their development.

For further information concerning the reserves and their evaluation process, refer to points 9.1 and 9.2 of chapter 9.

PROVED RESERVES FOR 2023, 2022 AND 2021

In accordance with the amended Rule 4-10 of SEC Regulation S-X, proved reserves as of December 31 are calculated using a 12-month average price determined as the unweighted arithmetic average of the first-day-of-the-month price for each month of the relevant year, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. The average reference prices for Brent crude for 2023, 2022 and 2021 were, respectively, \$83.27/b, \$101.24/b and \$69.23/b.

As of December 31, 2023, TotalEnergies' combined proved reserves of oil and gas were 10,564 Mboe (of which 6,835 Mboe were proved developed reserves) compared to 10,190 Mboe (of which 6,990 Mboe were proved developed reserves) as of December 31, 2022. As of December 31, 2023, the reserves were located in Africa (mainly in Angola, Mozambique, Nigeria and Uganda), the Americas (mainly in Argentina, Brazil and the United States), Asia-Pacific (mainly in Australia and Kazakhstan), Europe (mainly in Denmark, Norway, and the United Kingdom) and the Middle East and North Africa (mainly in Libya, Qatar, the United Arab Emirates and Yemen).

Natural gas and related products (condensates and natural gas liquids) represent approximately 55% of these reserves, and crude oil 45%.

Discoveries of new fields and extensions of existing fields added, excluding Novatek, 716 Mboe to TotalEnergies' proved reserves during the three years 2021, 2022 and 2023 (before deducting production and sales of reserves and without adding any reserves acquired during this period). The revisions over the same period, excluding Novatek, are +1,504 Mboe, mainly due to fields performance, to Arctic LNG 2 project reserves deconsolidation and to the net impact of the changes in hydrocarbon prices in 2021 (increase), in 2022 (increase) and in 2023 (decrease).

RESERVE SENSITIVITY TO OIL AND GAS PRICES

Changes in the price used as a reference for the proved reserves estimation result in non-proportionate inverse changes in proved reserves associated with production sharing and risked service contracts (which together represent approximately 27% of TotalEnergies' reserves as of December 31, 2023). Under such contracts, TotalEnergies is entitled to a portion of the production, the sale of which is meant to cover expenses incurred by TotalEnergies. The greater the oil prices decrease, the greater the number of barrels necessary to cover the same amount of expenses. In addition, the number of barrels economically producible under these contracts may vary according to criteria such as cumulative production, the rate of return on investment or the income-cumulative expenses ratio. This increase in reserves is partly offset by a reduction of the duration over which fields are economically producible. However, the effect of a reduction in the duration of production is usually inferior to the impact of the drop in prices in production sharing contracts or risked service contracts and consequently lower prices usually lead to an increase in TotalEnergies' reserves, and vice versa.

Finally, for any type of contract, a significant decrease in the reference price of petroleum products that negatively impacts projects' profitability may lead to a reduction in proved reserves, and vice versa.

2.1.2 Exploration

TotalEnergies evaluates exploration opportunities based on a variety of geological, technical, political, economic (including tax and contractual terms), environmental and societal factors.

In line with the Company's strategy, TotalEnergies has increased the selectivity of its exploration investments with a greater focus on oil prospects with low technical costs, low GHG emissions and which can be put into production quickly, and on gas targets, in areas where they can provide feedstock to existing LNG infrastructure and future projects. In addition to these criteria, the Company ensures to balance its exploration investments between mature regions (35%; with a relatively low level of geological risk, situated near existing producing fields and infrastructure), emerging regions (50%; in under-explored areas but where the presence of hydrocarbons is already proven), and in frontier basins (15%; where there is a chance of making major discoveries).

This approach has led to numerous significant discoveries since 2021, notably in Suriname (discovery of Sapakara South and Krabdagu on block 58, 50%), in Cyprus (discovery of Cronos on block 6, 50%) and in Namibia (discovery of Venus on block 2913B, 40%). In addition, discoveries were made near existing infrastructure in Nigeria (discovery of Ntokon on license OML102, 40%)

In 2023, the Company's exploration expenditure was \$880 million compared to \$800 million in 2022 and 2021, in addition, appraisal activities were mainly devoted to the Venus discovery in Namibia (Venus-1X well test, drilling and testing of Venus-1A) and the completion of the appraisal in Suriname (drilling of Krabdagu-2 and Krabdagu-3).

2.1.3 Hydrocarbon production

The average daily production of liquids and natural gas was 2,483 kboe/d in 2023, compared to 2,765 kboe/d in 2022 and 2,819 kboe/d in 2021.

Gas and associated products (condensates and natural gas liquids) represented approximately 44% of TotalEnergies' overall oil and gas production in 2023, compared to 53% in 2022 and 55% in 2021. Crude oil and bitumen represented 56% in 2023, compared to 47% in 2022 and 45% in 2021.

The tables on the following pages set forth TotalEnergies' annual and average daily production of liquids and natural gas by geographic zone and for each of the last three fiscal years.

Consistent with industry practice, TotalEnergies often holds a percentage interest in its fields with the balance being held by joint-venture partners (which may include other international oil companies, state-owned oil companies or public entities). TotalEnergies entities may frequently act as the operator, *i.e.*, meaning the party responsible for the execution of technical production on the fields in which it holds an interest). For further information, refer to the table on producing assets by geographical zone below.

In 2023, as in 2022 and 2021, the Trading & Shipping unit of the Refining & Chemicals segment marketed substantially all of TotalEnergies' liquids production (refer to the table regarding Trading & Shipping's crude oil sales and supply and petroleum products sales in Section 2.5.2.1 of this chapter).

PRODUCTION BY GEOGRAPHICAL ZONE

The following table sets forth TotalEnergies' annual liquids and natural gas production by geographical zone.

	2023			2022			2021		
	Liquids Mb[(a)]	Natural gas Bcf[(b)(c)]	Total Mboe	Liquids Mb[(a)]	Natural gas Bcf[(b)(c)]	Total Mboe	Liquids Mb[(a)]	Natural gas Bcf[(b)(c)]	Total Mboe
Africa (excl. North Africa)	**127**	**224**	**172**	**131**	**213**	**173**	**145**	**248**	**194**
Angola	52	45	61	56	44	65	55	47	64
Republic of the Congo	24	7	25	26	9	27	32	11	34
Gabon	6	2	6	6	2	6	8	2	9
Nigeria	45	170	80	43	158	75	50	188	87
Americas	**92**	**356**	**155**	**87**	**383**	**155**	**65**	**396**	**136**
Argentina	3	161	32	2	160	31	2	151	30
Bolivia	2	64	13	2	81	16	2	87	18
Brazil	48	6	49	37	4	38	18	1	18
Canada	31	–	31	37	–	37	33	–	33
United States	8	125	30	9	127	31	9	137	33
Venezuela	–	–	–	–	11	2	1	20	4
Asia-Pacific	**39**	**294**	**94**	**33**	**350**	**96**	**40**	**418**	**113**
Australia	11	176	44	11	163	41	11	167	42
Brunei	1	15	3	<1	16	4	1	18	4
China	<1	62	12	<1	54	10	<1	47	9
Indonesia	–	2	<1	–	3	1	<1	4	1
Kazakhstan	27	28	33	20	18	23	25	26	30
Myanmar	–	–	–	–	23	3	–	46	6
Thailand	<1	11	2	2	73	14	3	110	21
Europe	**85**	**657**	**206**	**102**	**1,251**	**335**	**109**	**1,260**	**343**
Azerbaïjan	2	19	5	–	–	–	–	–	–
Denmark	8	18	12	9	19	12	9	19	12
Italy	7	1	7	5	1	6	7	1	7
Norway	50	199	87	45	187	80	49	168	80
Netherlands	<1	19	3	<1	25	4	<1	27	5
United Kingdom	16	190	52	19	229	62	17	217	58
Russia	2	211	40	24	790	171	27	828	181
Middle East and North Africa	**223**	**304**	**279**	**201**	**270**	**250**	**188**	**306**	**243**
Algeria	8	55	19	11	62	22	10	48	19
Egypt	<1	13	3	<1	7	1	–	–	–
United Arab Emirates	127	12	129	114	13	116	99	16	102
Iraq	6	2	6	4	1	4	5	1	5
Libya	32	16	35	26	11	29	29	8	30
Oman	10	53	20	10	27	15	9	26	14
Qatar	40	153	67	36	149	63	36	207	73
Yemen	–	–	–	<1	–	<1	–	–	–
Total production	**566**	**1,835**	**906**	**554**	**2,467**	**1,009**	**547**	**2,628**	**1,029**
Including share of equity affiliates	**55**	**366**	**122**	**75**	**942**	**250**	**75**	**1,037**	**267**
Angola	2	28	7	2	25	6	1	29	7
United Arab Emirates	9	12	11	9	12	12	9	14	11
Oman	9	27	15	10	27	15	9	26	14
Qatar	33	88	49	31	88	47	29	140	54
Russia	2	211	40	23	790	170	26	828	180
Venezuela	–	–	–	–	–	–	1	<1	1

(a) Liquids include crude oil, bitumen, condensates, and natural gas liquids (NGL).
(b) Including fuel gas (144 Bcf in 2023, 179 Bcf in 2022 and in 2021).
(c) Gas conversion ratio: 1 boe = 1 b of crude oil =5,388 cf of gas in 2023 (5,422 cf of gas in 2022 and 5,458 cf of gas in 2021).

The following table sets forth TotalEnergies' average daily liquids and natural gas production by geographical zone.

	2023			2022			2021		
	Liquids kb/d[(a)]	Natural gas Mcf/d[(b)(c)]	Total kboe/d	Liquids kb/d[(a)]	Natural gas Mcf/d[(b)(c)]	Total kboe/d	Liquids kb/d[(a)]	Natural gas Mcf/d[(b)(c)]	Total kboe/d
Africa (excluding North Africa)	**348**	**614**	**471**	**358**	**584**	**474**	**398**	**681**	**532**
Angola	143	122	166	155	120	178	150	128	175
Republic of the Congo	65	20	69	70	26	75	88	32	94
Gabon	16	5	17	16	5	17	23	4	24
Nigeria	124	467	219	117	433	204	137	517	239
Americas	**251**	**975**	**426**	**238**	**1,048**	**425**	**179**	**1,086**	**372**
Argentina	7	442	87	6	438	85	7	413	81
Bolivia	4	175	35	5	223	45	6	238	49
Brazil	132	17	135	102	10	104	48	3	49
Canada	86	–	86	101	–	101	91	–	91
United States	22	341	83	24	347	85	25	377	92
Venezuela	–	–	–	–	30	5	2	55	10
Asia-Pacific	**107**	**805**	**257**	**91**	**960**	**262**	**107**	**1,145**	**307**
Australia	31	482	120	30	447	113	31	459	116
Brunei	1	42	9	1	45	10	1	50	11
China	<1	170	31	<1	147	27	<1	129	24
Indonesia	–	5	1	–	8	1	<1	11	2
Kazakhstan	74	76	90	54	49	64	67	71	81
Myanmar	–	–	–	–	64	8	–	125	16
Thailand	1	30	6	6	200	39	8	300	57
Europe	**232**	**1,801**	**565**	**280**	**3,427**	**918**	**300**	**3,453**	**941**
Azerbaïjan	5	53	14	–	–	–	–	–	–
Denmark	22	50	32	24	51	34	24	52	34
Italy	18	2	18	15	2	15	18	3	19
Norway	138	546	239	123	514	218	135	462	220
Netherlands	<1	52	9	<1	69	12	<1	73	13
United Kingdom	44	521	142	53	626	171	48	594	159
Russia	5	577	111	65	2,165	468	75	2,269	496
Middle East and North Africa	**612**	**833**	**764**	**552**	**740**	**686**	**516**	**838**	**667**
Algeria	24	151	51	31	169	61	28	132	51
Egypt	<1	37	7	<1	19	3	–	–	–
United Arab Emirates	347	34	353	311	35	318	272	42	280
Iraq	17	4	18	11	4	12	13	3	14
Libya	88	42	96	73	32	79	80	23	84
Oman	28	145	55	26	74	40	25	72	39
Qatar	108	420	184	100	407	173	98	566	199
Yemen	–	–	–	<1	–	<1	–	–	–
Total production	**1,550**	**5,028**	**2,483**	**1,519**	**6,759**	**2,765**	**1,500**	**7,203**	**2,819**
Including share of equity affiliates	**150**	**1,004**	**335**	**203**	**2,581**	**682**	**206**	**2,842**	**732**
Angola	4	77	19	4	69	17	4	78	19
United Arab Emirates	24	34	30	25	34	31	24	40	31
Oman	26	73	40	26	74	40	25	72	39
Qatar	91	243	135	84	240	128	80	385	149
Russia	5	577	111	64	2,164	466	71	2,267	492
Venezuela	–	–	–	–	–	–	2	<1	2

(a) Liquids include crude oil, bitumen, condensates, and natural gas liquids (NGL).
(b) Including fuel gas (394 Mcf/d in 2023, 490 Mcf/d in 2022 and in 2021).
(c) Gas conversion ratio: 1 boe = 1 b of crude oil = 5,388 cf of gas in 2023, (5,422 cf of gas in 2022 and 5,458 cf of gas in 2021).

PRODUCING ASSETS BY GEOGRAPHICAL ZONE

The table below shows TotalEnergies' producing assets at December 31, 2023[1] by geographical zone, the year in which TotalEnergies' activities started in the country, the interest held in the asset (TotalEnergies' stake in %) and whether TotalEnergies operates the asset.

Africa (excluding North Africa)	Exploration & Production segment	Integrated LNG segment
Angola (1953)	**Operated:** Girassol, Dalia, Pazflor, CLOV (Block 17) (38.00%), Kaombo (Block 32) (30.00%)	
	Non-operated: Cabinda Block 0 (10.00%)	**Non-operated:** Angola LNG (13.60%)
Gabon (1928)	**Operated:** Baudroie Marine G5-143 (90,00%), Pointe Clairette Cap Lopez G6-5 (100,00%), Grand Anguille Marine G6-16 (100,00%), N'Tchengué G6-9 (100,00%), N'Tchengué Océan G6-14 (100,00%), Port Gentil Océan G6-15 (100,00%), Torpille G6-17 (100,00%)	
Nigeria (1962)	**Operated:** OML 99 Amenam-Kpono (30.40%), OML 99 Ikike (40.00%), OML 100 (40.00%), OML 102 Ofon (40.00%), PML 2/3 (ex OML 130), Akpo/Egina (24.00%)	**Operated:** OML 58 (40.00%)
	Non-operated: Shell Petroleum Development Company (SPDC) (10.00%), OML 118 Bonga (12.50%), OML 138 (20.00%)	**Non-operated:** Nigeria LNG (15.00%)
Republic of the Congo (1968)	**Operated:** Moho Bilondo (53.50%), Moho Nord (53.50%), Nkossa (53.50%), Nsoko (53.50%), Sendji (55.25%), Yanga (55.25%)	
	Non-operated: Lianzi (26.75%)	

Americas	Exploration & Production segment	Integrated LNG segment
Argentina (1978)	**Operated:** Aguada Pichana Este – Mulichinco (27.27%), Aguada Pichana Este – Vaca Muerta (55.00%), Aguada San Roque (24.71%), Rincon La Ceniza (45.00%), La Escalonada (45,00%), Aries (37.50%), Cañadon Alfa Complex (37.50%), Carina (37.50%), Hidra (37.50%), Kaus (37.50%), Vega Pleyade (37.50%)	
Bolivia (1995)	**Operated:** Incahuasi (50.00%)	
	Non-operated: San Alberto (15.00%), San Antonio (15.00%), Itaú (41.00%)	
Brazil (1975)	**Operated:** Lapa (45.00%)	
	Non-operated: Libra (19.3%), Iara (22.50%), Atapu ToR Surplus (22.50%), Sepia ToR Surplus (28.00%)	
United States (1957)	**Non-operated:** Tahiti (17.00%), Jack (25.00%)	**Operated:** several assets in the Barnett basin (95% on average)

Asia-Pacific	Exploration & Production segment	Integrated LNG segment
Australia (2006)		**Not operated:** several assets in the GLNG (27.50%)[a], Ichthys (26.00%)
Brunei (1986)	**Operated:** Maharaja Lela Jamalulalam (37.50%)	
China (2006)	**Non-operated:** South Sulige (49.00%)	
Indonesia (1968)	**Non-operated:** Sebuku (15.00%)	
Kazakhstan (1992)	**Non-operated:** Kashagan (16.81%)	

(a) TotalEnergies' interest in the unincorporated joint venture.

(1) TotalEnergies' interest in the local entity is approximately 100% in all cases except for TotalEnergies EP Gabon (58.28%), TotalEnergies EP Congo (85.00%) and Oman (refer to the table foot notes below).

Europe	Exploration & Production segment	Integrated LNG segment
Azerbaijan	**Non-operated:** Absheron (50.00%)	
Denmark (2018)	**Operated:** Danish Underground Consortium (DUC) zone (43.20%), comprising the Dan/Halfdan, Gorm and Tyra fields, and all their satellites	
Italy (1960)	**Operated:** Tempa Rossa (50.00%)	
Norway (1965)	**Operated:** Skirne (40.00%), Atla (40.00%)	
	Non-operated: Johan Sverdrup (8.44%), Åsgard (7.81%), Ekofisk (39.90%), Eldfisk (39.90%), Embla (39.90%), Tor (48.20%), Flyndre (6.26%), Islay (5.51%)[(a)], Kristin (6.00%), Kvitebjørn (5.00%), Oseberg (14.70%), Oseberg East (14.70%), Oseberg South (14.70%), Troll (3.69%), Tune (10.00%), Tyrihans (23.15%), Tommeliten Alpha (20.14%)	**Non-operated:** Snøhvit (18.40%)
Netherlands (1964)	**Operated:** F15a (38,20%), J3a (30.00%), K1a (40.10%), K2c (60,00%), K3b (56.16%), K4a (50.00%), K4b/K5a (36.31%), K5b (50.00%), K6 (56.16%), L1a (60.00%), L1d (60.00%), L1e (55.66%), L1f (55.66%), L4a (55.66%)	
	Non-operated: E16a (16.92%), E17a/E17b (14.10%), J3b/J6 (25.00%), Q16a (6.49%)	
United Kingdom (1962)	**Operated:** Alwyn North (100.00%), Dunbar (100.00%), Ellon (100.00%), Forvie North (100.00%), Grant (100.00%), Jura (100.00%), Nuggets (100.00%), Islay (94.49%)[(a)], Elgin-Franklin (46.17%), West Franklin (46.17%), Glenelg (58.73%), Culzean (49.99%), Laggan Tormore, Edradour and Glenlivet (all 40.00%), Gryphon (86.50%), Maclure (38.19%), South Gryphon (89.88%), Tullich (100.00%), Ballindalloch (91.80%)	
	Non-operated: Bruce (1.00%), Markham unitized field (7.35%), Harding (30.00%)	
Russia (1991)	None [(b)]	**Non-operated:** Yamal LNG (20.02%)[(c)]

(a) The Islay field extends partially into Norway. TotalEnergies EP UK holds a 94.49% interest and TotalEnergies EP Norge 5.51%.
(b) TotalEnergies no longer equity account for its 19.4% stake in Novatek as of December 31, 2022.
(c) TotalEnergies'direct interest of 20.02% in Yamal LNG.

Middle East and North Africa	Exploration & Production segment	Integrated LNG segment
Algeria (1952)	**Non-operated:** TFT II (49.00%), Timimoun (37.75%), 404a & 208 (12.25%)	
Egypt (2010)	**Non-operated:** NEHO (25.00%)	
United Arab Emirates (1939)	**Non-operated:** ADNOC Onshore (10.00%), ADNOC Offshore: Umm Shaif/Nasr (20.00%), Lower Zakum (5.00%), SARB/Umm Lulu (20.00%)), ADNOC Gas Processing (15.00%)	**Non-operated:** ADNOC LNG (5.00%)
Iraq (1924)	**Operated:** Ratawi (GGIP) (45%)	
	Non-operated: Halfaya (22.50%)	
Libya (1959)	**Non-operated:** zones 15, 16 & 32 (37.50%)[(a)], zones 129 & 130 (15.00%)[(a)], zones 130 & 131 (12.00%)[(a)], zones 70 & 87 (37.50%)[(a)], Waha (20.41%)	
Oman (1937)	**Non operated:** Block 6 (4.00%)[(b)]	**Non-operated:** Oman LNG (5.54%), Qalhat LNG (2.04% through Oman LNG), Block 10 (26.55%)
Qatar (1936)	**Operated:** Al Khalij (40.00%)	
	Non-operated: North Field-Block NF Dolphin (24.50%), Al Shaheen (30.00%)	**Non-operated:** North Field-QatarEnergy LNGN(2) (ex Qatargas 2) Train 5 (16.70%)

(a) The interest in these assets is now reported according to the TotalEnergies interest in these assets, and no longer according to the interest in the foreign consortium as in previous years.
(b) TotalEnergies' indirect interest (4.00%) in the concession through its 10.00% stake in Private Oil Holdings Oman Ltd.

2.1.4 Delivery commitments

The majority of TotalEnergies' natural gas production is sold under long-term contracts. However, most of its North American and United Kingdom production, and part of its Norwegian production, is sold on the spot market. Spot market trading of Russian LNG was halted at the end of 2022.

The long-term contracts under which TotalEnergies sells its natural gas usually provide for a price related to, among other factors, average crude oil and other petroleum product prices, as well as, in some cases, a cost-of-living index. Though the price of natural gas tends to fluctuate in line with crude oil prices, a slight delay may occur before changes in crude oil prices are reflected in long-term natural gas prices.

Some of TotalEnergies' long-term contracts provide for the delivery of quantities of natural gas that may or may not be fixed and determinable. Such delivery commitments vary substantially, both in duration and scope, from contract to contract throughout the world. TotalEnergies expects to fulfill most of these obligations through the production of its proved reserves of natural gas and, if needed, additional sourcing from spot market purchases.

2.1.5 Contractual framework of Upstream oil and gas production activities

Licenses, permits and contracts governing the ownership of oil and gas interests by TotalEnergies' entities have terms that vary from country to country and are generally granted by or entered into with a government entity or a state-owned company or sometimes with private owners. These agreements and permits usually take the form of concessions or production-sharing contracts.

In the framework of oil concession agreements, the oil company (or consortium) owns the assets and the facilities and is entitled to the entire production. In exchange, the operating risks, costs and investments are the oil company's or the consortium's responsibility and it agrees to remit to the relevant host country, usually the owner of the subsoil resources, a production-based royalty, income tax, and possibly other taxes that may apply under local tax legislation.

Production sharing contracts (PSCs) involve a more complex legal framework than concession agreements. They define the terms and conditions of production sharing and set the rules governing the cooperation between the company (the contractor) or consortium (the contracting group) in possession of the license and the host country, which is generally represented by a state-owned company. The latter can thus be involved in operating decisions, cost accounting and production allocation. The contractor (or contracting group) undertakes the execution and financing, at its own risk, of all exploration, development or operational activities. In exchange, it is entitled to a portion of the production, known as "cost oil", the sale of which is intended to cover its incurred expenses (capital and operating costs). The balance of production, known as "profit oil", is then shared in varying proportions, between the contractor (or the contracting group), on the one hand, and the host country or state-owned company, on the other hand.

Today, concession agreements and PSCs can coexist, sometimes in the same country. Even though there are other contractual models, TotalEnergies' license portfolio is comprised mainly of concession agreements.

On most licenses, the partners and authorities of the host country, often assisted by international accounting firms, perform joint venture and PSC cost audits and ensure the observance of contractual obligations.

In some countries, TotalEnergies has also signed contracts called "risked service contracts", which are similar to production sharing contracts. However, the profit oil is replaced by a defined or determinable cash monetary remuneration, agreed by contract, which depends in particular on field performance parameters such as the amount of barrels produced.

Oil and gas exploration and production activities are subject to authorization granted by public authorities (licenses), which are granted for specific and limited periods of time and include an obligation to relinquish a large portion, or the entire portion in case of failure, of the area covered by the license at the end of the exploration period.

TotalEnergies pays taxes on income generated from its oil and gas production and sales activities under its concessions, PSCs and risked service contracts, as required by local regulations. In addition, depending on the country, TotalEnergies' production and sales activities may be subject to a number of other taxes, fees and withholdings, including special petroleum taxes and fees. The taxes imposed on oil and gas production and sales activities are generally substantially higher than those imposed on other industrial or commercial businesses.

2.1.6 Oil and gas acreage

As of December 31 *(in thousands of acres)*		2023 Undeveloped acreage[a]	2023 Developed acreage
Africa (excluding North Africa)	Gross	67,007	882
	Net	35,312	201
Americas	Gross	14,565	798
	Net	5,940	368
Asia-Pacific	Gross	13,821	1,039
	Net	9,302	317
Europe	Gross	7,819	910
	Net	3,218	221
Middle East and North Africa	Gross	53,805	3,653
	Net	10,868	650
Total	**Gross**	**157,017**	**7,282**
	Net[b]	**64,640**	**1,757**

(a) Undeveloped acreage includes licenses and concessions.
(b) Net acreage equals the sum of TotalEnergies' equity interests in gross acreage.

2.1.7 Productive wells

As of December 31 *(number of wells)*		2023 Gross productive wells	2023 Net productive wells[a]
Africa (excluding North Africa)	Liquids	1,301	354
	Gas	70	14
Americas	Liquids	136	30
	Gas	2,334	1,609
Asia-Pacific	Liquids	136	67
	Gas	4,363	1,352
Europe	Liquids	611	197
	Gas	465	119
Middle East and North Africa	Liquids	13,036	985
	Gas	194	66
Total	**Liquids**	**15,220**	**1,633**
	Gas	**7,426**	**3,160**

(a) Net productive wells corresponds to the sum of TotalEnergies' equity interests in gross productive wells.

2.1.8 Productive and dry wells drilled

As of December 31 *(number of wells)*	2023 Net productive wells drilled (a)(b)	2023 Net dry wells drilled (a)(c)	2023 Total net wells drilled (a)(c)	2022 Net productive wells drilled (a)(b)	2022 Net dry wells drilled (a)(c)	2022 Total net wells drilled (a)(c)	2021 Net productive wells drilled (a)(b)	2021 Net dry wells drilled (a)(c)	2021 Total net wells drilled (a)(c)
Exploration									
Africa (excluding North Africa)	2.4	0.4	2.8	0.4	0.9	1.3	1.1	0.8	1.9
Americas	1.6	–	1.6	1.4	1.1	2.5	2.0	1.8	3.8
Asia-Pacific	–	–	–	0.3	–	0.3	–	–	–
Europe	1.3	1.0	2.3	0.2	0.1	0.3	0.2	1.2	1.4
Middle East and North Africa	0.7	0.6	1.3	0.5	0.5	1.0	0.8	–	0.8
Total	**6.0**	**2.0**	**8.0**	**2.8**	**2.6**	**5.4**	**4.1**	**3.8**	**7.9**
Development									
Africa (excluding North Africa)	10.5	–	10.5	6.9	0.1	7.0	4.8	–	4.8
Americas(d)	22.8	–	22.8	22.4	–	22.4	14.7	–	14.7
Asia-Pacific	138.8	–	138.8	130.8	–	130.8	127.3	–	127.3
Europe	16.5	0.4	16.9	25.9	–	25.9	42.5	–	42.5
Middle East and North Africa	93.5	–	93.5	55.4	0.7	56.1	54.6	0.2	54.8
Total	**282.1**	**0.4**	**282.5**	**241.4**	**0.8**	**242.2**	**243.9**	**0.2**	**244.1**
Total	**288.1**	**2.4**	**290.5**	**244.2**	**3.4**	**247.6**	**248.0**	**4.0**	**252.0**

(a) Net wells equal the sum of TotalEnergies' equity interests in gross wells.
(b) Includes certain exploratory wells that were abandoned, but which would have been capable of producing hydrocarbons in sufficient quantities to justify completion.
(c) Note: service wells and stratigraphic wells are not reported in this table.
(d) The recompletion activities in Barnett are no longer reported. The 2021 (123.3) data has been restated.

2.1.9 Wells in the process of being drilled (including wells temporarily suspended)

As of December 31 *(number of wells)*	2023 Gross	2023 Net(a)
Exploration		
Africa (excluding North Africa)	2	0.8
Americas	1	0.4
Asia-Pacific	–	–
Europe	1	0.1
Middle East and North Africa	2	0.7
Total	**6**	**2.0**
Other wells(b)		
Africa (excluding North Africa)	85	23.1
Americas	50	15.7
Asia-Pacific	273	89.2
Europe	32	10.2
Middle East and North Africa	414	53.7
Total	**854**	**191.9**
Total	**860**	**193.9**

(a) Net wells equal the sum of TotalEnergies' equity interests in gross wells. Includes wells for which surface facilities permitting production have not yet been constructed. Such wells are also reported in the table "Number of net productive and dry wells drilled" above, for the year in which they were drilled.
(b) Other wells are development wells, service wells and stratigraphic wells.

2.1.10 Interests in pipelines

The table below shows the main interests held by TotalEnergies entities[1] in pipelines, as of December 31, 2023.

Pipeline(s)	Origin	Destination	(%) Interest	Operator	Liquids	Gas
Africa (excluding North Africa)						
Nigeria						
O.U.R	Obite	Rumuji	40.00	X		X
NOPL	Rumuji	Owaza	40.00	X		X
Americas						
Argentina						
TGM	Aldea Brasilera (Entre Rios)	Paso de Los Libres (Argentina--Brazil border)	32.68			X
Brazil						
TSB	Paso de Los Libres (Argentina--Brazil border)	Uruguayana (Brazil)	25.00			X
	Porto Alegre	Canoas	25.00			X
Asia-Pacific						
Australia						
GLNG	Fairview, Roma, Scotia, Arcadia	GLNG (Curtis Island)	27.50			X
Europe						
Azerbaijan						
BTC	Baku (Azerbaijan)	Ceyhan (Turkey, Mediterranean)	5.00		X	
Norway						
Frostpipe (inhibited)	Lille-Frigg, Froy	Oseberg	36.25		X	
Heimdal to Brae Condensate Line	Heimdal	Brae	16.76		X	
Kvitebjorn Pipeline	Kvitebjorn	Mongstad	5.00		X	
Norpipe Oil	Ekofisk Treatment Center	Teesside (United Kingdom)	34.93		X	
Oseberg Transport System	Oseberg, Brage and Veslefrikk	Sture	12.98		X	
Troll Oil Pipeline I and II	Troll B and C	Vestprosess (Mongstad refinery)	3.71		X	
Netherlands						
WGT K13-Den Helder	K13A	Den Helder	4.66			X
WGT K13-Extension	Markham	K13 (via K4/K5)	23.00			X
United Kingdom						
Alwyn Liquid Export Line	Alwyn North	Cormorant	100.00	X	X	
Bruce Liquid Export Line	Bruce	Forties (Unity)	1.00		X	
Graben Area Export Line (GAEL) Northern Spur	ETAP	Forties (Unity)	9.58		X	
Graben Area Export Line (GAEL) Southern Spur	Elgin-Franklin	ETAP	32.09		X	
Ninian Pipeline System	Ninian	Sullom Voe	16.36		X	
Shearwater Elgin Area Line (SEAL)	Elgin-Franklin, Shearwater	Bacton	25.73			X
SEAL to Interconnector Link (SILK)	Bacton	Interconnector	54.66	X		X
Middle East and North Africa						
United Arab Emirates						
Dolphin	North Field (Qatar)	Taweelah-Fujairah-Al Ain (United Arab Emirates)	24.50			X

(1) Excluding equity affiliates other than the Dolphin pipeline.

TotalEnergies

2.2 Exploration & Production segment

The Exploration & Production (EP) segment encompasses the activities of exploration and production of oil and natural gas, as well as the Carbon Neutrality activities, conducted in about 50 countries.

Main indicators

2.0 Mboe/d
of hydrocarbons produced in 2023

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[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

* Refer to the glossary for the definition and further information on alternative performance measures (Non-GAAP measures) and to point 1.9 of chapter 1 for reconciliation tables.

Production

Hydrocarbon production	2023	2022	2021
EP *(kboe/d)*	2,034	2,296	2,290
Liquids *(kb/d)*	1,492	1,466	1,437
Gas *(Mcf/d)*	2,900	4,492	4,662

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2.2.1 Presentation of the segment

To responsibly produce the oil and gas that the world needs today and to contribute to the Company's transition, the EP articulates its strategy around the following axes:

- meeting global demand for oil and gas by producing resources with low costs and greenhouse gas emissions, particularly gas, the least emitting fossil energy. To do this, the EP intends to put into production more than ten major projects by 2030;
- reducing GHG emissions to reduce the intensity of scope 1+2 emissions of its activities:
  - by conceiving designs that will avoid emissions on new projects as much as possible;
  - by implementing projects to improve energy efficiency, eliminate routine flaring, reduce its methane emissions on its operated sites by a further 50% by 2025 – with the ambition to reach this target a year early, in 2024 – and by 80% in 2030, compared to 2020 by 2030, reduce fuel gas consumption and capture and store emissions on its existing sites.
- while placing sustainable development at the heart of its operations and projects.

The safety of employees, stakeholders and facilities drives the day-to-day implementation of this strategy.

EP relies on the commitment, technical expertise and diversity of its employees, its operational excellence and its local roots, particularly in Africa, Northern Europe and the Middle East.

In order to increase cash flow generation and maximizes the value of its assets, EP is pursuing its efforts to maintain its competitive advantage as a low-cost production to maintain a high level of availability of its facilities and by starting-up its numerous projects on time and within budget.

In addition, TotalEnergies assesses its EP investment projects by considering an environment of \$50/b and a CO_2 price of \$100/t from 2025 in all countries and focuses on projects with technical costs of less than \$20/boe or where the break-even is less than \$30/b and where GHG emissions (Scope 1+2) are less than the average of its portfolio in 2023.

Lastly, the Company continues to dynamically manage its portfolio by restructuring or disposing of its least-performing EP assets and accessing new low-cost and low-emission resources, through exploration on the one hand and acquisition of resources already discovered on the other.

2.2.2 Management of GHG emissions

TotalEnergies aims to achieve carbon neutrality (net zero emissions) by 2050, together with society, and EP contributes to this ambition by working to avoid and reduce emissions on its facilities and developing natural carbon sinks.

The goals of EP in this area, in line with those of the Company, are based on three key elements:

- avoid GHG emissions by prioritizing the production of resources with the lowest impacts in terms of carbon footprint and by designing low-carbon infrastructures and operating procedures;
- reduce GHG emissions by developing and implementing a systematic approach in EP to identify and implement the best available technologies for reducing GHG emissions (Scope 1+2) and, if necessary, storing captured CO_2 underground;
- develop natural carbon sinks (nature-based solutions).

To this end, in September 2021, TotalEnergies created a new Carbon Neutrality division within EP, tasked with developing a global approach that will help to generate synergies. This division covers the following activities:

- Carbon Footprint Reduction (CFR) has the mission to reduce EP carbon emissions;
- Carbon Capture and Storage (CCS) has the mission to reduce the Company's GHG emissions (Scope 1+2) and its clients' emissions by developing a transport and storage offer;
- Nature Based Solutions (NBS), whose mission is to develop natural carbon sinks.

2.2.2.1 Reduction of the carbon footprint

The Carbon Footprint Reduction (CFR) entity manages the reduction of GHG emissions from oil & gas assets, both operated and non-operated, and consolidates the efforts made by all EP's subsidiaries in this area to improve energy efficiency, eliminate routine flaring and move towards the elimination of methane emissions on its operated installations by 2030, reduce fuel gas consumption, capture and store emissions on its existing sites.

On operated assets, the CFR entity assists the subsidiaries in implementing projects aimed to:

- reduce GHG emissions (Scope 1+2) from facilities and contributing to the Company's target of reducing GHG emissions 100% operated to 38 Mt CO_2e by 2025 and 25-30 Mt CO_2e by 2030;
- reduce routine flaring to less than 0.1 Mm^3/d by 2025, in order to eliminate it by 2030;
- reduce methane emissions by 50% between 2020 and 2025, and by 80% between 2020 and 2030 and maintain the intensity of methane emissions below 0.1% of commercial gas produced on gas facilities.

At the same time, as part of the Company's overall program to improve the energy efficiency of its facilities (budget of $1 billion for 2023-2024), EP has identified more than 345 initiatives to be carried out across the entire operated and non-operated scope for a total budget of $400 million.

The CFR entity also coordinates:

- the communication with partners and operators in order to encourage them to also implement emissions reduction projects on assets that the Company does not operate;
- the implementation of the OGMP 2.0 (Oil and Gas Methane Partnership 2.0[1]), initiative to which TotalEnergies subscribed in November 2020. In this context, in 2023, the IMEO (International Methane Emissions Observatory), – UNEP (United Nations Environment Program) has, for the third consecutive year, recognized the efforts of TotalEnergies as a major player in reducing methane emissions, confirming its "Gold Standard" status, and praising the actions implemented towards its partners in this area. Thus, recent cooperation agreements with National Oil & Gas Companies (Petrobras, Sonangol, NNPC, Socar and ONGC) to carry out methane detection and measurement campaigns using AUSEA technology, demonstrate the shared commitment to identify, quantify and reduce methane emissions and encourage the entire oil and gas industry to aim for Zero Methane Emission by 2030.

In addition to the continuous efforts deployed on projects to reduce emissions from existing assets, EP also deploys communication and training actions for employee and partners on climate issues and regarding the need to reduce GHG emissions.

2.2.2.2 CO_2 capture, storage and utilization

TotalEnergies believes that carbon capture and storage (CCS) is one of the necessary levers for combating climate change and is developing new businesses that will enable its industrial, residential and power-generating customers to capture, store and re-use/recycle their CO_2 emissions, by studying new industrial solutions tested on its own facilities.

Thus, the Company aims to develop CO_2 storage capacity of 10 Mt/y from 2030, for its own facilities and those of its customers. TotalEnergies is developing new business and industrial models associated with this value chain.

In **Norway**, in May 2020, TotalEnergies and its partners launched the development of the Northern Lights project (33%), the world's first commercial CO_2 transportation and storage project, with a capacity of 1.5 Mt CO_2/y for Phase 1. This project, supported by the Norwegian government, is expected to store emissions from two industrial sites located in the Oslo region (a Norcem Cement plant for 0.4 Mt CO_2/y and a Celsio waste incinerator for 0.4 Mt CO_2/y), as well as a Yara ammonia and fertilizer plant located in the Netherlands (0.7 Mt CO_2 /y). Studies are under way for a capacity expansion of up to 5 Mt CO_2/y. The Danish company Orsted has already expressed its interest in storing 0.4 Mt/y of biogenic CO_2 from two of its power plants powered by wood chips, in Phase 2 capacities.

(1) Source: An Eye on Methane: International Methane Emissions Observatory 2022 Report, UNEP (United Nations Environment Program).

In 2023, TotalEnergies acquired a 40% interest in the ExL004 CO_2 storage exploration license located 120 kilometers off the coast of Bergen, in 200 meters water depth (the "Luna" project).

In the **Netherlands**, TotalEnergies participates in the Aramis project (60%) which aims to store CO_2 permanently in depleted offshore gas fields, at a depth of approximately four kilometers below the seabed, thanks to new CO_2 transportation infrastructure connecting Rotterdam to these offshore fields. The Front End Engineering & Design studies (FEED) for phase 1 of the project started at the end of 2023 with an objective of starting the storage of 2.5 Mt CO_2/y in TotalEnergies operated fields. This storage capacity could be further expanded up to 5.5 Mt CO_2/y in later phases.

In **Denmark**, TotalEnergies holds two storage exploration licenses (80%). These two blocks cover an area including the Harald gas fields, currently operated by TotalEnergies and for which the Company is already assessing the CO_2 storage potential as part of the Bifrost project, as well as a saline aquifer that could increase stored volumes. A 3D seismic survey was carried out in the summer of 2023. Subject to evaluation and assessment work, this project could ultimately be able to provide the storage for more than 5 Mt CO_2/y.

In the **United Kingdom** the Company is part of the Northern Endurance Partnership (10%). This partnership was created to develop a project which includes collecting CO_2 in the industrial regions of Teesside and Humberside, transporting it offshore and storing it in a saline aquifer at respectively 85 km and 145 km from shore. The final investment decision for Phase 1 of the project (4 Mt CO_2/y) is scheduled for 2024 and the project aims to reach 10 Mt CO_2/y. In 2023 a third exploration block was obtained and assessment work launched, in addition to the two blocks obtained in 2022. These blocks will help to prepare the expansion phases for the project.

In **Australia**, TotalEnergies has a 26% interest in a joint venture that was awarded a CO_2 storage assessment license off the northwest coast in August 2022. This project could complement existing solutions to reduce greenhouse gas emissions from Ichthys LNG.

In **Malaysia**, TotalEnergies partnered with Petronas and Mitsui in 2023 to create a CO_2 storage hub in Southeast Asia. This partnership aims to develop a commercial CO_2 storage service to decarbonize industrial customers in Asia.

2.2.2.3 Natural carbon sinks

While TotalEnergies' priority is first to avoid and then to reduce its GHG emissions, the net emissions targets for Scope 1+2 take into account the contribution of nature-based carbon sink projects, that is to say sequestration projects, such as reforestation or regenerative agriculture or conservation projects that protect environments where significant amounts of carbon are already stored.

TotalEnergies intends to invest up to $100 million per year on average between 2020 and 2030 with the objective of reaching a stock of 100 Mt of carbon credits by 2030 and an annual quantity of carbon credits issued of at least 5 Mt of CO_2/y from 2030. These credits will be certified according to the highest standards of environmental and social management. The projects are designed to respect the resource regeneration cycles and contribute to provide social, economic and environmental benefits for local communities, on which the projects generally rely.

The stock of credits established at year-end 2023 amounts to a little less than 11 million certified credits (carbon credits certified by a third-party). The cumulative budget committed on all of the ongoing agreements amounts to close to $725 million, on the project's cumulative reserve life, for a cumulative volume of credits expected between 44 Mt by 2030 and 71 Mt by 2050.

In 2023, the Company decided to invest $100 million in the Nature Based Carbon fund managed by Climate Asset Management, mainly targeting the preservation or restoration of three types of ecosystems: degraded natural forests, grasslands impacted by human activity as well as wetlands.

In 2022, TotalEnergies entered into partnerships and contracts with recognized players in Gabon, Peru, Southeast Asia and Guatemala. In particular, TotalEnergies and Compagnie des Bois du Gabon (CBG) joined forces to develop a new model of forest management combining sustainable wood production, conservation of biodiversity and lasting carbon storage. TotalEnergies became CBG's leading partner after acquiring 49% of its capital from Criterion Africa Partners. In March 2022, TotalEnergies invested $50 million in the Tropical Asia Forest Fund 2 (TAFF2) managed by the New Forests company, whose objective is to invest in certified plantation and primary forest conservation projects in several South-East Asian countries, including Indonesia, Malaysia, Laos, Cambodia, Thailand, and Vietnam.

In 2021, TotalEnergies and Forêt Ressources Management signed a partnership agreement with the Republic of the Congo to plant a 40,000-hectare forest on the Batéké Plateau. The new forest is expected to create a carbon sink that could sequester more than 10 Mt of CO_2 over 20 years.

2.2.3 Activities by geographical zone

The information below describes the Exploration & Production segment's main oil and gas activities by geographical area, without giving details of all of the assets held by TotalEnergies. The capacities referred to herein are expressed on a 100% basis, regardless of TotalEnergies' interest in the asset. TotalEnergies' average annual and daily production of liquids and gas by country for 2023, 2022 and 2021 are presented in the tables "Production by geographical area" in section 2.1.3 of this chapter. For information concerning TotalEnergies' interest in each asset (share in %) and to determine whether the Company operates the asset as at December 31, 2023, see the table entitled "Assets in production by geographical area" in point 2.1.3 of this chapter.

2.2.3.1 Africa (excluding North Africa)

In **Nigeria**, the Company's production is mainly offshore. It operates eight licenses out of the 34 permits in which TotalEnergies holds interests[(1)].

TotalEnergies is present offshore in particular:

- in PML 2/3/4 (formerly OML 130, 24%, operator), with the Akpo and Egina fields in production as well as the Preowei field where development studies continued in 2023. In May 2023, the production licenses were renewed for 20 years until 2043;
- in OML 99 (40%, operator), with the Amenam-Kpono fields (30.4%) in production as well as the Ikike field, where production started in July 2022 and reached its plateau at the end of 2022;

(1) Including through its stake in the SPDC joint venture.

- in OML 102 (40%, operator), with the Ofon field in production and where the Ntokon oil and gas discovery in June 2023 provides perspectives for a new tie-back development to existing facilities. A second discovery was made by the Ntokon North-East well, also drilled and tested in 2023;
- in OML 138 (20%), with the Usan field in production. The license was renewed in August 2022 for a period of 20 years. Development studies on the Owowo discovery in OML 139 (18%) located near OML 138, continued in 2023;
- in OML 118 (12.5%), with the Bonga field in production as well as the Bonga North field on which development studies continued in 2023.

TotalEnergies is also present via the SPDC joint-venture (10%) which holds 18 production licenses, including 3 offshore licenses. In 2022, TotalEnergies announced its intention of selling its interest in the SPDC oil licenses.

In **Angola**, the Company's production comes from Blocks 17, 32, and 0:

- on Block 17 (38%[1], operator), the Company's main asset in the country, located in deep offshore, four major hubs are in production: Girassol, Dalia, Pazflor and CLOV. Various infill drilling projects are being carried out;
- on Block 17/06 (30%, operator), the development of the Begonia field was approved in July 2022. The start-up of production is planned for the end of 2024 with a tie-back to the Pazflor FPSO;
- on Block 32 (30%, operator), located in deep offshore, production comes from the Kaombo Norte and Kaombo Sul FPSOs. Drilling of development wells are expected to continue until mid-2025 and to be followed by the drilling of 3 infill wells, approved in 2023 under the name Kari Phase1. Discoveries in the central and northern areas of the block (outside Kaombo) offer additional potential currently being assessed;
- on Block 0 (10%), in May 2023 the Angolan authorities approved the extension of the license until 2045 as well as new tax terms;
- on Block 20/11[2] (40%, operator), in the Kwanza basin, TotalEnergies is continuing development studies on the Cameia and Golfinho oil discoveries, with a view to an investment decision in 2024. In September 2023, TotalEnergies sold a 40% stake in the block to Petronas.

In December 2022, the company Angola Block 14 B.V., in which TotalEnergies held a 50.01% stake, was sold to the Angolan company Somoil. TotalEnergies held interests in Blocks 14 and 14K through this participation.

TotalEnergies has held exploration licenses on Block 16/21 since August 2023 and on Block 29 since August 2021. The exploration license on Block 48 (40%, operator) expired in May 2023.

In the **Republic of the Congo** (Congo Brazzaville), the Company's production comes from the TotalEnergies EP Congo subsidiary, owned by TotalEnergies (85%) and QatarEnergy (15%). The production operated by TotalEnergies EP Congo comes mainly from the Haute Mer permit (53.5%) which includes the Moho Bilondo asset composed of two fields: Moho Bilondo and Moho North.

TotalEnergies EP Congo also operates the Nkossa field (53.5%) and the Yanga and Sendji fields (55.25%) and holds 26.75% of the Lianzi field located within the offshore unitization area between Angola (Block 14K) and the Republic of Congo (Haute Mer license).

TotalEnergies EP Congo withdrew from the Loango II and Zatchi II licenses (also known as "Madingo"), in September 2021.

The concession for the operation of the country's only oil terminal, in Djéno, expired in November 2020 and approval for the new operating concession is in the process of being validated by the Congolese authorities. In the meantime, TotalEnergies EP Congo continues to operate the oil terminal under an interim agreement.

Three exploration licenses were awarded by the Republic of Congo to TotalEnergies EP Congo in February 2020: Marine XX in the deep offshore, as well as Nanga and Mokelembembe. An exploration well is planned on the Marine XX license in 2024. TotalEnergies EP Congo renounced its participatory rights and interests in the Mokelembembe license on December 31, 2021 and transferred to SNPC its rights and interests in the Nanga license on December 11, 2023.

In **Gabon**, since the sale, completed in December 2021, of its interest in seven non-operated offshore licenses to Perenco Oil & Gas Gabon, TotalEnergies EP Gabon[3] has refocused on its operated assets governed by the Anguille-Torpille concession agreement (100%, operator) and by the Baudroie-Mérou production sharing agreement (90%, operator). In 2022, the fiscal terms of the Baudroie-Mérou production sharing contract as well as those of the Torpille/Anguille concession agreement were revised and extended respectively until 2047 and 2042. In December 2022, The Republic of Gabon acquired a 10% interest in the Baudroie-Mérou production sharing agreement. In 2023, TotalEnergies EP Gabon started a campaign on the Anguille-Torpille wells aimed at maintaining the production plateau using the first pulling unit or workover rig acquired by the Company in 2022.

In **Uganda**, TotalEnergies is a partner, with a 56.67% interest, in the project to develop the Lake Albert oil resources located in Blocks CA-1, LA-2 and CA-3A. TotalEnergies is also a 62%shareholder, in East African Crude Oil Pipeline (EACOP) Ltd, the company responsible for developing and operating of a pipeline of close to 1,450 km that will transport crude oil to a storage and offloading terminal in Tanga, Tanzania.

After taking into consideration the societal and environmental challenges, the project was approved by the Board of Directors in December 2020. The production capacity is planned to be 230 kb/d and will include the joint development of the resources in Blocks CA-1 and LA-2 (the Tilenga project operated by TotalEnergies) and Block CA-3A (the Kingfisher project, operated by CNOOC). It plans the drilling of approximately 450 onshore wells and the construction of two crude oil processing facilities. The final investment decision was announced in February 2022. Drilling started in 2023, and production could start in 2025.

Firmly committed to transparency, the guiding principle for all its actions, TotalEnergies publishes on its website detailed information on the social, environmental and societal issues related to this project.

In **South Africa**, TotalEnergies operates five deep offshore exploration licenses: the South Outeniqua Block (100%), Block 11B/12B (45%), the ODB Block (48.6%, following the sale of a 29.2% interest to QatarEnergy in 2021), the DWOB Block (50%, following the sale of a 30% interest to QatarEnergy in 2021), as well as Block 5/6/7 (40%). TotalEnergies sold its interest in the East Algoa license (30%) in 2020. This transaction was approved by governmental authorities in December 2021. A multi-client 3D seismic survey started in January 2024 on DWOB.

On offshore Block 11B/12B, following the discoveries of gas condensates on the Brulpadda (2019) and Luiperd (2020) fields, TotalEnergies filed, in September 2022, an operating license application and initiated discussions with the South African authorities to define the conditions for marketing gas and condensates to enable these discoveries to be developed.

(1) TotalEnergies interest shall be 36% in 2036.
(2) In 2023, Blocks 20/15 and 21/09 were merged into a single Block 20/11.
(3) TotalEnergies EP Gabon is a company incorporated under Gabonese law. Its shares are listed on Euronext Paris and as at December 31, 2023 were owned by TotalEnergies (58.28%), the Republic of Gabon (25%) and the public (16.72%).

In **Namibia**, TotalEnergies operates two deep offshore exploration licenses in the Orange basin: Blocks 2912 (38%) and 2913B (40%). Following the drilling of an exploration well on Block 2913B, TotalEnergies announced a significant discovery of light oil and associated gas on the Venus prospect (the Venus-1X well) in February 2022.

In 2023, two rigs were mobilized to evaluate the area's potential, with positive results from the Venus-1A appraisal well and production tests from the Venus-1X and Venus-1A wells and a negative result for the Nara-1X exploration well, targeting a prospect west of the Venus discovery on Block 2912. The drilling campaign continues in 2024, with in particular the drilling of an exploration well on a prospect located in the north of Venus (Mangetti) and an additional appraisal well on the Venus field. In addition, a 3D seismic acquisition campaign started at the end of 2023 to increase knowledge of the two blocks. In January 2024, TotalEnergies announced the signing of an agreement to acquire additional interests in Blocks 2912 and 2913B. Following finalization of these transactions, which are still subject to approval by the competent authorities, the Company's interest in these two licenses would be 42.48% (Block 2912) and 45.25% (Block 2913B).

In **Senegal**, A 3D seismic survey was carried out on the Ultra Deep Offshore block (70%, operator) in early 2021 and its interpretation is continuing. TotalEnergies also holds interests in the Rufisque Offshore Profond exploration license (90%, operator).

In **São Tomé and Príncipe**, TotalEnergies holds two exploration licenses, one on Block ST-1 and the other on Blocks JDZ-7, 8, and 11 in the joint development area between São Tomé and Príncipe and Nigeria. Two 3D seismic surveys were carried out in 2021 on these blocks and their interpretation is under way.

In **Kenya**, TotalEnergies initiated a procedure in November 2022 to exit offshore licenses L11A, L11B and L12. Likewise, in May 2023, TotalEnergies initiated an exit procedure from onshore Blocks 10BA, 10BB and 13T. These procedures are subject to approval by the authorities.

In **Mauritania**, in August 2023 TotalEnergies returned Block C-15, the last exploration block held.

In **Côte d'Ivoire**, TotalEnergies no longer holds any licenses, having exited offshore Blocks CI-605 (90%) in August 2021, CI-706 (45%) in December 2021 and CI-705 (45%) in June 2022 following the negative results of the Barracuda-1 exploration well in August 2021.

2.2.3.2 Americas

In **Brazil**, the Company's production comes from the Libra (19.3%), Lapa (45%, operator), Iara (22.5%), Atapu (22.5%), Atapu ToR Surplus (22,5%) and Sépia ToR Surplus (28%) Blocks in the Santos Basin.

On the Libra Block, situated approximately 170 km offshore Rio de Janeiro, production began in 2017 on Mero field with the Pioneiro de Libra FPSO (capacity of 50 kb/d).

At year-end 2023, the Mero development project comprised four FPSOs, each with a liquid processing capacity of 180 kb/d:

- Mero 1, approved in 2017, started up in April 2022;
- Mero 2, approved in 2019, started up in December 2023;
- Mero 3, Mero 4 respectively approved in 2020 and 2021, planned to start by 2025.

On Iara, the P-68 FPSO is dedicated to production of the Berbigão and Sururu-Ouest fields, reached its nominal production capacity in 2022. The P-70 FPSO is dedicated to production of the Atapu field and has been producing at capacity (150 kb/d) since July 2021.

Two production sharing contracts (ToR-Surplus) on the Atapu (22.5%) and Sépia (28%) fields were awarded to TotalEnergies in December 2021. These contracts are effective since May 2022. The P-70 FPSO for the Atapu field and the FPSO Carioca for the Sépia field, are both producing at their nominal capacities of 150 kb/d and 180 kb/d respectively. Development plans for an additional FPSO on each field were finalized in October 2022 and the results of the call for tenders launched for two FPSOs of 250 kb/d each are currently being analyzed. In the Sépia area, an additional oil accumulation was discovered with the drilling of the Pedunculo well in 2022.

The Lapa field is producing through the MV-27 FPSO (capacity of 100 kb/d). The Lapa South-West project was approved in January 2023. First production is scheduled for 2025, providing additional production of 25 kb/d, bringing total production to 60 kb/d.

TotalEnergies holds an interest in the Gato do Mato field (20%), discovered in 2012. The field's resources were confirmed with the GDM#4 well, drilled in 2020. After the postponement of the development project announced at the end of 2022 by the operator, development studies continued in 2023 in order to adapt the project to reduce costs.

After having sold its 28.6% interest in the BM-C-30 Block in 2021, TotalEnergies sold its 40% interest in the Itaipu field located in the BM-C-32 Block in the Campos Basin.

In exploration, the drilling of the first exploration well on the C-M-541 Block (40%, operator), Marolo-1, ended in July 2022. The drilling of the second well, Ubaia-1, started in 2022 and was completed in October 2023.

TotalEnergies also holds two operated exploration blocks (with a 50% Working Interest after the sale of 50% in early 2023) in the SM-1711 and SM-1815 Blocks in the South Santos basin. A production sharing contract for the Água Marinha (30%) exploration block, in the Campos basin was signed in May 2023. An exploration well is planned to be drilled on this block in 2024. In addition, TotalEnergies holds an interest in an exploration license currently suspended, located in the Barreirinhas basin (50%).

As part of their strategic alliance, TotalEnergies and Petrobras renewed their agreement in 2023 to promote technical cooperation between the two companies in areas of common interest, notably for the development of new technologies, particularly in deep offshore. As part of this agreement, a pilot unit using a pioneer high-pressure subsea technology to separate oil from CO_2-rich gas (HISEP®) and reinject the CO_2-rich gas into the Mero 3 reservoir, was approved in December 2023.

In **Argentina**, TotalEnergies operates the, Ara and Cañadón Alfa Complex, on the CMA-1 concession in Tierra del Fuego, onshore fields as well as the Hidra, Carina, Aries and Vega Pleyade offshore fields (37.5%). In September 2022, the Company approved the final investment decision for the Fenix offshore gas project (37.5%, operator) with a capacity of 10 Mm^3/d of natural gas, which is expected to commence production at the end of 2024.

In the onshore Neuquén Basin, TotalEnergies holds interests in seven licenses, of which six are operated. In addition to conventional projects, TotalEnergies operates four shale gas and shale oil projects in the basin, the first located in the Aguada Pichana Este Block in the gas window of the Vaca Muerta,the second and third located in the Rincón la Ceniza Block (45%) and la Escalonada (45%) in the gas and condensate window of the Vaca Muerta, and the fourth located in the Aguada San Roque Block (24.71%) in the oil window of the Vaca Muerta.

In 2023, TotalEnergies swapped with PanAmerican Energy and YPF its 25% stake in the non-operated Aguada Pichana Oeste and Aguada de Castro blocks for an additional 14% in its operated block Aguada Pichana Este (55%), in the Vaca Muerta. TotalEnergies also sold its interest in the Rincon de Aranda Block (45%) to Pampa Energia. TotalEnergies has initiated the process of withdrawing from the non-operated Veta Escondida Block (45%).

In exploration, TotalEnergies has operated three offshore licenses since 2019: CAN 111 and CAN 113 (50%), which are in the process of restitution, as well as MLO 123 (37.5%).

In the **United States**, TotalEnergies' oil and gas production in the Gulf of Mexico comes from its interests in the Tahiti (17%) and Jack (25%) deep offshore fields.

In addition, TotalEnergies holds interests in two deep water projects, Anchor (37.14%) and Ballymore (40%). The development of Anchor, with a production capacity of 75 kboe/d, is continuing, with production scheduled to begin in 2024. The investment decision for the Ballymore project was made in May 2022 and its start-up is scheduled for 2025.

In exploration, in 2022 TotalEnergies sold its remaining interests in seven deep offshore licenses, initially owned 100%.

In **Canada**, with effect from November 2023, TotalEnergies no longer holds any interest in the oil sands. TotalEnergies held a 50% interest in the Surmont in-situ production project, and a 31.23% interest in the Fort Hills mining project (after increasing its stake by 6.65% in February 2023 through the exercise of its pre-emption right when Suncor acquired Teck's interest), both located in the province of Alberta. On October 4, 2023, TotalEnergies finalized the sale to ConocoPhillips of its stake in Surmont as well as certain associated logistics obligations. On November 20, 2023, TotalEnergies finalized the sale to Suncor of its subsidiary TotalEnergies EP Canada, including in particular its interest in the Fort Hills asset and associated logistics obligations.

In **Bolivia**, TotalEnergies has interests in five producing licenses: San Alberto (15%), San Antonio (15%), Block XX Tarija Oeste (Itau, 41%), Aquio and Ipati (50%, operator) which include the Incahuasi field.

In **Venezuela**, TotalEnergies transferred in July 2021 its non-operated minority participation of 30.32% in Petrocedeño S.A. to Corporación Venezolana del Petróleo, S.A, a subsidiary of PdVSA. In July 2022, TotalEnergies sold its 69.50% stake in the Yucal Placer field to a subsidiary of Sucre Energy Group. Together with the operator, TotalEnergies returned the license for Plataforma Deltana Block 4 (49%) in August 2022. Since this return, TotalEnergies no longer holds assets in Venezuela (refer to point 3.2.1 of chapter 3). A process of dissolution of its subsidiaries registered in the country is being finalized.

In **Suriname**, TotalEnergies, operator of Block 58 (50%), successfully completed the appraisal of two main oil discoveries, Sapakara South and Krabdagu, with the drilling and testing of three wells (Sapakara South 2 drilled in 2022, Krabdagu-2 and Krabdagu-3 drilled in 2023) confirming significant resources of oil and associated gas. The Front End Engineering Design (FEED) studies has begun with a view to a final investment decision expected at the end of 2024 and production start-up in 2028 via an FPSO with a capacity of 200 kb/d. In May and December 2023, TotalEnergies signed respectively explorations licenses for Blocks 6 and 8 (40%, operator), in shallow waters, located South of Block 58, and on Block 64 (40%, Operator) in deep water.

In **Mexico**, TotalEnergies holds licenses in five offshore exploration blocks in the Gulf of Mexico: Block 1 (33.3%) in the Salina Basin and Blocks 15 (35%, operator), 32 (50%), 33 (35%, operator) and 34 (27.5%) located in the shallow waters of the Campeche Basin. Following studies which concluded that prospectivity was limited, the operators of Blocks 1, 32 and 34 have launched the relinquishment processes for these blocks and exits are in the final stages. Relinquishments of Block 3 in the Salina basin and Block 2 in the Perdido basin were finalized in April and May 2023 respectively. Drilling of an exploration well in Block 33 began in November 2023 and will be followed by an exploration well on Block 15.

In **Guyana**, TotalEnergies (60%) and QatarEnergy (40%) jointly hold 25% interests in the Kanuku and Orinduik Blocks. In May 2023, TotalEnergies and QatarEnergy exited the Kanuku Block on which an exploration well (Beebei) was drilled in 2022. TotalEnergies also holds a stake in the Canje Block (35%), the second three-year exploration period of which started in March 2022. On October 26, 2023, TotalEnergies was awarded the exploration rights of S4 Block (40% Operator).

2.2.3.3 Asia-Pacific

In **Kazakhstan**, TotalEnergies' oil and gas production comes mainly from the Kashagan field, operated by the North Caspian Operating Company (NCOC) located in the North Caspian license (16.81%). The oil production capacity of the first phase of this field and the associated processing plant was increased from 400 kb/d to 430 kb/d, thanks in particular to the upgrade of the gas injection compressors completed in 2022.

On the Dunga field (60%, operator), phase 3 development continued in 2023. The subsidiary Total E&P Dunga GmbH was sold in November 2023.

In **China**, production comes from the South Sulige Block (49%), located in the Ordos basin in Inner Mongolia. Drilling of tight gas development wells continues. Production increased to 4 Gm^3/y, following the approval in 2022 of a new development plan.

In **Brunei**, production comes from the Maharaja Lela Jamalulalam offshore gas and condensate field located on Block B (37.5%, operator); where the gas is delivered to the Brunei LNG liquefaction plant.

In **Indonesia**, production comes from the Ruby gas field located on the Sebuku license (15%).

In **Myanmar**, the Company no longer has any activities, having definitively withdrawn on July 20, 2022.

In **Thailand**, the main Bongkot licenses expired in April 2022 and March 2023. The company still benefits from residual production from a block whose transfer to PTTEP is currently being approved by the competent authorities.

In **Papua New Guinea**, TotalEnergies holds interests in the PPL339 (35%), PPL589 (100%) and PPL576 (100%) exploration licenses and in the PRL-15 Block (37,5%). For more information refer to point 2.3.2.

In **Malaysia,** TotalEnergies holds interests in offshore exploration licenses, where the Tepat-2 an exploration well was drilled in the state of Sabah in 2022.

TotalEnergies has signed an agreement with OMV to acquire its 50% interest in Malaysian independent gas producer and operator SapuraOMV Upstream, in January 2024. The transaction is subject to regulatory approvals. SapuraOMV's main assets are its 40% operated interest in block SK408 and 30% operated interest in block SK310, both located offshore Sarawak in Malaysia.

In **Tajikistan,** TotalEnergies withdrew from the exploration license in which it held a 50% stake in May 2023.

2.2.3.4 Europe

The specific context of **Russia** and its consequences on TotalEnergies are detailed in point 1.9.3 of chapter 1.

In **Norway**, production comes from many fields:

- Ekofisk (39.9%), Eldfisk (39.9%), Embla (39.9%), Tor (48.2%) and Flyndre (6.26%). In 2021, the redevelopment of Tor was finalized while the development of the Tommeliten Alpha field (20.14%), a satellite of the Ekofisk field, was approved. The production of Tommeliten Alpha started in October 2023;
- Johann Sverdrup (8.44%), where production of Phase 1 started in October 2019 and phase 2 came on stream in December 2022. Production facilities in this field are powered from shore resulting in very low GHG emissions, of only 0.67 kg of CO_{2e}/boe;
- Oseberg (14.7%), whose facilities also treat, among other fields, the production from Tune (10%). Electrification of the Oseberg installations with power supply from shore was approved by the authorities in 2022;
- Islay (5.51%) located in the boundary with the UK sectort in the northern North Sea and operated by TotalEnergies in the UK;
- Troll (3.69%), one of the largest oil producing fields on the Norwegian Continental Shelf and with very large quantities of gas, and Kvitebjørn (5%);
- Åsgard (7.81%), Tyrihans (23.15%) and Kristin (6%) located in the Haltenbanken region;
- Skirne (40%) and Atla (40%) fields, operated by TotalEnergies. On these mature fields, abandonment of wells and decommissioning of flowlines to the Heimdal (16.76%) platform operated by Equinor, are expected to be completed by the end of 2028.

As part of the continuous optimization of its portfolio, TotalEnergies sold its interests in Gimle (4.9%), Sindre (4.95%) and Nokken (5%) in May 2021.

In the **United Kingdom**, production comes from:

- the Alwyn North (100%) and Dunbar (100%) fields in the Northern North Sea, as well as from satellites feldis linked to them;
- the Elgin/Franklin complex (46.17%) which includes the West Franklin (46.17%) and Glenelg (58.73%) fields in the Central Graben zone. TotalEnergies also operates the Culzean gas and condensate field (49.99%), where production capacity was increased by approximately 10% in March 2022. In addition, TotalEnergies announced in March 2020 an oil and gas discovery on the Isabella prospect (30%, operator), located close to existing operated infrastructures. An appraisal well on this structure was drilled in January 2023, the results of which are currently being analyzed;
- to the West of the Shetlands, the Laggan, Tormore, Edradour and Glenlivet fields. In July 2022, TotalEnergies finalized the sale of 20% of its stake in these fields, thus reducing its stake to 40%;
- in the Quad 9 area, in the Eastern North Sea, the Gryphon (86.5%), Maclure (38.19%), South Gryphon (89.88%) and Tullich (100%) fields.

In **Denmark**, TotalEnergies operates the Danish Underground Consortium (DUC, 43.2%). Production comes from DUC's four main fields: Dan, Gorm, Halfdan, and Tyra. Dan, Gorm and Halfdan produce is mainly oil, while Tyra's production is mainly gas and condensates. Production of the Tyra field stopped in September 2019 as part of a redevelopment project and is expected to resume in 2024. An exploration well is planned to be drilled in 2024 from the Harald satellite platform.

In **Italy**, TotalEnergies operates the Tempa Rossa field (50%), located in the Gorgoglione concession in Basilicata region, main asset of TotalEnergies EP Italia. The new facilities being built in Taranto with ENI and partners, are expected to allow Tempa Rossa to increase crude oil export and production by the end of 2024.

In the **Netherlands**, production originates from the assets held in 18 offshore production licenses, of which 14 are operated.

In **Azerbaijan**, the Absheron gas and condensate field (50%), located in the Caspian Sea, and operated by JOCAP (Joint Operating Company of Absheron Petroleum, a company jointly held by TotalEnergies and SOCAR, the state oil company), started production in July 2023 and is currently producing 1.5 Gm^3/y. The second phase of development is expected to make it possible to increase the field's production to 5.5 Gm^3/y. TotalEnergies and SOCAR finalized, in February 2024, the transfer of a 15% stake each to ADNOC (Abu Dhabi National Oil Company), thereby reducing TotalEnergies' stake in Absheron to 35%.

In **Bulgaria**, TotalEnergies withdrew in November 2023 from the deep offshore exploration Block Han Asparuh in which it held a 57.14% stake.

2.2.3.5 Middle East and North Africa

In the **United Arab Emirates**, TotalEnergies' production, mainly comes from the following stakes:

- 20% interest in the Umm Shaif/Nasr offshore concession and a 5% interest in the Lower Zakum offshore concession both, operated by ADNOC (Abu Dhabi National Oil Company) Offshore These two concessions have been awarded for 40 years, following the expiry of previous concession of Abu Dhabi Marine Areas Ltd (ADMA);
- 10% interest in the ADNOC Onshore concession, which includes Abu Dhabi's 15 major onshore fields; the license was extended for 40 years in 2015. Development activities on the Bab and Bu Hasa fields continued in 2022;
- 15% interest in ADNOC Gas Processing, a company that produces liquefied natural gas (LNG) and condensates from the associated gas produced by ADNOC Onshore;
- 20% interest in the Satah Al Razboot (SARB), Umm Lulu, offshore concession since March 2023. This concession covers two major offshore fields and is operated by ADNOC Offshore with a license period ending in 2058;
- 10% interest in the Ruwais Diyab Unconventional Gas Concession, operated by ADNOC and awarded until 2063. TotalEnergies (40%) entered into this venture in 2018 through an agreement signed with ADNOC and became the operator in 2019. An exploration and appraisal campaign was conducted in 2020-2021. In 2023, TotalEnergies reduced its holding to 10% and transferred the role of operator to ADNOC.

In addition, TotalEnergies holds a stake of 24.5% interest in Dolphin Energy Ltd., which sells gas produced on Dolphin Block in Qatar to the United Arab Emirates and Oman.

The license for the Abu Al Bukoosh offshore field, which TotalEnergies has operated since 1972, expired in March 2021 and the facilities are now operated by ADNOC Offshore.

In **Qatar**, production comes mainly from TotalEnergies' stakes in the offshore fields of Al Khalij (40%, operator), Al Shaheen (30%) and Dolphin (24.5%). Developments continued in 2023 on the Al Shaheen field, operated by North Oil Company, which is owned by TotalEnergies (30%) and QatarEnergy (70%), with a duration of 25 years starting from 2017.

In **Libya**, production comes from the Waha (20.41%) and El Sharara onshore fields located in Blocks 129-130 (15%) and 130-131 (12%) and the Al Jurf offshore field located in Blocks 15, 16 and 32 (37.5%). The Mabruk field (37.5%), located in onshore Blocks 70 and 87, has been shut down since the end of 2014; following the installation of an early production facility its production could restart early 2025.

In November 2021, TotalEnergies signed various agreements for the sustainable development of the country's natural resources, in particular the construction and operation of a 500 MW photovoltaic power plant, and an increase in its interest in the Waha concession from 16.33% to 20.41%. This increase in interests was finalized in November 2022.

The production from Libyan assets has been frequently disrupted since 2022, notably due to security and social issues.

In **Algeria**, production comes from TotalEnergies' interests in the TFT II and Timimoun gas fields and the oil fields in the Berkine basin located in Blocks 404a and 208. Under the terms of the comprehensive partnership agreement signed with the authorities in 2017, two new concession agreements and corresponding gas sales agreements came into effect for TFT II (26.4%) in 2018 and for TFT SUD (49%) in 2019. In June 2021, the acquisition of Repsol's shares was finalized and TotalEnergies' interest in TFT II was consequently increased to 49%. In July 2023, TotalEnergies and Sonatrach agreed to convert the production contracts of TFT II and TFT SUD within the framework of the new Algerian oil law promulgated in December 2019, allowing the continuation of the investment program aimed at increasing the combined production of the two fields to over 100 kboe/d by 2026. The Council of Ministers validated the conversion of those contracts on October 15th, 2023.

On Timimoun (37.75%), production continues under the gas concession and marketing contracts which entered into force in 2018.

In the Berkine basin, TotalEnergies owns a 12.25% interest in Blocks 404a and 208, with the producing onshore oil fields of the Ourhoud and El Merk onshore. TotalEnergies, its partners and Sonatrach, signed a new 25-year oil contract in July 2022.

In **Oman**, TotalEnergies' oil production comes from Block 6 (4%). On the onshore Block 12 (50%, operator, following the transfer of 30% of the Company's stake to Petronas in October 2023), the drilling of two exploration wells is planned for 2024. On the onshore Block 11 (22.5%), following a 3D seismic survey in 2022, a positive appraisal well (Jaleel 3) was drilled in 2023 and an accelerated appraisal campaign is planned for 2024.

In **Iraq**, TotalEnergies' production comes from its 45% interest in the Ratawi field and its 22.5% stake in the risk service contract for the Halfaya field, located in the province of Missan.

On the Halfaya field, the plant that will treat associated gas and enable the recovery of LPGs and condensates, approved in 2019, is scheduled to start operations in 2024. In the first half of 2023, production continued to be affected by OPEC+ production quotas.

In July 2023, TotalEnergies confirmed with the Iraqi authorities, the terms of the agreements announced in September 2021 for the GGIP project (Gas Growth Integrated Project) of sustainable development of natural resources in the Basra region: This major multi-energy project combines the redevelopment of the Ratawi field, the recovery of gas now flared on three oil fields, including Ratawi, in order to power power plants, a 1 GW solar farm and the construction of a seawater treatment plant for injection and to maintain the pressure of the region's oil fields. These agreements became effective in August 2023 and TotalEnergies has been operating the Ratawi field since November 2023.

On this field, the AGUP Phase 1 project (Associated Gas Upgrade Project), sanctioned in September 2023, will restore the integrity and operability of the existing facilities to secure current production (around 60 kb/d) and then increase it to 120 kb/d. In a second phase, the AGUP Phase 2 project will build new processing units to increase oil production to 210 kb/d and gas production to 160 Mcf/d. The gas produced on Ratawi as well as that currently flared on two other fields will be sent to the gas treatment unit.

The sale of the Company's 18% interest in the Sarsang field, located in the Kurdistan region of Iraq, was finalized in September 2022.

In **Yemen**, after the sale in November 2022 of its stake in onshore Block 5 (Marib Basin, Jannah license, 15%), TotalEnergies relinquished its stake in Block 70 to the Government in May 2023. TotalEnergies retains interests in three onshore exploration licenses, which have been in force majeure since 2015.

In **Cyprus**, TotalEnergies is present in offshore exploration Blocks 7 (50%, operator), 11 (50%, operator), 2 (20%), 3 (30%), 6 (50%), 8 (40%) and 9 (20%). Two exploration wells, Cronos-1 and Zeus-1, drilled on Block 6 in 2022, resulted in two natural gas discoveries. Drilling of the Cronos-2 appraisal well on Block 6 started in November 2023, the drilling and production test on this well were successfully completed in February 2024.

In **Lebanon**, TotalEnergies has operated since February 2018 explorations of the offshore Blocks 9 (35%) on which an exploration well was drilled in 2023 with negative results. TotalEnergies was also the operator of Block 4, on which a well was drilled in 2020 with negative results and was returned to the Government in October 2023.

In **Egypt**, TotalEnergies owns a 25% interest in the North El-Hammad offshore block, on which part of the Bashrush offshore field is located, with the other part located on the Baltim Block. A unitization agreement signed in 2022 gives the Company rights to natural gas and condensate production since June 2022. In addition, TotalEnergies is operator of the offshore exploration Block 3 (35%).

In **Iran**, TotalEnergies ceased all operational activities prior to the re-imposition of US secondary sanctions on the oil industry with effect from November 5, 2018.

In **Syria**, TotalEnergies has ceased its activities since December 2011.

2.3 Integrated LNG segment

Since the first quarter of 2023, TotalEnergies has separated in its published results the Integrated LNG segment covering its LNG and low-carbon gas activities and the Integrated Power segment covering the integrated electricity chain.

The Integrated LNG segment covers the integrated gas chain (including upstream and midstream LNG activities) as well as biogas, hydrogen and gas trading activities.

In its final statement, the COP28 recognized the utility of transitional fuels in setting up "Net Zero". TotalEnergies shares this conclusion, which reinforces its growth strategy in gas, and particularly LNG. Gas is key for the energy transition to support the development of intermittent renewables and rapidly reduce CO_2 emissions through switching from other fossil fuels such as coal that emit significantly more.

Main indicators

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]	**44.3 Mt** Volumes of LNG sold in 2023	**1st** US LNG exporter with over **10 Mt** in 2023[2]	**19** Long term chartered LNG carriers in 2023	**20.8 Mt** Regasification capacity in Europe in 2023

Main objectives and ambitions

Tending towards Zero Methane emissions in 2030	**+50%** LNG sales growth (excluding Russia excluding spot) between 2023 and 2030	**>15 Mt/y** US LNG exportation by 2030	**30** Long term chartered LNG carriers by 2030

Integrated LNG: Hydrocarbon production and LNG sales

Hydrocarbon production for LNG	2023	2022	2021
Integrated LNG *(kboe/d)*	449	469	529
Liquids *(kb/d)*	58	53	63
Gas *(Mcf/d)*	2,128	2,267	2,541
Integrated LNG excluding Novatek *(kboe/d)*	449	413	483

Liquefied Natural Gas *(Mt)*	2023	2022	2021
Overall LNG sales	44.3	48.1	42.0
Including sales from equity production[a]	*15.2*	*17.0*	*17.4*
Including sales by TotalEnergies from equity production and third party purchases	*40.1*	*42.8*	*35.1*

(a) The Company's equity production may be sold by TotalEnergies or by the joint-ventures.

Hydrocarbon production for LNG (excluding Russia) was up by 9% in 2023 compared to 2022 due to increased supply to NLNG in Nigeria and higher availability of Ichthys LNG in Australia and Snøhvit in Norway.

LNG sales were down 8% in 2023 compared to 2022, mainly due to lower spot volumes related to lower demand in Europe as a result of a milder winter weather and high inventories.

(1) Refer to the glossary for the definition and further information on alternative performance measures (Non-GAAP measures) and to point 1.9 of chapter 1 for reconciliation tables.
(2) Long term FOB contracts - Source: TotalEnergies data.

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

2.3.1 Presentation of the segment

TotalEnergies is implementing an integrated strategy for profitable growth in the **liquefied natural gas** (LNG) segment and along the whole natural gas value chain. TotalEnergies is also involved in the trading of LNG and complementary products (liquefied petroleum gas, petcoke and sulfur) and is developing positions in low-carbon gases.

Worldwide LNG market volumes grew by more than 6% a year on average between 2015 and 2023[1], thanks to the switch from coal to natural gas. In Europe, Russia's invasion of Ukraine has in fact highlighted the continent's structural dependence on Russian gas imports via pipeline, which has led Europe to strengthen its regasification capacity and its LNG imports. In 2023 in a context of tight market, the measures taken combined with a drop in gas demand enabled Europe to ensure its supply at an average price below 2022 average albeit at a much higher level than before the crisis. Europe (European Union and United Kingdom) imported 113 Mt of LNG in 2023 compared to 115 Mt in 2022 and 67 Mt in 2021[2].

Worldwide LNG demand is expected to continue to grow by an average of 5% per year between 2023 and 2030, driven mainly by Asia. Supplies are expected to remain constrained until 2026-2027 and the commissioning of new liquefaction projects, mainly in Qatar and in North America.

Due to its solid, diversified positions, TotalEnergies is still the world's 3rd largest player in LNG (the second largest private player[3]), with a global portfolio of 44.3 Mt and a global market share of about 11%[4] in 2023. The Company is the leading importer in Europe. TotalEnergies' LNG sales in EU + UK reached 22.8 Mt in 2023 compared to 26.5 Mt in 2022 and to 16.1 Mt in 2021 thanks to a 21 Mt/y of regasification capacity. The Company is also the leading United States exporter[5] (with 10.7 Mt in 2023[6]).

In accordance with its balanced multi-energy strategy, the Company intends to consolidate its integrated position throughout the LNG value chain and its position as third largest global LNG player by developing a portfolio of leading projects (such as North Field East and North Field South in Qatar, Rio Grande LNG in the United States, Mozambique LNG in Mozambique and Papua LNG in Papua New Guinea). TotalEnergies has strengthened its presence across the entire chain, from upstream activities, thanks mainly to its interests in liquefaction plants located in the major production areas, through midstream activities, such as transport, regasification and trading, and up to distribution to end customers. TotalEnergies' managed volumes (excluding Russian and spot volumes) are expected to grow by 50% between 2023 and 2030. TotalEnergies also intends to continue increasing its LNG exports from the United States (with more than 15 Mt in 2030) and to focus on improving the flexibility and resilience of its LNG portfolio. It plans to increase its fleet of long-term chartered LNG carriers to 30 vessels by 2030 and to remain amongst the first regasification capacity holders in Europe, above 20 Mt/y.

The LNG sold by TotalEnergies on worldwide markets comes in part from equity production in natural gas and condensate fields or liquefaction plants of which the subsidiaries are shareholders (refer to point 2.3.2 of this chapter). It also comes from purchase contracts concluded with third parties (refer to point 2.3.3 of this chapter).

(1) IHS *Historical Bilateral LNG Trade Data;* January 2024.
(2) IHS *Historical Bilateral LNG Trade Data;* January 2024.
(3) Source: TotalEnergies data.
(4) Source: TotalEnergies data.
(5) Source: TotalEnergies data.
(6) Long term FOB contracts.

No. 3 worldwide in LNG, thanks to a diversified portfolio

In the **low-carbon gas** segment, the Company intends to develop the production and marketing of **biogas**, mainly in Europe, in order to meet incorporation obligations and support its clients who wish to decarbonize their own activities. In Europe, in the context of the REPowerEU plan to end dependence on Russian gas and taking into account the support mechanisms for the development of biogas, TotalEnergies intends to develop its activities by capitalizing on a gross installed production capacity of 1.1 TWh/y at the end of 2023 and relying on the teams and the portfolio of biogas projects acquired in France and Poland. Likewise, as regards **low-carbon hydrogen**, TotalEnergies intends to develop its business in Europe as a priority to meet part of the needs of its refineries.

In response to the issue of methane emissions, TotalEnergies has already reduced the methane intensity below 0.1% of the commercial gas produced on its operated gas facilities. The Company set ambitious targets to step up its efforts and reduce methane emissions by 50% by 2025 and by 80% in 2030, compared to 2020[(1)].

2.3.2 LNG production and liquefaction

TotalEnergies' share of LNG production stood at 15.2 Mt in 2023 compared to 17.0 Mt in 2022 and 17.4 Mt in 2021.

Hydrocarbon production for LNG (excluding Novatek) was up 9% compared to 2022 due to the increased supply to NLNG in Nigeria and higher availability of Ichthys LNG in Australia and Snøhvit in Norway.

LNG production growth is expected to resume in coming years thanks to liquefaction projects under construction (Rio Grande LNG in the USA, NFE and NFS in Qatar, ECA in Mexico and NLNG T7 in Nigeria) or under study.

The information below describes the main development, production and liquefaction activities of the Integrated LNG segment, presented by geographical area. The capacities are expressed on a 100% basis, regardless of TotalEnergies' interest in the asset.

AFRICA (EXCLUDING NORTH AFRICA)

In **Nigeria**, TotalEnergies holds a 15% interest in Nigeria LNG (NLNG), whose main asset is a liquefaction plant with a total capacity of 22 Mt/y. The project to install an additional 7.6 Mt/y of capacity is in process. TotalEnergies is also present in the onshore fields of the OML 58 block (40%, operator) in the context of its joint venture with Nigerian National Petroleum Corporation (NNPC), which has been supplying gas to NLNG for about twenty years. The OML 58 onshore fields also supply gas to the Nigerian domestic market.

In **Angola**, TotalEnergies holds a 13.6% interest in Angola LNG (ALNG), which owns a gas liquefaction plant of 5.2 Mt/y capacity, located near Soyo, that is supplied by associated gas to production from Blocks 0, 14, 15, 17, 18, 31 and 32. In July 2022, TotalEnergies, partner of the New Gas Consortium (NGC, 11.8%), announced the final investment decision for the Quiluma and Maboqueiro gas field development project. This project is the first non-associated natural gas project developed in Angola. The gas produced from the two offshore fields Quiluma and Maboqueiro will supply the Angola LNG plant, thereby increasing Angola's LNG production as well as the availability of domestic gas for the country's industrial development. Production is scheduled to start in mid-2026.

In **Mozambique**, TotalEnergies EP Mozambique Area 1 (TEPMA1) holds a 26.5% interest in the Mozambique LNG project (acquisition in September 2019 from Occidental Petroleum Corporation), for which the final investment decision was taken in June 2019. The project includes the construction of two onshore liquefaction trains with a total capacity of 13.1 Mt/y to liquefy the gas produced by the Golfinho and Atum fields in Offshore Area 1.

In light of the developments of the security situation in the north of the Cabo Delgado province in Mozambique, on April 26, 2021, TotalEnergies confirmed the withdrawal of all Mozambique LNG project personnel from the Afungi site. This situation led Mozambique LNG project, to declare force majeure.

(1) Methane emissions from operated facilities were 34 kt in 2023 compared to 42kt in 2022.

In December 2022, on behalf of Mozambique LNG, the Company entrusted Mr. Jean-Christophe Ruffin[1], to assess the humanitarian situation in the Cabo Delgado province, in northern Mozambique, where the Mozambique LNG project is located, and the socio-economic development programs undertaken by Mozambique LNG. In May 2023, TotalEnergies made public Mr. Jean-Christophe Ruffin's report, as well as the actions plan adopted by the Mozambique LNG partners based on the report's recommendations.

The sale of nearly 90% of Mozambique LNG future production has been secured through long-term contracts for delivery to customers in Asia and Europe. In addition, part of the gas from the Golfinho and the Atum fields is intended for the domestic market in order to contribute to the country's economic development.

AMERICAS

In the **United States**, TotalEnergies is active in liquefaction through its 16.60% stake in the Cameron LNG plant in Louisiana. The production of the three phase 1 trains with a capacity of 4.5 Mt/y each, began in 2019 (train 1) and 2020 (trains 2 and 3). The study to expand the plant beyond its initial capacity of 13.5 Mt/y is ongoing. In May 2022 TotalEnergies has signed an agreement with Sempra Infrastructure, Mitsui & Co., Ltd. and Mitsubishi Corporation for the development of the Hackberry Carbon Sequestration (HCS), a project for the capture, transportation and storage of 2 Mt CO_2/y from Cameron LNG, in order to significantly reduce GHG emissions.

In June 2023, TotalEnergies acquired from the U.S. company NextDecade[2] a 16.7% stake in the first phase of the Rio Grande LNG (RGLNG) project, a natural gas liquefaction plant, in South Texas. This first phase composed of three liquefaction trains for a total capacity of 17.5 Mt/y, which is scheduled to start production in 2027. The terms of the agreement provide for TotalEnergies to offtake 5.4 Mt/y of LNG from this first phase for 20 years. TotalEnergies has held a 17.5% stake in NextDecade since September 2023 and will have the right to participate in subsequent phases of the project as well as a carbon capture and storage (CCS) project planned by NextDecade to reduce emissions generated by the LNG project.

TotalEnergies operates assets (held 95% on average) in the Barnett Shale basin, with 1,460 active wells and an interest in 333 non-operated wells. An investment program including drilling and well maintenance activities is being implemented to maintain the production. TotalEnergies is implementing the physical measurement of its greenhouse gas emissions, particularly methane, through the deployment of portable sensors, infrared cameras with quantification algorithms and continuously operating fixed detectors. The reduction of these emissions is ensured via a set of initiatives including the replacement of gas instrumentation with compressed air. At the end of 2023, 361 production sites had been converted out of a target of 400, which is expected to be reached at end of the first quarter 2024.

In 2021, the agreements between TotalEnergies and Tellurian Inc. for the development of the Driftwood LNG liquefaction project in Louisiana came to an end and TotalEnergies sold its interest in Tellurian Inc.

In **Mexico**, TotalEnergies holds a 16.6% stake in the Energia Costa Azul (ECA) gas liquefaction project (nominal capacity of 3 Mt/y) currently under construction with start-up scheduled for 2026. The Company has agreed to offtake approximately 1.7 Mt/y.

ASIA-PACIFIC

In **Australia**, LNG production comes from the Ichthys LNG (26%) and Gladstone LNG (GLNG, 27.5%) projects.

The Ichthys LNG project involves the development of a gas and condensate field located in the Browse Basin. This development includes subsea wells connected to a platform for gas production, processing and export, an FPSO for condensate processing and export, an 889 km gas pipeline and an onshore liquefaction plant at Darwin, comprising two trains with a total nominal capacity of 8.9 Mt/y of LNG. Ichthys LNG has reached its production plateau and various adjustments have allowed it to reach 110% of nameplate capacity. A compression project was approved in 2021, thus making it possible for the plateau to be extended. In addition to LNG, the facilities produce approximately 110 kboe/d of condensates and LPG.

In August 2023, TotalEnergies and INPEX (operator of the Ichthys LNG project) signed an agreement for the acquisition of PTTEP's 100% interest in the AC-RL7 permit. Under the terms of the agreement with PTTEP, TotalEnergies acquired a 26% stake in the permit, corresponding to its share in Ichthys LNG. INPEX acquired the remaining 74% while assuming operatorship. The permit, located approximately 250 kilometers northeast of the Ichthys offshore facilities, includes the Cash and Maple gas and condensate fields. Their development is expected to contribute to the long-term supply of the Ichthys LNG liquefaction plant.

In August 2022, the Bonaparte CCS Assessment partners namely TotalEnergies (26%), together with INPEX and Woodside were awarded a CO_2 storage assessment permit on the G-7-AP license off the northwest coast of Australia, to carry out evaluation and appraisal the geological sequestration of CO_2 in order to reduce greenhouse gas emissions from Ichthys LNG. Appraisal work began in 2023.

GLNG is an integrated project with production from the Fairview, Roma, Scotia and Arcadia fields transported to a liquefaction plant on Curtis Island, Queensland with a capacity of 8.8 Mt/y and whose two trains are in production. TotalEnergies entered into a tolling agreement with GIP Australia (GIP) effective since January 1, 2021, which provides that GIP will receive a tolling revenue for 15 years based on gas volumes (TotalEnergies' share) passing through the downstream treatment facilities. In June 2023, TotalEnergies signed an agreement with Gentari for the joint development of the Pleasant Hills solar project to provide low-carbon electricity to the Roma field's gas facilities.

In **Papua New Guinea**, TotalEnergies holds a 37.5% (operator) stake in block PRL-15 of following the sale of a 2.6% stake to JX Nippon in 2023. The State of Papua New Guinea may exercise a back-in right of up to 22.5% interest (when the final investment decision is made), reducing TotalEnergies' interest to 29.1%.

Block PRL-15 includes the two fields Elk and Antelope. Front End Engineering and Design (FEED) (including downstream) was launched early March 2023. The gas produced from these fields is planned to be transported through a 320 km onshore/offshore pipeline to the Caution Bay site. The project includes 2 Mt/y of liquefaction capacity to be secured in a facility operated by a partner and the construction of three additional electrical LNG trains with a total capacity of 4 Mt/y, on the same site.

in April 2019, TotalEnergies and its partners signed an agreement with the authorities of Papua New Guinea defining the fiscal framework for the development of the Papua LNG project. This agreement has been supplemented by a Fiscal Stability Act agreement, signed with the State in February 2021, and an agreement allowing the extension of the PRL-15 license by 5 years until 2026.

(1) Mr. Jean-Christophe Ruffin is one of the co-founders of Médecins sans frontières and honorary president of the NGO Action Against Hunger.
(2) Company listed on NASDAQ.

EUROPE

In **Norway**, TotalEnergies holds an 18.40% interest in the Snøhvit gas liquefaction plant (nameplate capacity of 4.2 Mt/y). Following a 20-month shutdown, due to a fire, production resumed in June 2022.

In **Russia**, TotalEnergies holds a 20.02% direct interest in the Yamal LNG gas liquefaction plant (nameplate capacity of 17.4 Mt/y). In addition, TotalEnergies holds a 10% direct interest in the Arctic LNG 2 project (19.8 Mt/y, under construction).

Since July 2021, TotalEnergies has also held a direct interest of 10% via TotalEnergies EP Transshipment in Arctic Transshipment[1], which was established on behalf of Arctic LNG 2 in order to enable the transfer of LNG cargoes from Arctic LNG carriers (icebreakers) to conventional LNG carriers at transshipment terminals in Murmansk and Kamchatka.

Given the uncertainties that technological and financial sanctions pose on the ability to complete the Arctic LNG 2 project, TotalEnergies has ceased to recognize as proved reserves the resources associated with the Arctic LNG 2 project since December 31, 2021, and has provisioned in its accounts the value of its investments as of March 31, 2022. TotalEnergies no longer recorded reserves from its interest in Novatek.

The American Office of Foreign Assets Control (OFAC) designated, on September 14, 2023 and November 2, 2023, respectively, Arctic Transshipment and Arctic LNG 2 as Specially Designated Nationals with immediate effect subject to temporary exceptions under licenses issued by the OFAC. As a consequence of these designations, US persons are prohibited to deal with those two entities. All non-US persons are exposed to the risk of US secondary sanctions if they provide material support to these entities. Since April 18, 2023, TotalEnergies EP Transshipment has not participated in any governance body and has not paid any cash calls to Arctic Transshipment. The Company is party to an LNG purchase contract with Arctic LNG 2, for which the Company had indicated that it could not terminate it early without exposing itself financially to significant consequences in the absence of economic sanctions, and that it would exercise the force majeure clauses provided for in the contract to interrupt it if sanctions were imposed. On November 2, 2023, Arctic LNG 2 was placed under sanctions by the US authorities. As a result, in accordance with what it announced, on November 7, 2023, TotalEnergies initiated the contractual suspension procedure provided for in the Arctic LNG 2 shareholders' agreement and the force majeure procedure for the LNG purchase contract with Arctic LNG 2. Upon notification of these procedures, TotalEnergies' rights and obligations under these contracts were suspended (refer to point 3.2. of Chapter 3).

MIDDLE EAST AND NORTH AFRICA

In **Qatar**, TotalEnergies participates in the production, processing and liquefaction of gas from the North Field through its interest in:

- QatarEnergy LNG N(2) (formerly Qatargas 2): TotalEnergies holds a 16.7% interest in train 5, which has an LNG production capacity of 8 Mt/y;
- North Field East (NFE) and North Field South (NFS): TotalEnergies announced in June and September 2022 its entry in the projects NFE (6.25%) and NFS (9.375%) projects. These projects which are under construction, include four trains with a total planned capacity of 32 Mt/y for NFE and two trains with a total planned capacity of 16 Mt/y for NFS By 2028, these interests are expected to add, 3.5 Mt/y of production (Company share) to the Company's global LNG portfolio;
- QatarEnergy LNG N(1) (formerly Qatargas 1): TotalEnergies held a 20% interest in the North Field-Qatargas 1 Upstream field and a 10% interest in the LNG plant (three trains with a total capacity of 10 Mt/y), for which the upstream license and LNG plant partner agreement expired on December 31, 2021. The transfer of shares in the QatarEnergy LNG N(1) LNG plant is pending final approval of competent authorities.

In **Oman**, since December 2021, TotalEnergies has held a stake of 26.55% in onshore gas block 10, located in the Greater Barik area, where production started in January 2023 on the north east of the Mabrouk field, with gas sold to the government of Oman. In addition, since December 2021 TotalEnergies has been a shareholder (80%, operator) of Marsa LNG, which was formed with a view to developing a low emissions LNG plant in the port of Sohar. This plant, with an initial capacity of 1 Mt/y, should be supplied by natural gas from block 10.

TotalEnergies also produces LNG through its investments in the Oman LNG (5.54%)/Qalhat LNG (2.04% via Oman LNG) liquefaction complex, with an overall capacity of 10.5 Mt/y, increased to 11.4 Mt/y in 2023 as a result of debottlenecking operations. In November 2023, TotalEnergies signed an agreement allowing it to extend these shareholdings beyond 2024, by 10 years for Oman LNG and by 5 years for Qalhat LNG. The agreement also provides for investments to reduce the site's GHG emissions.

In the **United Arab Emirates**, TotalEnergies holds a 5% interest in ADNOC LNG (capacity of 5.8 Mt/y), which processes the gas produced by ADNOC Offshore in order to produce LNG, LPG and condensates, as well as a 5% interest in National Gas Shipping Company (NGSCO), which is in charge of chartering the ships and supplying the logistical resources for the needs of ADNOC LNG.

In **Egypt**, TotalEnergies holds a 5% interest in the first train (capacity of 3.6 Mt/y) of Egyptian LNG Idku liquefaction plant.

In **Yemen**, the deterioration of security conditions in the vicinity of the Balhaf site caused the company Yemen LNG, in which TotalEnergies holds a 39.62% interest, to cease its commercial production and export of LNG and to declare force majeure to its various stakeholders in 2015. The plant has been placed in preservation mode.

(1) Arctic Transshipment is a Russian company jointly owned by Novatek (90%) and TotalEnergies EP Transshipment (10%) at December 31, 2023.

2.3.3 Intermediary activities: purchase, sale, trading and transportation of LNG and natural gas

PURCHASE, SALE AND TRADING OF LNG

In 2023, LNG trading activities represented a volume of 40.1 Mt, compared with 42.8 Mt in 2022 and 35.1 Mt in 2021. These volumes represent sales by TotalEnergies stemming from equity production and purchases from third parties.

TotalEnergies, with trading teams located in Geneva, Houston, Paris, and Singapore, develops its activities with the management and optimization of a portfolio of long-term contracts coupled with a strong presence on spot markets.

TotalEnergies purchases long-term volumes of LNG, in many cases from liquefaction projects in which the Company holds an interest. New sources of LNG from assets already in operation (Oman LNG – 0.8Mt/y for 10 years from 2025, ADNOC Gas in the UAE for 3 years), projects under construction (Rio Grande LNG in the United States – 5.4Mt/y for 20 years from 2027, NFE and NFS in Qatar – 3.5Mt/y for 27 years from 2026, ECA in Mexico, NLNG T7 in Nigeria, Mozambique LNG in Mozambique) or under study, are expected to ensure the growth of the LNG portfolio in the coming years (refer to point 2.3.2 of this chapter).

TotalEnergies also purchases long-term LNG volumes mainly from plants in which the Company has no equity (Sabine Pass, Corpus Christi, and Freeport in the United States and also from Algeria - 2Mt in 2024). Deliveries from Cove Point (United States) ended in 2022.

In 2023, TotalEnergies purchased 398 shipments under long term contracts from Algeria, Australia, Egypt, the United States, Nigeria, Norway, Qatar, and Russia and 223 spot or medium-term shipments, compared with 385 and 289 shipments in 2022 and 306 and 242 in 2021 respectively. Deliveries from Yemen LNG have been halted since 2015.

In addition, TotalEnergies holds several long-term LNG sales contracts, mainly in Asia (China, South Korea, India, Indonesia, Japan, Singapore, and Taiwan), but also in Brazil, Chile, Panama and the Dominican Republic.

In May 2022, TotalEnergies announced the signing of an agreement with the Korean company Hanwha Energy Corporation to supply 0.7 Mt/y of LNG for 15 years from 2024-2025. The LNG is expected to come from TotalEnergies' global portfolio and be delivered to the Tongyeong regasification terminal in South Korea to power the new 1 GW Hanwha and HDC power plant, currently under construction next to the terminal.

In July 2023, TotalEnergies announced a sales contract to IOCL in India for 10 years.

In February 2024, TotalEnergies concluded a deal with Sembcorp for the supply of 0.8 Mt/y LNG during 16 years from 2027. This new agreement comes on top of the existing contract which lasts until 2029.

Additionally, TotalEnergies is developing LNG retail sales (by barge and tanker trucks) for industrial use or mobility (LNG for shipping or road mobility) in Europe, in the Caribbean in partnership with AES and in China via the joint venture created in March 2021 with Shenergy Group.

LNG SHIPPING

In the frame of its LNG transportation activities, TotalEnergies Gas & Power Limited (TEGPL) operates a chartered fleet of 19 LNG carriers at year-end 2023 (compared to 18 at year-end 2022). In 2023, TEGPL sold its last co-owned LNG carrier (50%, with the Japanese shipowner NYK). This fleet is regularly renewed to benefit from best performing and lowest environment impacting vessels. It also includes 2 regasification vessels (FSRU) set up in Germany and France. In addition to the long-term fleet, each year TEGPL charters spot and short-term ships to serve trading needs and to adapt transportation capacity to seasonal demand.

The subsidiary TotalEnergies EP Norge charters two LNG carriers directly from the ship owners, in addition to the 19 long term chartered LNG carriers by TEGPL.

Finally, LNG carriers are chartered through the Company's interests in LNG production and export projects that control their own fleet, such as Nigeria LNG, Angola LNG and QatarEnergy.

TotalEnergies uses LNG ships selected in accordance with a process detailed in point 2.5.2.2.

NATURAL GAS TRADING AND TRANSPORTATION

TotalEnergies is active in the trading of natural gas in Europe and North America. It sells its output to third parties and supplies its subsidiaries.

In **Europe**, TotalEnergies sold 924 TWh of natural gas in 2023, compared to 888 TWh in 2022 and 747 TWh in 2021.

In **North America**, TotalEnergies sold 282 TWh of natural gas in 2023 from its own production or from external resources, compared to 305 TWh in 2022 and 258 TWh in 2021.

TotalEnergies holds interests in gas pipelines located in Brazil and Argentina.

2.3.4 LNG regasification

TotalEnergies holds interests in regasification assets and has signed agreements that provide long-term access to LNG regasification capacity worldwide, through existing assets in Europe (France, Germany, the Netherlands, and the U.K.), in Asia (India) and the Americas (United States and Panama). Consequently, TotalEnergies has at year-end 2023 a European long-term LNG regasification capacity of 28.1 bcm/y (equivalent to 20.8 Mt/y). In 2023, TotalEnergies finalized two regasification projects in Germany and France to contribute to Europe's security of supply in the context of the invasion of Ukraine by Russia. These projects involved the redeployment of two FSRUs previously operating in Asia and the Middle East. In France, the FSRU is based in Le Havre, while in Germany, it is located in Lubmin in partnership with Deutsche ReGas.

LNG regasification capacity[1] in Europe at year-end 2023

Country	Region/State	Terminal	Reserved TotalEnergies capacity *(Bcm/y)*	Due date
France	Provence-Alpes-Côte d'Azur	Fosmax LNG	7.7	≥2030
	Pays de la Loire	Montoir de Bretagne	7.0	2035
	Hauts-de-France	Dunkirk LNG	2.1	2036
	Normandy	Le Havre (FSRU)	2.2	2028
Germany	Mecklembourg-Western Pomeranian	Deutsche Ostsee (FSRU)	2.6	2029
United Kingdom	Wales	South Hook LNG	2.0	2034
	Kent, England	Isle of Grain	3.3	2029
Netherlands	Rotterdam, South Holland	Gate	1.2	2029
Total			**28.1**	

In **France**, TotalEnergies has a regasification capacity of 7.7 bcm/y in the Fosmax LNG terminal, 7 bcm/y in the Montoir de Bretagne terminal, 2.1 bcm/y in the Dunkirk LNG terminal. Since October 2023, the Company holds a 2.2 bcm/y regasification capacity in the Le Havre floating terminal. The authorization to operate was granted by the French authorities for a period of five years, in response to the emergency caused by the interruption of gas supplies by pipeline from Russia.

In **Germany**, TotalEnergies chartered a FSRU to Deutsche ReGas, which commissioned the Deutsche Ostsee terminal at the beginning of 2023, with a regasification capacity of 5 bcm/y in the port of Lubmin. TotalEnergies has a regasification capacity of 2.6 bcm/y in this terminal.

In the **United Kingdom**, as part of its stake in the Qatargas 2 project, TotalEnergies holds an 8.35% interest in the South Hook LNG regasification terminal which has a total capacity of 21 bcm/y and has access to 2.0 bcm/y of regasification capacity. TotalEnergies has also booked regasification capacity of 3.3 bcm/y at the Isle of Grain terminal.

In **Belgium**, TotalEnergies held a regasification capacity of 2.0 bcm/y in the Zeebrugge terminal, the contract for which expired at the end of September 2023.

In the **Netherlands**, TotalEnergies holds a regasification capacity of 1.2 bcm/y at the Gate terminal that is booked until 2029.

In the **United States**, TotalEnergies has a regasification capacity of 5.0 bcm/y at the Sabine Pass terminal in Louisiana until 2029.

In **Panama**, the Colón LNG Marketing joint venture with AES (TotalEnergies, 50%) holds a capacity of 0.3 bcm/y until 2028.

In **India**, the partnerships between TotalEnergies and the Adani Group include several assets in the gas value chain, from LNG import facilities to gas distribution to domestic households. The Dhamra terminal, with a capacity of 6.8 bcm/y, started in May 2023.

The projects planned by TotalEnergies for the development of regasification terminals in **Benin** and **Ivory Coast** were abandoned in 2021.

2.3.5 LPG, petcoke and sulfur trading

LPG, PETCOKE AND SULFUR TRADING

TotalEnergies is also present in the LPG, petcoke and sulfur markets.

In 2023, TotalEnergies traded and sold 7.1 Mt of LPG (propane and butane) worldwide, compared to 7 Mt in 2022 and 6.4 Mt in 2021. Almost 26% of these quantities came from fields or refineries operated by the Company. This trading activity was conducted using 13 long-term chartered vessels. In 2023, 240 voyages were necessary for transporting the quantities traded, of which 180 by TotalEnergies' long-term chartered vessels and 60 by spot-chartered vessels.

TotalEnergies sells petcoke produced by the Port Arthur refinery in the United States and the Jubail refinery in Saudi Arabia. Petcoke is sold to cement producers and electricity producers, mainly in China, India, as well as in Mexico, Brazil, other Latin American countries, and Turkey. In 2023, 2.9 Mt of petcoke were sold on the international market, compared to 2.8 Mt in 2022 and 2.5 Mt in 2021.

TotalEnergies also sells sulfur, mainly from the production of its refineries. In 2023 1.7 Mt of sulfur were sold, compared to 2.5 Mt in 2022 and 2 Mt in 2021.

In 2015, TotalEnergies ceased its coal production activities, and it stopped selling and trading coal in 2016.

2.3.6 Biogas

TotalEnergies is engaged in the development and operation of biogas production units, mainly from organic agricultural and agro-industrial waste (feedstocks), in the production of electricity and heat (co-generation) and biomethane[2] and in the marketing of biomethane.

Consisting of the same methane molecule as natural gas, biomethane is renewable due to the way it is produced, and it emits very low-carbon over its entire life cycle. When it is injected into the natural gas transmission or distribution network, it allows the same uses such as heating fuel for industry and fuel for land and sea transportation. At the same time, the anaerobic digestion process generates a co-product, digestate, a natural fertilizer with high agronomic value. This digestate is used by farmers to replace synthetic fertilizers, according to a virtuous circular economy plan.

(1) Excluding short term capacity.
(2) Biogas is used to produce electricity and heat, in co-generation. Biogas, once purified, in particular of carbon dioxide, becomes biomethane, which has the same characteristics as natural gas.

At year-end 2023, TotalEnergies' total annual gross production capacity amounts to 1.1 TWh biomethane equivalent (compared to 500 GWh in 2022). This represents the treatment of approximately 1.25 Mt/y of organic waste in order to provide renewable gas to the equivalent of 220,000 inhabitants, making it possible to avoid the emission of around 220 kt of CO_2[1]. With the digestate, close to 30 kt/y of chemical fertilizers are replaced by a natural fertilizer. The Company aims to be a major player in the sector, in France, in Europe and in other key markets.

- **France**

TotalEnergies has seven biomethane production units in France at the end of 2023, six of which have obtained ISCC EU sustainability certification, and also 11 biogas units.

The Company's combined biomethane and biogas gross production capacity in France stands at nearly 700 GWh/y. Since the acquisition of Fonroche Biogaz in 2021, this subsidiary, renamed TotalEnergies Biogaz France, commissioned in January 2023 BioBéarn (Pyrénées-Atlantiques) which holds the largest[2] anaerobic digestion capacity in France, i.e. 160 GWh/y. It is the first TotalEnergies Biogaz France facility and one of the first in France to have obtained ISCC EU certification in March 2023. In 2023, TotalEnergies made the decision to invest in two new biomethane production units, BioNorrois (160 GWh/y), in Seine-Maritime, and MéthAdour (32 GWh/y), in the Landes department.

Downstream in the chain, TotalEnergies signed its first "Biomethane Purchase Agreement – BPA" with the Saint-Gobain group in June 2023. This biomethane sales agreement represents 100 GWh over a period of three years starting in 2024. The biomethane will be produced by TotalEnergies on its BioBéarn site. By acquiring the Guarantees of Origin linked to this production, and due to its ISCC EU certification, Saint-Gobain will thus be able to certify, within the framework of the European Union's Emissions Trading System, the decarbonization of associated energy consumption. This contract also constitutes an example of the sale of biomethane on a purely commercial basis, not supported by subsidies.

- **Europe**

TotalEnergies confirmed its growth dynamic in the sector by acquiring Polska Grupa Biogazowa (PGB), Poland's main producer of biogas[3] in March 2023, whose main field of activity is the production of renewable electricity and heat from biogas from organic waste. With the commissioning of Gołoszyce in July 2023, PGB owns and operates 18 units in production at the end of 2023, representing installed electrical capacity of 19 MW, i.e. an electricity production capacity of 166 GWh/y (approximately 400 GWh/y in biomethane equivalent). Two biogas plants of 1 MW installed capacity each are currently under construction in Poland.

The acquisition of PGB gives the Company a leading position on the promising Polish market, which has the fourth greatest potential in Europe for biogas and biomethane production, estimated at nearly 100 TWh/y[4].

- **United States**

TotalEnergies is developing biomethane production as part of the joint venture with Clean Energy Fuels Corp., a United States company listed on NASDAQ, that stands amongst tone of the leaders in the United States market for the distribution of renewable gas for vehicles, its share of which was 19.10% on December 31, 2023. The Del Rio anaerobic digestion unit in Texas, with a capacity of 40 GWh/y, was commissioned in March 2023.

In addition, in May 2023, TotalEnergies took a 20% stake in the capital of Ductor, a Finnish start-up that has developed an innovative technology for treating organic waste with a high nitrogen content, such as poultry manure, which is usually difficult to use as a feedstock for anaerobic digestion. By enabling the processing of new types of feedstock, this technology directly contributes to accelerating the development of the biogas value chain.

TotalEnergies has entered into a partnership with Ductor to develop and invest in several biomethane production projects, mainly in the United States and Europe. The partners notably aim to develop a first unit in Ohio, in the United States. Under the terms of this joint venture, TotalEnergies will market the production of biomethane, and Ductor the production of sustainable biofertilizers.

- **India**

The Adani Total Gas Limited joint venture (TotalEnergies, 37.4%) is implementing a first biomethane plant project in Barsana in the state of Uttar Pradesh, the first tranche of which provides for a capacity of 55 GWh/y.

2.3.7 Hydrogen

TotalEnergies is working primarily on decarbonizing the hydrogen consumed in its European refineries by 2030. TotalEnergies has already launched projects to decarbonize its refineries by supplying them with hydrogen produced with renewable electricity (refer to point 2.5.1 of this chapter). TotalEnergies and Air Liquide signed an agreement in November 2022 to build an innovative and circular system at the Grandpuits biorefinery in order to produce and take advantage of renewable and low-carbon hydrogen, and signed an agreement in September 2023 for the long-term supply of green and low-carbon hydrogen to the Normandy refining-petrochemical platform. On the La Mède site, the Masshylia project, which ambition is to produce green hydrogen in partnership with Engie, is underway. TotalEnergies signed an agreement with VNG in June 2023 for the future supply of green hydrogen to the Leuna refinery in Germany.

The hydrogen production capacity from renewable electricity currently under development or under study are expected to contribute to achieving TotalEnergies' ambition to increase low-carbon molecules - biofuels, biogas, hydrogen, and e-fuels - to 25% of its energy production by 2050.

In May 2023, TotalEnergies joined forces with Tree Energy Solutions to study and develop a project in the United States to produce synthetic natural gas from renewable hydrogen and CO_2 of biogenic origin. This project, with a capacity of 100 to 200 kt/y, plans to produce synthetic natural gas that can be transported and/or liquefied and then marketed using existing natural gas infrastructure, and used by end customers without modifying their facilities.

Following the acquisition of the entire capital of Total Eren concluded in July 2023, development activities for renewable hydrogen projects are continuing as part of a new partnership through the TEH2 joint venture (80% owned by TotalEnergies and 20% by the EREN group). TEH2 is developing pioneering renewable hydrogen production projects in different regions, such as North Africa, South America, and Australia.

In the hydrogen mobility segment, TotalEnergies and Air Liquide have associated in the TEAL mobility joint-venture (refer to 2.6.5.1).

(1) Source: ADEME method.
(2) Source: ODRÉ (Opendata Réseau).
(3) Source: TotalEnergies' data.
(4) Source: *Gas for Climate* (July 2022).

2.4 Integrated Power Segment

Since the first quarter of 2023, TotalEnergies has separated in its published results the Integrated LNG segment covering its LNG and low-carbon gas activities and the Integrated Power segment covering the integrated electricity chain.

The Integrated Power segment covers electricity production, storage, trading and gas-electricity marketing activities to BtB and BtC customers.

Main indicators

33 TWh
Net production of electricity in 2023, of which **19 TWh** from renewable sources

28 GW
Gross installed power generation capacity at year-end 2023, of which **22.4 GW** from renewable sources

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Main objectives and ambitions

>100 TWh
Net power production in 2030

~12%
ROACE* by 2028

>$4 B/year
cash flow (CFFO)* between now and 2028

Positive net cash flow* by 2028

* Refer to the glossary for definitions and additional information on alternative performance measures (APM, Non-GAAP measures) and to point 1.9 of chapter 1 for reconciliation tables.

Integrated Power

	2023	2022	2021
Net power production *(TWh)*[a]	**33.4**	**33.2**	**21.2**
of which production from renewables	18.9	10.4	6.8
of which production from gas flexible capacities	14.5	22.8	14.4
Portfolio of power generation net installed capacity *(GW)*[b]	**17.3**	**12.0**	**9.2**
of which renewables	13.0	7.7	5.1
of which gas flexible capacities	4.3	4.3	4.1
Portfolio of renewable power generation gross capacity *(GW)*[b][c]	**80.1**	**69**	**43**
of which installed capacity	22.4	16.8	10.3
Clients power– BtB and BtC *(millions)*[b]	**5.9**	**6.1**	**6.1**
Clients gas – BtB and BtC *(millions)*[b]	**2.8**	**2.7**	**2.7**
Sales Power – BtB and BtC *(TWh)*	**52.1**	**55.3**	**56.6**
Sales Gas – BtB BtC *(TWh)*	**100.9**	**96.3**	**101.2**

(a) Solar, wind, hydroelectric and gas flexible capacities.
(b) End of period data.
(c) Includes 20% of Adani Green Energy Ltd's gross capacity effective first quarter 2021, 50% of Clearway Energy Group's gross capacity effective third quarter 2022, and 49% of Casa dos Ventos' gross capacity effective first quarter 2023.

Net power production *(TWh)*

	As of December 31, 2023					
	Solar	Onshore Wind	Offshore Wind	Gas	Storage and hydroelectricity	Total
France	0.5	0.7	0.0	9.3	0.0	**10.6**
Rest of Europe	0.2	1.2	1.1	3.9	0.1	**6.4**
Africa	0.1	0.0	0.0	0.0	0.0	**0.1**
Middle East	0.7	0.0	0.0	1.3	0.0	**2.1**
North America	1.7	2.0	0.0	0.0	0.0	**3.7**
South America	0.3	2.5	0.0	0.0	0.0	**2.9**
India	5.5	1.0	0.0	0.0	0.0	**6.5**
Asia-Pacific	1.0	0.0	0.1	0.0	0.0	**1.2**
Total	**10.0**	**7.6**	**1.2**	**14.5**	**0.1**	**33.4**

Installed power production net capacity *(GW)*

	As of December 31, 2023					
	Solar	Onshore Wind	Offshore Wind	Gas	Storage and hydroelectricity	Total
France	0.5	0.3	0.0	2.6	0.1	**3.6**
Rest of Europe	0.2	0.9	0.6	1.4	0.1	**3.2**
Africa	0.1	0.0	0.0	0.0	0.0	**0.1**
Middle East	0.4	0.0	0.0	0.3	0.0	**0.7**
North America	2.0	0.8	0.0	0.0	0.2	**3.0**
South America	0.4	0.8	0.0	0.0	0.0	**1.2**
India	3.8	0.5	0.0	0.0	0.0	**4.3**
Asia-Pacific	1.0	0.0	0.1	0.0	0.0	**1.1**
Total	**8.5**	**3.4**	**0.7**	**4.3**	**0.5**	**17.3**

Net power production in 2023 stood at 33.4 TWh, up 1% year-on-year. Lower generation from flexible capacities, whose utilization rate was exceptional in 2022 due to the energy crisis in Europe, was more than compensated by growing electricity generation from renewables, that is related to the integrated of 100% of TotalEren and contribution from Clearway in the US and Casa dos Vento in Brazil.

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2.4.1 Presentation of the segment

Transition to carbon neutrality (net zero emissions) by 2050, together with society, involves a massive electrification of energy uses combined with a strong growth in renewable energies to meet this demand for electricity.

Electricity is a strong growth market in which TotalEnergies is developing a profitable and differentiated integrated business model, which it aims to make one of the drivers of the Company's cash flow (CFFO[1]), alongside oil and gas. In particular the Company aims to generate a positive net cash flow (CFFO) by 2028. TotalEnergies plans to increase its net power production to more than 100 TWh, mainly from renewable sources by 2030. It was 33.4 TWh in 2023, compared to 33.2 TWh in 2022 and 21.2 TWh in 2021.

TotalEnergies intends to replicate its integrated oil & gas model in the Integrated Power segment in order to achieve profitability (ROACE[2]) of around 12% by 2028, equivalent to that of its oil & gas activities in a Brent price environment of $60/b.

The Company's strategy is to build a competitive portfolio of renewable (mainly solar, onshore and offshore wind) and flexible (CCGT, storage) assets in order to provide its customers with low-carbon electricity available 24 hours a day. In particular, TotalEnergies leverages on its scale for its equipment purchases to optimize investment costs and industrializes the operations of its renewable assets using digital technology to reduce operating costs. TotalEnergies also uses the strength of its balance sheet to maintain some market exposure, allowing the Company to capture additional margins in a volatile market.

By 2030, TotalEnergies plans to increase its production of renewable electricity (which was 18.9 TWh in 2023) four- or five-fold and to double the power production of its flexible generation assets (which was 14.5 TWh in 2023).

TotalEnergies' power production in 2023, was around 70%, in countries where markets are deregulated (mainly Europe, the United States and Brazil). The Company intends to maintain this share and anticipates in these markets sustained and volatile electricity prices, in a context of strong demand growth and tensions on supply. In these deregulated markets, the Company implements its integration strategy throughout the power value chain and keeps approximately 30% of its power production exposed to market fluctuations, relying on its storage capacities and its flexible generation to cover the intermittence of renewable generation and developing power trading and sales activities to end customers. With this in mind, the Company is developing specific expertise in short-term trading on power markets, in activities linked to flexibility management, as well as on the Corporate PPA market.

In regulated markets, TotalEnergies implements a targeted growth strategy:

- in oil and gas producing countries, to support their energy transition by relying on the Company's local presence and its historical activities to develop multi-energy projects, particularly renewable ones;
- in the rest of the world, by selectively developing projects, particularly via strategic partnerships with local players (such as the partnership with AGEL in India).

2.4.2 Power generation from renewable sources

To develop its renewable power generation capacities, TotalEnergies is pursuing organic growth and targeted acquisitions. In July 2023 TotalEnergies finalized the increase from 30% to 100% of its shareholding in Total Eren. At this date, Total Eren had a net installed capacity of 3.5 GW worldwide, and a diversified portfolio of solar, wind, hydroelectric and storage projects of more than 10 GW in 30 countries. These assets are now fully integrated into TotalEnergies' portfolio of renewable power production assets. In 2022, TotalEnergies had finalized the acquisition of a 50% stake in Clearway Energy Group in the United States and a 34% interest in Casa dos Ventos in Brazil and, in 2021, a 20% stake in Adani Green Energy Ltd. in India.

Net renewable power production reached 18.9 TWh in 2023, compared to 10.4 TWh in 2022 and 6.8 TWh in 2021.

TotalEnergies is developing a portfolio of solar (including decentralized), wind (onshore and offshore) and hydroelectric renewable power generation, for a renewable power generation net installed capacity of 13 GW at year-end 2023 as against 7.7 GW at year-end 2022 and 5.1 GW at year-end 2021.

The installed renewable power generation gross capacity amounted to 22.4 GW at year-end 2023 compared to 16.8 GW at year-end 2022 and 10.3 GW at year-end 2021. At year-end 2023, TotalEnergies had a portfolio of renewable power generation gross capacities of close to approximately 80 GW (installed, under construction and in development).

Power generation gross capacity from renewables

Installed power generation gross capacity from Renewables *(GW)*[(a)]	As of December 31, 2023				
	Solar	Onshore Wind	Offshore Wind	Storage and hydroelectricity	Total
France	0.9	0.6	0.0	0.1	**1.6**
Rest of Europe	0.2	1.1	1.1	0.2	**2.6**
Africa	0.1	0.0	0.0	0.0	**0.2**
Middle East	1.2	0.0	0.0	0.0	**1.2**
North America	4.9	2.1	0.0	0.5	**7.5**
South America	0.4	1.2	0.0	0.0	**1.6**
India	5.4	0.5	0.0	0.0	**5.9**
Asia-Pacific	1.5	0.0	0.3	0.0	**1.8**
Total	**14.6**	**5.5**	**1.4**	**0.8**	**22.4**

(a) Including 20% of Adani Green Energy Ltd's gross capacities, 50% of Clearway Energy Group's gross capacities and 49% of Casa dos Ventos' gross capacities.

(1) Refer to the glossary for the definition and further information on alternative performance measures (Non-GAAP measures) and to point 1.9 of chapter 1 for reconciliation tables.
(2) Refer to the glossary for the definition and further information on alternative performance measures (Non-GAAP measures) and to point 1.9 of chapter 1 for reconciliation tables.

Power generation gross capacity from renewables in construction

Power generation gross capacity from renewables in construction *(GW)*[a]	As of December 31, 2023 Solar	Onshore Wind	Offshore Wind	Storage and hydroelectricity	Total
France	0.2	0.0	0.0	0.0	**0.2**
Rest of Europe	0.4	0.0	0.0	0.1	**0.5**
Africa	0.0	0.0	0.0	0.0	**0.0**
Middle East	0.1	0.0	0.0	0.0	**0.1**
North America	1.4	0.1	0.0	0.2	**1.7**
South America	0.0	0.4	0.0	0.0	**0.4**
India	0.6	0.0	0.0	0.0	**0.6**
Asia-Pacific	0.0	0.0	0.4	0.0	**0.4**
Total	**2.8**	**0.6**	**0.4**	**0.3**	**4.1**

(a) Including 20% of Adani Green Energy Ltd's gross capacities, 50% of Clearway Energy Group's gross capacities and 49% of Casa dos Ventos' gross capacities.

Power generation gross capacity from renewables in development

Power generation gross capacityfrom renewables in development *(GW)*[a]	As of December 31,2023 Solar	Onshore Wind	Offshore Wind	Storage and hydroelectricity	Total
France	0.7	0.4	0.0	0.0	1.2
Rest of Europe	4.6	0.3	7.4	0.1	12.4
Africa	1.1	0.3	0.0	0.3	1.7
Middle East	1.5	0.7	0.0	0.0	2.2
North America	8.2	3.4	4.1	5.4	21.1
South America	1.4	0.8	0.0	0.4	2.6
India	4.7	0.2	0.0	0.0	4.9
Asia-Pacific	2.9	0.4	2.9	1.3	7.5
Total	**25.3**	**6.5**	**14.4**	**7.5**	**53.7**

(a) Including 20% of Adani Green Energy Ltd's gross capacities, 50% of Clearway Energy Group's gross capacities and 49% of Casa dos Ventos' gross capacities.

SOLAR AND ONSHORE WIND

France

The subsidiary, TotalEnergies Renouvelables France, develops, builds and operates **renewable electricity generation** projects in mainland and overseas France.

In mainland France, it operated more than 620 onshore wind, solar, battery and hydroelectric assets for an installed gross capacity of 1.6 GW at year-end 2023 compared to 1.5 GW at year-end 2022 and 1.2 GW at year-end 2021.

In 2023, among others, TotalEnergies inaugurated a solar power plant in the Greater Paris region (Grandpuits site, Île-de-France) together with a battery-powered energy storage facility, two wind farms with a combined gross capacity of more than 20 MW in Loir-et-Cher, an 8.7 MW solar power plant in Tarn, and the Torrent de Gavet hydroelectric power plant producing approximately 9.5 GWh per year.

In addition, the Company develops agrivoltaic projects that respond to the challenges of the agricultural world, as illustrated by the conclusion in March 2022 of an innovative partnership agreement with the National Federation of Farmers' Unions (FNSEA) with the aim of promoting the emergence of circular economic networks, the acceptability of projects and the sharing of value with farmers. In 2023, the Company acquired Ombréa, a leader in agrivoltaics in France. This acquisition will notably enable TotalEnergies to accelerate the development of its 1.5 GW portfolio of agrivoltaic projects.

Also, in line with its portfolio optimization strategy, at year-end 2022 TotalEnergies sold to Crédit Agricole Assurances 50% of a 234 MW portfolio of renewable projects in France, including 23 solar plants with a capacity of 168 MW and six wind plants with a capacity of 67 MW. In 2021, TotalEnergies had already sold to Crédit Agricole Assurances and Banque des Territoires two 50% interests in solar and wind asset portfolios in France with a total capacity of 279 MW.

Rest of Europe and CIS

In **Spain,** TotalEnergies is developing a portfolio of solar projects of more than 4 GW, of which 3 GW received environmental authorizations from local public authorities in 2023. La Asomada (5 MW) started its production in 2022. Construction of the Los Valientes (14 MW, 65%) and La Isla (5 MW, 65%) solar power plants began in 2022. In 2023, construction of the Guillena solar project (263 MW) also began.

In the **United Kingdom**, the portfolio of solar projects acquired by TotalEnergies from Bluestone (330 MW at year-end 2022) reached 512 MW in 2023.

In **Romania**, TotalEnergies acquired in July 2023 a portfolio of five solar farms in the northwest of the country from its partner PNE, a German developer. With a total capacity of 210 MW, these projects are expected to enable TotalEnergies to provide its BtB customers with locally produced renewable power through power purchase agreements (PPAs) from 2025.

In the rest of Europe, TotalEnergies' continue to expand its portfolio. For example:

- in **Bulgaria**, with two operational solar projects: Dabovo (10 MW, 100%) and the Vinogradets project (4 MW, 100%);
- in **Greece**, 154 MW of solar, and 265 MW of wind installed capacity. The Xirokambi solar project (70 MW, 100%) is expected to start operation in 2024;
- in **Italy**, 44 MW of solar, and 41 MW of wind installed capacity;

- in **Poland,** with 20 MW Gluchow I wind farm and its extension with 20 MW Gluchow II project (98%) scheduled for 2024. In addition, in this country, TotalEnergies announced in March 2023 the acquisition of a portfolio of 6 solar projects under development with an overall production capacity of 175 MW, the first of which are expected to come on stream by 2025;
- in **Portugal**, 46 MW of installed solar capacity, 526 MW of wind capacity and 33 MW of hydroelectric capacity spread among nine assets.

In **Turkey**, TotalEnergies finalized in October 2023 the acquisition of 50% interest in Rönesans Enerji. Following the signature of the agreement with Rönesans Holding in July 2023 to develop renewable projects in the country through this joint-venture, Rönesans Enerji aims to produce 2 GW of renewable energy by 2028. The power generated by these sites will be marketed in particular through direct sales on the electricity market or by concluding PPAs with end buyers.

In **Kazakhstan**, by signing a PPA for the totality of the electricity produced with a public purchaser in June 2023, the Company also formalized the launch of the Mirny project, providing for the construction of a 1 GW onshore wind farm associated with a 600 MWh battery energy storage system.

The Company is also pursuing the development of its renewable activities in the region, notably in **Uzbekistan,** with the signature in November 2023 of a memorandum of understanding (MoU) formalizing the development of two solar power plants with a total gross capacity of around 1.3 GW.

Furthermore, opportunities in other European countries are currently being studied by TotalEnergies and European Energy, who agreed, in September 2023, to develop, build and operate, in a joint-venture (TotalEnergies, 65%), at least 4 GW of onshore renewable energy projects in several geographic zones.

In addition, TotalEnergies, Baker Hughes, Technip Energies, Azimut and other investors signed a preliminary agreement in August 2023 to invest in Zhero Europe to develop large-scale renewable energy projects in Europe and Africa, covering the production of renewable energy, electrical interconnectors and low-carbon molecules.

North America

In the **United States**, following the agreements signed in May 2022 with Global Infrastructure Partners (GIP), TotalEnergies acquired in September 2022 50% of Clearway Energy Group (CEG), one of the largest U.S. renewable energy players. CEG, through its NYSE-listed subsidiary Clearway Energy Inc. owned nearly 10 GW of operating wind and solar renewable assets at year-end 2023 and had a portfolio of 24 GW of renewable and storage projects, 7.5 GW of which are in an advanced stage of development. In this transaction, in addition to $1.6 billion in cash, GIP received 50% minus one share of TotalEnergies' interest in SunPower Corporation. Through this acquisition, TotalEnergies has established a strong position in the U.S. renewables and storage market.

In April 2022, TotalEnergies acquired Core Solar and its identified 4 GW pipeline of projects. Of this portfolio, the Hill solar project (525 MW) was launched in late 2022 with a view to commission it in late 2024. In 2023, the Clinton (65 MW) and Brazoria (325 MW) solar projects were launched with commissioning scheduled in 2025.

In 2021, TotalEnergies acquired 2.2 GW of solar projects from SunChase Power. The Myrtle (380 MW) and Danish (720 MW) photovoltaic sites were reinforced with storage projects in 2022 (Myrtle (150 MW/225 MWh) and Danish (150 MW/225 MWh)). The Cottonwood solar project (455 MW) located in Brazoria County, Texas, construction of which began in 2022, is expected to be commissioned in 2024. The Myrtle photovoltaic site was commissioned in the second half of 2023 and the Danish site is expected to start up during 2024. These two projects, as well as the Hill 1 project, are expected to contribute to the reduction of Scope 2 GHG emissions of the industrial sites operated by TotalEnergies in the U.S., by providing part of their electric consumption, including the Port Arthur refining-petrochemicals platform and the La Porte and Carville petrochemicals sites. These Texan solar projects should also enable to supply renewable electricity to customers via Corporate PPAs signed in 2021, 2022 and 2023 (refer to point 2.4.5).

The joint-venture (50/50) created in 2020 by TotalEnergies and 174 Power Global, a subsidiary of the Hanwha group, is developing eight industrial-scale solar and energy storage projects, with a cumulative capacity of 1.2 GW, from the 174 Power Global development portfolio. These projects, located in six U.S. states, are expected to be developed in 2024. The portfolio also includes the Oberon solar plant in Texas (194 MW, 50%), commissioned in 2021 and Rayos del Sol (242 MW, 50%), commissioned in 2022. The Ellis and Skysol projects started during 2023.

SunPower Corporation and Maxeon Solar Technologies, Ltd.

TotalEnergies has been a shareholder (25.07% at December 31, 2023) in SunPower Corporation, a U.S. company listed on NASDAQ and based in California, since 2011. Since the spin-off of the company in August 2020 and the creation of Singapore-based Maxeon Solar Technologies, Ltd. (15.2%), which is also listed on the NASDAQ, SunPower has focused on developing and marketing energy services combining photovoltaic systems, energy storage and services in the residential segments of the U.S. market. In October 2021, SunPower acquired Blue Raven Solar, one of the fast-growing solar providers in the U.S. for the residential market. At December 31, 2023, SunPower had signed over 99,000 contracts with individual clients, for a total installed capacity of 755 MW.

Maxeon Solar Technologies, Ltd. now includes activities ranging from the design through manufacture to the international sale of cells.

Asia Pacific

In **Cambodia**, TotalEnergies operates the Battambang solar power plant (74 MW). To develop new renewable energy projects and other decarbonization initiatives, TotalEnergies signed a memorandum of understanding with Royal Group in October 2023 to study potential partnerships for the development of solar and wind projects.

In **Indonesia**, in 2023, under the leadership of its subsidiary Total Eren, TotalEnergies, together with its partners Adaro Power and PJBi, signed a PPA with the public operator PLN for a hybrid wind project (with storage) in the country with a planned capacity of 70 MW/10 MWh.

In **the Philippines**, TotalEnergies entered into a co-development agreement in February 2023 with its local partner Nextnorth for the development of a 440 MW solar project.

In **India**, TotalEnergies is present through its partnership with Adani Green Energy Limited (AGEL) and the EDEN joint-venture (50/50) with EDF. Through these two partnerships, TotalEnergies has a solar and wind portfolio with a gross installed capacity of 5.9 GW of which 5.2 GW with AGEL. As of December 31, 2023, 56.3% of AGEL is owned by the Adani family, 19.7% by TotalEnergies and 24.0% by public and institutional investors. In January 2021, TotalEnergies had acquired 20% of the capital of AGEL. In September 2023, TotalEnergies and AGEL announced that they had entered into a binding agreement to create a new joint-venture (50/50) with a portfolio of 1.5 GW. This portfolio, both solar and wind, include assets in operation (0.5 GW), and in development (1 GW).

In **Japan**, TotalEnergies holds interests in 4 solar plants: Nanao (27 MW, 50%), Miyako (25 MW, 50%) and Osato (52 MW, 45%). The fourth solar plant, Haze (51 MW, 45%), was commissioned at the beginning of 2023.

In 2023, TotalEnergies also partnered with Gentari Renewables Sdn Bhd, the Petronas subsidiary dedicated to sustainable energy solutions, to develop renewable energy projects in the Asia-Pacific region. It is within this framework that the 100 MW Pleasant Hills solar project is expected to be developed in Queensland, Australia, with the aim of supplying low-carbon electricity to the gas production and processing facilities of the Roma field.

In **Australia**, TotalEnergies has one solar asset in operation, Kiamal (256 MW, 100%).

Latin America

In **Brazil**, TotalEnergies has a portfolio of 0.9 GW of installed onshore wind capacity, 0.4 GW of onshore wind capacity under construction, as well as 0.9 GW of onshore wind and 1 GW of solar projects, development of which is at an advanced stage.

This portfolio includes the capacities of the joint-venture created in October 2022 between TotalEnergies (34%) and Casa dos Ventos (66%) (Brazil's 1st renewables developer[1]) which also has a right of first offer on all projects developed by Casa dos Ventos. It also includes 300 MW of solar and wind projects in operation.

In addition, to further strengthen its presence in Brazil, TotalEnergies announced in September 2023 the signature of a memorandum of understanding with Casa dos Ventos and Petrobras to evaluate the prospects for joint projects in the field of renewable energies and low-carbon hydrogen in the country.

In **Chile**, TotalEnergies holds interests in the Santa Isabel (190 MW, 50%) and PMGD (23 MW, 100%) solar power plants.

Middle East/Africa

In the Middle East, TotalEnergies and its partners commissioned the Al Kharsaah solar power plant (800 MW, 19.6%) in **Qatar** in October 2022. The plant is 40% owned by the consortium formed by TotalEnergies (49%) and Marubeni (51%) the remaining 60% being owned by QatarEnergy Renewables Solutions. Located 80 km west of Doha, Al Kharsaah is the first large-scale solar power plant in Qatar. It can supply 10% of the country's peak consumption and is expected to avoid the emission of 26 Mt CO_2[2] over its reserve life.

As part of a multi-energy agreement with **Iraq** signed in September 2021, TotalEnergies plans to develop a 1.2 GW solar power plant to supply the Basra region's grid. TotalEnergies is also developing a solar project in **Saudi Arabia** (Wadi Ad Dawasir, 120 MW, 40%) and has a stake in the Shams solar power plant in **Abu Dhabi** (110 MW, 20%).

In **Morocco**, TotalEnergies has invested £20 million to acquire a minority stake in Xlinks First Limited, with the aim of developing a giant renewable project, combining wind and solar coupled with large battery storage to supply renewable electricity to the UK.

In the **rest of the continent**, in **South Africa**, TotalEnergies won a tender in 2022 launched by Sasol and Air Liquide for an onshore wind project (140 MW, 35%) and a solar project (100 MW, 35%). These two projects are expected to enable TotalEnergies to decarbonize the energy supplying Sasol and Air Liquide's industrial sites, in accordance with the Corporate PPA signed between the parties in February 2023 covering the supply of 260 MW of renewable electricity over a period of 20 years. In December 2023, TotalEnergies also announced with its partners the launch of the construction of a hybrid renewable project comprising a 216 MW solar power plant (35%) as well as a 500 MWh battery storage system (35%) to supply renewable electricity via a sales agreement (PPA) for 20 years to the national grid. The Company won the tender for this project in 2021, as well as a second tender for the development of an 87 MW solar project (36%). TotalEnergies also owns a stake in the Prieska solar power plant (86 MW, 27%).

TotalEnergies is also developing solar projects in **Angola** (Quilemba, 35 MW, 51%) and **Mozambique** (Dondo, 40 MW, 90%), where the consortium consisting of EDF (40%), TotalEnergies (30%) and Sumitomo Corporation (30%) was selected as a strategic partner by the Government of Mozambique in December 2023 to develop the Mphanda Nkuwa hydroelectric project with a capacity of 1500 MW.

OFFSHORE WIND POWER

As part of its long-term strategy to develop renewable energy sources, TotalEnergies has been developing a strong presence in the fixed and floating offshore wind industry since 2020, drawing on its experience and know-how in the offshore oil segment as well as its ability to manage large projects and mobilize the necessary financing. At year-end 2023, TotalEnergies had around 15 GW gross capacity of offshore wind projects under construction and in development, of which approximately 10% is floating.

In **Germany**, the Company won two maritime concessions in July 2023, one in the North Sea, the other in the Baltic Sea, to develop two wind farms with a combined capacity of 3 GW.

The production generated by these German sites will be marketed by TotalEnergies, either through direct sales on the electricity market, or by entering into PPAs with end buyers, thus allowing them to reduce their carbon footprint. These projects, with competitive costs considering the quality of the sites, illustrate the Company's strategy of becoming an integrated player in the electricity markets taking advantage of price volatility and will contribute to achieving the profitability objectives of the Integrated Power activity.

In **England**, a 50/50 joint-venture between TotalEnergies and Corio Generation, a MacQuarie affiliate, won a concession in the British part of the North Sea in February 2021 to develop the fixed 1.5 GW Outer Dowsing Offshore Wind project. In March 2023, Gulf Energy Development Public Company Limited (GULF) announced that it had acquired half of Corio Generation's stake. GULF owns 24.99% of the Outer Dowsing Offsore Wind project, alongside Corio Generation (25.01%) and TotalEnergies (50%).

In **Scotland**, in 2020, TotalEnergies acquired a majority stake (51%) in the Seagreen project, an offshore wind farm with a capacity of 1.1 GW, located off the Angus coast in the North Sea, alongside SSE Renewables. Upon start-up in October 2023, the farm became the largest wind farm in Scotland and one of the deepest in the world[3] on a fixed foundation. It is operating at its maximum rated capacity and is therefore expected to generate approximately 5 TWh of renewable electricity per year. In December 2023, TotalEnergies sold a 25.5% stake in the Seagreen project to PTTEP. Following the transaction, pending the approval of the competent authorities, TotalEnergies will own 25.5% of Seagreen alongside PTTEP (25.5%) and SSE Renewables (49%).

In January 2022, following ScotWind's call for tenders, the joint-venture between TotalEnergies (38.25%), Corio Generation (46.75%) and RIDG (15%), a Scottish developer in offshore wind, obtained the N1 zone concession to develop a 2 GW offshore windfarm. This project, called the West of Orkney Windfarm, will be located 30 kilometers off the Orkney archipelago in Scotland.

(1) Source: Casa dos Ventos.
(2) Source: Enerdata.
(3) Source: The Energy Institute.

In the **United States**, after having obtained, in February 2022, 100% of the maritime concession OCS-A 0538 off the coasts of New York and New Jersey, TotalEnergies joined forces in October 2023 with Corio Generation and Rise Light & Power (Rise) to develop the "Attentive Energy" project, with a capacity of more than 3 GW. Corio Generation and Rise have taken respective stakes of 27.7% and 16.3% in this project, with TotalEnergies retaining the remaining 56%. Under the agreement, Rise will interconnect the offshore wind project at its Ravenswood production site, enabling the shutdown of its natural gas-fired power generators. This emblematic site, a pillar of the New York energy system, will thus be transformed into a green energy hub, where Attentive Energy will base its operation and maintenance activities. In December 2023, the Attentive Energy project received approval for its first federal permit (Site Assessment Plan) for the total 3 GW capacity of the site.

In parallel, in October 2023 the Attentive Energy One project, owned by TotalEnergies (40%), Rise (35%) and Corio Generation (25%), won the call for tenders for ORECs (offshore renewable energy credits) organized by the New York State Energy and Research Development Agency (NYSERDA). Attentive Energy One was thus selected for a 25-year contract for the supply of 1.4 GW of renewable electricity and received approval of its first federal Site Assessment Plan in December 2023. The consortium's goal is to commission this project in 2029.

Finally, the Attentive Energy Two project, owned by TotalEnergies (70%) and Corio Generation (30%), won the New Jersey State tender for OREC in January 2024. Attentive Energy Two has been selected for a 20-year contract for the supply of 1.34 GW of renewable electricity. The consortium's goal is to commission this project in 2031.

In November 2023 in North Carolina, TotalEnergies filed the first Site Assessment Plan for its Carolina Long Bay project (1 to 2 GW, 100%, a concession won in May 2022).

In **France**, in 2020, TotalEnergies became a 20% shareholder in the Eolmed pilot project for a 30 MW floating wind farm located in the Mediterranean off the coast of Gruissan and Port-La Nouvelle, construction of which started in May 2022, with commissioning scheduled to take place during 2024.

In **South Korea**, TotalEnergies is developing a portfolio of more than 2 GW of bottom fixed and floating wind power with the Bada project in partnership with Corio Generation. In November 2022, the SK Ecoplant group purchased a minority interest in the project.

In **Taiwan**, the Yunlin project, with a capacity of 640 MW, in which TotalEnergies acquired a 23% stake in May 2021 from wpd, is currently under construction. The project started to inject electricity into the grid in November 2021.

In February 2023, TotalEnergies and Corio Generation announced the creation of a joint-venture to develop the "Formosa 3" wind farms off the coast of Taiwan. The Formosa 3 project comprises three wind farms, Haiding 1, 2 and 3, located offshore Changhua County in western Taiwan. Formosa 3's Haiding 2 wind farm was awarded a grid capacity of 600 MW in December 2022 by the Taiwan Energy Bureau, in a third round of auctions.

DISTRIBUTED GENERATION

In the fast-expanding **decentralized power generation** segment, TotalEnergies is dedicated to developing and building photovoltaic systems, that may be combined with batteries or other means of generation installed at industrial or commercial sites for own consumption. Depending on each country's regulations, TotalEnergies can operate those systems or lease them to local players. TotalEnergies enters into private PPAs as part of its activities. In addition, it helps to roll out TotalEnergies' program for solarizing its own sites.

TotalEnergies has operational activities in more than 30 countries at year-end 2023, with clients in Asia, the Middle East, Africa, Europe and the United States. At the end of 2023, its portfolio amounts to more than 900 MW of gross installed capacity spread over more than 480 sites and 620 additional MW of secured projects.

In the **United States**, following the acquisition in 2022 of SunPower's industrial and commercial solar activities, TotalEnergies continues to develop decentralized projects, with the signing of more than 140 MW of solar and battery capacity in 2023. TotalEnergies notably concluded in 2023 with the Holcim group a solar project of more than 33 MW associated with a 19 MW BESS (battery energy storage system) on the Portland cement production site in Colorado. The project will cover more than 40% of the site's consumption. Holcim will receive approximately 71 GWh of renewable energy from the project annually under a Power Purchase and Storage Services Agreement ("PPSSA") with a minimum duration of 15 years.

In **China**, at year-end 2023 the 50/50 joint-venture formed in 2019 between TotalEnergies and Envision Group, one of the world leaders[1] in smart energy systems, was operating almost 500 MW of decentralized solar capacity on behalf of its BtB customers.

In **South-East Asia**, in April 2022, TotalEnergies and ENEOS announced the creation of a joint-venture to develop decentralized solar power production for their BtB customers in several Asian countries. This joint-venture (50/50) between two major players in the segment aims to develop 2 GW of decentralized solar capacity over the next five years.

In the **Middle East,** TotalEnergies joined forces with Veolia to construct a photovoltaic project in Oman to power a seawater desalination plant and provide drinking water to more than 600,000 people[2]. This 17 MW project, commissioned in 2023, is the first of its kind in the Middle East; it produces more than 30 GWh/y of renewable electricity and should avoid nearly 300 kt of CO_2 emissions.

(1) Source Envision Energy.
(2) TotalEnergies data.

2.4.3 Power generation from natural gas

TotalEnergies is building a portfolio of CCGT as part of its strategy to create an integrated gas and electricity value chain in Europe, from production to marketing, the gas constituting an ideal complement to renewable power generation from inherently intermittent sources. Thanks to the flexible production from those power plants, TotalEnergies can optimize its customers' electricity procurement costs. In Europe, at year-end 2023, TotalEnergies had 9 CCGT plants (unchanged from year-end 2022 and compared with eight at year-end 2021) with a gross power generation capacity of 3.9 GW and two co-generation units (0.3 GW capacity). Total net electricity production from natural gas was 14.5 TWh in 2023, as against 22.8 TWh in 2022 and 14.4 TWh in 2021.

Portfolio of electricity generation from CCGT in Europe at end-2023

Country	Plant	TotalEnergies' share *(%)*	Gross capacity *(MW)*
France	Bayet	100	442
	Pont-sur-Sambre	100	445
	Toul	100	445
	Saint-Avold (2 CCGT)	76	892
	Landivisiau	50	446
Belgium	Marchienne	100	416
Spain	Castejon (2 CCGT)	100	856

In **France**, on December 31, 2023 (as in 2022), TotalEnergies owned six CCGT plants compared with five in 2021, including one with a capacity of 0.4 GW, which was commissioned in March 2022 in Landivisiau (50% of which was sold in 2022 to Asterion Industrial Partners, a Spanish investment fund) and one co-generation unit (Normandy refinery). Their gross gas-based power generation capacity stood at 2.7 GW at year-end 2023 for the CCGT plants and 0.2 GW for the Normandy co-generation unit.

In **Belgium**, TotalEnergies owns the Marchienne CCGT plant, with a capacity of 0.4 GW. In addition, TotalEnergies has access to Antwerp's co-generation power generation (0.1 GW).

In **Spain**, TotalEnergies acquired two CCGT plants from Energías de Portugal in 2020 with a total gross capacity of 0.9 GW at year-end 2023 (stable since 2020).

In **Abu Dhabi**, the Taweelah A1 gas-fired power plant, owned by the Gulf Total Tractebel Power Company (TotalEnergies, 20%), combines electricity generation and seawater desalination. The plant has a gross power generation capacity of 1.6 GW and a seawater desalination capacity of 385 km³/day. The plant's production is sold to Emirati Water and Electricity Company (EWEC) under a long-term agreement.

In the **United States**, TotalEnergies signed an agreement in November 2023 with the U.S. company TexGen for the acquisition of three gas-fired power plants representing 1.5 GW of electricity generation capacity in Texas. Connected to the ERCOT (Electric Reliability Council of Texas) grid, the plants concerned are respectively located near Dallas and Houston. They are expected to respond to the growing energy demand of these cities and to make it possible to compensate for the intermittence of renewable energy production. Their importance was recently highlighted during weather events that impacted Texas' renewable electricity production or caused a high seasonal demand peak. These 1.5 GW of additional flexible production capacity acquired by TotalEnergies complement its renewable production capacities in Texas, which at year-end 2023 amounted to 5.5 GW gross installed and under construction and more than 3 GW in development. These gas plants will strengthen TotalEnergies' trading capabilities in the electricity and gas markets.

2.4.4 Electricity storage

Electricity storage is a major challenge for the future of power grids and a vital add-on to renewables, which are intermittent by nature. Large-scale electricity storage is essential to promote the growth of renewables and help them capture a significant share of the electricity mix.

TotalEnergies develops stationary **electricity storage** via its subsidiary Saft Groupe, (Saft). At the end of 2023, Saft is present in 19 countries mainly in Europe, the United States and Asia and benefits from the expertise and experience of its 4,000 employees.

Saft is a century-old French company that specializes in the design, manufacture, and sale of high-tech batteries for industry. Saft develops batteries based on nickel, lithium-ion and primary lithium technologies. The company is active in transportation (aeronautics, rail and off-road electric mobility), industrial infrastructure, meters and the Internet of things, aerospace, defense and energy storage. Building on the strength of its technological know-how, and through its energy storage activities, Saft is well placed to benefit from the growth in renewables beyond its current activities, by offering massive storage capacities, combined with the generation of electricity from renewables. This is one of Saft's main sources of growth.

In 2023, Saft continued to develop its business, particularly in energy storage and mobility, with:

- the commissioning of battery energy storage equipment with a total capacity of 150 MW/225 MWh, i.e. 114 high-tech containers designed and assembled by Saft, for the TotalEnergies Myrtle Solar power plant in Houston (Texas);
- the start, on the Grandpuits site, of a battery energy storage park with a capacity of 43 MW/43 MWh;
- the commissioning of an energy storage site on TotalEnergies' Carling platform, with a storage capacity of 25 MW/25 MWh. This site is made up of 11 lithium-ion battery containers, designed and assembled by Saft;
- the launch on the TotalEnergies refinery site in Antwerp (Belgium) of a new storage site with a capacity of 25MW/75 MWh. This project constitutes the largest European battery installation for TotalEnergies. This installation, which is expected to be operational by the end of 2024, will contribute 24/7 to the needs of the European and Belgian high-voltage transport network by ensuring daily smoothing of electricity on the national grid, particularly during tense winter periods, ensuring the security of the network by actively participating in the balancing reserves of the national grid and by allowing more renewable electricity to be integrated into the network;

- the signing of a contract with Meridian Energy, to deliver the first large-scale BESS, connected to the New Zealand network. Saft lithium-ion technology will provide 100 MW of power and 200 MWh of storage capacity to support grid stability as intermittent wind and solar power expand in the country;
- the delivery of a BESS to replace diesel backup power in a sustainable Microsoft data center in Sweden;
- the first delivery to Siemens Mobility of two 100 kWh lithium-ion batteries per train for its cutting-edge hydrogen train, Mireo Plus H in Germany.

In addition, the strong growth of renewables is changing the balance of grid operators. Consequently, TotalEnergies offers them services to manage the flexibility required to balance production and consumption.

TotalEnergies won a major lot in the long-term call for tenders launched by RTE in 2019 to strengthen the security of supply of the French electricity system, and thus started up a battery-based electricity storage facility in France in 2021. The seven-year contract provides a stable revenue base for energy storage projects. TotalEnergies won 129 MW/ 129 MWh, which are connected to the grid at three of the Company's sites: Dunkirk (61 MW), Carling (25 MW) and Grandpuits (43 MW). 86 MW have been operational since 2022 (Dunkirk and Carling). An additional 43 MW (Grandpuits) came on stream in April 2023. These facilities are composed of 60 2.5 MWh containers designed and assembled by Saft. This roll-out is in addition to installations combining photovoltaics and storage in French overseas territories (26 MW/76 MWh).

Saft conducts research to develop ever safer and more powerful batteries, particularly for mobility applications and renewable energy storage, using artificial intelligence and big data. Today, Saft's R&D teams are based around two epicenters, one located in Bordeaux (France) and the other in Cockeysville (Maryland, United States). These two centers house the Upstream Research teams, the Incubator and the *Tout Solide* solid-state battery program. In 2023, Saft unveiled IBIS (Intelligent Battery Integrated System), a smart battery that is more efficient for stationary storage and electric vehicles.

In 2023 Saft took the lead in the ELIAS project (Solid-state Advanced Lithium Elements), structured around a consortium bringing together six major players including the Atomic Energy Commission and the National Research Center. ELIAS aims to develop and implement an industrial demonstrator for the production of high-performance fourth-generation batteries. These solutions target several market segments: energy applications (e.g. space, underwater applications, stationary battery storage) and power applications (e.g. e-VTOL, industrial backup).

In addition, TotalEnergies also develops other electrical energy storage projects through partnerships. In September 2021, Stellantis, Saft and Mercedes-Benz entered into an agreement to welcome Mercedes-Benz to ACC (Automotive Cells Company), the joint-venture created in 2020 to design and manufacture batteries for electric vehicles. With an R&D center already operational since 2020 and a state-of-the-art pilot plant in the Nouvelle Aquitaine region in France, ACC inaugurated its first Gigafactory in Hauts-de-France in 2023, with a first production line with a capacity of more than 13 GWh to reach a capacity of 40 GWh in 2030.

2.4.5 Natural gas and electricity marketing and electricity trading

CORPORATE PPA

On deregulated electricity markets, it is possible to sign long-term sales contracts, called Corporate PPA, for the output from solar or wind assets with corporate customers. Unlike in the distributed generation business, these assets are not located on the customer's property, but elsewhere on the electricity grid. The electricity generated by these assets is then injected into the electricity grid.

These contracts are usually signed on a long-term basis with fixed prices or with limited price variations. They enable customers to buy low-carbon electricity directly from the producer, while at the same time benefiting from a stable electricity price over the long term with access to the cost advantages offered by large-scale plants. These contracts enable TotalEnergies to secure long-term electricity sales and to promote the launch of new production assets.

Corporate PPAs exist in a growing number of countries. Today, the most dynamic markets are United States, Western Europe, Brazil and Australia. TotalEnergies is positioning itself locally in these different markets to offer its customers global solutions and thus support them in their decarbonization objectives. In 2023, several corporate PPA were signed, including a new 15-year 100 MW electricity sales contract with Saint-Gobain in the United States and a renewable energy supply contract with Air Liquide/SASOL for a total capacity of 260 MW in South Africa.

At the end of 2023, TotalEnergies has a portfolio of Corporate PPA in these markets of close to 4.2 TWh, equivalent to more than 1.7 GW of installed capacity. In addition to the companies mentioned above, these Corporate PPA involve clients such as Amazon Web Services, Kilroy, LyondellBasel, Microsoft and Merck.

ELECTRICITY AGGREGATION AND TRADING

TotalEnergies is active in electricity trading in Europe and North America. It sells its output to third parties and supplies its subsidiaries. To support its development in the field of renewable electricity, the Company has developed specific expertise in trading on short-term markets (intra-day, physical delivery), in the structured PPA-type products, aggregation, and flexibility management segments.

In **Europe** TotalEnergies delivered 95 TWh of electricity in 2023, compared to 122 TWh in 2022 and 111 TWh in 2021, mainly from external sources. European electricity trading is mainly carried out from offices in Geneva, Paris, Madrid and Liège.

In **Germany**, TotalEnergies signed an agreement to acquire Quadra Energy in October 2023. Founded in 2012 and with a 9 GW virtual power plant, Quadra Energy is one of the three leading aggregators of renewable electricity generation in Germany. Specializing in the aggregation of renewable electricity, Quadra Energy purchased the production of approximately 5,000 wind and solar farms in 2022 and resold 14 TWh on wholesale markets and to German resellers and customers.

This acquisition, which is subject to authorization from the competent authorities, is expected to allow TotalEnergies to strengthen its Integrated Power activities in Germany. The Company intends to leverage the recognized expertise of the 40 Quadra Energy employees who join it, as well as its innovative weather forecasting platform. These assets are also expected to allow the Company to strengthen its trading capabilities on intra-day markets, and to expand its marketing activities in order to offer its German customers competitive contracts for the sale of low-carbon electricity available 24 hours a day.

In **Switzerland**, TotalEnergies announced the acquisition of Predictive Layer in December 2023. The latter's activity is to improve the performance of electricity trading operations, thanks to the internalization of machine learning and artificial intelligence solutions. In particular, they make it possible to make projections on energy prices, whether on physical markets or derivatives markets.

In **North America**, TotalEnergies delivered 29.7 TWh of electricity in 2023 compared to 38.8 TWh in 2022 and 41.4 TWh in 2021. TotalEnergies plans to develop its trading activities on the US PJM and CAISO markets.

NATURAL GAS AND ELECTRICITY MARKETING

Europe

With a portfolio of 5.5 million BtB and BtC customer sites (gas and electricity) **in France**, 8.7 million BtB and BtC client sites **in Europe** and 52 TWh of electricity and 101 TWh of gas supplied in 2023, TotalEnergies has become a leading player in the sale of natural gas and electricity to both the residential and professional markets (commercial and industrial segments).

In a context of rising electricity prices, since November 2022, TotalEnergies has committed to support its customers by encouraging them to save energy, through the development of new offers and the broadcasting of voltage alerts on the electricity grid.

For individual customers in France, TotalEnergies has implemented:

- a new "Heures Eco" offer incentivizing consumers to reduce their electricity bills through cheaper tariffs during off-peak hours;
- a "BonusConso" program during the 2022-2023 winter, and renewed for the 2023-2024 winter, aimed at rewarding customers who reduce their electricity consumption over the winter period, in the form of bonuses applied directly to customers' invoices;
- in the winter of 2023-2024, the reactivation of the *#TousAuCourant* program, which gives suggestions for good practices to save electricity and issues alerts on days of pressure on the grid.

For professional clients and local authorities, TotalEnergies has implemented:

- options to reward flexible electricity consumption during peak times,
- the roll-out of an awareness-raising campaign for all BtB customers.

TotalEnergies contributed to supporting very small enterprise (VSE) and small and medium enterprise (SME) by reducing, over the year of 2023, the prices of their electricity contracts signed in the second half of 2022 to €280/MWh excluding taxes. TotalEnergies has also committed to updating the twelve-month Horizon electricity tariff schedule at an average annual price of €280/MWh excluding taxes for new VSE and SME customers.

TotalEnergies markets natural gas and electricity in the residential and professional segments in **France** through its subsidiary TotalEnergies Electricité et Gaz France (a merger of the TotalEnergies Énergie Gaz, TotalEnergies Spring France and Direct Énergie entities), in **Belgium**, through TotalEnergies Power & Gas Belgium subsidiary (formerly Lampiris SA), and in **Spain**, where it serves both professional and residential customers following its acquisition of EDP's operations in Spain in 2020.

TotalEnergies also markets natural gas and electricity on the professional segment in the **United Kingdom** and the **Netherlands**.

(million of sites BtB and BtC)	2023	2022	2021
Europe	**8.7**	**8.9**	**8.8**
France	5.5	5.6	5.4
Belgium	0.9	0.9	1.0
United Kingdom	0.3	0.3	0.3
Netherlands	–	–	0.1
Spain	2.0	2.0	2.1

(in TWh of electricity supplied)	2023	2022	2021
Europe	**52.1**	**56**	**56.6**
France	29.2	32.1	33.4
Belgium	3.5	3.9	4.5
United Kingdom	13.8	13.4	12.6
Netherlands	–	–	0.8
Spain	5.7	5.9	5.2

(in TWh of gas supplied)	2023	2022	2021
Europe	**100.9**	**99.2**	**101.2**
France	29.2	29.9	31.5
Belgium	7.1	7.6	10.3
United Kingdom	57.5	53.7	50.2
Netherlands	–	–	3.9
Spain	7.7	5.1	5.3

Rest of the world

In **Argentina**, TotalEnergies markets the natural gas that it produces. In 2023, as since 2021, 4.4 bcm of gas were sold.

In **India**, since 2020 TotalEnergies owns 37.4% of Adani Total Gas Limited (ATGL), which holds 33 City Gas Distribution licenses in India (100%) and another 19 licenses through IOAGPL, a 50/50 JV with Indian Oil Corporation Limited (IOC).

2.4.6 Services in the field of energy efficiency and innovation in the electricity segment

GreenFlex, a wholly-owned subsidiary, offers services designed to improve the energy and environmental performance of its customers. GreenFlex had over 800 customers at year-end 2023.

As part of its transformation into an integrated energy company, in May 2022 TotalEnergies launched "TotalEnergies On", its startup acceleration program at Station F, the world's largest startup campus, located in Paris. In line with TotalEnergies' ambition to be a major player in the energy transition, *TotalEnergies On* intends to support the development of new companies in the electricity and renewable energy segment.

The objective of this program is to identify and support startups developing digital solutions in the field of electricity, whether it is renewable production, storage, trading, sales, decentralized network management, or electric mobility.

Since its launch, TotalEnergies On has already supported 19 start-ups during 2 sessions of 6 months each. In December 2023, the Company announced the acquisition of three start-ups that have benefited from the TotalEnergies On program:

- thanks to the acquisition of Dsflow, TotalEnergies will offer its multi-site BtB customers who consume a large amount of electricity an innovative SaaS (Software-as-a-Service) solution to manage their assets in real time and thus optimize their procurement strategy;
- TotalEnergies has also decided to integrate the software platform developed by NASH Renewables in order to optimize the design and operation parameters of its renewable projects, in a design-to-value approach, taking into account the impact of the geographical specificities of the sites on the market prices effectively captured;
- TotalEnergies will improve the performance of its trading operations through the in-house insourcing of Predictive Layer's machine learning and artificial intelligence solutions. These include projections of energy prices, whether on physical or derivatives markets, as well as other tailor-made modelling of demand, supply, production, or non-commodity trading.

TotalEnergies has also taken control of Time2plug (with a 56% stake) to facilitate and accelerate the deployment of electric vehicle charging points in France for its small BtB customers. and signed commercial contracts with 10 other start-ups that participated in the acceleration program to continue to benefit from their innovations.

2.5 Refining & Chemicals segment

The Refining & Chemicals segment includes the Refining & Chemicals activities described in section 2.5.1 and the Trading-Shipping activities described in section 2.5.2.

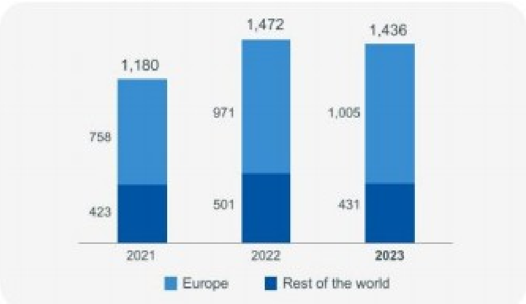
Main indicators

- Among the world's **10** largest integrated producers[1]
- **1.8 Mb/d** Refining capacity at year-end 2023
- One of the **leading** traders of oil and refined products worldwide
- **-1.1 Mt CO_2e** Decrease of the CO_2 emissions Scope 1+2 during year 2023
- [REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

Main objectives/ambitions

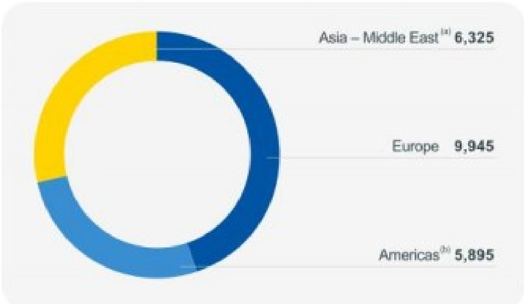
- **1.5 Mt/y** Production of SAF by 2030
- Ambition to produce **1 Mt/y** of polymers from recycled or renewable material by 2030

Refinery throughput[(a)] *(in kb/d)*



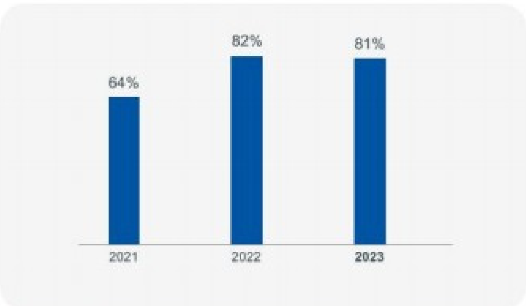
(a) Includes refineries in Africa that are reported in the Marketing & Services segment.

Petrochemicals production capacity by geographical area *(kt)*



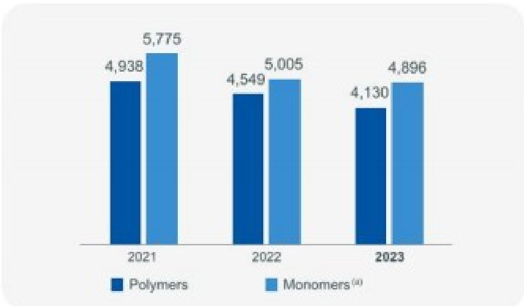
(a) Including interests in Qatar, 50% of Hanwha TotalEnergies Petrochemical Co. Limited and 37.5% of SATORP in Saudi Arabia.
(b) Including 50% of the joint venture between TotalEnergies and Borealis.

Refining utilization rate[(a)] *(in %)*



(a) Based on distillation capacity at the beginning of the year, excluding Grandpuits (shut down first quarter 2021) from 2021 and Lindsey refinery (divested) from second quarter 2021.

Production of petrochemicals *(in kt)*



(a) Olefins.

(1) Based on publicly available information, refining and petrochemical production capacities at year-end 2022.
(2) Refer to the glossary for the definition and further information on alternative performance measures (Non-GAAP measures) and to point 1.9 of chapter 1 for reconciliation tables.

Refinery throughput was down by 2% year-on-year in 2023, mainly due to a slightly lower refinery utilization rate reflecting the major turnaround schedule of the year.

Petrochemicals production was down 2% year-on-year in 2023 for monomers and 9% for polymers due to weak demand for chemicals mainly in Europe impacting steam cracker utilization rate, with monomers partially compensated by the ramp up of ethane cracker unit in Port Arthur in the US.

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

2.5.1 Refining & Chemicals

Refining & Chemicals' activities include refining, base petrochemicals (olefins and aromatics); polymer derivatives (polyethylene, polypropylene, polystyrene and hydrocarbon resins), including biopolymers and recycled polymers obtained from chemical or mechanical recycling, as well as the production of biofuels from the transformation of biomass and, since January 1, 2022, the production of specialty fluids, previously reported in the Marketing & Services segment. The Refining & Chemicals activities also include the processing of elastomers by Hutchinson.

Refining & Chemicals aims to constitute a safe, efficient and innovative industrial complex. The Refining & Chemicals strategy integrates the constant requirement for safety, a core value of TotalEnergies, and is embedded in the Company's climate ambition to achieve carbon neutrality (net zero emissions) by 2050 together with society. This strategy involves controlling the CO_2 emissions of its operations (Scope 1+2), developing low-carbon solutions, particularly in biomass, and adapting its activities in Europe in line with the net zero emission objective set by the European Union.

Its strategy is based on:

– continuously improving the competitiveness of refining and petrochemicals activities by making optimal use of production assets, concentrating investments on its large, integrated platforms and reducing CO_2 emissions linked to its operations;
– growing petrochemicals, mainly in the United States and the Middle East, by exploiting the proximity of cost-effective oil and gas resources in order to supply growing markets, particularly in Asia; and
– developing low-carbon activities, on the one hand in biofuels (in particular Sustainable Aviation Fuel (SAF)), synthetic fuels produced from CO_2 and green hydrogen (e-fuels), biopolymers and plastic recycling solutions, and on the other hand in materials that help enhance the energy efficiency of TotalEnergies' customers, particularly in the automotive market.

Biofuels

Biofuels meeting European standards reduce CO_2 emissions by at least 50% compared to their equivalent fossil fuels[1] and demand for these products is supported by government policies aimed at achieving carbon neutrality (net zero emissions).

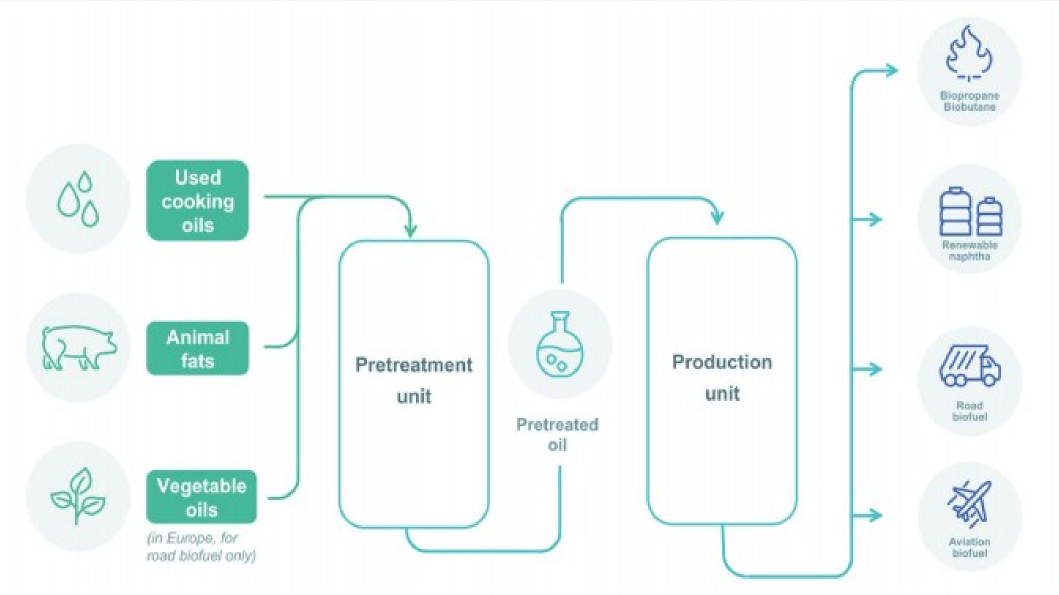
The growth of the biofuel market is driven by renewable diesel and SAF produced by hydrotreating vegetable oils or raw materials from the circular economy (animal fat, used cooking oil, etc.) This is a segment with expected growth of more than 25% per year[2] over the next few years.

The aviation sector has set itself the goal of achieving carbon neutrality by 2050[3]. Achieving this target is likely to involve the incorporation in fossil fuels of a growing proportion of SAF, which is the most effective solution for reducing CO_2 emissions from air transportation, in the absence of an industrial alternative to liquid fuel in the short to medium term.

The outlook for growth in demand for SAF is also supported by the various regulations. For example, in Europe, the ReFuelEU Aviation regulation, launched as part of the EU's "Fit for 55" legislative package, favors the development of SAFs in the European Union with, among other things, the implementation of obligatory progressive minimum incorporation mandate 2% in 2025, 6% (including 1.2% synthetic fuel) in 2030 and 70% (including 35% synthetic fuel) in 2050. In the U.S., the 2022 Inflation Reduction Act provides tax incentives for the domestic production of aviation fuel allowing GHG emissions to be reduced.

The hydrotreatment of raw materials from the circular economy, including animal fats and used cooking oils (as well as vegetable oils depending on local regulations), constitutes one of the main production routes for SAF.

Diagrammatic representation of production of biofuels by hydrotreatment



TotalEnergies intends to become a leader in the production of SAF, relying mainly on its existing refining assets (conversion, co-processing and developments on existing platforms).

In France, in order to respond to the call from its aeronautical customers, the Company is mobilizing its platforms in Grandpuits, Normandy and La Mède to be able to produce, from 2028, half a million metric tons of SAF, thus covering the gradual increase in the European SAF blending mandate, set at 6% for 2030. In December 2022, TotalEnergies and Air France signed a Memorandum of Understanding for the delivery of more than 1 Mcm or 800 kt of SAF over a ten-year period by TotalEnergies to Air France-KLM group airlines from 2023.

The Company has the ambition to produce 1.5 Mt/y of SAF in 2030 with units in Europe, the U.S., the Middle East and Asia, which is expected to correspond to a global market share of around 7% of volumes produced[4] at this horizon.

In 2023, TotalEnergies produced 331 kt (compared to 242 kt in 2022) of biofuels (renewable diesel, SAF and ETBE) and 78 kt (compared to 64 kt in 2022) of other co-produced chemical biocomponents (bionaphtha, etc.), mainly at the La Mède and Feyzin sites in France.

(1) According to the EU's RED III (Renewable Energy Directive).
(2) TotalEnergies data.
(3) Source: IATA.
(4) TotalEnergies data.

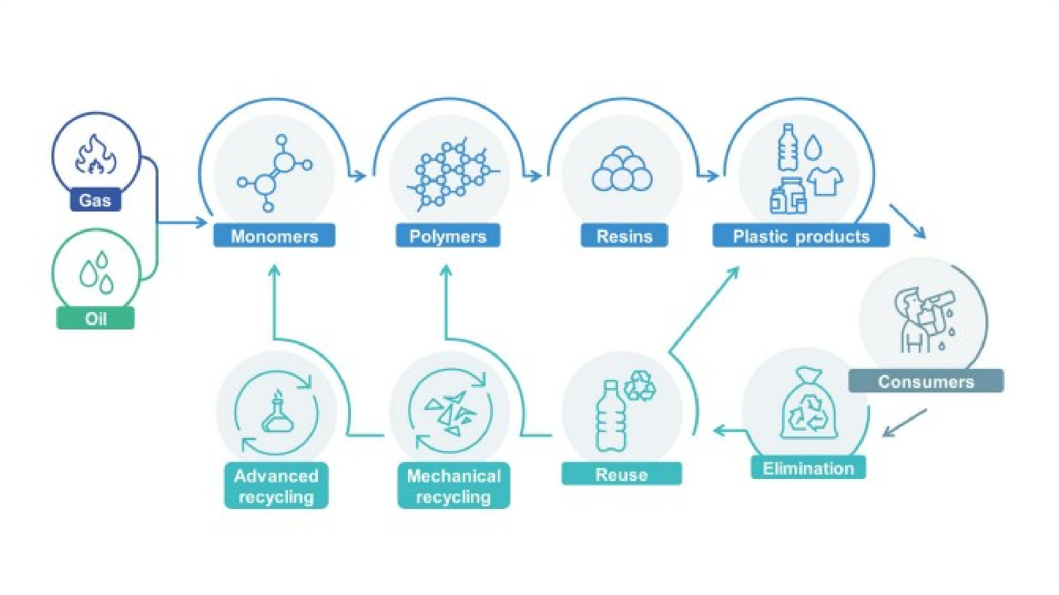
Biopolymers and plastic recycling

Biopolymers are produced either by replacing fossil feedstock in a steam cracking unit with biomass feedstock such as vegetable oils or hydrogenated residues, or directly by making low-carbon molecules such as polylactic acid (PLA) from starch or sugar.

Mechanical recycling, the technology for which is more mature than that for chemical recycling, requires highly processed feedstock and cannot be used for every application of plastic, particularly most of those involving contact with food. This technology is suited to the needs of markets such as automotive and construction.

Advanced or chemical recycling, on the other hand, makes it possible to process waste that cannot be recycled mechanically and to address other markets, such as those of plastics for food use; it requires more capital-intensive technologies and is still at the stage of industrial development. The purpose of the chemical recycling process is to break down used polymer in order to return, in one or more stages, to a monomer, which is the raw material of any polymer.

Plastic recycling process



In order to support its customers in reducing their greenhouse gas emissions and addressing the end-of-life problem of plastics, TotalEnergies has resolutely committed to the development of both biomass conversion into polymers and plastic recycling activities. It has set the ambition of producing 1 Mt/y of polymers from recycled or renewable materials by 2030. In 2023, TotalEnergies produced 80 kt of recycled or renewable polymers, compared to 50 kt in 2022 and 55 kt in 2021.

In addition to the development of low-carbon polymers, TotalEnergies has been involved since 2019, as a founding member of the Alliance to End Plastic Waste, in an initiative to reduce the environmental impact of plastics. The Alliance, bringing together more than 80 members and project partners that have committed $1 billion, develops and implements solutions on all continents to eliminate plastic waste in the environment.

2.5.1.1 Refining and petrochemicals

At the end of 2023, TotalEnergies held stakes in 16 refineries (including the interest in Natref, in process of disposal[1]) located in Europe, the United States, the Middle East, Asia and Africa, eight of which are operated by TotalEnergies companies, including two biorefinery plants in France (La Mède, and the Grandpuits plant which is in the process of being converted). At December 31, 2023, TotalEnergies' refining capacity was 1,792 kb/d, unchanged from year-end 2022 and compared to 1,793 kb/d at year-end 2021. The refining capacity of the Refining & Chemicals segment amounted to 1,785 kb/d at year-end 2023 (or 99% of TotalEnergies' total capacity[2]).

TotalEnergies' petrochemicals operations are located in Europe, the United States, Qatar, South Korea and Saudi Arabia. Being either adjacent to or connected by pipelines to TotalEnergies refineries, the vast majority of the petrochemical operations are integrated with its refining operations, thereby maximizing synergies.

At December 31, 2023, TotalEnergies' global petrochemicals capacity (olefins, aromatics and polymers) was 22,165 kt, compared with 21,885 kt at the end of 2022 and 21,381 kt at the end of 2021. The capacity increase in 2023 was mainly due to the commissioning of the polyethylene unit owned by the TotalEnergies and Borealis joint venture, on Bayport site (USA).

For the main sites of Refining & Chemicals at year-end 2023, please refer to point 1.7.3 of chapter 1.

(1) On December 1, 2023, TotalEnergies announced the signature of an agreement to divest the 36.36% minority stake, held by TotalEnergies Marketing South Africa, in National Petroleum Refiners of South Africa (Natref) to the Prax Group, subject to the authorizations and approvals of the competent authorities.
(2) The balance of the refining capacity is reported in the Marketing & Services segment.

CRUDE OIL REFINING CAPACITY

The table below sets forth TotalEnergies' crude oil refining capacity[a]:

As of December 31 *(kb/d)*	2023	2022	2021
Refineries operated by TotalEnergies companies	**1,384**	**1,384**	**1,384**
France			
Normandy-Gonfreville (100%)	253	253	253
Donges (100%)	219	219	219
Feyzin (100%)	109	109	109
Grandpuits (100%)	–	–	–
Rest of Europe			
Antwerp (100%)	338	338	338
Leuna (100%)	227	227	227
North America			
Port Arthur refinery and condensate splitter (100%)	238	238	238
Other refineries in which TotalEnergies has interests[b]	**408**	**408[c]**	**409**
Total	**1,792**	**1,792**	**1,793**

(a) Capacity data based on crude distillation unit stream-day capacities under normal operating conditions, less the average impact of shutdowns for regular repair and maintenance activities.
(b) TotalEnergies' share as of December 31, 2022, in the eight refineries in which it has interests ranging from 0,2% to 55% (one each in the Netherlands, South Korea, Qatar and Saudi Arabia and four in Africa, including Natref in process of disposal).
(c) The decrease in refining capacity between 2021 and 2022 results from the reduction in the shareholding of TotalEnergies Marketing Sénégal SA in the Senegalese refinery SAR (Société Africaine de Raffinage) from 6.82% at December 31, 2021 to 0.18% at December 31, 2022.

REFINERY AND BIOREFINERY PRODUCTION

The table below sets forth TotalEnergies' net share[a] of the refined quantities produced by TotalEnergies' refineries, by product category:

(kb/d)	2023	2022	2021
Gasoline (excluding ETBE)	252	259	228
Aviation fuel (excluding SAF)[b]	140	122	67
Diesel and fuels (excluding renewable diesel)	620	644	524
Heavy fuels	70	68	44
Other products[c]	314	326	265
Renewable diesel, SAF and ETBE	7	5	9
Total	**1 403**	**1 424**	**1,137**

(a) For refineries not 100% owned by TotalEnergies, the production shown corresponds to TotalEnergies' equity share in the site's overall production.
(b) Jet fuel, kerosene and Avgas (aviation fuel specially designed for piston engined aircraft).
(c) Mainly refining bases, petcoke, naphta, refinery propylene and other petrochemical bases.

The difference with refinery throughput and the refined volumes is due to self-consumption of crude oil and losses during the refining process.

UTILIZATION RATE OF REFINERIES

The table below sets forth the average utilization rates of TotalEnergies' refineries:

	2023	2022	2021
On crude and other feedstock[a][b]	80%	82%	66%
On crude[a][c]	81%	82%	64%

(a) Including equity share of refineries in which TotalEnergies has an interest.
(b) Crude + crackers' feedstock/distillation capacity at the beginning of the year.
(c) Crude/distillation capacity at the beginning of the year.

PETROCHEMICALS: BREAKDOWN OF MAIN PRODUCTION CAPACITIES

As of December 31 *(in kt)*	2023 Europe	2023 North America[a]	2023 Asia and Middle East[b]	2023 Worldwide	2022 Worldwide	2021 Worldwide
Olefins[c]	4,176	2,040	1,958	8,174	8,174	7,689
Aromatics[d]	2,976	1,512	2,581	7,069	7,064	7,045
Polyethylene	1,140	535	1,065	2,740	2,438	2,438
Polypropylene	1,245	1,200	605	3,050	3,070	3,070
Polystyrene	409	608		1,017	1,024	1,024
Other[e]			116	116	116	116

(a) Including 50% of the joint venture between TotalEnergies and Borealis.
(b) Including interests in Qatar, 50% of Hanwha TotalEnergies Petrochemicals Co. Ltd. in South Korea and 37.5% of SATORP in Saudi Arabia.
(c) Ethylene + propylene + butadiene.
(d) Including styrene monomer.
(e) Mainly monoethylene glycol (MEG), polylactic acid polymer (PLA) and cyclohexane.

PETROCHEMICALS PRODUCTION AND UTILIZATION RATE

	2023	2022	2021
Monomers[a] *(kt)*	4,896	5,005	5,775
Polymers *(kt)*	4,130	4,549	4,938
Steamcracker utilization rate[b]	69%	76%	90%

(a) Olefins.
(b) Based on olefins production from steamcrackers and their treatment capacity at the start of the year.

ACTIVITIES BY GEOGRAPHICAL AREA

Europe

TotalEnergies is the second largest refiner and the second largest petrochemicals operator in Western Europe[1]. TotalEnergies also positions itself in the production of biofuels, mainly renewable diesel and SAF, as well as ether (ETBE) produced from ethanol and isobutene for incorporation into gasoline.

In a context of adaptation to the demand for petroleum products in Europe, TotalEnergies reduced its refining capacities in 2021 with the sale of its stake in the Lindsey refinery in the United Kingdom and the cessation of crude oil processing at the Grandpuits refinery, as part of its transformation into a zero-crude platform.

Furthermore, in line with its goal of carbon neutrality (net zero emissions) by 2050 together with society, TotalEnergies continued to pursue its projects aimed at decarbonizing all the hydrogen consumption of its European refineries by 2030. As part of this ambition, in 2023, TotalEnergies entered into agreements for the supply of green and low-carbon hydrogen on several of its sites and launched a call for tenders for the supply of 500 kt/y of green hydrogen, which is expected to allow it to avoid the emission of approximately 5 Mt/y CO_2 from its European refineries by 2030.

In 2023, TotalEnergies continued to improve the competitiveness of its industrial assets, notably with the sale to Ineos of its stake in the Lavéra assets (steam cracker, aromatics, polypropylene) as well as part of its stakes in the pipeline and ethylene storage network in eastern France. This operation allowed the two companies to realign their ethylene production and internal consumption. TotalEnergies is thus consolidating the integration of its Feyzin and Carling petrochemical sites.

Western Europe represents 68% of TotalEnergies' refining capacity, or 1,227 kb/d at the end of 2023, unchanged from year-end 2022 and 2021. TotalEnergies operates five refineries in Europe (one in Antwerp, Belgium, three in France, at Donges, Feyzin and Gonfreville, and one in Leuna, Germany) and one biorefinery in La Mède, France, pending the start-up of the Grandpuits zero oil platform, and holds a 55% interest in the Zeeland refinery in Vlissingen, the Netherlands.

(1) Publicly available information, based on refining and petrochemicals production capacities at year-end 2022.

TotalEnergies' main petrochemical sites in Europe are located in Belgium, in Antwerp (steam crackers, aromatics, polyethylene) and Feluy (polyolefins, polystyrene), and in France, in Carling (polyethylene, polystyrene, polypropylene compounds), Feyzin (steam cracker, aromatics) and Gonfreville (steam crackers, aromatics, styrene, polyolefins, polystyrene). Europe accounts for 45% of TotalEnergies' petrochemicals capacity, or 9,946 kt at year-end 2023, compared with 9,931 kt at year-end 2022 and 2021:

- In **France**, TotalEnergies is continuing its development in low-carbon products while at the same time improving its operational efficiency, particularly through the conversion and modernization of assets.
  - The project to transform the **Grandpuits refinery** into a zero-crude platform focused on new energies and low-carbon activities continued in 2023.

    For the development of **biofuel** production activities, a major milestone was reached in September 2022 with the signing of an agreement with SARIA, a leader in the European market for the collection and recovery of organic materials into sustainable products. Thanks to this partnership which made it possible to secure the supply of used cooking oils and animal fats (raw materials eligible for SAF production), the biorefinery is expected to have a SAF production capacity of 210 kt/y at its start planned for 2025. In June 2023, TotalEnergies announced a new investment to produce an additional 75 kt intended to increase the SAF production capacity of the biorefinery to 285 kt/y in 2027; which is expected to make it possible to respond to the gradual increase in European obligatory incorporation requirements. In November 2022, TotalEnergies partnered with Air Liquide to produce and recover renewable, low-carbon hydrogen, which will be used to produce sustainable aviation fuel. Under a long-term contract, committing TotalEnergies to purchase the hydrogen produced for the needs of its platform, Air Liquide plans to invest over €130 million in the construction and operation of a new unit producing hydrogen, which will partly use biogas from the TotalEnergies biorefinery, and will be equipped from the start with Air Liquide's Cryocap™ CO_2 capture technology. These innovations are expected to avoid emissions amounting to 150 kt/y of CO_2 compared to current processes.

    For the development of **plastic recycling** activities, TotalEnergies has planned the construction, in partnership with Plastic Energy, of an advanced recycling plant in France, with the capacity to process 15 kt/y of plastic waste. This unit will be able to convert plastic waste by pyrolysis into a recycled raw material called TACOIL™. This raw material will then be transformed by TotalEnergies into polymers with properties identical to those of virgin polymers, and in particular compatible with food use. Start-up is scheduled in 2024. In March 2023, TotalEnergies and Paprec, a leader in plastic recycling in France, entered into a long-term commercial agreement to develop the first French value chain for chemical recycling of plastic film waste. This agreement allows TotalEnergies to secure supplies for the future Grandpuits chemical recycling plant.

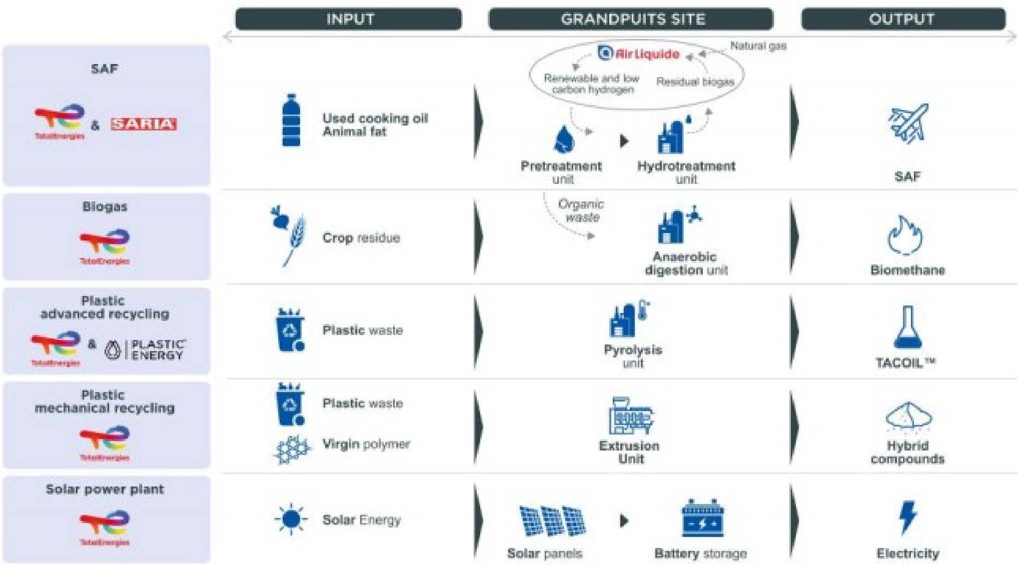
    To this initial project is added a new project announced by TotalEnergies in September 2023: the construction of a mechanical recycling unit.

    This new unit, which is scheduled to be commissioned in 2026, is expected to produce 30 kt/y of high added value compounds consisting of up to 50% recycled plastic materials.

    In addition, TotalEnergies announced in 2023 the construction on this same site of a **biomethane** unit with a capacity of 80 GWh/y, equivalent to the average annual consumption of 16,000 inhabitants[1]. Fed with organic waste partly coming from the biorefinery, it is expected to avoid the emission of nearly 20 kt/y CO_2. TotalEnergies has also commissioned a **solar power plant** expected to generate 31 GWh/y of green electricity, the equivalent of the electricity consumption of 19,000 people[2], as well as a battery storage park with a capacity of 43 MWh, contributing to security of supply and the balance between electricity production and consumption in France.

    Finally, TotalEnergies ended the biopolymer project on the site in 2023, following the decision of its partner Corbion to withdraw due to rising costs.

Grandpuits site conversion project



(1) TotalEnergies data.
(2) TotalEnergies data.

- At the **La Mède** site, the first French biorefinery, with a 500 kt/y capacity, has produced renewable diesel since 2019. Since 2021, part of this diesel has been processed by the Oudalle plant near Le Havre to produce SAF.

  In June 2023, TotalEnergies announced an investment of €70 million during the major shutdown planned for 2024 in order to modernize the site's installations and enable it to process up to 100% of waste from the circular economy to produce biofuels. This decision is part of the Company's objective to achieve 75% waste from the circular economy among the raw materials used to produce biofuels from 2024, as well as to accelerate the production of SAF to position the Company among the leaders in this market.

  In addition, the Masshylia project which aims to design, develop, build and operate, in partnership with Engie, a green hydrogen production site located at La Mède is currently under study.

- On its integrated **Normandy** platform, after starting the production of SAF from the co-processing of used oils in March 2022, TotalEnergies plans to increase this production to 40 kt/y from 2025. In addition, following the technical work carried out with its aviation partners, TotalEnergies is expected to produce an additional 150 kt of SAF by co-processing of HVO biodiesel produced in La Mède, a production route which has been approved by ASTM[1] in September 2023.

  In addition, TotalEnergies and Air Liquide have joined forces to decarbonize the site's hydrogen production and in 2022, TotalEnergies transferred the hydrogen production unit with a capacity of 255 t/d to Air Liquide, which now operates it. This cooperation between Air Liquide and TotalEnergies is part of their common ambition to contribute to decarbonizing industrial activities in the Seine axis. Thus, alongside other manufacturers, the partners signed a memorandum of understanding announced in July 2021, to develop a CO_2 capture and storage infrastructure in Normandy, with the objective of reducing CO_2 emissions by up to 3 Mt/y by 2030.

  TotalEnergies and Air Liquide also signed an agreement in September 2023 for the long-term supply of the platform with 10 kt/y of green hydrogen and up to 5 kt/y of low-carbon hydrogen, which is expected make it possible to reduce the site's CO_2 emissions by up to 150 kt/y. The project has two components: TotalEnergies is expected to benefit from access to half of the green and low-carbon hydrogen production capacity of the Normand'Hy electrolyzer (200 MW) built and operated by Air Liquide and in return provide renewable and low-carbon electricity, intended to power the electrolyzer at a rate of 100 MW.

  In February 2023, TotalEnergies and the Le Havre Seine Métropole Urban Community joined forces to supply heat to the urban network of Le Havre Sud, thus actively participating in the decarbonization and energy savings of the region. By 2025, the residual heat recovered on the platform's installations will replace the heat currently produced by gas combustion, with a view to supplying the equivalent of 12,000 homes[2] and avoiding the emission of 16 kt/y of CO_2.

- The **Donges refinery,** which had been shut down since the end of 2020 (economic shutdown in a context of sharp deterioration in refining margins as a result of the COVID-19 pandemic, followed by a major planned shutdown) restarted in May 2022, returning to its level of activity. In addition, the project to modernize the site, representing a total investment of more than €400 million, is progressing: the new section of the railway bypassing the site was commissioned in October 2022 and the construction of the diesel desulfurization unit is continuing. This unit, start-up of which is scheduled to take place during 2024, is expected to improve the refinery's competitiveness by producing fuel containing less sulfur that meets EU standards.

- **Synova** is one of the French leaders in the production of high-performance recycled polypropylene from plastics from industrial waste, the selective collection of waste from households and automotive parts such as bumpers. In October 2021, the commissioning of two new production lines at the Tillières-sur-Avre site in France doubled TotalEnergies' recycled polypropylene production capacity to 45 kt/y enabling it to meet the growing demand for increasingly high-performing and environmentally friendly polymers, particularly from OEMs and automakers.

- In **Belgium**, TotalEnergies operates the Antwerp platform, where a major upgrade completed in 2017 has improved the site's conversion rate. The upgrade also increased the flexibility of the site's steam crackers, which can process ethane and gases recovered from the refining process. In polymers, the activities launched as part of a project to modernize the Feluy site (production of high value-added polypropylene, catalyst production workshop, polystyrene recycling) started in 2021, while one of the three existing polypropylene units, which mainly produced polypropylene as a commodity and had been in service for 40 years, was closed down in 2020. On this Antwerp platform, TotalEnergies also produces chemically recycled polymers, using the TACOIL™ produced by Plastic Energy, with which TotalEnergies joined forces in 2020 to build the advanced recycling unit at Grandpuits. In May 2023, TotalEnergies launched a battery park project intended for energy storage with a capacity of 75 MWh, the equivalent of the daily consumption of nearly 10,000 homes[3]. This project is expected to be operational by end of 2024.
- In **Germany**, TotalEnergies operates the Leuna refinery. Since the end of 2022, in accordance with the Company's announcements at the start of Russia's invasion of Ukraine, TotalEnergies has ended supplies of Russian oil to the refinery and in close consultation with the German government, deployed alternative solutions to supply the refinery, in particular by importing oil via Poland. In June 2023, TotalEnergies and VNG, a German natural gas distribution company, signed an agreement for the future supply of green hydrogen to the refinery. Green hydrogen, which will be produced by a 30 MW electrolyzer built and operated by VNG and its partner Uniper, is expected to enable a reduction in CO_2 emissions at the site of up to 80 kt/y by 2030.
- In **Spain**, TotalEnergies announced the acquisition of Iber Resinas (100%) in May 2023. With two plants near Valencia, Iber Resinas is a player in the mechanical recycling of plastics (polypropylene, polyethylene and polystyrene) from household and industrial waste. Thanks to this operation, TotalEnergies increases its production of circular polymers in Europe, completes its range of recycled products and strengthens access to the raw material thanks to the network of Iber Resinas suppliers.

(1) ASTM International is a standards organization that drafts and produces technical standards for materials, products, systems and services.
(2) TotalEnergies data.
(3) TotalEnergies data.

North America

TotalEnergies' main sites in North America are located in Texas, at Port Arthur (refinery, steam cracker), Mont Belvieu (propylene splitter), Bayport (polyethylene) and La Porte (polypropylene), and in Louisiana, at Carville (styrene, polystyrene).

- At Port Arthur, TotalEnergies has, at the same site, a refinery with a capacity of 178 kb/d, a condensate splitter with a capacity of 60 kb/d as well as a 40% interest in BASF TotalEnergies Petrochemicals (BTP), which mainly owns and operates a steam cracker with the capacity to produce more than 1 Mt/y of ethylene, of which more than 85% from ethane, propane and butane, which are produced in abundance locally.
- In Mont Belvieu, TotalEnergies owns 33% of a propylene splitter, with a capacity of 410 kt/y in TotalEnergies' share, which purifies propylene from the refining process into propylene for the production of polypropylene at the La Porte site.
- At the Bayport site, the 50/50 joint-venture established in 2018 between TotalEnergies and Borealis commissioned its new Borstar® polyethylene unit in October 2023, with a production capacity of 625 kt/y and representing an investment of $1.4 billion. This new unit, which more than doubles the site's polyethylene production capacity to over 1 Mt/y, completes the two partners' integrated petrochemical project, which includes the extended polyethylene site in Bayport as well as the ethane cracker located on the TotalEnergies platform in Port Arthur, commissioned in the third quarter of 2022.
- At La Porte, TotalEnergies operates a large polypropylene plant, with a capacity of 1.2 Mt/y, which is 100% owned.
- At Carville, TotalEnergies operates a styrene plant with a capacity of 1.2 Mt/y, through a joint venture (50% with SABIC), and a polystyrene unit with a capacity of 600 kt/y, which is 100% owned.

TotalEnergies concluded in July 2023 the sale of three lines of activity of its subsidiary Cray Valley (in charge of the production and marketing of resins). The transaction covers four production sites in the United States and the Cray Valley Italian subsidiary as well as the associated customer portfolio.

Asia, Middle East and Africa

TotalEnergies holds interests in first-rate platforms that are ideally positioned, with easier access to feedstock under competitive conditions, enabling it to pursue its development in order to supply growth regions.

- In **Saudi Arabia**, TotalEnergies has a 37.5% shareholding in SATORP (Saudi Aramco Total Refining and Petrochemical Company), which operates the Jubail refinery. This 460 kb/d refinery, located close to Saudi Arabia's heavy crude fields, can process heavy crude oil and produce fuels and other light products that meet the European and American strictest specifications and are largely earmarked for export. The refinery is also integrated with petrochemical units: an 800 kt/y paraxylene unit, a 200 kt/y propylene unit, and a 140 kt/y benzene unit.

  In addition, TotalEnergies and Saudi Aramco took the final investment decision in December 2022 on the Amiral project for the construction of a world-scale petrochemicals complex adjacent to the refinery. As part of this project, which provides for the construction of a mixed-load steam cracker (70% ethane and refinery off-gas) with a capacity of 1.65 Mt/y and polyethylene units with a capacity of 1 Mt/y, Saudi Aramco and TotalEnergies awarded engineering and construction (EPC) contracts worth $11 billion in June 2023. This project is expected to attract more than $4 billion in additional investments in various areas of industrial activity (carbon fibers, lubricants, special fluids, detergents, additives, automobile parts and tires) and create approximately 7,000 jobs, direct and indirect, in the country.

  Finally, TotalEnergies announced in 2023 two firsts in the Middle East concerning low-carbon activities:

  - in July, oil from plastic waste, called pyrolysis oil, was treated at the SATORP refinery, then used as feedstock for Petrokemya (a subsidiary of SABIC) to produce circular polymers certified ISCC+ (International Sustainability and Carbon Certification). This first paves the way for the creation of a local value chain for the chemical recycling of plastics and the production of circular polymers in the Saudi Arabia;
  - in August, the SATORP refinery succeeded in treating, by co-processing, used cooking oil to produce a fuel meeting all the quality criteria of the ISCC+ certified SAF specifications. This certification should enable SATORP to meet the expected increase in demand for SAF in the Saudi Arabia.
- In **South Korea**, TotalEnergies owns 50% of Hanwha TotalEnergies Petrochemical Co. (HTC), which operates an integrated platform at the Daesan site, comprising a condensate splitter, a steam cracker and styrene, paraxylene and polyolefin production units. HTC is positioned on high value-added sustainable applications and specialty markets, such as underfloor heating pipes or automotive, contributing in particular to making vehicles lighter. Investments of $1.3 billion between 2017 and 2021 increased the production capacity of ethylene to 1.5 Mt/y, polyethylene to 1.1 Mt/y and polypropylene to 1.1 Mt/y
- In **Qatar**, TotalEnergies holds interests[(1)] in two ethane-based steam crackers: Qapco and Ras Laffan Olefin Cracker (RLOC) as well as four polyethylene lines operated by Qapco in Messaied, including a linear low-density polyethylene plant with a capacity of 550 kt/y (Qatofin) and a 300 kt/y low-density polyethylene line (Qapco). TotalEnergies also holds a 10% interest in the Ras Laffan condensate refinery, with a total capacity of 300 kb/d.
- In **Algeria**, TotalEnergies withdrew in 2023 from the STEP (Sonatrach Total Entreprise de Polymères) joint-venture formed in 2019 with Sonatrach (51%) to study a petrochemical project in Arzew, in the north-west of the country.
- In **Japan**, TotalEnergies partnered with ENEOS Corporation in April 2022 to launch a feasibility study for a SAF production unit at ENEOS' Wakayama refinery. The proposed unit, with a production capacity of 300 kt/y of SAF, is expected to process waste or residues from the circular economy (mainly cooking oils and animal fats). The two partners envisage creating a joint-venture dedicated to SAFs.
- In the **United Arab Emirates**, TotalEnergies, Masdar and Siemens Energy signed a collaboration agreement in January 2022 to co-develop a pilot unit to produce sustainable aviation fuel from green hydrogen and CO_2. The partners evaluated different technology providers, and carried out feasibility studies, working closely with regulators on compliance issues. The consortium ultimately selected the "methanol to jet" technology. In December 2023, the first successful test flight took place in Dubai on the sidelines of COP28 in the United Arab Emirates, demonstrating the feasibility of producing SAF from methanol.

(1) TotalEnergies holdings: Qapco (20%); Qatofin (49%); RLOC (22.5%).

- In **Africa**, TotalEnergies has interests in four refineries (South Africa, Cameroon, Ivory Coast and Senegal). Refining & Chemicals provides technical assistance for two of these refineries: the SIR refinery with a capacity of 80 kb/d in Ivory Coast and the Natref refinery with a capacity of 109 kb/d in South Africa. Concerning the latter and in line with its strategy to divest non-core assets, TotalEnergies announced in December 2023 the signature of an agreement to divest its interest in the Natref refinery, subject to consents and authorizations of the competent authorities.

R&D AND PARTNERSHIPS

As part of the consolidation of its R&D activities within OneTech (refer to section 1.6 of Chapter 1), TotalEnergies has intensified its research efforts in the field of biofuels through the creation of a dedicated program. This strategic program, aimed at the development of lasting sustainable solutions based on waste, calls on a wide range of skills (modeling, agronomics, life cycle analysis, biotechnology, catalysis, thermochemicals, chemicals, industrial processes) to identify the most promising technologies contributing to achieving the goal of carbon neutrality (zero emissions) by 2050, together with society.

In this dynamic, the microalgae cultivation platform created on the La Mède site in November 2022 and the result of the collaboration between TotalEnergies and Veolia, has already made it possible to test seven innovative algae cultivation technologies developed by third parties (universities, start-ups), with the aim of identifying and promoting those compatible with the production of new generation low-carbon biofuels.

TotalEnergies develops other R&D partnerships and actions in the field of low-carbon products (fuels and polymers).

In February 2024, Airbus and TotalEnergies have signed a strategic partnership to meet the challenges of aviation decarbonization with sustainable aviation fuel. The partnership will cover two main areas: TotalEnergies will supply Airbus with sustainable aviation fuel for more than half of its needs in Europe; a research and innovation programme aimed at developing 100% sustainable fuels.

The strategic partnership with Safran, initiated in 2021, intensified in 2022, notably with the formulation of a SAF that is fully compatible with the fleets of aircraft currently in operation, and February 2023 saw the flight of an army helicopter with this SAF, produced by TotalEnergies from used cooking oil.

In March 2022, TotalEnergies and FNSEA, a French umbrella organization charged with the national representation of 20,000 local agricultural unions and 22 regional federations, formed a partnership to support and accelerate the energy, environmental and economic transition of the agricultural sector in France. This partnership aims in particular to promote solutions to produce biofuels by developing new agricultural sectors through the recovery of agricultural residues, low greenhouse gas crops or intermediate crops.

In February 2022, TotalEnergies and Honeywell announced a strategic agreement to promote the development of advanced plastic recycling. Under this agreement, Honeywell is expected to supply TotalEnergies with Recycled Polymer Feedstock (RPF) produced by its future plant jointly owned with Sacyr in Spain. This plant is expected to have a processing capacity of 30 kt/y of plastic waste, much of which is currently sent to landfills or incinerated. TotalEnergies is expected to purchase and convert this raw material into recycled polymers with exactly the same properties as virgin polymers, which notably could be used for food.

In December 2021, Plastic Energy and TotalEnergies signed a comprehensive agreement allowing TotalEnergies to acquire part of the production of the new pyrolysis unit, to be built by Plastic Energy in Seville, Spain. The plant, scheduled for commissioning in 2025, is expected to have a waste treatment capacity of 33 kt/y.

In December 2021, TotalEnergies and Plastic Omnium signed a strategic partnership agreement to jointly develop recycled polypropylene plastics that meet the demanding standards of automotive body parts, particularly in terms of aesthetics and safety. Under the terms of this agreement, the partners pool their innovation and engineering skills to design new types of recycled polypropylenes that are more efficient and environmentally friendly, while providing concrete answers to the challenges of the end-of-life of plastics.

In October 2021, TotalEnergies, Freepoint Eco-Systems and Plastic Energy announced a strategic partnership for a project to build an advanced recycling plant in Texas. This joint-venture with Plastic Energy and Freepoint Eco-Systems should process 33 kt/y of plastic waste to produce TACOIL™, a raw material from which TotalEnergies will manufacture recycled polymers.

2.5.1.2 Elastomer processing (Hutchinson)

The elastomer transformation specialist Hutchinson is one of the world leaders[1] in anti-vibration systems, fluid management, precision sealing and body sealing. These solutions are used worldwide, especially in the automotive, aeronautical and industrial manufacturing sectors (energy, railroads, naval, defense).

Hutchinson draws on wide-ranging expertise and leverage its know-how from the custom design of materials to the integration of connected solutions: structural sealing solutions, precision sealing, management of fluids, materials and structures, anti-vibration systems and transmission systems.

After being heavily impacted by the fall in demand linked to the health crisis, due to its exposure to the automotive and air transportation sectors, its activity grew again in 2023 and returned to the pre-crisis level. The continuation of actions aimed at lowering the break-even of its activities, particularly in a context of inflation in the cost of raw materials and labor, has enabled Hutchinson to maintain its competitiveness in its markets. Hutchinson continues to support its customers' transition to sustainable development and electric mobility.

At December 31, 2023, Hutchinson had 84 production sites worldwide (of which 51 in Europe and 18 in North America) and approximately 40,000 employees.

(1) TotalEnergies data.

2.5.2 Trading & Shipping

The activities of Trading & Shipping are focused primarily on serving the needs of TotalEnergies, and mainly include:

- selling and marketing the TotalEnergies' crude oil production,
- providing a supply of crude oil for TotalEnergies' refineries,
- importing and exporting the appropriate petroleum products for TotalEnergies' refineries to be able to adjust their production to the needs of local markets,
- chartering appropriate ships for these activities, and
- trading in various derivatives markets.

In addition, with its acquired expertise, Trading & Shipping is able to expand its scope of operations beyond its primary scope of activities.

Trading & Shipping conducts its activities worldwide through various subsidiaries that are wholly owned by TotalEnergies and are established in strategically important oil markets in Europe, Asia and North America.

The LNG and gas trading activities are reported by the Integrated LNG segment and the power trading activities by the Integrated Power segment (refer to points 2.3 and 2.4).

2.5.2.1 Trading

TotalEnergies is one of the world's largest traders of crude oil and petroleum products on the basis of volumes traded[1]. The table below presents Trading's worldwide crude oil sales and supply sources and petroleum products sales for each of the past three years. Trading of physical volumes of crude oil and petroleum products[2] amounted to 6.4 Mb/d in 2023, compared to 6.1 Mb/d in 2022 and 6.3 Mb/d in 2021.

TRADING'S CRUDE OIL SALES AND SUPPLY, AND PETROLEUM PRODUCT SALES[a]

(kb/d)	2023	2022	2021
TotalEnergies' liquids production	1,550	1,519	1,500
Purchases from Exploration & Production	1,372	1,282	1,241
Purchases from external suppliers	2,601	2,535	2,803
Total of trading's crude supply	**3,973**	**3,817**	**4,044**
Sales to Refining & Chemicals and Marketing & Services segments	1,218	1,257	953
Sales to external customers[b]	2,755	2,560	3,091
Total of trading's crude sales	**3,973**	**3,817**	**4,044**
Petroleum products sales by trading	**2,373**	**2,269[c]**	**2,262**

(a) Including condensates.
(b) Including inventory variations.
(c) Restated data (excluding LPG volumes).

Trading operates extensively in physical and derivatives markets, both organized and over the counter. In connection with its Trading activities, TotalEnergies uses derivative energy instruments (futures, forwards, swaps *and options)* in order to adjust its exposure to fluctuations in the price of crude oil and petroleum products. These transactions are entered into with a wide variety of counterparties.

For additional information concerning derivatives transactions by Trading & Shipping, refer to Note 16 (Financial instruments related to commodity contracts) to the Consolidated Financial Statements (refer to point 8.7 of chapter 8).

All of TotalEnergies' Trading activities are subject to a strict risk management policy and trading limits.

2.5.2.2 Shipping

Since April 2022, the transport activities of crude oil and petroleum products as well as the transport of petrochemical products, LNG, petcoke and sulfur have been grouped under a common organization, One Shipping, whose objective is to respond in a coordinated manner to security challenges and decarbonization of TotalEnergies maritime transport activities. The transportation of these products that is necessary for the activities of TotalEnergies is coordinated by One Shipping. One Shipping maintains a rigorous safety policy rooted primarily in the strict selection of chartered vessels that meet the highest international standards.

Within the scope of crude oil, petroleum products and petrochemical products transport activities, the need for maritime transport is fulfilled through the balanced use of spot and time-charter markets. Excess transport capacity can be sub-chartered to third parties. The number of charters reached approximately 3,200 voyages in 2023 (compared to 2,800 in 2022 and 2,700 in 2021) to transport 148 Mt of crude oil, petroleum products and petrochemical products, compared to 134 Mt in 2022 and 120 Mt in 2021. As of December 31, 2023, the mid-term and long-term chartered fleet numbered 67 vessels (including 13 LPG vessels), compared to 59 in 2022 and 47 in 2021. The average age of the fleet of this perimeter is approximately seven years (also approximately seven years including LNG carriers).

The integration into the time charter fleet of new vessels that are capable of using LNG and are equipped with the latest technologies that achieve better performance and produce the lowest emissions of greenhouse gases in their category continues. TotalEnergies' time-chartered fleet includes 11 vessels of this type (without counting LNG carriers).

TotalEnergies also took a significant step forward in 2023 by confirming the charter of 11 vessels capable of running on bio/e-methanol. These 6 MR type tankers (50 kt of capacity) and these 5 bitumen tankers (3 of 8 kt and 2 of 17 kt of capacity) are currently under construction and should gradually join the TotalEnergies time-chartered fleet in 2025 and 2026.

(1) TotalEnergies data.
(2) Excluding LPG volumes, which are reported in point 2.3.5.

Moreover, TotalEnergies pursues various initiatives, in particular in favor of the energy sobriety of its time-chartered fleet:

- TotalEnergies approved with its partners a pilot project to install two rotating masts on board a petroleum product transport vessel, the sails of which are expected to allow a reduction up to 8%[1] of the ship's emissions, and were installed at the beginning of 2024;
- TotalEnergies encourages its partner shipowners to use the latest weather routing technologies in order to optimize journeys. These digital tools generally allow a reduction of 3% to 5%[2] in ship fuel consumption.

The use of alternative fuels that emit less greenhouse gases and the implementation of innovative technologies to improve the energy efficiency of ships are concrete actions which aim to immediately support the Company's efforts to reduce the environmental footprint of its maritime transport activities.

The Company also participates to various initiatives in the maritime transport industry aiming to contribute to the energy transition:

- TotalEnergies is a signatory of the Sea Cargo Charter, an association launched in 2020 by the main shipping players to create a consistent, transparent method for measuring emissions in support of efforts to decarbonize the shipping industry. The association establishes a common baseline for determining, on the basis of defined standards, whether shipping activities are aligned with the International Maritime Organization's climate ambitions. In 2023, the association increased the decarbonization ambition for the maritime transport sector, in line with the IMO's new ambition to achieve carbon neutrality in 2050. The 2023 global score of TotalEnergies' charter activities was better than the reference value of the Sea Cargo Charter (as in 2022);
- since 2020, TotalEnergies is a member of Getting to Zero coalition and supports the maritime industry's decarbonization by collaborating with companies across the maritime, energy, infrastructure and finance sectors. Joining the Coalition marked a further step in TotalEnergies' commitment alongside its customers in the maritime sector and illustrates the Company's strategy to support them in their own emissions reductions;
- TotalEnergies has been a strategic partner of the Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping since February 2021. Through this collaboration, TotalEnergies is accelerating its R&D program in carbon-neutral shipping solutions, in line with its commitment to work with its major customers to achieve carbon neutrality (net zero emissions). This partnership allows TotalEnergies to join forces with leading players across the shipping sector to develop new low-carbon alternative fuels as well as carbon neutrality solutions.

As part of its Shipping activity, TotalEnergies uses freight derivative products to manage the economic performance of its fleet in the face of fluctuations in the maritime transport market.

(1) TotalEnergies data.
(2) TotalEnergies data.

2.6 Marketing & Services segment

Marketing & Services includes the worldwide supply and marketing of petroleum products and services, low-carbon fuels and new energies for mobility. It contributes to the transition strategy of TotalEnergies and proactively supports its customers in their own transition towards more sustainable energy and mobility.

Marketing & Services (M&S), with a direct presence in 100 countries, caters to customers with various needs for energy, mobility and associated services. M&S also caters to a wide range of professional customers in terms of size and industry (transportation, manufacturing, agriculture, etc.), and individual customers, through its retail network of close to 14,600 service stations and over 60,000 charging points for electric vehicles[(1)].

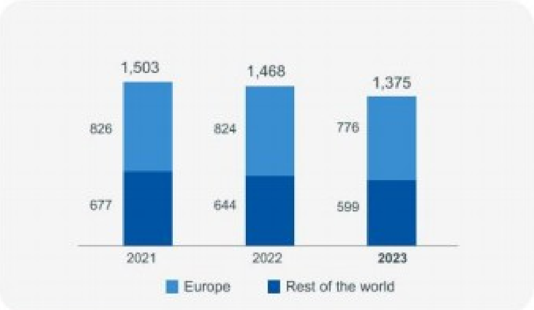
Main indicators

2nd largest retail distribution among majors outside of North America[(2)]	**4th** worldwide distributor of inland lubricants[(3)]	**Close to 14,600** branded service stations[(4)] as of December 31, 2023	**More than 60,000** charging points as of December 31, 2023[(1)]

Our objectives

150,000 charging points worldwide by 2026[(1)]	**1,000** sites equipped with high-power charging in Europe by 2028	**100** operated hydrogen stations[(5)] in Europe by 2030

Petroleum products sales[(a)] *(in kb/d)*



(a) Excludes international (trading) and bulk refining sales.

Sales of petroleum products were down by 6% in full-year 2023, due to the lower professional and industrial demand mainly in Europe and the disposal of 50% of the fuel distribution business in Egypt, which were partially offset by the recovery in aviation business.

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

(1) Operated and supervised charging points.
(2) *Global Retail Company Data Manager (2023)*, S&P Global, based on the number of service stations TotalEnergies, BP, Chevron, ExxonMobil, and Shell in 2022.
(3) *Global Lubricants - Company Positioning Overview (2023)*, S&P Global, based on 2021 market shares.
(4) TotalEnergies (including TotalEnergies Contact), Access, Elf, Elan and AS24. Including service stations owned by third parties under the Company's brands. Third-party service stations with only terminals accepting the AS24 card are not counted.
(5) Directly or through shareholdings.

2.6.1 Presentation of the segment

M&S formulates and markets different ranges of petroleum fuels, lubricants, and associated services, both through the service station network (shops, catering, washing, etc.) and to industrial customers. It also offers its clients new forms of energy and mobility services such as biofuels (including sustainable aviation fuel), electric charging, LNG for ships, natural gas, biogas or also hydrogen for heavy goods transport.

M&S has a strong presence in Western Europe (Benelux, France, Germany) and in Africa, where M&S counts among the leaders in petroleum products distribution (based on the number of branded service-stations)[1].

The M&S strategy is part of the Company's climate ambition: to provide as many people as possible with energy that is more reliable, more affordable and more sustainable, as part of the Company's carbon neutrality ambition (zero net emissions), together with society.

To this end, M&S aims to diversify its sales by developing its revenues from new low-carbon energies, whose low environmental impact is part of the Company's climate ambition, while, at the same time reducing sales of low-margin petroleum products. Thus, the Company intends to reduce Scope 3[2] emissions of petroleum products sold to its customers by 40% between 2015 and 2030.

Market environment and trends

The development of regulatory frameworks or tax incentives aimed at reducing greenhouse gas emissions promotes the development and the adoption of low-carbon energies, and contributes to a market change, with contrasting geographic dynamics.

By 2050, global demand for energy for transportation is expected to have changed significantly, with different energy mixes depending on the type of use. The Company made public in September 2023, the TotalEnergies Energy Outlook 2023 which updates the evolution scenarios of the global energy system by 2050 developed by TotalEnergies which anticipates that:

- for light vehicles, electrification will tend to become more widespread and will reduce absolute energy demand due to the better efficiency of electric motors (compared to thermal engines);
- for heavy goods vehicles, electrification will become significant in gradual substitution of fuels (including biofuels) and hydrogen will be able to serve the applications that are most difficult to electrify;
- in the aviation and marine segments, sustainable fuels will come from bio-industry, the circular economy and hydrogen derivatives (synthetic fuels), despite the uncertainties surrounding the technologies and the transition to an industrial scale.

However, these trends will be implemented at different paces from one geographical region to another.

- In Europe, the oil demand (liquid fuels, including biofuels) should decline as vehicles fleets' electrification progresses, supported by the European Green Deal (set of European Union measures aiming to achieve carbon neutrality by 2050 in particular).
- In Africa, the pace of growth in oil demand is expected to remain strong until 2030 and then gradually slow down, while remaining positive until 2050.
- In China, the peak consumption of liquid demand could occur around 2030 despite an increasing motorization rate (more than 60% of new light vehicles are expected to be battery electric or plug-in hybrid by then).

M&S strategy

In this rapidly changing environment, M&S seeks to proactively anticipate the decarbonization of its sales, particularly in Europe, and to support growth in demand in Africa.

- **Network**

M&S intends to continue the selective development of its network of service stations with the objectives to:

- increase revenues from services in stations (stores branded Bonjour, washing carried by the Wash brand, and catering where M&S develops partnerships with leading brands, etc.), as well as mobility services;
- transform the service station network in Europe, aiming for more than 1,000 sites dedicated to electric high power charging or multi-energy by 2028;
- grow in Africa and in certain key markets.

The agreements signed on March 16, 2023 between the Company and Alimentation Couche-Tard ("Couche-Tard") illustrate this strategy. The transaction, finalized on December 28, 2023 for Germany and on January 3, 2024 for Belgium, Luxembourg, and the Netherlands, thus confirms:

- the creation of a joint venture (TotalEnergies 40%, Couche-Tard 60%) that will own and operate its retail outlets in Belgium and in Luxembourg, and accelerate the transition of these assets by maximizing their non-fuel sales;
- the sale to Couche-Tard of 100% of its networks in Germany and the Netherlands, in order to focus on developing new mobilities (electric and hydrogen) in these countries.

The agreements provide that these four networks will remain branded TotalEnergies as long as the fuel is supplied by the Company, for at least five years. In these countries, TotalEnergies will keep operating and developing activities related to off-station electric vehicle charging (charging hubs), hydrogen distribution, wholesale fuel business, as well as the AS 24 service station network for trucks.

Finally, in France, TotalEnergies is committed to supporting drivers' purchasing power by capping the price of fuel at €1.99/l in all its French service stations, as long as prices remain high.

- **Lubricants**

The production and marketing of **lubricants** represents a significant share of M&S's results. These products, which in the vast majority of cases do not generate GHGs when used, continue to have strong potential for value creation. M&S aims to:

- maintain a continuous upmarketing effort (with premium and specialty products);
- incorporate technologies and services in the field of industrial lubricants;
- expand the network of TotalEnergies Lubricants centers and develop new digital offers on "Online to Offline" platforms;
- develop a circular and sustainable approach with the incorporation of recycled base oils into its products and the eco-design of new products and packaging.

- **B2B activity**

TotalEnergies aims to develop low-carbon solutions for its customers, relying on its portfolio of one million **B2B** customers. This dynamic was illustrated in October 2022 with the signing of a memorandum of understanding between TotalEnergies and Holcim to work together on the total decarbonization of one of their cement works currently being modernized in Obourg, Belgium, in order to capture, sequester and effectively recover nearly 1.3 Mt of CO_2 emitted each year by this site.

(1) TotalEnergies data.
(2) GHG Protocol – Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).

- **New energies for mobility**

With regards to **new energies for mobility**, M&S is building the foundations of strong positions in the various segments of the transportation market in order to anticipate changes in demand:

– for **light vehicles**: M&S intends to prioritize the development of charging points over 150 kW for on-the-go charging (in service stations located on highways and in urban hubs, mainly in Europe) and, in the B2B segment, to support its customers in electrifying their fleets by drawing on the European portfolio of Fleet customers (approximately 365,000 customers). M&S also plans to develop selectively in the B2G[1] segment (on-street charging), through partnerships. The Company aims to cover the entire electric charging activities value chain (from the electricity supply, installation, management and supervision of chargers, to the development of its roaming network) and targets to operate and supervise 150,000 charging points worldwide by 2026;

– for **heavy trucks**: TotalEnergies launched a dedicated in-depot electric charging offer in Europe in November 2023, including the installation and supervision of chargers, and capable of covering all carriers' needs. In order to meet the carriers' charging needs outside their depots, M&S plans to build a network of electric charging points in Europe, primarily satisfying the needs of urban and regional transportation, supplemented by a network of hydrogen stations mainly intended for long distance transportation;

– in **maritime transportation**, TotalEnergies offers its customers a diversified range of marine fuels which it intends to develop in Europe and Asia, including LNG, biogas and biofuels. At the same time, the Company aims to develop strong positions in logistics. It also offers lubricants and associated services;

– in **aviation**, M&S develops the sales of aviation fuels including SAF, in line with its clients' demand.

M&S's transformation projects are supported in the medium term by a significant multi-year organic investment plan (more than $1 billion in 2023), which provides for a reallocation of investments to support growing activities: new energies (mainly electric), services (catering, washing, shops, etc.), and low-carbon solutions (lubricants, bitumens, LPG, etc.).

As part of its activities, M&S holds stakes, through its subsidiaries, in four refineries in Africa, including Natref in the process of disposal[2]. The activities of Refining & Chemicals activities are presented in point 2.5 of this chapter.

2.6.2 Sales of petroleum products

The following table shows M&S's sales of petroleum products[a] by geographical area as of December 31:

(kb/d)	2023	2022	2021
Europe	776	824	826
France	410	439	440
Europe, excluding France	366	385	386
Africa	357	388	405
Middle East[b]	46	45	42
Asia Pacific[c]	111	123	131
Americas	85	88	99
Total	**1,375**	**1,468**	**1,503**

(a) In addition to M&S's petroleum product sales, TotalEnergies' sales include international trading (2,173 kb/d in 2023, 2,012 kb/d in 2022 and 1,696 kb/d in 2021) and bulk refining sales (405 kb/d in 2023, 411 kb/d in 2022 and 383 kb/d in 2021).
(b) Including Turkey.
(c) Including the Indian Ocean islands.

2.6.3 Service stations breakdown

The table below shows the geographical breakdown of the Company-branded[a] service stations:

As of December 31	2023	2022	2021
Europe[b]	5,568	5,617	5,741
of which France	*3,319*	*3,360*	*3,479*
Africa	4,501	4,607	4,586
Middle East	1,125	1,058	1,061
Asia Pacific[c]	2,217	2,173	2,135
Americas	782	784[d]	964
AS 24 network (for heavy-duty vehicles) [e]	378	408	405
Total	**14,571**	**14,647**	**14,892**

(a) TotalEnergies (including TotalEnergies Contact), Access, Elf, Elan and AS 24, including service stations owned by third parties and those currently being converted. Turkey is included under the Middle East region.
(b) Excluding the AS 24 network.
(c) Including the Indian Ocean islands.
(d) Cessation of the retail network activities in Mexico effective December 31, 2022.
(e) 2021 data restated to exclude third-parties accepting the AS 24 card, previously reported under this figures.

(1) *Business to Government*: public sector(aiming to develop mainly on-street charging infrastructures).
(2) On December 1, 2023, TotalEnergies announced the signing, with the Prax Group, of an agreement to divest the 36.36% minority stake held by TotalEnergies Marketing South Africa, in the Natref refinery (National Petroleum Refiners of South Africa), subject to the authorizations and approvals of the competent authorities.

2.6.4 Distribution of charging points for electric vehicles

As of December 31	2023	2022	2021
France	21,361	17,285	9,918
Benelux	25,575	16,089	10,271
Germany	5,210	3,902	3,164
United Kingdom	2,478	2,112	1,797
Rest of Europe	576	219	584
Asia-Pacific	4,745	2,912	108
Rest of world	123	0	0
Total[a]	**60,068**	**42,519**	**25,842**

(a) 2021 data restated to include the number of charging stations of the Asia-Pacific region not previously reported.

2.6.5 Activities by geographical area

The information below describes M&S's main activities by region and business area.

2.6.5.1 Europe

RETAIL

In the framework of the agreements signed on March 16, 2023 between the Company and Alimentation Couche-Tard ("Couche-Tard"), the Company completed on December 28, 2023, the 100% sale to Couche-Tard of the service stations network in Germany (1,200 service stations). The Company also completed on January 3, 2024, the sale of 100% of the service stations network in the Netherlands (close to 380 service stations) and the creation of a joint-venture (TotalEnergies 40% and Couche-Tard 60%) in order to operate the service stations networks in Belgium and in Luxemburg (more than 600 service stations) and to accelerate their transition by maximizing their sales excluding petroleum fuels. The agreements provide that these four networks will remain branded TotalEnergies as long as the fuel is supplied by the Company, for at least five years. In these countries, TotalEnergies will continue to operate and develop in businesses of electric charging, of hydrogen distribution, of fuel wholesale as well as of the AS 24 stations network for heavy goods vehicles.

At year-end 2023, the network accounted for close to 5,950 branded service stations.

In **France**, at year-end 2023, the dense network of service stations consisted of more than 3,300 sites, of which close to 2,200 branded TotalEnergies (including TotalEnergies Contact), more than 700 branded Access (service stations combining low prices with fuel quality) and more than 400 branded Elan (mainly located in rural areas)[1]. At the end of 2023, TotalEnergies is the leading distributor of superethanol E85 in the country, in number of stations[2], with approximately 900 sites offering this fuel, mostly renewable. In order to offer ever greater proximity to its French customers, the Company announced in August 2023 planning to reopen 20 service stations in rural areas and recruiting pump attendants for 300 service stations by year-end 2024. At the end of 2023, the Company accounted for approximately 1,160 service-stations in rural areas, mainly branded TotalEnergies Contact or Elan, and approximately 130 pump attendants have been recruited.

In logistics, TotalEnergies holds interests in 27 deposits in France, including 7 operated by Group companies.

In heavy-goods transportation, with its AS 24 brand, TotalEnergies rolls out an offer specific to this growing segment. The Company offers a fuel card accepted in a network of nearly 1,550 dedicated stations in Europe. AS 24 is constantly expanding its geographical presence on the major European transportation roads, mainly in Eastern Europe. AS 24 supports the energy transition of the road carriers by offering NGV in several European countries, and in particular bioNGV in France, and developing a multi-energy offering in its network.

AS 24 also offers services aiming to simplify mobility, such as a satellite geolocation and payment system for the main European road tolls.

Benefiting from a close proximity with its customers, service-stations carrying one of the Company's brands meet their daily needs with a multi-service and multi-product offering (allowing, among else, to optimize their energy consumption such as the Excellium® fuels). Non-fuel activities (catering, Bonjour-branded stores, Wash-branded washing centers - France's leading washing network[3]- local partnerships and cards) are growing steadily, contributing significantly to the network's operating cash flow.

NEW ENERGIES FOR MOBILITY

Electricity

In the field of electro-mobility, M&S provides solutions to meet on-the-go charging needs by installing and operating charging points in its multi-energy service stations and on charging hubs.

In France, since the opening of its first 100% electric station in May 2021, the Company has equipped, at the end of 2023, more than 180 stations with charging infrastructures representing more than 1,000 charging points over 150 kW, in town and on motorways, which makes it the number one player of high power charging on the country's motorways and expressways[4].

By 2026, the Company aims to equip 200 stations in the national road network (motorways and ring roads) and 300 stations in cities, outskirts and transitional areas (airports, train stations, tourist areas), a third of them 100% electric.

Moreover, the Company launched the Charge+ offer in October 2023, offering residents, in France, to charge their vehicles on-the-go and illustrates its commitment to supporting French people in their transition to electric mobility.

(1) In 2023, close to 300 Elan-branded service-stations were rebranded TotalEnergies.
(2) Metropolitan France (excluding Corsica). Source: "Superethanol-E85 data – December 2023", *National Union of Agricultural Alcohol Producers* (SNPAA).
(3) TotalEnergies data.
(4) TotalEnergies data, in number of service stations at the end of September 2023.

In Spain, TotalEnergies announced in January 2024 that it has acquired Nordian CPO, a subsidiary of the Wenea Group, which owns 200 charging sites. These sites, supplied entirely with renewable electricity, are located along major highways and in urban and peri-urban areas in all 17 regions of Spain.

In Benelux and in Germany, the Company has equipped more than 130 service stations with charging points at the end of 2023, most of which are part of the finalized transaction between TotalEnergies and Couche-Tard. In Germany, TotalEnergies was awarded three regional lots in September 2023 under the *Deutschlandnetz* ("Germany network") call for tenders to install and operate approximately 1,100 charging points in the country. These high-power charging points (up to 200 kW) will be installed at 134 urban and rural sites across the east, center and west of the country, and will be powered entirely by renewable electricity.

TotalEnergies continues to selectively develop its on-street charging offering in the main European cities, with:

- in June 2023, the award of tenders in Berlin (approximately 500 public charging points), in Lille (close to 900 charging points), in Utrecht and Amsterdam (approximately 3,700 charging points), and in Madrid (approximately 50 charging points);
- in 2022, the award of contracts in the Flanders region (Belgium, 4,400 charging points) and in Rotterdam (Netherlands, 90 high power chargers);
- in 2021, the award of contracts in Amsterdam (Netherlands, 2,200 charging points), Antwerp (Belgium, including high power charging points) and Ghent (Belgium, 800 charging points) and the signing of a partnership agreement with Uber to accelerate the transition from private chauffeur-driven cars to electric mobility, initially in France.

To facilitate and accelerate the deployment of EV charging points in France for its B2B customers, TotalEnergies took control of the start-up Time2plug (with a 56% stake) in December 2023. Time2plug offers a marketplace where customers can obtain instant quotes and tap into a certified in-house installer network.

To promote the electromobility of heavy goods vehicles, TotalEnergies has also joined forces with Enedis, VINCI Autoroutes and six European manufacturers – Volvo Trucks, Renault Trucks, Mercedes-Benz Trucks, MAN Truck & Bus France, Scania and Iveco – to assess requirements for electric charging in France by 2030 and 2035.

Natural gas and biofuel

TotalEnergies operates in Europe more than 220 NGV stations at year-end 2023 under the TotalEnergies and AS 24 brands, essentially geared to road carriers.

In the field of shipping, TotalEnergies develops a commercial offering incorporating biomethane into LNG as a marine fuel to reduce local air pollutants (NO_x, SO_x and fine particles) as well as reducing the sector's carbon footprint.

TotalEnergies charters two bunkering vessels: the *Gas Vitality*, positioned in the Marseille-Fos region in France, and the *Gas Agility* based in the Rotterdam region. At year-end 2023, *Gas Agility* and *Gas Vitality* have completed close to 195 LNG bunkering operations overall (including over 100 in 2023).

Hydrogen

In February 2023, TotalEnergies and Air Liquide announced their decision to create a 50-50 joint venture to develop a paneuropean hydrogen stations network, dedicated to heavy goods vehicles. This joint venture, called TEAL Mobility, targets the development of more than 100 hydrogen stations - in Benelux, France, and Germany - in the coming years, including approximately 20 as soon as 2024. The stations, under the TotalEnergies brand, will be located on main roads, including strategic corridors.

In Germany, TotalEnergies holds a stake close to 12,1% in the H2 Mobility joint venture along with the historical shareholders and Hy24, with the aim of operating over 200 stations geared to heavy trucks by 2030 and thus reaffirming its commitment to developing hydrogen filling stations. At year-end 2023, this network accounts for more than 80 stations, close to 20 of which are located on TotalEnergies sites.

In France, TotalEnergies holds a stake of approximately 18,6% in HysetCo, which is dedicated to hydrogen-based urban mobility for business light vehicles fleets, notably through four distribution stations in the Ile-de-France region.

LUBRICANTS AND SPECIALTIES

Lubricants

TotalEnergies offers a wide range of lubricants, intended for motorists, automotive and industrial equipment manufacturers, and covering a broad spectrum of applications.

TotalEnergies is the third distributor[1] of inland lubricants in Europe, TotalEnergies continues to expand, relying on a direct commercial presence and 12 production sites for lubricants and greases (including in Belgium, France, Germany, Romania, Spain, Turkey and the United Kingdom). In Russia, TotalEnergies stopped producing lubricants at the end of May 2022 in accordance with its principles of action published on March 22, 2022.

Aviation fuel, including SAF

TotalEnergies produces and distributes aviation fuels containing SAF. In December 2022, the Company signed an agreement with Air France-KLM to supply more than 1 Mcm of SAF over the 2023 to 2032 period. It will be produced in the Company's biorefineries (refer to point 2.5.1) and made available to the Air France-KLM group's airlines. TotalEnergies has already supplied aviation fuel containing SAF for several Air France-KLM group commercial flights:

- in May 2022, an Air France flight organized as part of the SkyTeam Sustainable Flight Challenge, between Paris and Montreal, was fueled with 16% SAF;
- in June 2022, several flights organized as part of the *Connecting Europe Days*, were fueled with 30% SAF.

Since June 2021, the Company has also been seeking to increase the number of locations offering, on a permanent basis, aviation fuel including SAF to its airline customers, consistently with the demand. At year-end 2023, this offering is available at Bordeaux, Clermont-Ferrand, Paris-Le Bourget, and Saint-Nazaire airports. This aviation fuel includes SAF made from used cooking oils or animal fats from the circular economy, beyond the 2025 minimum incorporation rate of 2% provided for by the RefuelEU aviation regulation. Thus, TotalEnergies participates in the shared ambition of public and private players to address a two-fold challenge: to continue decarbonizing air transportation while at the same time supporting the dynamism of regional economies and tourist industries.

(1) *Global Lubricants - Company Positioning Overview (2023)*, S&P Global, based on 2021 market shares.

In February 2024, Airbus and TotalEnergies have signed a strategic partnership to meet the challenges of aviation decarbonization with sustainable aviation fuel. The partnership will cover two main areas: TotalEnergies will supply Airbus with sustainable aviation fuel for more than half of its needs in Europe; a research and innovation programme aimed at developing 100% sustainable fuels.

Other Products

In Europe, TotalEnergies also produces and markets to professionals bulk fuels, special fluids bitumens, and specialty bitumens (low-temperature bitumens, recycling and low-carbon solutions, etc.). The Company offers its professional customers incorporated in France, Bitumen Online, an online purchasing platform to buy bitumen at a fixed price (in the process of being rolled out in other European countries).

PROFESSIONAL MARKETS AND MOBILITY SOLUTIONS

At year-end 2023, TotalEnergies is a major player in the B2B mobility segment in Europe, with approximately 4.2 million mobility cards offering targeted commercial offerings. They allow companies of all sizes to better manage their fleets' energy expenditure and access increasingly numerous partner and network services, such as Carglass and Norauto in France.

TotalEnergies offers companies solutions to optimize their corporate vehicle fleets expenditure, irrespective of the type of engines (conventional fuels, electricity, gas, etc.), and more generally their employees mobility expenditure, while supporting them in the reduction of their carbon footprint. TotalEnergies' offering includes a multi-energy and multiservice card, a fleet management tool and an on-board telematics solution. In addition, TotalEnergies proposes an electric mobility offering tailored to users' needs, including services ranging from the installation to the supervision of electric charging points at the companies sites, at employees' homes, on roads and in establishments open to the public. At year-end 2023, the Fleet card provides access to electric charging in numerous networks comprising more than 530,000 charging points in Europe.

In addition, TotalEnergies sells the Mobility Corporate card in France, international Mastercard payment card designed to support professionals' mobility at all times. Like the Fleet card, this card can be used to pay for fuel, electric recharging, parking fees, tolls, automotive maintenance, car wash, and purchases in stores within the TotalEnergies and partners' networks. The Mobility Corporate card also makes it possible to pay for all professional mobility-related expenses: hotels, restaurants, transport, vehicle rentals and taxis, as well as energy, parking fees, and maintenance costs on an expanded network.

2.6.5.2 Africa

RETAIL

TotalEnergies is the leading petroleum products retailer in Africa in 2023 with a 16%[1] market share.

In 2023, the African network comprised more than 4,500 branded service stations in over 30 countries. TotalEnergies has significant networks, particularly in Egypt, Morocco, Nigeria, and South Africa, and continues to proactively manage its assets portfolio, as illustrated by the sale, in July 2022, to ADNOC of 50% of TotalEnergies Marketing Egypt as part of a strategic partnership.

In December 2021, TotalEnergies strengthened its presence in Mozambique with the acquisition of a network of 26 service stations, a wholesale petroleum products business and logistics assets.

M&S diversifies its service stations offering and provides a range of products and services in restaurants, convenience stores and car wash sites.

LUBRICANTS

TotalEnergies is the leading distributor[2] of lubricants on the African continent and is pursuing its growth strategy in the B2B and B2C markets. M&S relies on nine operated lubricant production sites, in Algeria, Egypt, Kenya, Morocco, Nigeria (two sites), Senegal, South Africa and Tanzania. Through its TotalEnergies Workshop Concept, TotalEnergies continues to deploy the automotive maintenance services offered in the Quartz Auto Services, Rubia Truck Services and Hi-Perf Moto Services centers.

PROFESSIONAL MARKETS AND MOBILITY SOLUTIONS

TotalEnergies is an established partner for industrial customers in Africa irrespective of their sector of activity: agri-food, construction, electricity generation, mining, or transportation. TotalEnergies provides for innovative fuel management solutions and adds hybrid offers incorporating solar energy to its existing portfolio of products and services.

Additionally, TotalEnergies progressively develops new digital payment solutions allowing for an improved customer experience at the service-stations across the continent (such as the Africa Pass card which enables drivers to pay at the retail outlets, across several countries, with an single card).

(1) Market share estimated based on volumes sold (TotalEnergies data).
(2) TotalEnergies data.

2.6.5.3 Asia-Pacific/Middle East

M&S directly markets its products and services in more than 20 countries in this area.

RETAIL

At year-end 2023, TotalEnergies accounts for more than 3,350 service stations in the Asia-Pacific/Middle East region, with service station networks in Cambodia, China, Jordan, Lebanon, the Pacific Islands, Pakistan, the Philippines, Saudi Arabia and Turkey. TotalEnergies continues to grow in major markets, including Saudi Arabia and China, in traditional activities, as well as in electric mobility. Since the signing of an agreement in October 2021, TotalEnergies and Saudi Aramco have kept developing service-stations, branded TotalEnergies or Sahel.

In 2022, TotalEnergies launched its own range of automotive maintenance products, including fuel additives and high-end cooling liquids, across the region.

NEW ENERGIES FOR MOBILITY

Electricity

TotalEnergies continues to develop in the field of electric mobility in Asia:

- in China, the joint venture set up in 2021 by TotalEnergies with China Three Gorges Corporation is developing a fast charging network for electric vehicles in the city of Wuhan and in Hubei province. At year-end 2023, this network numbers more than 2,800 charging points, with a target of 11,000 public charging points by 2025;
- in India, TotalEnergies entered the electric vehicle charging infrastructure market in March 2022 through its joint venture with the Adani Group, and plans to establish an extensive network of fast charging stations throughout the country;
- in Singapore, TotalEnergies finalized the acquisition of Bluecharge in February 2022. The Company took over the management and operation of the urban charging network, which it continues to develop. At year-end 2023, it accounts for close to 1,550 public charging points.

Natural gas, biofuel and ammonia

In the NGV (Natural Gas Vehicle) segment, TotalEnergies operates a network of CNG (Compressed Natural Gas) and LNG stations in India with its partner Adani (close to 490 stations at year-end 2023).

TotalEnergies Marine Fuels, long standing partner of the shipping industry, caters to approximately 200 clients and intends to develop the LNG and low-carbon fuels bunkering activity in Singapore:

- the Company continues to operate an LNG shipping logistics chain, together with its partner Pavilion Energy Singapore. In March 2021, the Maritime and Port Authority of Singapore (MPA) granted a third LNG supply license to TotalEnergies Marine Fuels for a period of five years starting January 1, 2022. In 2023, TotalEnergies inaugurated the *Brassavola*, LNG barge with a capacity of 12 Mcm which was delivered in 2024 at the port of Singapore;
- in July 2022, TotalEnergies successfully supplied and fueled with sustainable marine biofuel[1] the CMA CGM's *Montoir* container ship in Singapore. This biofuel consisted of very low sulfur fuel oil mixed with 24% of second-generation methyl ester made from used cooking oil. This transaction marks a new milestone in TotalEnergies' ambition to become a key supplier of marine biofuels by 2030;
- in 2021, the Marine Fuels business unit co-signed a Memorandum of Understanding along with 34 international shipping players to study the technical and economic feasibility of using ammonia as a marine fuel, more specifically for bulk carriers and deep-sea tankers, in a group led by Itochu.

LUBRICANTS

The lubricants business is contributing to the growth of TotalEnergies in Asia-Pacific and the Middle East. The production capacity of lubricants in this area is spread among 9 operated production sites[2], including in China, Dubai, and Singapore. With two Technology Research Centers in China and India, TotalEnergies develops and provides premium technologies and services to its global and regional clients, including automobile manufacturers. It is developing in other industries as well, including cement, energy, mining, and textiles.

In June 2021, Great Wall Motor (GWM), one of China's leading automakers, and TotalEnergies signed two agreements to strengthen their partnership through future international commercial collaboration and R&D. With these agreements, both companies have confirmed their commitment to sustainable growth on the global market and their partnership in the development of products and services to best meet the expectations of their mutual customers.

In September 2021, TotalEnergies and the Badminton World Federation (BWF) announced the renewal of their partnership for five years, until 2025. The agreement makes TotalEnergies the official energy and lubricants partner of these events and reinforces the Company's emphasis on customer focus.

TotalEnergies continues to develop partnerships with Online to Offline digital platforms (such as Tuhu in China, Speedworks in Indonesia, Aotomovil and VehicleCare in India and Open Bonnet in the United Arab Emirates) and major e-commerce players (such as GoCar in Malaysia) to benefit from new distribution channels.

COMMERCIAL SALES, MOBILITY AND OTHER SPECIALTIES

TotalEnergies has signed several partnership agreements with industrial customers, allowing it to extend its presence in several markets, such as construction and mining in several countries in the area.

TotalEnergies supplies lubricants and services to approximately 70 mining sites, including in Australia and in India.

In specialty products, TotalEnergies is present on the LPG market in Bangladesh, India, New Caledonia, and Vietnam, as well as in the bitumen specialties segment through a 50-50 joint venture with Indian Oil Corporation Ltd.

(1) ISCC-certified biofuel (*International Sustainability & Carbon Certification*).
(2) One of the ten sites reported in 2022 was retreated as operated by others.

2.6.5.4 Americas

In the network, at year-end 2023, TotalEnergies operates nearly 800 branded service stations, including nearly 240 in Brazil (Latin America's largest market for petroleum products distribution[1]) and nearly 550 in the Caribbean region.

Retail network activities in Mexico were discontinued effective December 31, 2022.

In lubricants and other specialty products, TotalEnergies is pursuing its growth strategy across the area, mainly in lubricants and aviation fuels.

TotalEnergies has four operated lubricants blending sites in North America (Canada, Mexico, and the US) and three more in South America (Argentina, Brazil and Chile).

In new energies for mobility, TotalEnergies is a shareholder (19.10% as of December 31, 2023) of US-based, NASDAQ-listed Clean Energy Fuels Corp., which specializes in the distribution of natural gas for vehicles. In Canada and the United States, Clean Energy Fuels Corp. has a network of approximately 600 NGV service stations at year-end 2023.

2.6.5.5 Access to Energy

In line with the Company's determination to expand its low-carbon offering, TotalEnergies Off-grid Solar Solutions teams develop and market solar solutions in close to 30 countries.

The solutions include solar lamps, as well as solar kits (consisting of lamps and which can include accessories such as a radio or a television), to meet household needs. The teams have also developed an offer of solar streetlights for the community needs. These solutions make it possible to provide energy access to populations living in remote areas without a connection or reliable access to the electricity grid, particularly in Africa and Asia. At the same time, the solar solutions TotalEnergies offers, which respect the environment, meet the growing demand for sustainable consumption in the outdoor market.

In 2023, TotalEnergies sold approximately 360,000 solar lamps and solar kits through distributors and its network of service stations. In addition, TotalEnergies Off-grid Solar Solutions works with partners in Africa to minimize the environmental impact of products through repair and recyclability projects and installs collection and recycling points for batteries.

2.6.6 Products and services development

By fostering technical partnerships with car and equipment manufacturers, industries and universities, TotalEnergies develops products with a high technological content, designed to specifications that are increasingly geared to sustainable development and reduction of CO_2 emissions, in addition to performance. These partnerships give rise to product ranges such as *EV Fluids* for new forms of mobility or *Fuel Economy* for historical engine and industrial applications.

In the Automotive field, certain products are first formulated for competition before being widely marketed. In 2021, TotalEnergies signed a five-year extension to the partnership agreement with Stellantis in the areas of lubricants, R&D, motor racing and mobility. In motor sport, TotalEnergies has been supplying lubricants specifically developed for its partner team DS Penske. TotalEnergies has also been an official fuel supplier since 2018 to the main endurance competitions[2], including the 24 Hours of Le Mans. In March 2022, TotalEnergies introduced a new fuel, certified 100% renewable[3], for these FIA championships (Fédération Internationale de l'Automobile). This partnership rounds out that dedicated to supplying hydrogen, in order to support the development of a hydrogen-powered endurance car for a dedicated category in the 24 Hours of Le Mans in 2027. These partnerships reflect TotalEnergies' engineering know-how in formulating fuels and lubricants for tomorrow's engines, operating under extreme conditions and stringent fuel consumption reduction requirements.

In 2023, facing an uncertain regulatory framework, TotalEnergies has withdrawn its carbon offset program from Europe, which was associated with the sale of its fuels.

TotalEnergies is accelerating its digital innovation strategy so as to develop new offerings tailored to its customers in an array of markets and to improve its operational efficiency.

M&S also continues to research and roll out IoT applications[4] in fields such as logistics, maintenance, and safety to geolocate trailers and industrial equipment, as well as to track deliveries for TotalEnergies' carrier customers. Also, data collected[5] through a Customer Relationship Management tool can be used to develop more targeted sales offerings and improve the management of customer complaints. As a consequence, nearly 15 million customers in 24 countries can benefit from personalized offers.

(1) *Global Fuel Demand Data Manager (2023)*, S&P Global.
(2) The FIA World Endurance Championship, the 24 Hours of Le Mans, the European Le Mans Series and the Asian Le Mans Series.
(3) Fuel certified 100% sustainable by the ISCC (international Sustainability & Carbon Certification).
(4) The Internet of Things: connected objects.
(5) Data is used with the clients'consent, in accordance with the regulations in force.

3

Risks and control

3.1 Risk factors

TotalEnergies conducts its business in a constantly changing environment and is exposed to risks that, if they were to occur, could have a material adverse effect on its business, financial condition, reputation, outlook, or the price of financial instruments issued by TotalEnergies SE.

This section presents the significant risk factors specific to TotalEnergies, to which the Company believes it is exposed at the filing date of the Universal Registration Document. However, TotalEnergies may be exposed to other non-specific risks, or risks of which it may not be aware, or the potential consequences of which may be underestimated, or the materialization of which is not considered, at that date, to be likely to have a material adverse impact on TotalEnergies, its business, financial condition, reputation or outlook.

In particular, TotalEnergies could be exposed to systemic risks, such as unexpected major disruptions (health, such as the COVID-19 pandemic, security, monetary or cyber), leading to large-scale disturbances with global human and economic repercussions.

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

The main internal control and risk management procedures implemented by TotalEnergies are described in point 3.3 of this chapter.

3.1.1 Climate challenges

PACE OF DEPLOYMENT OF THE ENERGY TRANSITION, EVOLUTION OF DEMAND

TotalEnergies is exposed to the implementation of the energy transition, particularly by States, and to the evolution of demand

Civil society, numerous stakeholders and States are encouraging reductions in the consumption of carbon-based energy products and the establishment of an energy mix more geared towards low-carbon energies, so as to meet the requirements of the fight against the climate change, particularly in view of the objectives set by each State in the context of the Paris Agreement.

The COP28, that took place in Dubaï in December 2023, concluded with an agreement which enshrines the willingness of the states to "*transitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner*" and that mentions the usefulness of transitional fuels, such as gas. The agreement sets the objectives of tripling the renewable energy capacity and doubling energy efficiency by 2030, as well as eliminating most methane emissions by that time

The pace of change in the energy mix of countries must, however, take into consideration the needs and ability to adapt of the various energy consumers, who expect energy players to supply them with energy that is both cost-effective and environmentally friendly.

In this context, companies in the energy sector are led to deploy actions aiming at reducing their greenhouse gas emissions. They will also be able to help create solutions that contribute to reducing the CO_2 emissions associated with the customers' use of their energy products, as well as technologies and processes to capture, store and reuse CO_2. Consequently, they may be led to change the energy mix of the products they offer while at the same time having to manage the cost and the execution of projects supporting the energy transition.

An insufficient ability to adapt to the pace of deployment of the energy transition, as well as an inadequate anticipation of the climate or sustainability regulations, of the evolution of the demand or, of the energy cost which could be considered excessive by the populations, could affect TotalEnergies' outlook as well as its financial position (lower profitability, loss of operating rights, loss of revenues, increased funding difficulties), reputation or shareholder value.

RISK OF LEGAL ACTIONS

TotalEnergies is exposed to legal actions

Increased pressure from stakeholders linked to climate issues relating to oil & gas activities of the Company could lead to future climate-related legal actions against it. These actions could aim to suspend or prohibit oil & gas projects being considered or under development and equally target the challenges linked to greenhouse gas emissions from projects as well as other societal aspects. In a similar way to legal actions launched in France under the vigilance duty (*devoir de vigilance*) against the Company or, other litigations engaged in Europe or in the United States, including against other companies, these legal actions could target the global emissions of the Company and its stakeholders as well as the objectives set by the Company for reducing its emissions, thereby obliging it to go beyond these objectives or even reduce its production of fossil fuels at a faster pace than envisaged in the current strategy. In all cases, these legal actions could have the effect of impeding the Company from achieving its medium- and long-term objectives, as well as its ability to finance the energy transition and achieve carbon neutrality by 2050.

FINANCING OF OIL AND GAS RESERVES

TotalEnergies' profitability and its capacity to finance the energy transition depend on its ability to finance the development of its reserves profitably and in sufficient quantities

A large portion of TotalEnergies' revenues and operating results comes from the sale of oil and gas extracted from reserves developed as part of its exploration and production activities. The development of oil and gas fields, the construction of facilities and the drilling of production or injection wells are capital intensive and require advanced technologies.

In order to preserve its profitability and finance its growth levers, TotalEnergies must renew its reserves with reserves that can be developed and produced in an economically viable manner and that are compatible with the Company's climate ambition (low technical cost, low-emission reserves). Various factors may undermine TotalEnergies' ability to discover, acquire and develop its reserves, which are inherently uncertain, including:

- the geological nature of oil and gas fields, notably unexpected drilling conditions, including pressure or unexpected heterogeneities in geological formations; the risk of dry wells or failure to find sufficient quantities of hydrocarbons for commercial use,
- failure to anticipate market changes in a timely manner,
- applicable governmental or regulatory requirements, whether anticipated or not, that may prevent the development of reserves or give a competitive advantage to companies not subject to such regulations,
- competition from oil and gas companies for the acquisition and development of assets and licenses,
- disputes relating to property titles as well as increases in taxes and royalties, including retroactive claims and changes in regulations and tax reassessments,
- economic or political risks, including threats specific to a certain country or region,
- pressure from investors and non-governmental organizations (NGOs).

These factors may impair TotalEnergies' ability to complete development projects and to make production profitable. They may also affect TotalEnergies' projects and facilities further down the oil and gas chain.

If TotalEnergies failed to develop reserves cost-effectively, in sufficient quantities and in accordance with its climate ambition, its financial condition, operating income and cash flows could be materially affected. TotalEnergies could also be required to recognize impairments of assets, which could have a negative impact on its results for the period in which they are recognized. For additional information on impairments recognized on TotalEnergies' assets, please refer to Note 3D to the consolidated financial statements (point 8.7 of chapter 8).

For the calculation of the impairments of its Upstream oil & gas assets, the Company assumes an oil price trajectory stabilizing until 2030, decreasing then linearly to reach $\$_{2023}$50/b in 2040 and decreasing after 2040 towards the price retained in 2050 by the NZE scenario published by the IEA in 2022, *i.e.*, $\$_{2023}$25/b. Gas prices used in Europe and Asia decrease and stabilize as from 2027 until 2040 at levels lower than current price levels, with the Henry Hub price staying at $\$_{2023}$3/MBtu during this timeframe. They all converge thereafter towards the IEA's NZE scenario prices in 2050.

TotalEnergies assessed the impact of using the NZE price scenario published by the IEA in 2023 on the discounted present value of its assets (upstream and downstream). Such a scenario would reduce the discounted present value of the Company's upstream and downstream assets by around 10% compared to its reference scenario used to value its investments (Brent at $50/b).

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

Furthermore, TotalEnergies' proved reserves figures are estimates made in accordance with SEC rules. Proved reserves are those reserves which, by analysis of geoscientific and engineering data, can be estimated with reasonable certainty to be economically recoverable (from a given date forward, from known reservoirs and under existing economic conditions, operating methods and government regulations) prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. They involve making subjective judgments (particularly regarding the quantity of hydrocarbons initially in place, initial production rates and recovery rates) based on available geological, technical and economic data.

TotalEnergies' reserves estimates may therefore require substantial downward revisions should its subjective judgments based on available geoscientific and engineering data prove not to have been sufficiently conservative, or if TotalEnergies' assumptions regarding factors or variables that are beyond its control prove to be incorrect over time. Any downward adjustment could indicate lower future production amounts, which could adversely affect TotalEnergies' financial condition, operating income and cash flow.

TotalEnergies is exposed to a risk of more difficult access to the financial resources that the Company needs in particular to develop its activities in the oil and gas sectors

The growth and profitability of TotalEnergies depend on its ability to successfully execute development projects that are capital-intensive.

A number of non-governmental organizations tend to increase the number of campaigns targeting investors and financial institutions, to encourage them to reduce their investments in projects or companies related to fossil fuels.

Some of these institutions have adopted policies aimed at restricting the funding of activities related to the exploration, production and marketing of hydrocarbons, particularly non-conventional hydrocarbons, for example from shale or those produced in the Arctic region.

Different actors, including in particular institutional investors and financial institutions, are also adopting investment and lending policies that take account of extra-financial criteria particularly in Europe.

Regulations aimed at guiding investment flows towards sustainable activities, as well as the growing concern of civil society and stakeholders about climate change, could therefore influence investors in their investment choices and make access to external funding more difficult or costly for TotalEnergies or some of its projects.

If TotalEnergies were unable to obtain adequate financing for its activities from investors, notably in the oil and gas sectors, the significant increase in the cost of financing likely to result from this could hinder its ability to undertake projects in satisfactory economic conditions, impair its financial position or shareholder value.

OPERATIONAL RISKS RELATING TO THE EFFECTS OF CLIMATE CHANGE AND OF EXTREME EVENTS

The effects of climate change and of extreme events may expose TotalEnergies to a cost increase and a disturbance of the continuity of its activities

Climate change and extreme events (natural disasters, pandemics, etc) potentially have multiple effects that could harm TotalEnergies' operations. The increasing scarcity of water could be detrimental to operations, rising sea levels could harm certain coastal activities, and the proliferation of extreme natural or weather events (such as floods, landslides, etc.) could damage onshore and offshore facilities and/or the associated logistical infrastructures.

All these factors could increase the difficulties to operate, as well as the costs of the facilities and adversely affect TotalEnergies' operating income.

Moreover, climate change can expose TotalEnergies to an increase in its costs. For instance, more and more countries are likely to adopt carbon pricing mechanisms to accelerate the transition to a low-carbon economy, which could have an adverse impact on some of the Company's activities and lead to a loss of competitiveness and a cost increase. In Europe, TotalEnergies' industrial facilities participate in the CO_2 emissions trading system (EU-ETS). The financial risk associated with the purchase of these allowances on the market could increase following the reform of the system approved in 2018. This emission allowance market entered its fourth phase in 2021. The share of emissions in the EU-ETS scope not covered by free allowances increases over time from phase to phase, as in the 2021-2030 period (phase 4). At the end of 2023, the price of these allowances was about €80/t CO_2, and TotalEnergies estimates that this price could reach more than €100/t CO_2 in phase 4.

TotalEnergies takes into account a minimum CO_2 price of $100/t (or the current price of a given country, if higher) and beyond 2029, this CO_2 price is inflated by 2%/year. On the assumption that this CO_2 price would be at $200/t, then inflated by 2%/year beyond 2029, *i.e.*, an increase of $100/t compared to the base scenario from this date, TotalEnergies estimates a negative impact around 15% on the discounted present value of all the Company's assets (upstream and downstream).

REPUTATIONAL RISK

TotalEnergies is exposed to a reputational and media scrutiny risk that can damage its reputation

The attention of many stakeholders to major industrial groups is increasing, particularly given the challenges of climate change and the support needed to be put in place in a responsible manner for a just transition. As a major energy player, TotalEnergies faces media scrutiny, mainly from NGOs. This is magnified through the use of social networks.

If TotalEnergies were not in a position to adequately address the concerns of its stakeholders, the public image of the Company and its reputation could be negatively impacted. Hence, the relationships with its counterparties could be affected, its access to markets and its growth could be limited and its financial condition or the price of TotalEnergies shares could be adversely impacted.

RISK OF SKILL MANAGEMENT AND EVOLUTION OF THE PROFESSIONS

TotalEnergies could face difficulties having key skills and talents required in the context of its transition strategy

Maintaining the long-term employability of employees is one of the Company's social challenges and is one of the key factors in the success of the company's project, in the context of a just transition. Deploying the transition strategy of the Company into an integrated energy company requires supporting employees in their skills development and creating bridges between the current business lines and the renewable energy or electricity business lines, in order to have the key skills available at the pace of the transition.

In addition, TotalEnergies' ability to attract, retain and motivate the talents needed for its transition strategy is also a challenge for the Company. Employees and new generations expect companies to be committed to environmental and climate issues and to workplace wellness. These expectations could materialize both in the recruitment process and during careers. Finally, increased competition with fast-growing sectors such as information technology and new energies can make the recruitment and retention of certain key skills more complex.

If TotalEnergies were unable to appropriately address these social challenges, it could face difficulties building the teams required to achieve its transition strategy.

3.1.2 Market environment parameters

SENSITIVITY OF RESULTS TO OIL AND GAS PRICES, REFINING MARGINS, EXCHANGE RATES AND INTEREST RATES

The results of TotalEnergies are sensitive to various market environment parameters, the most significant being oil and gas prices, refining margins, exchange rates and interest rates

Prices for oil and natural gas may fluctuate widely due to many factors over which TotalEnergies has no control, such as:

- international and regional economic and political developments in natural resource-producing regions, particularly in the Middle East, Africa, South America and Russia; along with the security situation in certain regions, the magnitude of international terrorist threats, wars or other conflicts,
- the ability of OPEC and other producing nations to influence global oil and gas production levels and prices,
- prices of unconventional energies as well as evolving approaches for developing oil sands and shale oil, which may affect TotalEnergies' selling prices, particularly in the context of its long-term gas sales contracts, and the valuation of its assets, particularly in North America,
- global economic and financial market conditions,
- regulations and governmental actions,
- variations in global and regional supply of and demand for energy due to changes in consumer preferences or to pandemics such as the COVID-19 pandemic.

Generally, a decline in oil and gas prices has a negative effect on TotalEnergies' results due to a decrease in revenues from oil and gas production. Conversely, a rise in oil and gas prices generally has a positive effect on TotalEnergies' results.

In addition to the adverse effect on revenues, margins and profitability of TotalEnergies, a prolonged period of low oil or natural gas prices may lead TotalEnergies to review its development projects, adjust downward its reported reserves, and revise the price assumptions on which asset impairment tests are based, which could have an adverse effect on its results for the period in which they occur. For additional information on impairments recognized on TotalEnergies' assets, refer to Note 3D to the consolidated financial statements (point 8.7 of chapter 8).

Prolonged periods of low oil and natural gas prices may reduce the economic viability of projects in production or in development and reduce TotalEnergies' liquidity, thereby limiting its ability to finance capital expenditure and/or causing it to cancel or postpone investment projects.

Conversely, in a high oil and gas price environment, TotalEnergies may experience significant increases in costs and government withholdings, and, under some production-sharing contracts, may see its production rights reduced. An increase in prices can also lead to a fall in demand for TotalEnergies' products.

The results of the Refining & Chemicals and Marketing & Services segments are primarily dependent on the supply of and demand for petroleum products and the margins on sales of these products, with a strong dependence on the transportation sector. Changes in oil and gas prices affect results in these segments, depending on the speed at which the prices of petroleum products adjust to reflect movements in oil and gas prices. In markets still impacted by the import ban on petroleum products originating in Russia, TotalEnergies' refining margins continue to be characterized by high volatility.

The activities of trading and shipping (oil, gas and power trading and maritime transportation) are particularly sensitive to market risks and more specifically to price risks resulting from the volatility of oil, gas and electricity prices, to liquidity risk (inability to buy or sell cargoes at market prices) and to counterparty risks (when a counterparty does not fulfill its contractual obligations).

In the context of demand growth driven by emerging countries, military aggression in Ukraine by Russia in February 2022 and the implementation of European sanctions on Russian oil since 5 December 2022 continued to weigh on oil prices in 2023. They have been reinforced by the sustained intervention of the OPEC+ countries through their decision to cut production quotas, keeping oil prices between $80 and $100/b for most of 2023.

Gas prices in Europe (NBP[1]) and Asia (JKM[2]) remained at high levels in 2023, albeit down in 2022.

Electricity demand has experienced a significant rebound since 2010, with global average annual growth around 3.2% between 2010 and 2022[3]. Wholesale electricity prices were set at high levels in 2023, albeit lower than in 2022, in the wake of gas, coal and CO_2 prices, particularly in Europe.

The oil and gas markets continue to be characterized by high volatility.

For fiscal year 2024, in the retained scenarios applied below, TotalEnergies estimates that a change of $10 per barrel in the average annual liquids sales price would lead to a change of approximately $2.3 billion in the same direction in adjusted net operating income[4] for the year and of approximately $2.8 billion in the cash flow from operations excluding working capital (CFFO)[5] for the year. In addition, TotalEnergies estimates that a change in the average annual European gas sale price - NBP/TTF of $2 per Mbtu would result in a change in the same direction in the adjusted net operating income for the year and in the cash flow from operations excluding working capital (CFFO) of approximately $0.4 billion.

The impact of changes in crude oil and gas prices on downstream operations depends on the speed at which the prices of finished products adjust to reflect these changes. TotalEnergies estimates that a change in the European refining margin marker (ERM)[6] of $10 per ton would lead to a change of approximately $0.4 billion in the same direction in adjusted net operating income for the year and of approximately $0.5 billion in the cash flow from operations excluding working capital (CFFO) for the year.

All TotalEnergies' activities are, for various reasons and to varying degrees, sensitive to fluctuations in the dollar exchange rate. TotalEnergies estimates that a year-on-year decrease of $0.10 per euro (strengthening of the dollar against the euro) would increase annual adjusted net operating income by approximately $0.1 billion and would have a limited impact on the cash flow from operations excluding working capital (CFFO) for the year. Conversely, a year-on-year increase of $0.10 per euro (weakening of the dollar against the euro) would decrease adjusted net operating income for the year by approximately $0.1 billion and would have a limited impact on cash flow from operations excluding working capital (CFFO) for the year.

Sensitivities 2024[a]	Change	Estimated impact on adjusted net operating income	Estimated impact on cash flow from operations excluding working capital (CFFO)
Dollar	+/- $0.1 per €	-/+ $0.1 B	~ $0 B
Average liquids sales price[b]	+/- $10/b	+/- $2.3 B	+/- $2.8 B
European gas price - NBP / TTE	+/- $2/MBtu	+/- $0.4 B	+/- $0.4 B
European refining margin marker (ERM)	+/- $10/t	+/- $0.4 B	+/- $0.5 B

(a) Sensitivities are revised once per year upon publication of the previous year's fourth quarter results. Sensitivities are estimates based on assumptions about TotalEnergies' portfolio in 2024. Actual results could vary significantly from estimates based on the application of these sensitivities. The impact of the $-€ sensitivity on adjusted net operating income is essentially attributable to Refining & Chemicals.
(b) Brent environment at $80/b.

In addition, as part of its financing, TotalEnergies is exposed to fluctuations in interest rates. Based on its portfolio of bond debt, short-term debt securities ("commercial paper"), and credit lines available at the level of the Company's central financing entities (undrawn in 2023), TotalEnergies' floating rate debt (after taking into account hedging instruments) was approximately $13.9 billion on average over the course of 2023. Within this portfolio, a fluctuation in the various reference rates, from now mainly the SOFR, of +/- 1% would have resulted in a variation in the cost of debt, the theoretical impact of which on TotalEnergies' adjusted net income and cash flows is estimated at approximately -/+ $0.1 billion.

(1) NBP (National Balancing Point) is a virtual natural gas trading point in the United Kingdom for transferring rights in respect of physical gas and which is widely used as a price benchmark for the natural gas markets in Europe. NBP is operated by National Grid Gas plc, the operator of the UK transmission network.
(2) JKM (Japan-Korea Marker) measures spot LNG trading prices in Asia. It is based on the prices reported in spot market trades and/or bids and offers of LNG collected after the close of the Asian trading day at 16:30 Singapore time.
(3) Source: IEA, February 2023.
(4) Refer to the glossary for the definition and further information on alternative performance measures (Non-GAAP measures) and to point 1.9 of chapter 1 for reconciliation tables.
(5) Refer to the glossary for the definition and further information on alternative performance measures (Non-GAAP measures) and to point 1.9 of chapter 1 for reconciliation tables.
(6) The European Refining margin marker (ERM) is a new market indicator for European refining, introduced from the 1st quarter 2024 to replace the "Variable Cost Margin, European refining". This indicator is be calculated based on public market prices ($/t) with a formula using a basket of crudes, petroleum product yields and variable costs representative of the European refining system of TotalEnergies.

3.1.3 Risks relating to external threats

CYBERSECURITY RISKS

TotalEnergies is exposed to cybersecurity risks that may compromise the integrity or availability of its IT systems or cause losses of sensitive data

The very fast evolution of cyberattack threats exposes TotalEnergies' IT systems and requires a dynamic and proactive management of cybersecurity.

In the current geopolitical context of strong tensions, cyberattacks constitute significant means of destabilization. Moreover, organized crime continues to multiply cyberattacks that are more and more sophisticated and targeted at large companies, in order to maximize profits. As a major economic player, the Company is a potential target.

In 2023, several million attacks were blocked by the Company's IT defense systems and several thousands required the intervention of TotalEnergies' technical teams.

The Company is exposed to constantly evolving cybersecurity risks through diverse attack vectors, such as phishing, malware, human intervention or exploited vulnerabilities in software or hardware. Ransomwares have become one of the biggest threats. They are notably used in cyberattacks targeting the suppliers of large companies, sometimes less protected but benefitting from legitimate access to the IT systems of their clients. Moreover, numerous factors associated with the digital transformation increase the exposure and vulnerability of TotalEnergies' IT systems. The adoption of new technologies such as the Internet of Things, migration to the Cloud, remote working or changes in technical architectures that favor system interconnectivity are factors that increase the range of attacks of the TotalEnergies IT systems. Further, service providers on which the Company relies on for a number of its IT systems may also be the target of cyberattacks that could disrupt the Company's IT systems or cause the loss of sensitive data.

If TotalEnergies and its service providers were unable to detect and remediate cyber-attacks, and more generally to preserve the integrity and availability of its IT systems and sensitive data (which may include confidential information or personal data), TotalEnergies' activities and assets could be affected: services could be interrupted, protected intellectual property rights could be usurped or confidential information or personal data stolen, and in some cases, personal injury, property damage, environmental harm and regulatory violations could occur, which could have an adverse effect on the financial condition and the reputation of the Company and expose it to legal proceedings.

SECURITY RISKS

TotalEnergies is exposed to risks that may jeopardize the security of its personnel, operations and facilities, which may result from acts of malice, violence, terrorism or armed conflicts

In addition to armed conflicts in certain regions or countries where TotalEnergies operates, political, economic and social instability may favor the emergence of acts of malice, violence or terrorism, either by isolated individuals or by more or less organized groups.

TotalEnergies and its partners may therefore be exposed to direct or collateral risks that may jeopardize the safety of their personnel, operations and facilities (plants, industrial or operational sites, transport systems). In particular, major industrial accidents could result.

Depending on their scale, such acts of malice, violence, terrorism or armed conflicts, could cause damage to people, property and/or the environment, and be detrimental to TotalEnergies' operating income, financial situation, and reputation.

3.1.4 Geopolitics and developments in the world

PROTECTIONIST MEASURES AFFECTING FREE TRADE AND ECONOMIC SANCTIONS REGIMES

The development of protectionist measures affecting free trade between nations may have an impact on TotalEnergies' business, its strategy or its financial condition

Against a backdrop of increased geopolitical tensions and of risks of deglobalization and fragmentation between nations in the form of protectionist measures, trade tensions between certain countries contribute to restricting the free trade of goods and services, financial flows, along with international transfers of labor or knowledge.

These tensions, particularly when they require the modification to the contractual framework of partnerships or the operating conditions of projects, are likely to have a negative impact on TotalEnergies' business and its operating income. If TotalEnergies were unable to manage the impacts of these commercial tensions in an appropriate manner, it would potentially incur significant increases in costs for the development of its projects, lose markets, see its production or the value of its assets fall, which could adversely affect its financial situation.

TotalEnergies also faces an increased risk of the imposition of international economic sanctions, as well as a tightening of regulations relating to export controls

Economic sanction regimes, combined with export controls, can target those countries in which TotalEnergies operates, and thus restrict certain types of financing or access to critical technologies, impose restrictions on the import, export or re-export of a number of goods and services, and hinder TotalEnergies' ability to continue its operations. In certain situations, the economic sanctions multiply without being necessarily coordinated at the international level.

In addition to particularly heavy financial sanctions, the breaching of economic sanction regimes adopted by the United States may lead the authorities to impose measures that freeze companies out of the US market, such as a ban on using the US dollar, the currency in which most of TotalEnergies' financings are denominated.

The international economic sanction regimes are described in point 3.2 of this chapter, notably against Russia that were reinforced in the context of the invasion of Ukraine by Russia. The impact of the situation in Russia on the Company is detailed in point 1.9.3 of chapter 1.

DETERIORATION OF OPERATING CONDITIONS

TotalEnergies is exposed to risks related to adverse changes in operating conditions in some geographical areas or strategic countries

A substantial part of TotalEnergies' activities is located in strategic geographical areas or countries that may face conditions of political, geopolitical, social and/or economic instability, or the deterioration of the security conditions. Some of these countries or areas have experienced such situations in recent years, to varying degrees. Whether these conditions appear alone or in combination, they could disrupt TotalEnergies' economic and commercial activities in the countries or geographical areas concerned. In addition, the occurrence of epidemics or pandemics may significantly affect the operating conditions of certain projects or even delay their execution.

In Africa (excluding North Africa), which accounted for 19% of TotalEnergies' 2023 oil and gas production, some of these situations of political, social and/or economic instability arose in countries where TotalEnergies has production, notably in Nigeria, which is one of the main contributing countries to TotalEnergies' production (refer to point 2.3.3 of chapter 2). In the north of Mozambique, given the evolution of the security situation in the Cabo Delgado province where the Mozambique LNG project is being developed, TotalEnergies confirmed on April 26, 2021 the withdrawal of all Mozambique LNG personnel from the Afungi site. This situation led Mozambique LNG to declare force majeure.

In the Middle East and North Africa, which accounted for 31% of TotalEnergies' 2023 oil and gas production, some countries are the setting for political instability that could be associated with violent conflicts and terrorist acts, such as in Libya and Iraq. In Yemen, which is in a state of civil war, the deterioration of security conditions in the vicinity of the Balhaf site caused Yemen LNG, in which TotalEnergies holds an interest of 39.62%, to stop its commercial production and export of LNG and to declare force majeure to its various stakeholders in 2015. The plant has been put in preservation mode.

In South America, which accounted for 10% of TotalEnergies' 2023 oil and gas production, several countries in which TotalEnergies has production have recently experienced political or economic instability, notably Argentina.

In Asia-Pacific, TotalEnergies announced on July 20, 2022 its final withdrawal from Myanmar, repeating its condemnation of the abuses and human rights violations taking place in this country and reaffirming its support to the people of Myanmar (refer to point 2.2.3.3 of chapter 2).

The occurrence and scale of incidents related to political, geopolitical, economic, health or social instability in certain strategic geographical areas or countries may be unpredictable. Such incidents are likely to adversely affect operating conditions, generate cost increases and lead to a significant decline in production, delays in and even halting of certain projects, or the loss of market shares. Such incidents may also expose employees and jeopardize their safety, as well as that of TotalEnergies' facilities. These risks may have an adverse impact on TotalEnergies' operating income and financial condition.

REGULATORY DEVELOPMENTS

The increasing number of regulations, and the constant developments, whether anticipated or not, in the legal and tax frameworks in countries where TotalEnergies operates, may have significant operational and financial effects, jeopardize TotalEnergies' business model and affect the conduct of its business and its financial conditions, especially given the size of TotalEnergies and its international dimension

Conducting its activities in about 120 countries throughout the world, TotalEnergies is subject to increasingly numerous, complex and restrictive laws and regulations, particularly regarding health, safety and the environment, or business ethics, which can generate significant compliance costs. In Europe and the United States, TotalEnergies' sites and products are subject to increasingly stringent laws governing the protection of the environment (water, air, soil, noise, protection of nature, waste management and impact assessments, etc.), health (occupational safety and chemical product risk, etc.), the safety of personnel and residents, product quality and consumer protection.

In some jurisdictions, the legal and fiscal framework of operations may be changed unexpectedly. The application of rights, including contractual rights, may prove uncertain and the economics of projects called into question. The legal and fiscal framework of TotalEnergies' activities, in particular regarding exploration and production, established through concessions, licenses, permits and contracts granted by or entered into with a government entity, a state-owned company or private owners, remains exposed to risks of renegotiation that, in certain cases, can reduce or call into question the protections offered by the initial legal framework and/or the economic benefit to TotalEnergies.

In recent years, in various regions of the world, TotalEnergies has thus seen governments and state-owned companies impose more stringent conditions on companies, increasing the costs and uncertainties of TotalEnergies' business operations. This trend is expected to continue.

Government intervention in such countries, which is likely to increase, may concern various areas, such as:

- the award or denial of rights necessary to explore and exploit oil & gas or renewable resources,
- the imposition of specific drilling obligations,
- price and/or production quota controls and export limits,
- nationalization or expropriation of assets,
- cancellation or unilateral modification of license or contract rights,
- increases in taxes and royalties, including those related to retroactive claims, changes in regulations, tax reassessments and implementation of new mechanisms of taxation,
- the renegotiation of contracts,
- the imposition of increased social and environmental responsibility requirements,
- the imposition of increased local content requirements,
- payment delays, and
- currency exchange restrictions or currency devaluation.

The development of TotalEnergies' new energy activities and those in the electricity sector also expose it to new, essentially local regulations which may change at an unexpected pace.

The increasing number of legal and tax regulations, which are sometimes not very compatible with one another, and the constant changes, whether anticipated or not, in legal and fiscal frameworks in the countries in which TotalEnergies operates create legal instability, which heightens the risk of legal proceedings and promotes an increase in the number of national or transnational disputes. They may have the effect of causing a material increase in tax withholdings and customs duties, as well as costs relating to operations, thus affecting the profitability of projects or the economic value of a number of TotalEnergies assets, or even oblige TotalEnergies to shorten, change and/or stop certain activities or to implement temporary or permanent site closures.

If TotalEnergies were unable to anticipate changes in regulations and legal and tax frameworks or comply with them in time in one or more countries in which it operates, TotalEnergies could face increased litigation, be forced to modify and/or stop some of its activities, which could lead to a downturn in the profitability of certain projects and adversely affect its financial condition and reputation.

3.1.5 Risks relating to operations

HSE: RISK OF MAJOR ACCIDENT OR DAMAGE TO THIRD PARTIES AND THE ENVIRONMENT

TotalEnergies' activities entail multiple operational risks such as the risk of a major industrial accident, or damage to third parties or to the environment

TotalEnergies must face the risk of a major industrial accident both at its sites and during transport (by sea or land), or during activities related to its operations.

TotalEnergies' Upstream activities are exposed, during drilling and production operations, to risks related to the properties of oil and gas fields, which can cause blow outs, explosions, fires or other events in particular to the environment, and can lead to a disruption or interruption of TotalEnergies' operations and limit its production. The activities of the Integrated LNG, Integrated Power, Refining & Chemicals and Marketing & Services business segments are also subject to the risk of a major industrial accident such as fires, explosions, significant damage to the environment, as well as risks related to the overall life cycle of the products manufactured, and the materials used. In addition to its drilling and pipeline transport operations, TotalEnergies had identified, at year-end 2023, 177 sites and operating zones more exposed to significant industrial accidents, given the quantity and potential harmfulness of the products used, and to damages to persons, goods and the environment.

The conduct of TotalEnergies' activities, and the nature of some of the products sold, may also entail risks of direct and repeated exposure which have longer-term effects on health and the environment (soil, air, water).

TotalEnergies' entities and their legal representatives may be exposed to legal proceedings, notably in the event of damage to human life, bodily injury and material damage, chronic damage to health and environmental damage. Such proceedings could also damage TotalEnergies' reputation.

The crisis management plans put in place at TotalEnergies level and at subsidiary level to cope with emergency situations may not be able to minimize the impacts on third parties, health or the environment, or exclude the risk that TotalEnergies' business and operations may be severely disrupted in a crisis situation. An inability for TotalEnergies to resume its activities in a timely manner could prolong the impact of any disruption and thus could have an adverse effect on its financial condition.

TotalEnergies is not insured against all potential risks, and if a major industrial accident were to occur, TotalEnergies' liability could exceed the maximum coverage provided by its third-party liability insurance. TotalEnergies cannot guarantee that it will not suffer any uninsured loss, and there can be no guarantee that such loss would not have an adverse effect on TotalEnergies' financial condition and its reputation (refer to point 3.4).

DEVELOPMENT OF MAJOR PROJECTS

TotalEnergies' energy production growth and profitability depend on the delivery of its major development projects

TotalEnergies is engaged in large development projects in the upstream, or in the decarbonized energies, in particular in solar energy and onshore and offshore wind power.

Growth of energy production and profitability of TotalEnergies rely heavily on the successful execution of those major development projects that are increasingly complex and capital-intensive. These major projects, as any other projects, may be affected by the occurrence of a number of difficulties, including, in particular, those related to:

- the extra-financial requirements of stakeholders ,
- economic or political risks, including threats specific to a certain country or region, such as terrorism, social unrest or other conflicts,
- negotiations with partners, governments, local communities, suppliers, customers and other third parties,
- obtaining project financing,
- controlling capital expenditure and operating costs,
- earning an adequate return on investment in a low price environment (oil, gas and energy prices, etc.),
- respecting project schedules,
- difficulties in supplying the necessary goods and services, and
- the timely issuance or renewal of permits and licenses by public agencies.

Failure to deliver any major project that underpins TotalEnergies' energy production or its growth could have a material adverse effect on TotalEnergies' financial condition.

BUSINESS ETHICS

Ethical misconduct or non-compliance of TotalEnergies, its employees or third parties acting in its name and/or on its behalf with applicable laws and regulations in particular concerning corruption or fraud may expose TotalEnergies to criminal and civil proceedings and be damaging to its reputation and shareholder value

In the energy sector, generally considered as strategic, where the amounts invested can be very substantial, governments and public authorities are the leading counterparties. TotalEnergies is present in about 120 countries, some of which have a high perceived level of corruption according to the index established by Transparency International. TotalEnergies advocates a zero tolerance principle for fraud of any kind, particularly corruption and influence peddling.

Non-compliance with laws and regulations as well as ethical or human rights misconduct by TotalEnergies, its employees or a third party acting on its behalf could expose TotalEnergies and/or its employees to investigations, administrative or legal proceedings, criminal and civil sanctions and to additional penalties (such as debarment from public procurement). Further measures could, depending on applicable legislation (notably the US Foreign Corrupt Practices Act, the French law No. 2016-1691 dated December 9, 2016, relating to transparency, the fight against corruption and the modernization of the economy or Regulation (EU) 2016/679 relating to the protection of personal data), be imposed by competent authorities, such as the review and reinforcement of the compliance program under the supervision of an independent third party. Any of the above may be damaging to the financial condition, shareholder value or reputation of TotalEnergies (also refer to point 3.6).

INTEGRATION OF STRATEGIC ACQUISITIONS

The integration of an asset or a company that presents a strategic interest for TotalEnergies may not produce the effects initially expected

TotalEnergies has made and may make further acquisitions in various geographical markets, in various activities, and with companies of various sizes, in particular in the decarbonized energies sector.

Acquisitions made by TotalEnergies stood at a total of $6.4 billion in 2023 (refer to point 1.5 of chapter 1).

Acquisitions present many challenges (synergies, governance, operating model, key employees, sufficient availability of TotalEnergies' teams) and require specific adaptation on a case-by-case basis.

If TotalEnergies were unable to integrate the acquired assets under the planned conditions, achieve the expected synergies, retain and integrate the key employees of the newly acquired companies, or if TotalEnergies had to bear liabilities that were not yet identified or appropriately assessed at the time of the transaction, then TotalEnergies' financial condition and reputation could be adversely affected.

SUPPLY CHAIN MANAGEMENT

TotalEnergies faces various risks related to its supply chain management

TotalEnergies' supply chain is especially wide, with a network of over 100,000 suppliers of goods and services over more than 150 countries.

TotalEnergies is exposed to various risks in the management of its supply chain, in particular in a context of geopolitical tensions or pandemics (containment measures or closure of borders) impacting a geographical area or a country representing, for the Company, a significant source of supply.

Disruptions or interruption of its supply chain (e.g.: insufficient inventories, unavailability of raw materials, lack of personnel, transport difficulties, suppliers' vulnerabilities in financial and cybersecurity terms) can lead of an increase in costs and/or delays impacting the continuation of certain activities or projects.

TotalEnergies may also be exposed if a supplier fails to comply with the Company's regulations or requirements, particularly with respect to extra-financial issues.

If the Company did not ensure that its supply chain is sufficiently diversified, or did not select suppliers in adequation with its requirements, TotalEnergies could be negatively impacted on the management of its operations or projects, its financial condition and its reputation.

EXPOSURE TO PARTNERSHIPS

TotalEnergies could inadequately manage or anticipate the multiplication and diversification of the partnerships that it implements for its activities

Almost all upstream projects and an increasing number of projects undertaken by TotalEnergies' other business segments, are carried out through partnerships (including joint ventures) in all of the areas in which the Company operates. In some countries, specifically in Africa, legislation and/or the authorities make TotalEnergies' presence conditional on the establishment of a joint venture with a local company. Some partnerships include companies exposed to specific risks linked to the financial markets, such as Clearway Energy or Adani Group.

A partnership's success depends on many factors, primarily the quality of the partner (specifically technical skills and financial capacity), the quality of agreements negotiated, and the efficiency of the governance framework implemented. Inappropriate or incomplete contractual agreements, or a partner's breaching of its obligations, specifically those that are financial, legal or ethical, may harm or prevent the development of projects, give rise to disputes and damage TotalEnergies' reputation.

Projects developed in partnership may be operated by TotalEnergies, by the partners, or by joint ventures set up for this purpose in the form of a company or via contractual agreements. In cases where TotalEnergies' companies are not operators, these companies may have limited influence over, and control of, the behavior, performance (including extra-financial) and costs of the partnership, and their ability to manage risks may be limited. Even when they are not operators, TotalEnergies companies may be sued by the authorities or by plaintiffs.

If the Company did not choose high-quality partners or failed to manage its partnerships in an optimum way or to establish an appropriate governance framework, TotalEnergies could suffer profitability losses at the level of its projects, be obliged to incur costs in relation to potential litigation and face the risk of damage to its reputation.

3.1.6 Innovation

TECHNOLOGICAL DEVELOPMENTS AND DIGITAL TRANSFORMATION

TotalEnergies could fail to anticipate appropriately the technological changes related to its main markets, the expectations of its customers and changes in its competitive environment or in certain business models, or its ambition of carbon neutrality in 2050 and its commitment for sustainable development or may not respond to them in an appropriate way and at an appropriate pace

TotalEnergies' activities are carried out in a constantly changing environment with new products, new players, new business models, new technologies and new climate challenges. TotalEnergies must anticipate these changes, understand the market's challenges, identify and integrate technological developments in order to maintain its competitiveness, maintain a high level of performance and operational excellence, best meet the needs and demands of its customers and prepare for the future while integrating the climate and sustainable development challenges. TotalEnergies' innovation policy requires significant investments, notably in R&D, the expected benefits of which cannot be guaranteed.

An unsuitable pace of innovation or a technological or market development that is unforeseen or uncontrolled could have a negative effect on TotalEnergies' market shares, its profitability, its reputation, and its ability to attract the necessary human resources.

TotalEnergies could be unable to manage its digital transformation at a suitable pace, or on the right scale, which could have an impact on its business model, its organization, its competitiveness, its climate plan and the sustainable development commitments

Across the entire value chain, digital transformation acts on the interaction between TotalEnergies and its markets. TotalEnergies seeks to benefit from digital technology to improve its industrial operations, in terms of availability, costs or performance, to offer new services to customers notably in the area of managing and optimizing energy consumption, to develop in new decentralized and decarbonized energies, and to reduce its environmental impact. TotalEnergies also seeks to integrate digital including artificial intelligence into its operations to improve their efficiency and enable activities and investments to be managed with enhanced performance and agility.

An insufficient pace or capacity to tailor TotalEnergies' organization and skills to the digital transformation could have a negative effect on its financial condition, its reputation, and on its ability to attract and train the necessary human resources.

3.2 Countries under economic sanctions

Economic sanctions or other restrictive measures could target countries, such as Cuba, Iran, and Syria and/or target actors or economic sectors, such as in Russia or in Venezuela.

US and European economic sanctions applicable to the activities of TotalEnergies and information concerning TotalEnergies' activities related to certain targeted countries are set forth in points 3.2.1 and 3.2.2, respectively.

3.2.1 US and European economic sanctions

TotalEnergies closely monitors the different applicable economic sanctions regimes, including those adopted by the United States ("US") and the European Union ("EU") (collectively, the "Sanctions Regimes"), their developments and potential impacts on the Company's activities and takes the necessary steps to ensure compliance with applicable Sanctions Regimes. However, TotalEnergies cannot guarantee that current or future regulations related to Sanctions Regimes will not have a negative impact on its business, financial condition or reputation, nor that a failure to implement the Company's compliance program by its affiliates couldn't result in criminal, civil and/or material financial penalties.

A. Cuba

The United States imposes a sanctions regime against Cuba that prohibits, in general, any US person(1) from engaging, directly or indirectly, in any dealings or activities related to Cuba.

TotalEnergies held an interest in a liquefied petroleum gas (LPG) cylinder filing plant in Cuba since 1997, in accordance with the economic sanctions regime imposed by the United States. The sale of its interest was effective on January 6, 2022. As of such date, TotalEnergies no longer has any assets or operations in Cuba.

B. Iran

Several countries and international organizations, including the United States and the EU, apply Sanctions Regimes of varying degrees targeting Iran.

On July 14, 2015, the EU, China, France, Russia, the United Kingdom, the United States and Germany entered into an agreement with Iran, known as the Joint Comprehensive Plan of Action (the "JCPOA"), regarding limits on Iran's nuclear activities and relief under certain US, EU and U.N. economic sanctions regarding Iran. Therefore, as from that date, U.N. economic sanctions, most US secondary sanctions (i.e., those covering non-US persons for activities outside US jurisdiction) and most EU economic sanctions were suspended(2).

Following the withdrawal of the United States from the JCPOA in May 2018, US secondary sanctions concerning the oil industry were re-imposed as of November 5, 2018.

In July 2017, TotalEnergies signed a contract for a period of 20 years with the National Iranian Oil Company ("NIOC") relating to the development and production of phase 11 (SP11)(3) of the giant South Pars gas field. TotalEnergies withdrew from this project and finalized its withdrawal on October 29, 2018. TotalEnergies ceased all operational activity in Iran before November 4, 2018. TotalEnergies has had no operational activity in Iran since the re-imposition of US secondary sanctions on the oil industry as of November 5, 2018.

Refer to point 3.2.2 below for information concerning Section 13(r) of the Securities Exchange Act of 1934, as amended, pertaining to activities related to Iran carried out by TotalEnergies in 2023.

C. Russia

Since July 2014, further to the annexation by Russia of Crimea and Sevastopol, Sanctions Regimes have been adopted against Russia, including prohibitions on transacting or dealing with certain Russian individuals and entities, as well as restrictions on investments, financings, exports and the re-exportation of certain goods towards Russia.

Since the end of February 2022, Russia's invasion of Ukraine led European and American authorities to adopt several new sets of sanctions against Russia and Belarus within their Sanctions Regimes. These sanctions provide for the freezing of assets within the EU or the United States of certain number of Russian and Belarusian individuals and entities (sanctioned individuals and entities) and a prohibition to make funds or economic resources available to them, or in regard of the US sanctions, a prohibition for US persons to deal with such sanctioned individuals and entities. Sanctions target also the financial sector including a prohibition on access to the SWIFT system for certain Russian financial institutions. Other sanctions provide for restrictions in certain sectors such as the energy sector as well as restrictions to export and import for certain types of goods and services, from or to Russia.

Among the different sets of sanctions adopted by the EU, those adopted on March 15, 2022 prohibit in particular to grant any new loans, credits or financing to any entity operating in the energy sector in Russia without, however, prohibiting the payments made pursuant to financing arrangements entered into before these sanctions were enacted. The restrictions and sanctions imposed by the EU authorities against the Russian financial sector make it more difficult for financial flows between Russia and entities and banks established in the European Union to take place. Under the countermeasures enacted by the Russian authorities since February 2022, financial flows to foreign shareholders are subject to the approval of the Ministry of Finance/Russian Central Bank.

On June 3, 2022, the EU authorities adopted sanctions prohibiting the purchase, import or transfer of crude oil and certain petroleum products of Russian origin into the EU as from December 5, 2022 for crude oil and as from February 5, 2023 for petroleum products. To date, an exception has been granted for imports of Russian crude oil by pipeline into most of EU member states.

(1) "US person" means any US citizen, dual nationality and permanent resident alien wherever located in the world, entity organized under the laws of the United States or any jurisdiction within the United States, including foreign branches, as well as foreign subsidiaries for certain sanctions regimes or any person or entity located in the United States.
(2) Certain US and EU human rights-related and terrorism-related sanctions remain in force.
(3) TotalEnergies was an operator of the SP11 project and held 50.1% alongside with the national Chinese company China National Petroleum Corporation ("CNPC") (30%) and Petropars (19.9%), a wholly-owned subsidiary of NIOC.

The sanctions adopted by the US authorities since February 2022 have comparable consequences with those adopted by the EU authorities. The US sanctions prohibit the importation into the United States of crude oil, petroleum products and Liquefied Natural Gas (LNG) of Russian origin and prohibit US persons from making or financing new investments in Russian energy projects.

On September 2, 2022, the G7 members[1] announced their joint intention to implement a price cap on Russian-originated crude oil and petroleum products, and to prohibit companies from providing certain services in connection with the marine transportation of crude oil and petroleum products of Russian origin, unless such products are sold at or below the cap price. Therefore, the EU and the US have introduced in their respective Sanctions Regimes an exception of the prohibition on trading, brokering and transporting, and providing certain services related to such activities, of Russian crude oil, as of December 5, 2022, or Russian petroleum products, as of February 5, 2023, transported by sea to third countries (outside the EU and outside the United States), when such products are purchased at a price equal to or lower than the price cap. These restrictions do not apply under EU regulation to condensate gas from LNG production from gas fields in Russia. Compliance with the price cap does not affect the prohibition of imports of Russian oil and Russian petroleum products by sea into the EU and the US, which remain prohibited.

As of the date of this document, the sanctions adopted by the EU authorities do not restrict the ability of Novatek[2] and Yamal LNG[3], of which TotalEnergies is a minority shareholder, to produce and sell gas (including LNG and condensate gas), nor do they restrict the ability of European buyers (or others) to purchase gas (only imports of LNG of Russian origin to the US and to the United Kingdom are prohibited).

More specifically, the EU sanctions adopted since the end of February 2022 have included the designation of one of the minority shareholders of Novatek as sanctioned person (asset freezing). This minority shareholder was already designated under the US sanctions from 2014. In accordance with Sanctions Regimes' rules, these designations however have no impact on Novatek, or on the Yamal LNG and Arctic LNG 2 projects. Novatek is not targeted by EU sanctions, but only by US financial restrictions dating back to 2014, which also apply to Yamal LNG and Arctic LNG 2.

Concerning the financing of Yamal LNG and Arctic LNG 2 projects, some Russian banks involved in those projects have been targeted by European and/or American sanctions, which have had the effect, depending on the case, of either freezing their assets or blocking the opening or maintenance of accounts or the processing of transactions involving them. TotalEnergies has put in place the necessary measures to comply with the European sanctions, obtaining the required temporary authorizations from the French competent authorities. These sanctions have also led Yamal LNG and/or Arctic LNG 2 to replace certain banks targeted by sanctions by other non-sanctioned banks.

The American Office of Foreign Assets Control (OFAC) designated, on September 14, 2023 and November 2, 2023, respectively, Arctic Transshipment and Arctic LNG 2 as Specially Designated Nationals with immediate effect subject to temporary exceptions under licenses issued by the OFAC. As a consequence of these designations, US persons are prohibited to deal with those two entities. All non-US persons are exposed to the risk of US secondary sanctions if they provide material support to these entities. Since April 18, 2023, TotalEnergies EP Transshipment has not participated in any governance body and has not paid any cash calls to Arctic Transshipment. The Company is party to an LNG purchase contract with Arctic LNG 2, for which the Company had indicated that it could not terminate it early without exposing itself financially to significant consequences in the absence of economic sanctions, and that it would exercise the force majeure clauses provided for in the contract to interrupt it if sanctions were imposed. On November 2, 2023, Arctic LNG 2 was placed under sanctions by the US authorities. As a result, in accordance with what it announced, on November 7, 2023, TotalEnergies initiated the contractual suspension procedure provided for in the Arctic LNG 2 shareholders' agreement and the force majeure procedure for the LNG purchase contract with Arctic LNG 2. Upon notification of these procedures, TotalEnergies' rights and obligations under these contracts were suspended.

TotalEnergies has put in place the appropriate measures to comply with the Sanctions Regimes. An analysis of the impacts for TotalEnergies of the applicable Sanctions Regimes, as well as the Russian countermeasures, is carried out continuously.

TotalEnergies reaffirmed, on several occasions, its firmest condemnation of Russia's military aggression against Ukraine. In order to act in a responsible manner, on March 22, 2022, TotalEnergies publicly shared its principles of conduct for managing its Russian related businesses, and it stopped by end of 2022 purchasing Russian crude oil and Russian petroleum products.

The specific context of **Russia** and its consequences on TotalEnergies are detailed in point 1.9.3 of chapter 1.

D. Syria

The EU adopted measures in 2011 regarding trade with and investment in Syria that are applicable to European persons and to entities constituted under the laws of an EU Member State, including, notably, a prohibition on the purchase, import or transportation from Syria of crude oil and petroleum products. The United States also has adopted comprehensive measures that broadly prohibit trade and investment in and with Syria.

Since 2011, TotalEnergies ceased its activities that contributed to oil and gas production in Syria and has not purchased hydrocarbons from Syria since that time (refer to point 3.2.2 of this chapter).

E. Venezuela

Since 2014, different Sanctions Regimes were adopted relating to Venezuela, including measures that prohibit dealings with certain Venezuelan individuals and entities, as well as restrictions on financings.

TotalEnergies, through its subsidiary TotalEnergies EP Venezuela, held a 30.32% non-operated minority interest in Petrocedeño S.A. which it transferred in July 2021 to Corporación Venezolana del Petróleo, S.A., an affiliate of Petróleos de Venezuela S.A. (PdVSA). TotalEnergies also sold its interest of 69.50% in the Yucal Placer field, operated by the company Ypergas S.A.[4]. The sale of TotalEnergies' participation and interests in the Yucal Placer field and in the company Ypergas was effective from July 14, 2022. TotalEnergies also returned the license of Plataforma Deltana block 4 (49%) on August 12, 2022.

TotalEnergies managed the sale of its interests in Venezuela in compliance with applicable Sanctions Regimes.

Since then, TotalEnergies no longer has any assets or operations in Venezuela.

(1) The G7 is comprised of the following member states: Canada, France, Germany, Italy, Japan, the UK, and the US.
(2) Novatek is a Russian company listed on the Moscow stock exchange, and in which TotalEnergies held an interest of 19.40% as of December 31, 2023.
(3) Yamal LNG is a Russian company jointly owned by Novatek, TotalEnergies EP Yamal (20.02%), YAYM Limited, and China National Oil and Gas Exploration Development Company (CNODC), a subsidiary of CNPC, as of December 31, 2023.
(4) Ypergas S.A. is a Venezuelan company owned by TotalEnergies Holdings Nederland B.V. (37.33%) before the sale of its interests.

3.2.2 Information concerning certain limited activities related to certain countries under sanctions

The information concerning TotalEnergies activities related to Iran that took place in 2023 provided in this section is disclosed pursuant to Section 13(r) of the Securities Exchange Act of 1934, as amended.

In addition, information for 2023 is provided concerning the payments made by TotalEnergies' affiliates to, or additional cash flow that operations of TotalEnergies affiliates generate for, governments of any country identified by the United States as a state sponsor of terrorism (in 2023, Cuba, Iran, North Korea and Syria) or any entity controlled by those governments.

TotalEnergies is not present in North Korea. Other than fees related to the renewal of the registration of an international trademark with the World Intellectual Property Organization (WIPO) (which includes North Korea as a member state) paid in 2023, TotalEnergies is not aware of any of its activities having resulted in payments to, or additional cash flow for, the government of this country in 2023.

TotalEnergies believes that these activities are not subject to sanctions under an economic sanctions regimes, including those adopted by the United States and the European Union ("EU") (collectively, the "Sanctions Regimes").

A. Cuba

Integrated Power

In 2023, TotalEnergies Electricité et Gaz France, a wholly owned subsidiary, supplied electricity to the Cuba Embassy in France, located in Paris and Ville d'Avray. This activity generated a gross turnover of approximately €59 298 (without taxes) and a net margin of approximately €1,566 in 2023. TotalEnergies Electricité et Gaz France expects to continue this activity in 2024.

Marketing & Services

As mentioned in section 3.2.1, TotalEnergies had an interest in a liquefied petroleum gas (LPG) cylinder filing plant in Cuba since 1997, in compliance with the economic sanctions regime imposed by the United States. Such interest was sold on January 6, 2022. TotalEnergies did not receive any revenues or net income in 2023 from this interest. Since then, TotalEnergies no longer has any assets or operations in Cuba.

In 2023, TotalEnergies Marketing France, a wholly owned subsidiary, provided fuel payment cards to be used in TotalEnergies' service stations to the Cuban Embassy located in Paris (France). This activity generated a gross turnover of approximately €14,506 (without tax) and a net profit of approximately €1,749 in 2023. TotalEnergies Marketing France expects to continue this activity in 2024.

Trademarks

In 2023, TotalEnergies made small payments to Cuban authorities related to the maintenance and protection of trademarks and designs in Cuba and may make similar small payments in 2024. These payments are not prohibited by applicable Sanctions Regimes.

B. Iran

TotalEnergies' operational activities related to Iran were stopped in 2018 following the withdrawal of the United States from the Joint Comprehensive Plan of Action (JCPOA) in May 2018 and prior to the re-imposition of US secondary sanctions on the oil industry as of November 5, 2018.

Statements in this section concerning companies controlled by TotalEnergies SE intending or expecting to continue activities described below are subject to such activities continuing to be permissible under applicable Sanctions Regimes.

Exploration & Production

The Tehran branch office of Total E&P South Pars S.A.S., a wholly-owned subsidiary, which opened in 2017 for the purposes of the development and production of phase 11 of the South Pars gas field, ceased all operational activities prior to November 1, 2018. In addition, since November 2018, Total Iran BV maintains a local representative office in Tehran (three employees as of December 2023) solely for non-operational functions.

Concerning payments made to Iranian entities in 2023, Total Iran BV and Elf Petroleum Iran collectively made payments of approximately IRR 4.408 billion (€96,706[1]) to the Iranian administration for taxes and social security contributions concerning the staff of this representative office. None of these payments were executed in US dollars.

Since November 30, 2018, TotalEnergies E&P UK Limited ("TEP UK"), a wholly owned subsidiary, holds a 1% interest in a joint venture relating to the Bruce field in the United Kingdom (the "Bruce Field Joint-Venture") with Serica Energy (UK) Limited ("Serica") (98%, operator) and BP Exploration Operating Company Limited ("BPEOC") (1%), following the completion of the sale of 42.25% of TEP UK's interest in the Bruce Field Joint-Venture on November 30, 2018 pursuant to a sale and purchase agreement dated August 2, 2018 entered into between TEP UK and Serica.

The Bruce Field Joint-Venture is party to an agreement governing certain transportation, processing and operation services provided to another joint venture at the Rhum field in the UK (the "Bruce Rhum Agreement"). The licensees of the Rhum field are Serica (50%, operator) and the Iranian Oil Company UK Ltd ("IOC UK"), a subsidiary of NIOC (50%), an Iranian government-owned corporation. Under the terms of the Bruce Rhum Agreement, the Rhum field owners pay a proportion of the operating costs of the Bruce field facilities calculated on a gas throughput basis.

In November 2018, the US Treasury Department's Office of Foreign Asset Control ("OFAC") granted a conditional license to BPEOC and Serica authorizing provision of services to the Rhum field following the re-imposition of US secondary sanctions. The principal condition of the license is that the ownership of shares in IOC UK by Naftiran Intertrade Company Limited (the trading branch of the NIOC) are transferred into and held in a Jersey-based trust, thereby ensuring that the Iranian government does not derive any economic benefit from the Rhum field so long as US sanctions against these entities remain in place. IOC UK's interest is managed by an independent management company established by the trust and referred to as the "Rhum Management Company" ("RMC"). If necessary, TEP UK liaises with RMC in relation to the Bruce Rhum Agreement and TEP UK expects to continue liaising with RMC on the same basis in 2024.

(1) Converted using the average exchange rate for fiscal year 2023, as published by the Central Bank of Iran.

In January 2021, OFAC renewed the conditional license to Serica authorizing the provision of services to the Rhum field, until January 31, 2023, subject to early termination if the trust arrangements described above should terminate. In addition, OFAC confirmed that, to the extent that the license remains valid and Serica represents that the conditions set out in the license are met, activities and transactions of non-US persons involving the Rhum field or the Bruce field, including in relation to the operation of the trust, IOC UK and RMC will not be exposed to US secondary sanctions with respect to Iran. Following an application filed with OFAC on November 9, 2022, Serica received in January 2023 the renewal of its license until January 31, 2025.

IOC UK's share of costs incurred under the Bruce Rhum Agreement has been paid to TEP UK in 2023 by RMC. In 2023, based upon TEP UK's 1% interest in the Bruce Field Joint Venture and income from the net cash flow sharing arrangement with Serica, gross revenue to TEP UK from IOC UK's share of the Rhum field resulting from the Bruce Rhum Agreement was approximately £380,000. This amount was used to offset operating costs on the Bruce field and as such, generated no net profit to TEP UK. TEP UK expects to continue this activity in 2024.

TEP UK is also party to an agreement with Serica whereby TEP UK uses reasonable endeavors to evacuate Rhum NGL from the St Fergus Terminal (the "Rhum NGL Agreement"). TEP UK provides this service subject to Serica having title to all of the Rhum NGL to be evacuated and Serica having a valid license from OFAC for the activity. The service is provided on a cost basis, and TEP UK charges a monthly handling fee that generates an income of approximately £106,750 per annum relating to IOC UK's 50% interest in the Rhum field. After costs, TEP UK generates little profit from this arrangement. TEP UK expects to continue this activity in 2024.

Integrated Power

In 2023, TotalEnergies Electricité et Gaz France, a wholly owned subsidiary, supplied electricity to the Iranian Embassy in Paris (France). This activity generated a gross turnover of approximately €12,447 (without taxes) and a net margin of approximately €270 in 2023. TotalEnergies Electricité et Gaz France does not expect to continue this activity in 2024.

Marketing & Services

In 2023, TotalEnergies Marketing France, a wholly owned subsidiary, provided fuel payment cards to be used in TotalEnergies' service stations to the Iranian Embassy and the Iranian delegation to UNESCO located in Paris (France). This activity generated a gross turnover of approximately €14,948 (without tax) and a net profit of approximately €1,784 in 2023. TotalEnergies Marketing France expects to continue this activity in 2024.

In 2023, TotalEnergies Marketing Belgium, a wholly owned subsidiary, provided fuel payment cards to be used in TotalEnergies' service stations to the Iranian Embassy located in Brussels (Belgium) until end of October 2023. This activity generated a gross turnover of approximately €9,231 (without tax) and a net profit of approximately €1,121 in 2023. Starting on November 2023, this activity was transferred to TotalEnergies Retail Belgium (a wholly owned subsidiary until January 3, 2024, date on which the Company's interest was reduced to 40%) and generated a gross turnover of approximately €1,863 (without tax) and a net profit of approximately €241 in 2023. TotalEnergies Retail Belgium expects to continue this activity in 2024.

Patents & Trademarks

In 2023, TotalEnergies paid €106 to the Iranian authorities related to abandoned patents. TotalEnergies no longer has any patents in Iran and does not expect to make any similar payments in 2024.

In 2023, TotalEnergies made small payments to Iranian authorities related to the maintenance and protection of trademarks and designs in Iran and may make similar small payments in 2024. These payments are not prohibited by applicable Sanctions Regimes.

C. Syria

Since early December 2011, TotalEnergies ceased its activities that contributed to oil and gas production in Syria and maintained a local office solely for non-operational functions. In late 2014, TotalEnergies initiated a downsizing of its Damascus office and reduced its staff to a few employees. Following the termination of their employment contracts in May 2019, the Damascus office was closed.

Marketing & Services

In 2023, TotalEnergies Marketing Belgium, a wholly owned subsidiary, provided fuel payment cards to be used in TotalEnergies' service stations to the Syrian's delegation to the European Union located in Brussels (Belgium) until end of October 2023. This activity generated a gross turnover of approximately €2,449 (without tax) and a net profit of approximately €293 in 2023. Starting on November 2023, this activity was transferred to TotalEnergies Retail Belgium (a wholly owned subsidiary until January 3, 2024, date on which the Company's interest was reduced to 40%) and generated a gross turnover of approximately €463 (without tax) and a net profit of approximately €56 in 2023. TotalEnergies Retail Belgium expects to continue this activity in 2024.

Trademarks

In 2023, TotalEnergies made small payments to Syrian authorities related to the maintenance and protection of trademarks and designs in Syria and may make similar small payments in 2024. These payments are not prohibited by applicable Sanctions Regimes.

3.3 Internal control and risk management procedures

The following information was prepared by the Audit & Internal Control Division with the support of several functional divisions of the Company, in particular the Finance and Strategy & Sustainability Divisions, to which the Legal and Audit & Internal Control Divisions are attached. It was reviewed by the Audit Committee and then approved by the Board of Directors.

3.3.1 Fundamental elements of the internal control and risk management systems

TotalEnergies is structured around its various business segments, to which the operational entities report. The business segments' management is responsible, within its area of responsibility, for ensuring that operations are carried out in accordance with the strategic objectives defined by the Board of Directors and General Management. The functional divisions at the Holding level help General Management define norms and standards, oversee their application and monitor activities. They also lend their expertise to the operational divisions.

TotalEnergies' internal control and risk management systems are structured around this organization at three levels - the Holding, business segments and operational entities - with each level being directly involved and accountable in line with the level of delegation determined by General Management.

General Management constantly strives to maintain an efficient internal control system, based on the framework of the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In this framework, internal control is a process intended to provide reasonable assurance that the objectives related to operations, reporting and compliance with applicable laws and regulations are achieved. As for any internal control system, it cannot provide an absolute guarantee that all risks are completely controlled or eliminated.

The COSO framework is considered equivalent to the reference framework of the French Financial Markets Authority (*Autorité des marchés financiers* - AMF). TotalEnergies has also chosen to rely on this framework in the context of its obligations under the Sarbanes-Oxley Act. TotalEnergies' internal control and risk management systems are therefore built around the five components of this framework.

TotalEnergies' risk management system draws on the main international standards (COSO Enterprise Risk Management integrated framework, ISO 31000: 2018 – Risk management) as well as on French standards (Reference framework of the French Financial Markets Authority). The internal directive on the Principles of Risk Management, Internal Control and Auditing forms the common framework on which TotalEnergies relies to implement control on its activities.

TotalEnergies' internal control and risk management systems cover the processes of the fully consolidated entities. Regarding acquisitions, TotalEnergies' control environment is implemented in the acquired entities after a critical analysis of their own systems.

The principles of control fit into the framework of the rules of corporate governance. In particular, these rules task the Board of Directors' Audit Committee with monitoring the effectiveness of the internal control and risk management systems and of the internal audit, particularly as regards the procedures for preparing and dealing with accounting, financial and extra-financial reporting.

Approximately 400 employees monitor the internal control systems within TotalEnergies. The assessment of the internal control and risk management system is mainly overseen by the Audit & Internal Control Division, which belongs to the Strategy & Sustainability Division.

3.3.2 Control environment

BUSINESS INTEGRITY AND ETHICS

TotalEnergies' control environment is based primarily on its Code of Conduct, which spells out the Company's five values, including Respect for Each Other, which is reflected in the areas of integrity (fraud and corruption), respect for human rights, as well as the environment and health. The principles of the Code of Conduct are set forth in a number of guides, such as the Business Integrity Guide and the Human Rights Guide. These documents are distributed to employees and are available on the intranet. They also set out the rules of individual behavior expected of all employees in the countries where TotalEnergies is present. Similarly, a Financial Code of Ethics sets forth the obligations applicable to the Chairman and Chief Executive Officer, the Chief Financial Officer, the Vice President of the Corporate Accounting Division and the financial and accounting officers of the principal activities of TotalEnergies.

As a priority of General Management, compliance programs are deployed at TotalEnergies level, in particular for the prevention of corruption, fraud and infringement of competition law, as well as for compliance with applicable economic sanctions. The programs covering anti-corruption, anti-fraud and compliance with economic sanctions include reporting and control actions (compliance reviews and audits). The Compliance network, coordinated by the Branch Compliance Officers, comprises more than 360 Compliance Officers, whose role is to ensure the deployment and coordination of the program within the subsidiaries. Ethical assessments are also conducted (refer to point 5.7 of chapter 5). In the areas of business integrity and ethics, TotalEnergies relies on the Compliance network, the Ethics Officers' network and the Ethics Committee, which plays a key role in listening and providing assistance.

GOVERNANCE, AUTHORITIES AND RESPONSIBILITIES

The Board of Directors, with the support of its Committees, ensures that the internal control functions are operating properly. The Audit Committee monitors the effectiveness of the internal control and risk management systems implemented by General Management, based on the risks identified and with a view to achieving TotalEnergies' objectives.

General Management ensures that the organizational structure and reporting lines plan, execute, control and periodically assess the Company's activities. It regularly reviews the relevance of the organizational structures so as to be able to adapt them quickly to changes in the activities and in the environment in which they are carried out.

The business segments' and operational entities' general management bodies are responsible for the internal control and risk management system within the scope of their responsibility.

TotalEnergies has also defined central responsibilities that cover the three lines of internal control: (1) operational management, which is responsible for implementing the internal control system, (2) support functions (such as Finance, Legal, Human Resources, etc.) which prescribe the internal control systems, verify their implementation and effectiveness and assist operational employees, and (3) the internal auditors who, through their risk management and internal control assessments, provide formal audit reports that include recommendations for improving the effectiveness of the system.

An accountability system is defined and formalized at all levels of the organization, through organization notes, organization charts, appointment notes, job descriptions and delegations of powers.

TotalEnergies has a framework that is supplemented by a series of practical recommendations and via lessons learned. The structure of this framework reflects that of TotalEnergies' organization: a Company level framework, frameworks by business segment, and a specific framework for each significant operational entity.

TotalEnergies' Audit & Internal Control Division pursues a continual process aimed at strengthening the assessment of the role and involvement of all employees in terms of internal control. Training initiatives tailored to the various stakeholders involved in the internal control process are regularly launched within TotalEnergies.

CONTROL ACTIVITIES AND ASSESSMENT

Any activity, process or management system may be the subject of an internal audit in accordance with the international framework of the internal audit and its Code of Ethics. The Company's Audit & Internal Control Division also conducts joint audits with third party auditors and assistance missions (advice, analysis, methodological guidance). The audit plan, which is based on an analysis of the risks and risk management systems, is submitted annually to the Executive Committee and the Audit Committee. The Audit & Internal Control Division conducted around 135 internal audit assignments in 2023, with around 70 employees. The Company's internal audit practices undergo a certification process every 3 years by the IFACI (French Institute of Internal Audit and Control). TotalEnergies obtained the renewal of its certification in 2023.

The design and effectiveness of the key operational, financial and information technology controls related to internal control over financial reporting, are regularly examined and assessed in compliance with the Sarbanes-Oxley Act.

In 2023, this assessment was performed with the assistance of the Company's main entities and the Audit & Internal Control Division.

The system in place covers:

- the most significant entities, which assess the key operational controls on their main processes and complete a questionnaire which allows their internal control framework to be assessed more globally,
- other less significant entities, which respond only to the questionnaire for assessing the internal control framework.

These two categories of entities, which include the central functions of the business segments and the Holding, account for respectively approximately 80% and 10% of the financial aggregates in TotalEnergies' consolidated financial statements.

The statutory auditors also review the internal control as part of their certification of the financial statements. In accordance with the US Sarbanes-Oxley Act, during the fiscal year 2023, they reviewed the implementation of TotalEnergies' internal control framework and the design and effectiveness of the controls selected as key by TotalEnergies in its main entities for the preparation and processing of accounting and financial information. On the basis of the work they have carried out, they have not indicated any material weakness in their report on internal control as of December 31, 2023. The reports on the work performed by the Audit and Internal Control division and the statutory auditors are periodically summarized and presented to the Audit Committee and, thereby, to the Board of Directors. The Senior Vice President Audit & Internal Control attended all Audit Committee meetings held in 2023. The Audit Committee also meets with the statutory auditors at least once a year without the presence of any Company representatives.

If areas of improvement are identified, this work, whether it be internal audits or operational controls, is part of corrective action plans shared with operational management; the implementation of which is closely monitored by them and the Audit & Internal Control Division.

Based on the internal reviews, General Management has reasonable assurance of the effectiveness of TotalEnergies' internal control.

3.3.3 Risk assessment and management

3.3.3.1 General principles

To implement its strategy, General Management ensures that clear and precise objectives are defined at the various levels of the organization with regard to operations, reporting and compliance.

Operational, financial and extra-financial objectives focus on the definition and efficient use of human, financial and technical resources. They are documented, notably during the budgetary process and in the long-term plan. They are regularly monitored which allows for decision-making and monitoring the performance of activities at each level of the organization.

TotalEnergies implements a comprehensive risk management system that is an essential factor in the deployment of its strategy. This system relies on an organization at Company level and in the business segments, on a continuous process of identifying and analyzing risks in order to determine those that could prevent the achievement of the objectives as well as the management systems.

The Executive Committee, with the assistance of the TotalEnergies Risk Management Committee (TRMC), is responsible for identifying and analyzing internal and external risks that could affect the achievement of TotalEnergies' objectives. The main responsibilities of the TRMC are to ensure that the Company has mapped the risks to which it is exposed and that efficient risk management systems are in place. The TRMC's work focuses on continuously improving risk awareness and the risk management systems.

Risk mapping is a structured dynamic process. The Company's risk map feeds into the audit plan, which is based on an analysis of the risks and the risk management systems, and the work of the TRMC.

The TRMC relies in particular on the work carried out by the business segments and functional divisions. The business segments are responsible for defining and implementing a risk management policy suited to their specific activities. However, the handling of certain transverse risks is more closely coordinated by the respective functional divisions.

Regarding commitments, General Management exercises operational control through the Executive Committee's validation of proposed investment commitments and expenditures in excess of defined thresholds. The Risk Committee (Corisk) is tasked with reviewing these projects in advance, and in particular with verifying the analysis of the various associated risks.

3.3.3.2 Implementation of the organizational framework

THE TotalEnergies RISK MANAGEMENT COMMITTEE

The main assignment of the TotalEnergies Risk Management Committee (TRMC) is to ensure that the Company has an up-to-date map of the risks to which it is exposed and that the risk management systems in place are appropriate. It is chaired by the Chief Financial Officer, member of the Executive Committee who steers its work, and includes the President of Strategy & Sustainability, who is also a member of the Executive Committee, the managers of the corporate functions, the Senior Vice President of R&D for OneTech, together with the chief administrative officers or chief financial officers of the business segments.

Under the leadership of its Chairman and based on the work of the business segments and functional departments, the TRMC is responsible for ensuring the existence and effectiveness of risk management systems tailored to the Company's challenges. As such, its objectives are as follows:

- define a common language and tools for risk identification and prioritization,
- define risk reporting standards and risk treatment mechanisms,
- identify transversal or emerging risks, evaluate residual risks in light of existing systems and, if necessary, make proposals for additional systems to bring them to acceptable levels, and
- ensure that risks and their corresponding treatment mechanisms are handled by designated managers within the organization.

The work of the TRMC is led by the Audit & Internal Control Division, which assists contributors in preparing presentations and acts as the Committee's Secretary. In this capacity, the Audit & Internal Control Division submit an annual report on the work of the TRMC to the Executive Committee and to the Audit Committee in the presence of TotalEnergies' Chief Financial Officer. The latter attends all meetings of the Audit Committee and the TRMC, thus providing a link between these two committees. The TRMC met six times in 2023 and its works were examined by the Audit Committee at its meeting held on February 5, 2024.

THE RISK COMMITTEE (Corisk)

Corisk is chaired by a member of the Executive Committee: the President of Strategy & Sustainability or, in his absence, the Chief Financial Officer.

It is made up of representatives from the corporate Legal, Strategy & Climate and HSE divisions, all three attached to the Strategy & Sustainability division, as well as the representatives of the Finance (including Insurance) division.

Corisk meets at the same pace as Executive Committee meetings. Any project submitted to the Executive Committee (and therefore giving rise to a financial commitment that exceeds certain thresholds) is first examined by Corisk.

Following the review by Corisk of the risks associated with the project submitted, a memorandum from the Strategy & Sustainability division reflecting Corisk's comments is sent to the Executive Committee.

THE AUDIT & INTERNAL CONTROL DIVISION

The Risk team of the Audit & Internal Control Division is responsible for producing and continuously updating TotalEnergies' risk mapping. To this end, it uses all of the risk-mapping work carried out within the Company, in the business segments and in the functional divisions, the results of all kinds of audits and internal control activities, the action plans resulting from this work and the monitoring of their implementation, formalization of structured feedback, benchmarks and other external information sources, discussions with TotalEnergies' executive officers, and all information gathered during TRMC meetings and the preparation for these meetings.

3.3.3.3 Risk management systems in place

Risk management systems are implemented in the operational, financial and extra-financial fields. The main risk management systems covering social challenges, health, industrial safety, environment, climate change-related challenges and the prevention of corruption are presented in the Statement of Extra-Financial Performance (chapter 5).

REGARDING FINANCIAL RISKS

The management and conditions of use of financial instruments are governed by strict rules, defined by TotalEnergies General Management, which provide for centralization by the Treasury Division of liquidity, interest and exchange rate positions, management of financial instruments and access to capital markets. Depending on the overall needs of TotalEnergies, the financing policy aims to favor long-term debt, at floating or fixed rate, depending on the level of interest rates, mainly in dollars or euros.

TotalEnergies' cash balances, which mainly consist of dollars and euros, are managed to maintain liquidity based on daily interest rates in the given currency. Ceilings are set for transactions exceeding one month, with placements not to exceed 12 months. TotalEnergies SE also benefits from credit facilities granted by international banks. These credit facilities, along with the Company's net cash position, aim to allow it to continually maintain a high level of liquidity in accordance with objectives set by General Management in order to meet short-term needs.

In terms of counterparty risk linked to financial transactions, TotalEnergies applies a cautious policy, and only enters into commitments with institutions featuring a high degree of financial soundness, as assessed based on a multi-criteria analysis. Credit limits are determined globally for each authorized financial counterparty and is allocated among the affiliates and TotalEnergies' central treasury entities according to its financial needs. In addition, to reduce market valuation risk on its commitments, the Treasury Division has entered into margin call agreements with its counterparties in compliance with applicable regulations. Lastly, since December 21, 2018, pursuant to Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR), any new interest rate swap (excluding cross currency swaps) entered into by a TotalEnergies entity must be centrally cleared.

TotalEnergies seeks to minimize its currency exposure, on the one hand, by financing its long-term assets in the functional currency of the entity to which they belong and, on the other hand, by systematically hedging the currency exposure generated by commercial activity. These risks are managed centrally by the Treasury Division, which operates within a set of limits defined by General Management.

The policy for managing risks related to financing and cash management activities, as well as TotalEnergies' exchange and interest rate risks are also described in detail in Note 15 to the Consolidated Financial Statements (point 8.7 of Chapter 8).

TotalEnergies finances its activities either by using its own resources, by issuing bonds on international markets, or by obtaining financing for specific projects from financial institutions and banks. The medium- and long-term debt policy implemented by TotalEnergies are aimed at ensuring that cash is available, notably to cover any major new project or significant acquisition.

A tightening of the selection criteria set by certain financial institutions and banks on financing for projects related to the exploration, production and sale of oil and gas could lead TotalEnergies to increase the diversification of its financing methods and sources. TotalEnergies will nonetheless continue to rely on the long-term relationships already formed with numerous banks and financial institutions.

REGARDING RISKS RELATING TO SECURITY

With regard to security, TotalEnergies has put in place means to analyze threats and assess risks in order to take preventive measures to limit its exposure to security risks in the countries where it is present. In the face of various types of threat, TotalEnergies ensures that people and assets are protected effectively and responsibly by conducting expert appraisal, consulting and control activities. In particular, it defines Security measures for TotalEnergies' operational divisions, various entities and projects, ensures that these measures are implemented; and provides expertise in the event of a crisis. It relies on a network of Country Chairs assisted by Country Security Officers and on a continuously updated Security framework. The production, updating and distribution of this framework are part of the risk management system.

REGARDING RISKS RELATING TO THE SECURITY OF INFORMATION SYSTEMS

Cybersecurity issues are the subject of a strong commitment by the General Management, which is reflected in structured governance to address the risks related to external threats monitored by the TRMC, the Executive Committee and the Audit Committee.

The President, Finance, who is an Executive Committee member, and reports to the Company's Chairman and Chief Executive Officer, supervises the information systems Division, including cybersecurity, which is under the authority of the Company's Global Chief Information Security Officer.

Every year, the Cybersecurity & Risk Management Division submits the cybersecurity strategy for the Company's corporate and industrial information systems to the Executive Committee for approval. In particular, it defines changes to the Company's cybersecurity reference framework. The TotalEnergies Information Systems Division develops and disseminates the governance and security rules describing the infrastructures, organizations and operating methods expected or recommended. These rules are implemented across the entities of the Company under the responsibility of the various business segments. With the aim of preventing cyber risks, awareness-raising and training actions are also regularly carried out among TotalEnergies employees.

In addition, TotalEnergies has an Operational Security Center to detect and analyze information system security events, as well as a FIRST and TF-CSIRT certified Computer Emergency Response Team (CERT). In the event of a cyber attack on information systems, a cyber crisis management process is structured within TotalEnergies.

Lastly, TotalEnergies conducts specific risk analyses permitting the definition and implementation of appropriate security controls concerning information systems. These controls are organized into three lines of defense, the third being under the responsibility of the Security Division, which conducts several simulations of attacks in real conditions (known as "red teams") each year, carried out by third parties specialized in offensive cybersecurity. In addition, cyber crisis management exercises based on specific risk scenarios are organized each year and used by the various TotalEnergies entities for training purposes.

REGARDING RISK PREVENTION RELATING TO CHANGES IN THE REGULATORY ENVIRONMENT AND BUSINESS ETHICS

Reporting to General Management, with a point of contact on the Executive Committee in the form of the Chief Strategy & Sustainability, the Legal Division is responsible for establishing and implementing the legal policy. It coordinates legal activities in close cooperation with the business segments' legal departments and supports the various TotalEnergies entities in order to meet their legal needs. TotalEnergies' lawyers monitor developments in their specific areas of expertise. A Compliance and Legal Risk Management Division is responsible, at Company level, for formulating policies on preventing and fighting against corruption and fraud, as well as compliance with applicable regulations on economic sanctions. This division is also in charge of devising and overseeing the implementation of the corresponding training programs, as well as coordinating the network of anti-corruption and anti-fraud compliance officers, and the points of contact for economic sanctions.

TotalEnergies has put in place since 2015 a structured program to prevent and combat fraud and has established a range of procedures and control systems that help prevent and detect different types of fraud. This mechanism is supported by the business principles and values of individual behavior described in its Code of Conduct and other standards applied by TotalEnergies' business segments.

TotalEnergies has widely distributed to employees a directive for handling incidents of fraud, recalling in particular the whistleblowing system that any employee can use to report acts that may constitute fraud. In addition, a rule was adopted in late 2020 to formalize the procedure for collecting integrity alerts (corruption, fraud and influence peddling) and to remind the various existing alert channels.

TotalEnergies' anti-fraud compliance program includes notably: an e-learning module for all employees of TotalEnergies, a guide called Prevention and Fighting Fraud, a map of fraud risks at the Company level updated in 2023, a typological guide of fraud risks which includes descriptions of the main risks, and video campaigns to raise awareness of the major risks of fraud. This program is deployed by the network of anti-fraud coordinators in the business segments and operational entities, this role of coordinator being generally performed by the Compliance Officer. Fraud risk mapping is also performed in the subsidiaries.

For information on corruption prevention, refer to point 5.8.1 of Chapter 5.

With regard to international economic sanctions and export controls, TotalEnergies carries out its activities in compliance with applicable laws and regulations, in particular those of the European Union (EU) and United States (US). TotalEnergies has a formalized compliance program in place to prevent the risk of non-compliance with these laws and regulations. It is kept regularly updated. This program is deployed by a dedicated Economic Sanctions and Export Control department within the Legal Division and by the points of contact within the business segments to ensure that regulations are monitored on a daily basis, to analyze all TotalEnergies' transactions and projects in relation to a country under sanctions and to ensure compliance with applicable regulations. An e-learning module on this topic has been available since 2020.

A policy aimed at ensuring compliance with, and preventing infringement of, competition law is in place and is a follow-up to the various measures previously implemented by the business segments. Its deployment is based, in particular, on management and staff involvement, training courses that include an e-learning module, and an appropriate organization.

Regarding the prevention of conflicts of interest, each of the senior executives of TotalEnergies completes an annual declaration of the absence of conflicts of interest (or, if applicable, declares any conflicts of interest to which they may be subject). By completing this declaration, each senior executive also agrees to report to his or her manager any conflict of interest that he or she has had, or would have, knowledge of in the course of his or her duties. The "Conflicts of Interest" internal rule also reminds all employees of their obligation to report to their manager any situation that might give rise to a conflict of interest so that measures can be taken to deal with it when necessary.

In order to prevent market abuse linked to trading on the financial markets, TotalEnergies applies a policy based in particular on internal ethics rules that are regularly updated and distributed. In addition, TotalEnergies' senior executives and certain categories of employees, depending on the positions they hold, are required to refrain from carrying out any transactions, including hedging, on TotalEnergies shares or ADRs and units in FCPEs (company mutual funds) invested primarily in TotalEnergies shares (as well as on any derivatives linked to these shares) on the day on which the Company announces its quarterly, half-yearly or annual results and during the preceding 30 calendar days. An annual campaign specifies the blackout periods and rules applicable to those affected.

To mitigate the risks of third parties infringing its intellectual property rights and the leak of know-how, TotalEnergies ensures that its rights are protected contractually under partnership agreements the terms and conditions of which are negotiated by its intellectual property specialists and are consistent with its industrial and commercial strategy. TotalEnergies has a policy of filing and maintaining patents, monitors technological developments in terms of freedom of use, and takes, when necessary, all appropriate measures to ensure the protection of its rights.

In addition, since some of its employees have access to confidential documents while performing their duties, TotalEnergies has adopted internal rules concerning the management of confidential information. TotalEnergies' intellectual property specialists also carry out awareness-raising activities with employees, so that they are better informed about restrictions that may apply to the use of information and data. In terms of the security of information assets, TotalEnergies also implements document retention and personal data protection policies to deal with increasingly significant legal and security risks.

REGARDING RISKS RELATING TO THE SUPPLY CHAIN

The Company pays particular attention to working with responsible suppliers who respect both human rights and the environment throughout its value chain. The Company expects its suppliers to adhere to the Fundamental principles of purchasing which derive from its Code of Conduct. To that end, the Company has chosen to have the management of its supplier relations coordinated by a dedicated cross-functional entity, TotalEnergies Global Procurement, which is specifically tasked with providing Purchasing services and assisting the Company's entities and sites[1].

Agreements signed with third party suppliers are managed under TotalEnergies' dedicated procurement system (structure, rules and tools). This system includes a supplier evaluation and prequalification process, the monitoring of contracts and their performance (refer to point 5.10 of Chapter 5) and the monitoring of the financial robustness of the main suppliers. Finally, the audits provided for in the agreements with the suppliers complete the system.

REGARDING RISKS RELATING TO EXPOSURE TO PARTNERSHIPS

The procedures for selecting TotalEnergies' partners and managing the different stages in the life cycle of each partnership are governed by structured internal reference frameworks, applied by all Company entities.

In order to ensure that the process of selecting future partners for the creation of a joint company and/or the completion of a joint project is robust, TotalEnergies' framework includes performing due diligence relating to the partner's HSE, technical, legal and financial activities and operating methods. A corruption risk analysis is also carried out.

The agreements signed with these third parties are mainly drawn up by multi-disciplinary negotiation teams. Training programs, at the Company and business segment levels, ensure that the necessary knowledge and skills are transferred to ensure that contracts are correctly prepared, activities monitored, and TotalEnergies' interests properly represented in the partnership. The relevant operational entity puts in place the structure required to monitor and manage the partnership. Finally, the audits provided for in the partnership agreements complete the system.

(1) With the exception of certain entities that retain management of their supplier relationships, such as Hutchinson, Saft Groupe, Greenflex and TOTSA TotalEnergies Trading SA.

3.3.4 Main characteristics of the internal control and risk management procedures relating to the preparation and processing of accounting and financial information

Accounting and financial internal control covers the processes that produce accounting and financial data, and mainly the financial statements processes and the processes to produce and publish accounting and financial information. The internal control system aims to:

- conserve TotalEnergies' assets,
- comply with accounting regulations, and properly apply standards and methods to the production of financial information, and
- ensure the reliability of accounting and financial information by controlling the production of this information and its consistency with the information used to produce the dashboards at every appropriate level of the organization.

At the Company level, the Finance Division, which includes the Accounting Division, the Budget & Financial Control Division and the Tax Division, is responsible for the production and processing of accounting and financial information. The scope of the internal control procedures relating to the production and processing of financial and accounting information includes the parent company (TotalEnergies SE) and all fully consolidated entities or entities whose assets are under joint control.

Refer to point 4.1.2.3 of chapter 4 for a description of the role and the missions of the Audit Committee. These missions are defined by Directive 2014/56/EU and regulation (EU) No. 537/2014 regarding statutory audits.

3.3.4.1 Production of accounting and financial information

ORGANIZATION OF THE FINANCIAL FUNCTION

Dedicated teams implement the accounting and financial processes in the areas of consolidation, tax, budget and management control, financing, cash positions and information systems. The entities, business segments and General Management are respectively responsible for accounting activities.

The Accounting Division, which is part of the Finance Division, is responsible for drawing up the Consolidated Financial Statements and manages TotalEnergies' network of accounting teams.

The tax function, made up of a network of tax experts at the corporate level, in the business segments and the entities, monitors changes in local and international rules. It is responsible for implementing the tax policy approved by the Board of Directors, for all business sectors. The Head of Tax, under the authority of the Chief Financial Officer, submits a regular report on TotalEnergies' tax situation to the Audit Committee, which reports on its work to the Board of Directors.

Management control contributes to the reinforcement of the internal control system at every level of the organization. The network of management controllers in the entities and the business segments is supervised by the Budget & Financial Control Division. This department also produces the monthly dashboard, the budget and the long-term plan.

The Treasury Division implements the financial policy, which frames in particular the processing and centralization of cash flows, the debt and liquidity investment policy and the hedging of exchange and interest rate risks.

The Information Systems Division makes decisions on the choice of software suited to the accounting and financial requirements of TotalEnergies. These information systems are subject to developments to reinforce the task separation system and to improve the control of access rights. Tools are available to make sure that access rights comply with the Company's rules in this area.

CONSOLIDATED FINANCIAL STATEMENTS PROCESS

The Accounting Department which reports to the Finance Division, prepares TotalEnergies' quarterly Consolidated Financial Statements according to IFRS standards, on the basis of the consolidated reporting packages prepared by the entities concerned. The Consolidated Financial Statements are examined by the Audit Committee and then approved by the Board of Directors.

The main factors in the preparation of the Consolidated Financial Statements are as follows:

- the processes feeding the individual accounts used to prepare the reporting packages for consolidation purposes are subject to validation, authorization and booking rules,
- the consistency and reliability of the accounting and control data are validated for each consolidated entity and at each relevant level of the organization,
- a consolidation tool, supervised by the Accounting Department is used by each consolidated entity and centrally to ensure the consistency and reliability of data at each relevant level of the organization,
- a consolidation reporting package from each entity concerned and that is sent directly to the Accounting Department allows the transmission and completeness of the information to be optimized,
- a corpus of accounting rules and methods is formalized in the Financial Reporting Manual. Its application is compulsory for all the consolidated entities in order to provide uniform and reliable financial information. This framework is built according to IFRS accounting standards. The Accounting Department centrally distributes the Financial Reporting Manual through regular and formalized communication with the heads of the business segments. This manual, which is regularly updated, specifies in particular the procedures for identifying, valuing and recognizing off-balance sheet commitments,
- new accounting standards under preparation and changes to the existing framework are monitored in order to assess and anticipate their impacts on the Consolidated Financial Statements,
- an accounts plan used by all the consolidated entities is formally set forth in the Financial Reporting Manual, specifying the content of each account and the procedures for the preparation of the reporting packages for consolidation purposes,
- the account closing process is supervised and is based mainly on the formalization of economic assumptions, judgments and estimates, treatment of complex accounting transactions and compliance with established timetables announced through Company instructions disclosed to each entity,
- in particular, the processes applicable to the preparation of the accounts of the acquired entities are reviewed and, where appropriate, amended to integrate them into those applicable to the preparation of the Consolidated Financial Statements. Furthermore, the booking in the accounts of the purchase price allocation of each of these entities is based on assumptions, estimates and judgments in line with the TotalEnergies business model, and
- off-balance sheet commitments, which are valued according to the Financial Reporting Manual, are reported on a quarterly basis to the Audit Committee.

PROCESSING OF ACCOUNTING AND FINANCIAL INFORMATION

Internal control of accounting and financial information is primarily organized around the following areas:

- monthly financial reporting is formalized by Company and business segment dashboards using the same reference framework and standards as those used for the consolidated financial statements; in addition, the quarterly closing schedule is the same for preparing the Consolidated Financial Statements and financial reporting,
- a detailed analysis of differences as part of the quarterly reconciliation between the Consolidated Financial Statements and financial reporting is supervised by the Accounting and Budget & Financial Control Divisions, which are part of the Finance Division,
- a detailed analysis of differences between actual amounts and the yearly budget established on a monthly basis is conducted at each level of the organization. The various monthly indicators are used to continually and uniformly monitor the performance of each of the entities, the business segments and the Company, and to make sure that they are in keeping with the objectives,
- an annual reconciliation between the statutory financial statements and the financial statements based on IFRS standards is performed by entity,
- regular controls are designed to ensure the reliability of accounting information. They relate in particular to the processes for drawing up financial aggregates,
- a regular process for the signature of representation letters is deployed at each level of the organization,
- an annual control system of the accounts of equity accounted affiliates based on a questionnaire completed by each entity concerned, the system being integrated within the TotalEnergies internal control framework, and
- the Disclosure Committee ensures the respect of the procedures in place.

Other significant financial information is produced according to strict internal control procedures.

Proved oil and gas reserves are evaluated annually by the relevant entities. They are reviewed by the Reserves Committees, approved by Exploration & Production's general management and then validated by TotalEnergies' General Management. They are also presented to the Audit Committee each year.

The internal control process related to estimating reserves is formalized in a special procedure described in detail in point 2.1.1 of chapter 2. The reserves evaluation and the related internal control processes are audited periodically.

TotalEnergies' published strategic and outlook presentations are prepared, notably based on the long-term plans drawn up at the business segment and Company levels, and the works carried out at each relevant level of the organization. The Board of Directors reviews the strategic and outlook presentations each year.

3.3.4.2 Publication of accounting and financial information

Significant information about TotalEnergies is published externally according to formal internal procedures. These procedures aim to guarantee the quality and fair presentation of the information intended for the financial markets, and its timely publication.

The Disclosure Committee, chaired by the Chief Financial Officer, ensures, in particular, that these procedures are respected. Accordingly, it meets before the press releases on TotalEnergies' results and annual reports are submitted to the Audit Committee and the Board of Directors.

A calendar of the publication of financial information is published and made available to investors on TotalEnergies' website. With the help of the Legal Division, Investor Relations Division ensures that all publications are made on time and in accordance with the principle of equal access to information between shareholders.

ASSESSMENT OF THE SYSTEM FOR THE INTERNAL CONTROL OF ACCOUNTING AND FINANCIAL INFORMATION

TotalEnergies' General Management is responsible for implementing and assessing the internal control system for financial and accounting disclosure. In this context, the implementation of TotalEnergies' internal control framework, based on the various components of the COSO, is assessed internally at regular intervals within the TotalEnergies' main entities.

Pursuant to the requirements introduced by Section 302 of the Sarbanes-Oxley Act, the Chairman and Chief Executive Officer and the Chief Financial Officer have conducted, with the assistance of members of certain divisions of TotalEnergies (in particular Legal and Audit & Internal Control), an evaluation of the effectiveness of the internal disclosure Controls and Procedures (Disclosure Controls and Procedures) over the period covered by the annual report Form 20-F. For fiscal year 2023, the Chairman and Chief Executive Officer and the Chief Financial Officer have concluded that these internal controls and procedures were effective.

In addition, a specific process is in place for reporting any information related to TotalEnergies' accounting procedures, internal control and auditing. This process is available to any shareholder, employee or third party.

Finally, the Consolidated Financial Statements undergo a limited examination during quarterly closing, and an audit during annual closing. Almost all the audit missions performed in the countries where TotalEnergies operates are fulfilled by the members of the networks of the two statutory auditors, who, after performing their audit, proceed with the annual certification of TotalEnergies' Consolidated Financial Statements. They are informed in advance of the process for the preparation of the accounts and present a summary of their work to the Company's accounting and financial managers and to the Audit Committee during the quarterly reviews and annual closing. The statutory auditors also review the internal control as part of their certification of the financial statements.

3.4 Insurance and risk management

3.4.1 Organization

TotalEnergies deploys its worldwide insurance program taking into account the specific requirements of local regulations applicable in the countries where the Company is present. TotalEnergies has its own reinsurance company, Omnium Reinsurance Company (ORC) which constitutes the operational tool for harmonizing and centralizing the coverage of the subsidiaries' insurable risks.

Some countries may, however, require the purchase of insurance from a local insurance company. If the local insurer agrees to cover the subsidiary in accordance with the Company's worldwide insurance program, then, after negotiations, nearly all the risks that the local insurer had covered are transferred to ORC.

In parallel, ORC negotiates reinsurance programs at the Company level with commercial or mutualist reinsurance markets. Thus, ORC allows the Company to better manage price variations in the insurance market by retaining the level of risk in accordance with the defined risk retention policy.

Apart from insurance contracts covering industrial risks, other insurance contracts covering property damages and third-party liability are subscribed (car fleet, credit insurance, life and health insurance...). These risks are essentially covered by third-party insurance companies.

3.4.2 Risk and insurance management policy

The risk and insurance management policy consists, in close cooperation with the relevant internal departments of each subsidiary to:

- define risk scenarios of major disasters (estimated maximum loss);
- assess the potential financial impact on the Company, should major disasters occur;
- participate in the implementation of measures aiming to limit the probability that major disasters occur and their financial consequences if such events were to occur, and
- arbitrate between retaining within the Company the potential financial consequences that would result from those disasters or transferring them to the insurance market.

3.4.3 Policy on insurance

TotalEnergies has worldwide property insurance and third-party liability coverage for all its consolidated subsidiaries and most of its non-consolidated subsidiaries. These insurance contracts are entered into with first-class insurers (and reinsurers).

The amounts insured depend on the financial risks defined in the risk scenarios of major disasters, the coverage terms offered by the insurance market, and the risk retention policy defined by the Company.

In 2023, the Company updated its insurance policy by increasing retention levels and adjusting insured limits, in order to transfer only the most significant risks to the insurance market, in line with industry practice; other risks are retained within the Company's reinsurance captive, in compliance with prudential insurance regulations. The updated insurance policy was approved by the Board of Directors at its meeting held on December 14, 2022. Its implementation was presented to the Audit Committee at its meeting held on February 6, 2023.

More specifically:

- for third-party liability: as the maximum financial risk cannot be evaluated by a systematic approach, the amounts insured are based on market conditions and the Company's retention policy, in line with industry practice. Moreover, the Company adopts, whenever appropriate, the necessary material and human resources to manage the compensation of victims in the event of a technological accident for which it would be liable;
- for property damage and business interruption: the amounts insured vary depending on the sector and on the site. They are based on the cost estimates and reconstruction scenarios of the units that would result from the materialization of the estimated maximum loss, as well as on insurance market conditions and the Company's retention policy, in line with industry practice. The business interruption risk is retained by the Company.

The policy on insurance described above reflects a particular situation as of a given date and cannot be considered as representative of a permanent situation. The Company's policy on insurance may be changed at any time depending on market conditions, specific circumstances and General Management's assessment of the risks incurred and the adequacy of their coverage.

TotalEnergies considers that its insurance coverage is in line with industry practices and sufficient to cover usual risks in its operations. However, the Company is not insured against all potential risks. In the event of a major environmental disaster, for example, TotalEnergies' liability could exceed the maximum coverage provided by its third-party liability insurance. TotalEnergies cannot guarantee that the Company will not suffer any uninsured loss, and there can be no guarantee, particularly in the event of a major environmental disaster or a major industrial accident, that such loss would not have a material adverse effect on the Company.

3.5 Legal and arbitration proceedings

There are no governmental, legal or arbitration proceedings, including any proceeding of which the Corporation is aware that are pending or threatened against the Corporation, that could have, or could have had during the last 12 months, a material impact on TotalEnergies' financial situation or profitability.

Described below are the main administrative, legal and arbitration proceedings in which the Corporation and the other entities of TotalEnergies are involved.

FERC

The Office of Enforcement of the US Federal Energy Regulatory Commission (FERC) began in 2015 an investigation in connection with the natural gas trading activities in the United States of TotalEnergies Gas & Power North America, Inc. (TGPNA), a US subsidiary of TotalEnergies. The investigation covered transactions made by TGPNA between June 2009 and June 2012 on the natural gas market. TGPNA received a Notice of Alleged Violations from FERC on September 21, 2015. On April 28, 2016, FERC issued an order to show cause to TGPNA and two of its former employees, and to the Corporation and TotalEnergies Gas & Power Ltd., regarding the same facts. The case was remanded on July 15, 2021 to the FERC Administrative Judge for hearing and consideration on the merits. TGPNA brought a claim to the U.S. District Court for the District of Texas in December 2022 disputing the constitutionality of FERC's administrative procedure; the U.S. District Court for the District of Texas ordered a stay of the case in the course of 2023, pending decisions by the U.S. Supreme Court in another cases involving similar constitutional issues. TGPNA contests the claims brought against it.

DISPUTES RELATING TO CLIMATE

In France, the Corporation was summoned in January 2020 before Nanterre's Civil Court of Justice by certain associations and local communities in order to oblige the Company to complete its Vigilance Plan, by identifying in detail risks relating to a global warming above 1.5 °C, as well as indicating the expected amount of future greenhouse gas emissions related to the Company's activities and its product utilization by third parties and in order to obtain an injunction ordering the Corporation to cease exploration and exploitation of new oil or gas fields, to reduce its oil and gas production by 2030 and 2050, and to reduce its net direct and indirect CO_2 emissions by 40% in 2040 compared with 2019. This action was declared inadmissible on July 6, 2023, by the Paris Civil Court of Justice to which the case was transferred following a new procedural law. All the claimants appealed this decision before the Paris Court of Appeal. TotalEnergies considers that it has fulfilled its obligations under the French law on the vigilance duty. A new action against the Company, with similar requests for injunction, has started in March 2024 before the commercial court of Tournai in Belgium.

Several associations in France brought civil and criminal actions against TotalEnergies, with the purpose of proving that since May 2021 – after the change of name of TotalEnergies – the Corporation's corporate communication and its publicity campaign contain environmental claims that are either false or misleading for the consumer. TotalEnergies considers that these accusations are unfounded.

In France, on July 4, 2023, nine shareholders (two companies and 7 individuals holding a small number of the Corporation's shares) brought an action against the Corporation before the Nanterre Commercial Court, seeking the annulment of resolution no. 3 passed by the Corporation's Annual Shareholders' Meeting on May 26, 2023, recording the results for fiscal year 2022 and setting the amount of the dividend to be distributed for fiscal year 2022. The plaintiffs essentially allege an insufficient provision for impairment of the Company's assets in the financial statements for the fiscal year 2022, due to the insufficient consideration of future risks and costs related to the consequences of greenhouse gas emissions emitted by its customers (scope 3) and carbon cost assumptions presented as too low. The Corporation considers this action to be unfounded.

In the United States, US subsidiaries of TotalEnergies (TotalEnergies EP USA, Inc., TotalSpecialties USA, Inc. and TotalEnergies Marketing USA, Inc.) were summoned, amongst many companies and professional associations, in several "climate litigation" cases, seeking to establish legal liability for past greenhouse gas emissions, and to compensate plaintiff public authorities, in particular for resulting adaptation costs. The Corporation was summoned, along with these subsidiaries, in three of these litigations. The Corporation and its subsidiaries consider that the courts lack jurisdiction, and have many arguments to put forward, and consider that the past and present behavior of the Corporation and its subsidiaries does not constitute a fault susceptible to give rise to liability.

RUSSIA

In France, two associations filed a simple complaint against the Company in October 2022 with the National Anti-Terrorist Prosecutor's Office, due to the continuation of some of the Company's activities in Russia since the Russian invasion of Ukraine in 2022. The complaint, which the Corporation has not been given access to, would accuse the Corporation – due to its 49%(1) holding in Russian company Terneftegas, at that time 51%-owned by Novatek and operated by said company – of complicity in war crimes committed by the Russian Air Force in Ukraine, by aiding or assisting, through the supply of kerosene to the Russian Air Force. The Corporation – which has no direct or indirect activity vis-à-vis the sale of kerosene in Russia – has strongly rejected these accusations, as unfounded in both law and fact(2).

The complaint was dismissed by the National Anti-Terrorist Prosecutor's Office in early January 2023.

The plaintiffs later lodged a new identical complaint in March 2023 with the application to join the proceedings as a civil party. In June 2023, the National Anti-Terrorist Prosecutor's Office recommended a dismissal to the Elder Magistrate in charge of criminal matters.

MOZAMBIQUE

In France, victims and heirs of deceased persons filed a complaint against the Company in October 2023 with the Nanterre Prosecutor, following the events perpetrated by terrorists in the city of Palma in March 2021. This complaint would allege that the Corporation is liable for "unvoluntary manslaughter" and, "failure to assist people in danger". The Corporation considers these accusations as unfounded in both law and fact(3).

(1) The sale by the Company of the 49% interest in Terneftegaz announced by the Company on July 18, 2022 was finalized on September 15, 2022.
(2) Refer to the press release published by the Company on August 24, 2022 contesting the accusations made by French newspaper Le Monde.
(3) Refer to the press release published by the Company on October 11, 2023 contesting the accusations.

3.6 Vigilance Plan

3.6.1 Introduction

3.6.1.1 Regulatory framework

In accordance with Article L. 225-102-4 of the French Commercial Code, the vigilance plan (hereinafter referred to as the "Vigilance Plan") aims to set out the reasonable measures of vigilance put in place within the Company to identify risks of and prevent severe impacts on human rights, fundamental freedoms, human health and safety and the environment resulting from the activities of the Corporation and those of the companies it controls as defined in point II of Article L. 233-16 of the French Commercial Code, directly or indirectly, as well as the activities of subcontractors or suppliers with which it has an established commercial relationship, where such activities are linked to this relationship.

The Vigilance Plan covers the activities (hereinafter referred to as the "Activities" in this section) of TotalEnergies SE and its consolidated subsidiaries as defined in II of Article L. 233-16 of the French Commercial Code (hereinafter referred to as the "Subsidiaries" in this section)[1]. It also covers the activities of suppliers of goods and services with which TotalEnergies SE and its Subsidiaries have an established commercial relationship, where such activities are associated with that relationship (hereinafter referred to as the "Suppliers")[2].

TotalEnergies operates in about 120 countries in a variety of complex economic and socio-cultural contexts and in business areas that are likely to present risks that fall within the scope of the Vigilance Plan.

The reasonable measures of vigilance set out in this Vigilance Plan take into account the diversity and the geographic reach of the Company's Activities. As part of its reporting of the implementation of the Vigilance Plan, TotalEnergies has chosen to illustrate its actions by referring to situations upon which it was specifically questioned.

3.6.1.2 Methodology and preparation of the Vigilance Plan

TotalEnergies has integrated consideration of the impact of its Activities and those of its Suppliers on people's health and safety, the environment and respect for human rights into its corporate culture.

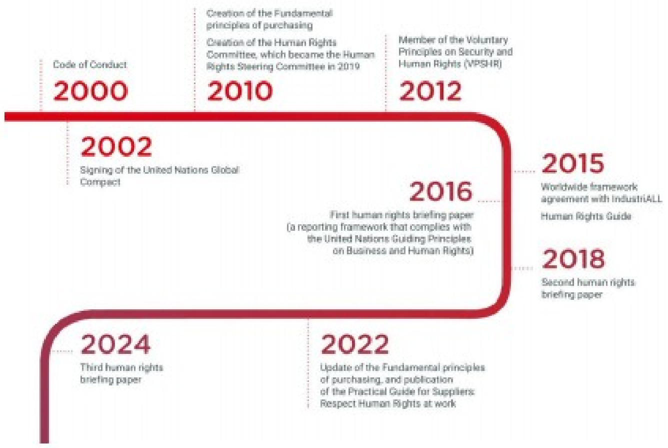
Thus in formulating its Vigilance Plan, TotalEnergies relies on a solid foundation of procedures, management and reporting tools, including with respect to HSE and human rights. Experiences acquired have contributed to develop further the Vigilance Plan.

Health, safety and the environment (HSE) have long been the object of specific attention at Company level. Given their nature, the Activities give rise to health and safety risks for employees, the personnel of external contractors, and residents in the vicinity of industrial sites.

Since 2016, TotalEnergies has had an HSE Committee, which includes the members of the Executive Committee and is chaired by the Chairman and Chief Executive Officer. The Committee's role is to generate momentum at top management level to ensure that safety is a value shared by all. All HSE functions at headquarters and in the Company's business segments are centralized within a single HSE division. The objective of this unified organization is to combine the strengths and expertise and to harmonize existing good practices, based on a One MAESTRO[3] reference framework common to all business segments. In practice, TotalEnergies takes a continuous improvement approach to HSE, involving every level of the organization. HSE objectives are presented to the Executive Committee every year. One MAESTRO standards, defined at Company level, are implemented by the Subsidiaries through their own HSE management systems.

Human rights are at the heart of the Company's operations. Since 2000, TotalEnergies has adopted a Company Code of Conduct.

In 2002, TotalEnergies joined the United Nations Global Compact. Since 2010, the Company has been supported by a Human Rights Steering Committee. The human rights road map is presented and reviewed regularly at Executive Committee meetings. In 2013, the Executive Committee examined and validated the Company's first human rights road map, and in 2016, its first human rights briefing paper, updated in 2018 and recently in January 2024.



(1) Certain companies, such as Hutchinson and Saft Groupe, have set up risk management and impact prevention measures specific to their organizations. In addition, for newly acquired companies, reasonable vigilance measures are intended to be implemented progressively during the integration phase of these companies into the Company systems.
(2) In accordance with the regulatory provisions, suppliers with which the Company does not have an established commercial relationship do not fall within the scope of this Plan. This Plan reflects the sustainable procurement principles applicable to relationships with Suppliers, but is not aimed at replacing the measures in place at those Suppliers.
(3) MAESTRO stands for "Management and Expectations Standards Toward Robust Operations".

The elaboration of the Vigilance Plan is part of a broader set of work to identify and analyse risks within TotalEnergies, including the Company's risk mapping. This process is based on an integrated approach that calls on the skills of the various functions involved (HSE, human rights, procurement, human resources, societal, security and legal).

In 2018, in the meetings of the Operational Committee of the European Works Council[1], Committee members were provided with information on the law on the duty of vigilance and the methods used to prepare the Vigilance Plan, and were given an opportunity to comment.

The Board of Directors reviews the Vigilance Plan and its annual implementation report.

3.6.1.3 Dialogue with stakeholders

TotalEnergies engages in dialogue with stakeholders at every level of the organization. In accordance with the Company's framework documents on societal matters, stakeholders are identified, mapped out and organized by level of priority according to their expectations and degree of involvement. This includes the following steps: list the main stakeholders for each Subsidiary and site (depots, refineries, etc.), categorize them and schedule consultation meetings to better understand expectations, concerns and opinions. The outcome of this process is the definition of action plans to manage the impacts of activities and consider local development needs, in order to build a long-term relationship based on trust. This process allows the Company to explain its activities to communities and other stakeholders, and to single out potentially vulnerable local populations. Its deployment continues in the Subsidiaries.

In order to facilitate this dialogue, certain Subsidiaries have established a network of dedicated contacts. For example, in some Subsidiaries within the Exploration & Production segment, a network of local community mediators is in place to maintain a constructive dialogue with local communities. These mediators act as Community Liaison Officers (CLO) and are tasked with establishing an ongoing dialogue with stakeholders on the ground (Stakeholder Engagement), including local authorities and communities and, more broadly, local players in civil society. Employed by TotalEnergies, sometimes coming from the local communities, they speak the local languages and understand local customs. They play a decisive role which is crucial in establishing good relations between TotalEnergies and its stakeholders and pay close attention to the most vulnerable populations.

A structured dialogue with stakeholders is established and maintained, primarily at local level. Subsidiaries manage local relations with civil society and are encouraged to enter into dialogue with non-governmental organizations (NGOs). The Company also cooperates with external experts specialized in preventing and managing conflict between businesses and local communities.

Additionally, relevant divisions of the Holding ensure a continuous dialogue with stakeholders of TotalEnergies. The Sustainability & Climate Division manages relations between the Company and civil society, represented notably by NGOs, as well as large institutions and multilateral agencies (e.g., Global Compact).

TotalEnergies maintains ongoing exchanges with its employees and their representatives – whose role and position allows for privileged interactions, particularly with management. Social dialogue is a key component of the Company. It includes all types of negotiations, consultations or exchanges of information among the management of the TotalEnergies entities, employees and their representatives about economic and workplace issues and concerns relating to company life. The topics addressed in this social dialogue may vary according to each Subsidiary, but some are shared concerns across the Company such as health and safety, work hours, compensation, training and equal opportunity. The Company is careful to conduct this dialogue at both the local level and at headquarters or centrally, through its participation in company bodies and its negotiation of agreements.

In countries where employee representation is not required by law, the Subsidiaries strive to establish such representation. As a result, majority elected employee representatives are present in most TotalEnergies companies.

At the European level, the TotalEnergies European Works Council serves as a forum for providing information and regular exchanging views about the Company's strategy, its workplace, economic and financial situation, as well as on matters relating to sustainable development, environmental and social responsibility and safety. It is consulted for significant proposed organizational changes concerning at least two companies in two European countries, to express its opinion, in addition to the procedures initiated before the national representative bodies. The members of the TotalEnergies European Committee also participate to visits on sites in Europe.

At the global level, TotalEnergies signed in 2015 a four-year agreement with IndustriALL Global Union[2] on the promotion of human rights at work, diversity, health and safety at work and the dialogue with employees and their representatives. TotalEnergies continues to apply the commitments of this global agreement.

Through this global agreement and the Fundamental Principles of Purchasing, TotalEnergies also asks its suppliers to respect freedom of expression, association and collective bargaining and, in countries where this right is restricted, to ensure that employees have the right to participate in a dialogue concerning their collective work situation.

In December 2017, TotalEnergies also joined the Global Deal initiative, a multi-stakeholder worldwide partnership whose goal is to encourage governments, companies, unions and other organizations to make concrete commitments to improve dialogue with employees on all levels and to propose concrete solutions to reconcile economic performance and social progress. The Global Deal promotes the idea that effective dialogue with employees can contribute to decent work and quality jobs and, as a result, to more equality and inclusive growth, from which workers, companies and civil society benefit. In 2023, TotalEnergies continued to share its good practices with Global Deal member companies.

(1) This committee was replaced by the TotalEnergies European Works Council following the transformation of the Corporation into a European company.
(2) International federation of trade unions representing more than 50 million employees in the energy, mining, manufacturing and industrial sectors in 140 countries.

3.6.2 Severe impact risk mapping

The mapping work presented below, which includes risks for people and the environment, was carried out using TotalEnergies' risk management tools. Each risk map identifies, analyzes, and prioritizes risks, enabling to determine the risks of severe impact. These risk of a severe impact maps are the basis for the priority risk management actions implemented by the Company.

3.6.2.1 Safety, health and the environment

TotalEnergies defines the risk of a severe impact on safety, health or the environment as the probability of Activities having a direct and significant impact on the health or safety of **employees of TotalEnergies companies, employees of external contractors**[1] **and third parties, or on the environment** following a large scale pollution or a pollution impacting a sensitive natural environment[2].

TotalEnergies has developed regular safety, health and environment risk assessment procedures and tools applicable to operate its Activities at various levels (Company, activities and/or industrial sites):

- prior to investment decisions in industrial projects of the Company, acquisition and divestment decisions,
- during operations, and
- prior to releasing new substances on the market.

With respect to potential major industrial accidents, analyses are based notably on incident scenarios at the site level, for each of which the probability of occurrence and potential consequences (in terms of severity) are assessed. Based on these parameters, a prioritization matrix is used to determine whether further measures are needed. These mainly include preventive measures but can also include mitigation measures that may be technical and organizational in nature. Each business segment produces, on a yearly basis, an inventory of its identified major industrial accident risks, which is submitted to management/committees in each segment and to the HSE Committee (refer to 3.6.1.2), providing a global overview of identified risks and of progress on action plans launched by the Subsidiaries operating the sites.

This work allowed to identify, analyze and prioritize the risks of severe impacts. These analyses have highlighted the following risks of severe impacts:

- risks to the safety of people and to the environment resulting from a major industrial accident on an offshore or onshore site. This accident could be an explosion, a fire or a leak resulting in fatalities or bodily harm, and/or accidental pollution on a large scale or on a sensitive natural environment, for example a well blowout,
- risks to the safety of people and to the environment related to the overall life cycle of the products manufactured, and to the substances and raw materials used, and
- risks associated with transportation, for which the likelihood of an operational accident depends on the hazardous nature of the products handled, as well as on volumes, length of the journey and sensitivity of the regions through which products are transported (quality of infrastructure, population density, environment). These risks are likely to arise from accidents or incidents in the transportation of the Company's raw materials and finished products, notably by ship, pipeline or road, as well as from accidents or incidents in the air transport of personnel

Climate change is a global risk for the planet and results from various human actions such as energy consumption. As an energy producer, TotalEnergies seeks to reduce direct greenhouse gas emissions resulting from its operated Activities. In 2023, worldwide greenhouse gas (GHG) emissions from the facilities operated by TotalEnergies amounted to 35 Mt CO_2e, less than 0.1% of total worldwide emissions, which amounted to 57,4 Gt CO_2e for the year of 2022[3]. In addition, TotalEnergies implements a strategy to tackle climate change challenges and reports on this in detail, notably in its statement of extra-financial performance (refer to point 5.4 of chapter 5), in accordance with Articles L. 22-10-36 and L. 225-102-1 of the French Commercial Code.

3.6.2.2 Human rights and fundamental freedoms

The risks of impacts on human rights for **TotalEnergies personnel and third parties** were identified according to the criteria defined in a well-established reference document for the mapping of human rights risks, the United Nations Guiding Principles Reporting Framework:

- severity: the scale of the impact on the human right(s), and/or
- scope: the number of persons affected or who could be affected, and/or
- the remediable nature of the impact: the ease with which the corresponding rights of the impacted persons can be restored.

TotalEnergies applied the United Nations Guiding Principles Reporting Framework, which defines the following process:

- identify all human rights at risk of being negatively impacted by a company's activities or business relations, by taking into account all relevant business activities and entities in the company and the point of view of the people exposed to a negative impact,
- prioritize potential negative impacts based on their potential gravity (severity and potential extent of the impact and the required remediation efforts) and their probability (while paying particular attention to very severe but unlikely impacts),
- explain the conclusions to internal and external stakeholders and check that factors have not been omitted.

This risk mapping work was carried out by TotalEnergies in 2016 in consultation with internal and external stakeholders. The process included workshops with representatives of key business activities of the Company (human resources, procurement, security, HSE, Ethics Committee, Human Rights Steering Committee) and of Subsidiaries operating in difficult environments or particularly exposed to risks to human rights and fundamental freedoms. A series of interviews was held with independent third parties (GoodCorporation, International Alert, Collaborative Learning Project). The participants were able to share return on experience on the ground (difficulties faced, proposals for improvements on issues related to human rights and HSE resulting from Subsidiary assessments). The questions raised at the Business Ethics Day were also taken into consideration. The results of the in-house survey of employees regarding their professional situation and perception of the company conducted at local or Company level, were also taken into account.

(1) Personnel of companies working on a site operated by a Subsidiary.
(2) Sensitive natural environments include, in particular, remarkable or highly vulnerable natural areas, such as sea ice in the Arctic, as well as areas covered by significant regulatory protection such as Protected Area Categories I to IV as defined by the International Union for Conservation of Nature (IUCN), Ramsar areas, or natural sites listed on the UNESCO World Heritage List at December 31, 2023.
(3) U.N. Environment Programme, "Emissions Gap Report 2023".

This work enabled TotalEnergies to identify and analyze the human rights risks that affect the Activities and to prioritize them according to their salience.

The salient risks are thus identified by comparing indicators and information provided by external stakeholders and internal return on experience. The dialogue with local stakeholders and feedback from the field, described above (refer to point 3.6.1.3 of this chapter) also contribute to this.

The mapping of salient risks, periodically updated, is supplemented by dedicated mappings such as the CSR risk mapping linked to TotalEnergies' purchasing by categories of goods and services (refer to point 3.6.2.3 of this chapter). Risk mapping by the Security division also takes into account human rights and the VPSHR (Voluntary Principles on Security and Human Rights).

In 2019, TotalEnergies updated its procedures to analyze risks of impacts on human rights (taking into account the country, types of activity and types of raw materials or purchased products and services). This work was done with a specialized consultant, and included workshops with internal and external stakeholders. It took into account international country risk indicators established by a specialized third party. This process notably offers a support to Subsidiaries located in geographic areas at higher risk of impacts on human rights.

As a result, the following six salient risks were identified, divided among three key themes for the Company:

- **human rights in the workplace** of TotalEnergies' employees and those of its Suppliers and other business partners:
  - forced labor and child labor; this risk of forced labor and child labor corresponds to any work or service exacted from any person under the threat of a penalty or punishment and for which that person has not offered himself or herself voluntarily, as well as child labor, which is forbidden for anyone under the age of 15, or 18 for any type of so-called hazardous work in accordance with the standards of the International Labor Organization;
  - discrimination; this risk of discrimination is characterized by the unfair and unfavorable treatment of people, in particular because of their origin, nationality, gender, age, disability, sexual orientation, or membership of a political, religious, trade union or minority group;
  - just and favorable conditions of work and safety; this risk of not respecting just and favorable conditions of work and safety is materialized, for example, by the absence of an employment contract, an excessive number of working hours or a non-decent remuneration.
- **human rights and local communities**:
  - access to land; this risk of infringement of the right of access to land is linked to the relocation of local communities and concerns certain projects requiring temporary or permanent access to land, likely to involve the economic and physical displacement and resettlement of populations and/or restricted access to their means of subsistence;
  - the right to health and an adequate standard of living; this risk of infringement of the right to health and an adequate standard of living concerns, for example, activities that could have an impact on the health of local communities or on their access to fresh water.
- **respect for human rights in security-related activities**:
  - the risk of misuse of force; this risk of misuse of force may materialize when the intervention of government security forces or private security companies may be necessary to protect the Company's personnel and facilities.

3.6.2.3 Suppliers

The identification, analysis and prioritization of the risks of impacts on human rights, people's health and safety and the environment as a result of Suppliers' activities rely on a CSR mapping of the risks linked to TotalEnergies' procurement, as well as on country risk indicators.

The CSR mapping of the risks linked to TotalEnergies' procurement, by category of goods and services allows the identification of the risks relating to human rights and social conditions and those relating to the environment that are associated with each procurement category. This mapping is regularly updated by TotalEnergies Global Procurement, the subsidiary dedicated to procurement, based on research conducted by AFNOR experts on the human rights and environmental risks associated with each procurement category and workshops with buyers of these categories whose practical experience and knowledge greatly enhance the results of initial research. The Company's human rights and environmental experts are also involved throughout the entire process of identification, analysis and prioritization of risks. This mapping includes particular risks relating to child labor, forced labor, working conditions, discrimination, workers' health and safety, as well as risks relating to pollution and adverse impacts to biodiversity. It is available to buyers.

Country risk indicators that supplement the CSR mapping of the risks linked to TotalEnergies' procurement are related to human rights and environmental country-related risks.

Cross-referencing the results of the CRS mapping of the risks linked to TotalEnergies' procurement with human rights and environmental country-related risk indicators aims to identify Suppliers the most at risk regarding human rights, health, safety and the environment, to prioritize actions towards these Suppliers.

3.6.3 Action principles and organization

TotalEnergies has defined in its referential framework principles which reflect the Company's values and aim at preventing impacts on human rights and health, safety and to the environment (the "Action Principles"). When the legal provisions applicable to Activities provide less protection than the Action Principles, TotalEnergies strives under all circumstances to give precedence to the latter, within the constraints of applicable regulations.

Action principles which are presented in points 3.6.3.3 *"Human rights"*, 3.6.3.4 *"Safety, health and environment"* and 3.6.3.5 *"Fundamental principles of purchasing"* participate in actions to mitigate and prevent the risks of severe impact presented in point 3.6.2 *"Severe impact risk mapping"*.

3.6.3.1 Organization

TotalEnergies has a three-tier organization: Corporate, business segments and operational entities. Each tier is involved in and accountable for identifying and implementing measures in the Vigilance Plan deemed appropriate within the scope of the entity in question.

The Action Principles are driven by the **Executive Committee**.

The **Ethics Committee** is the guarantor of the implementation of the Code of Conduct. Its chairman, who reports to the Chairman and Chief Executive Officer of TotalEnergies SE, presents an annual ethics report to the Governance and Ethics Committee of the Board of Directors.

The **Strategy & Sustainability division,** created in September 2021, illustrates the importance of the sustainable development issues that are at the heart of TotalEnergies' strategy. This general division includes in particular:

- the **HSE division,** which brings together the Company's industrial health, safety, environmental and operational societal functions. Within this division, the HSE entities dedicated to the Exploration & Production, Integrated LNG, Integrated Power, Refining & Chemicals and Marketing & Services segments are notably responsible for supporting the implementation of the Company's HSE policy. Furthermore, specific entities deal with the following areas: environmental and societal issues, major risks, safety at health, transportation, crisis management and pollution prevention, legislation and reporting, audits. TotalEnergies has set up an HSE Committee chaired by the Chairman and Chief Executive Officer and made up notably of the members of the Executive Committee and HSE managers (refer to point 3.6.2.1). Its mission is to ensure that safety is a shared value,
- the **Sustainability & Climate division,** whose mission includes to help implement TotalEnergies' climate and sustainable development (including human rights) road maps and environmental, extra-financial policies, with transparency as a guiding principle. In this division, the Human Rights department, which reports to the Vice-President of the Sustainability division, supports the Company's operational personnel with its expertise in implementing the Action Principles relating to human rights. This division also forms the link between the Company and civil society and is in charge of relations with non-governmental organizations (NGOs), major institutions or multi-lateral agencies at Company level. Also within this division, the Climate division is responsible for contributing to the implementation of TotalEnergies' Climate Road map, in line with its ambition to be carbon neutral (net zero emissions) by 2050, together with society.

Within the **People & Social Engagement division, the Strategy and Human Resources Policies division** is responsible in particular for defining TotalEnergies' human resources strategy and policies in line with the business challenges and the corporate project. In line with the multiple situations encountered in the field, it coordinates the diffusion and roll-out of new policies to support the various human resources departments in TotalEnergies' business segments. The Social Relations division is tasked with coordinating the Company's social relations policy, chairing the TotalEnergies European Works Council and negotiating within this scope.

The **Security division** is responsible for the protection of people, facilities and information, and pays particularly close attention to the protection of people and property, by conducting analyses and offering advice.

A dedicated cross-functional subsidiary, **TotalEnergies Global Procurement**, coordinates management of supplier relationships and provides in particular purchasing services for the Company's goods and services, whether for categories of products or services specific to one business activity or categories shared among several business activities[(1)].

This corporate organization acts in support of the business segments and Subsidiaries in the operational implementation of the Action Principles.

Within the business segments services and advice are offered to Subsidiaries to assist them in the operational implementation of TotalEnergies' requirements.

Depending on their size, type of activities and the risks to which they may be exposed, the Subsidiaries may have dedicated personnel for HSE, societal, human resources, ethical, security and procurement issues.

3.6.3.2 Code of Conduct

TotalEnergies' Vigilance Plan is based primarily on the Code of Conduct which defines the Company's values, including safety and respect for others, and their application to human rights, the environment, and people's health and safety.

The Code particularly sets forth TotalEnergies' compliance with the following international standards:

- the principles of the Universal Declaration of Human Rights,
- the United Nations Guiding Principles on Business & Human Rights,
- the principles set out in the International Labor Organization's fundamental conventions,
- the principles of the United Nations Global Compact,
- the OECD Guidelines for Multinational Enterprises, and
- the Voluntary Principles on Security and Human Rights, or VPSHR.

The Code of Conduct, which can be accessed on TotalEnergies' website, is aimed at all employees and external stakeholders (host countries, local communities, customers, suppliers, industrial and commercial partners and shareholders).

(1) Present in about 120 countries, the Company currently works with a network of more than 100,000 suppliers.

3.6.3.3 Human rights

In addition to the Code of Conduct, matters relating to respect for human rights are included in a number of internal rules, such as those relating to ethics, human resources, societal, security and procurement. In addition to these, there are a number of practical tools dedicated specifically to societal issues.

For example, a rule concerning stakeholder and local impact management describes TotalEnergies' requirements for a unified approach to managing the societal risks and impacts of its operations. This is based on an assessment of the sensitivity of the societal context and the impacts relating to operations. Furthermore, the Charter of Principles and Guidelines regarding indigenous and tribal peoples states how TotalEnergies endeavors to know and understand the legitimate requirements of the communities living in its Subsidiaries' sphere of activities.

TotalEnergies' charters and rules are supplemented by guides and manuals at Company level or at the level of the business segment, which serve as reference documents for Subsidiaries on meeting requirements. Thus, there are guides relating to carrying out societal impact assessments and impact assessments on human rights, managing the local societal approach, and developing local content in projects and to land acquisition and resettlement where displacement of people, their assets and livelihoods are involved.

General specifications define more technical requirements, such as the implementation of the social baseline study and analysis of the societal impact.

As regards community grievance management, a guide describes the methodology and procedures for managing individual and collective grievances resulting from Activities, based on the United Nations Guiding Principles on Business and Human Rights eight effectiveness criteria.

Additionally, requirements relating to the implementation of VPSHR in conducting security operations are detailed in an internal rule concerning risk assessment, preliminary verifications, formalization of the relationship with security providers, training and management of possible incidents.

3.6.3.4 Safety, health and the environment

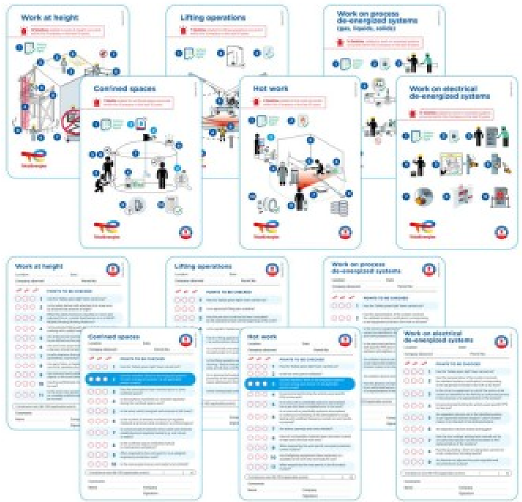
TotalEnergies conducts its operations on the basis of its **Safety Health Environment & Quality Charter** (available on its website). It forms the common foundation for the Company's management frameworks, and sets out the basic principles applicable to safety, security, health, the environment, quality and societal commitment. The Company's directives and rules define the minimum requirements expected. General specifications, guides and manuals are available to implement these directives and rules. The Subsidiaries incorporate these requirements into their own management systems, whilst taking into account local specificities and regulatory requirements. The Company's framework is available to all employees.

The HSE reference framework common to all the business segments has been rolled out in order to give greater overall consistency to TotalEnergies' operations, while taking into account the specificities of each business segment. This reference framework, called One MAESTRO (Management and Expectations Standards Toward Robust Operations), applies to the Subsidiaries as well as their operated sites as defined in point 5.11 of chapter 5 (scope of One MAESTRO).

One MAESTRO is structured around ten fundamental principles: (1) leadership and management commitment, (2) compliance with laws, regulations and Company requirements, (3) risk management, (4) operational accountability, (5) contractors and suppliers, (6) expertise and training, (7) emergency preparedness, (8) learning from events, (9) monitoring, audit and inspection, and (10) performance improvement.

In addition, with regard to safety at work, the Company has ***12 Golden Rules*** since 2010, reviewed in 2022 for them to be more directly understandable by players on site and to facilitate their appropriation. These Golden Rules are simple, memorizable by everyone and representative of a significant number of accidents at the workplace and must be strictly obeyed by all personnel, both employees and external companies, in all the countries and in all the Company's activities. Widely circulated, the aim of the Golden Rules is to ensure day-to-day safety during the conduct of operations and on sites with a common objective: "Zero fatal accidents". These rules cover the following subjects:

TotalEnergies has also rolled out the ***Our lives first*** program, which introduced joint safety tours with external companies, the establishment, in the work permit process, of a ritual prior to work on all the TotalEnergies' operated sites concerned (Safety green light), and a tool (Life Saving Checks) to intensify checks in the field and measure compliance with safety rules at least for the five high-risk activities: work at height, lifting operations, work on energy-powered systems, work in confined spaces and hot work.



In addition, anyone, irrespective of their level in the organization, is authorized to interrupt work in progress, if they notice a high-risk situation, by using their ***Stop Card***.

The *Stop Card* is a plastic-coated card. It grants its holder the authority to intervene and stop work in progress, if he/she notices high-risk actions or situations, or situations that may lead to an accident, with an assurance that no disciplinary action will be taken as a result, even if the intervention turns out to have been unnecessary.

If an action or situation seems hazardous for one or more people, a facility or the environment, the *Stop Card* provides a means of intervening. Uses of the Stop Card can range from a simple question to check that no risks are present, to interrupting the work in progress.

This interruption offers an opportunity to exchange with the colleagues involved (members of staff and their supervisor) with a view of finding a solution to the perceived problem. If necessary, changes are made to the way of working before resuming the work in progress.

If the problem cannot be solved immediately, the work is suspended, pending the implementation of suitable measures.

PREVENTING THE OCCURRENCE OF MAJOR INDUSTRIAL ACCIDENTS

To **prevent the occurrence of a major industrial accident** such as an explosion, fire, leakage of hazardous products or mass leakage that might cause death, physical injury, large-scale pollution or pollution at an environmentally sensitive site, or important damage to property, TotalEnergies implements suitable risk management policies and measures that apply to the Company's operated activities. The Major Risks division of the HSE division provides support in the application of this policy.

The Company's policy for the management of major industrial accident risks applies from the facilities design stage as well as during their lifecycle in order to minimize the potential impacts associated with its activities. The policy is described in the One MAESTRO reference framework. It provides for analysis of the risks related to the Company's industrial operations at each operated site subject to these risks, based on incident scenarios for which the probability of occurrence and the severity of the consequences are assessed. Based on these parameters, a prioritization matrix is used to determine whether further measures are needed. These mainly include preventive measures against accidents, but also include measures to reduce the consequences (mitigation and prevention). They are technical and organizational. These analyses are updated periodically, at least every five years, or when facilities are modified.

With regard to the design and construction of facilities, technical standards include applicable regulatory requirements and refer to industry best practices. The construction of the Company's facilities is entrusted to qualified contractors who undergo a demanding internal selection process and are monitored. In the event of a modification to a facility, the Company's rules define the management process to be adopted.

With regard to the management of operations and integrity of facilities operated by the Company, formal rules have been set out to prevent specific risks that have been identified either by means of risk analyses or from internal and industry feedback. For specific works, the preliminary risk analysis may lead to the establishment of a work permit, the process of which, from preparation through to closure, is defined. The Company's reference framework also provides a process to manage the integrity of facilities, which includes, for example, preventive maintenance, facility inspections, identification of safety critical equipment for special monitoring, management of anomalies and downgraded situations, and regular audits. These rules are part of the One MAESTRO reference framework. Operations teams receive regular training in the management of operations in the form of companionship or in-person trainings. For example, in order to control the integrity of pipelines operated by the Company, they are subject to periodic surveys such as cathodic protection checks, ground or aerial surveillance or in line inspections. These actions are planned as part of the pipeline monitoring and maintenance programs. In areas with high human or environmental risks identified by the risk analysis, these controls and their frequency are reinforced.

PREVENTING OCCUPATIONAL ACCIDENTS

The Company has a **policy for preventing occupational accidents** that applies to all employees of Subsidiaries and employees of contractors working on a site operated by one of these Subsidiaries. The safety results are monitored with the same attention for all. This policy is described in the One MAESTRO reference framework.

As part of the policy for preventing workplace accidents, TotalEnergies has defined rules and guidelines for HSE training, personal protective equipment and high-risk operations for employees of the Company and of the contractors working on sites operated by the Company. In order to continually move its practices forward, TotalEnergies also implements a process for analyzing accidents, irrespective of their nature, with the method used and the level of detail involved depending on the actual or potential level of severity of the event.

The HSE division includes a division of specialists in high-risk operations (work at height, lifting, electricity, confined spaces, etc.) that consolidates in-house knowledge and relations with contractors, and issues the relevant One MAESTRO rules. The HSE division also includes a division aimed at providing support for Subsidiaries in their own voluntary approach to strengthen their safety culture. This division also develops and disseminates tools to improve human performance by identifying the Organizational and Human Factors of a work situation and defining appropriate measures.

PREVENTING OCCUPATIONAL HEALTH RISKS

With regard to the **prevention of occupational health risks**, the One MAESTRO framework provides that Subsidiaries of the Company identify and assess risks at the workplace in the short, medium and long terms. To do this, the framework provides application guides for implementation. The analysis of these health risks relates to chemical, physical, biological, ergonomic and mental risks. This results in the roll-out of an action plan. An Industrial Health correspondent in Subsidiaries is identified and tasked with implementing the policy for identifying and assessing work-related health risks. The actions are integrated into the entities' HSE action plans and can be audited as part of the One MAESTRO audits.

In general, **potential exposure to chemical or hazardous products** at a site operated by a Company entity or nearby is one of the most closely monitored risks in view of the potential consequences. New facility construction projects comply with international technical standards from the design stage in order to limit exposure. For production sites operated by a Company entity and subject to this risk, the One MAESTRO reference framework sets out the prevention process in several stages. First, hazardous products such as carcinogenic, mutagenic or toxic to reproduction (CMR) chemicals are listed and their risks identified. Second, potential exposure to levels that may present a risk to the health of personnel, contractors or local residents at the site or nearby are identified and assessed, and prevention or mitigation measures are implemented in order to control the risk. Last, the approach is checked (atmospheric checks, specific medical monitoring, audits etc.) in order to verify its effectiveness and implement improvement measures if necessary. This is also set out formally in a risk assessment file, which is revised regularly by the Subsidiary.

In addition to the One MAESTRO reference framework, the Company has a **health reference framework**, which was comprehensively reviewed and approved by the President, People & Social Engagement in 2022.

The health policy is part of the Company's approach to sustainable development and includes occupational health requirements that apply to the Company's employees as part of their professional activity, as well as to the employees of external companies working on its sites.

The aim of occupational health protection is to protect the mental and physical health of the Company's employees by implementing an appropriate risk analysis and prevention policy. It also aims to guarantee their fitness for work and to avoid accidents at work and occupational diseases.

LIMITING THE ENVIRONMENTAL FOOTPRINT OF TotalEnergies ACTIVITIES

TotalEnergies implements a policy of avoiding, reducing and, where necessary, offsetting the environmental footprint and effects on nature in general of its operations.

Water and air protection

The Company's operations generate discharges such as smokes from combustion plants, emissions into the air from the various conversion processes and discharges of wastewater. In addition to complying with applicable legislation, TotalEnergies has drawn up rules and guidelines that the Subsidiaries can use to limit the quantities discharged. TotalEnergies has set itself targets for reducing sulfur dioxide (SO_2) emissions and is committed to limiting its hydrocarbon discharges into water. After analysis, the exposed sites are equipped with reduction systems that include organizational measures (such as managing the content of sulfur dioxide (SO_2) of fuels and the improvement of combustion process management, etc.) and specific technical measures depending on the sites (wastewater treatment plants, using low NO_x burners and electrostatic scrubbers, etc.) All refineries controlled by the Company currently have this type of system.

For new facilities developed by the Company, the internal rules require impact assessments to be carried out and, if necessary, actions must be taken to limit the impact of these emissions.

Soil protection

The risks of soil pollution related to TotalEnergies' operations come mainly from accidental spills and waste storage. TotalEnergies has drawn up a guide that the Subsidiaries can use to prevent and contain this pollution. The recommended approach is based on four pillars:

- preventing leaks, by implementing, in the majority of sites, industry best practices in engineering, operations and transport,
- carrying out maintenance at appropriate frequency to minimize the risk of leaks,
- overall monitoring of the environment to identify any soil and groundwater pollution, and
- managing any pollution from previous activities by means of containment and reduction or elimination operations.

In addition, a Company rule defines the following minimum requirements:

- systematic identification of each site's environmental and health impacts related to possible soil and groundwater contamination,

- assessment of soil and groundwater contamination based on various factors (extent of pollution inside or outside the site's boundaries, nature and concentrations of pollutants, presence of a vector that could allow the pollution to migrate, use of the land and groundwater in and around the site), and
- management of health or environmental impacts identified based on the use of the site.

Last, decommissioned facilities operated by the Company (i.e., chemical plants, service stations, mud pits or lagoons resulting from hydrocarbon extraction operations, wasteland on the site of decommissioned refinery units, etc.) impact the landscape and may, despite all the precautions taken, be sources of chronic or accidental pollution. In addition to the appropriate management of the waste associated with the dismantling and securing of sites, TotalEnergies has created a soil and groundwater depollution policy based on the assessment and management of the risks that such pollution may incur. For the sites at the end of their activity, the management of pollution is determined in accordance with regulatory obligations with an objective of continuing to control the use of the sites while favoring the possibility of redeveloping Company activities (solar, reforestation, etc.) and favoring biodiversity. Specialized entities of the Company are supervising the sites' remediation operations.

MANAGING IMPACTS OF PROJECTS AND OPERATIONS ON BIODIVERSITY AND NATURE

In 2016, the Company pledged to contribute to the achievement of the UN Sustainable Development Goals (SDGs), including those relating to biodiversity. In 2018, TotalEnergies signed up to the act4nature initiative promoted by the French Association of Enterprises for the Environment, now act4nature international.

This **biodiversity ambition** constitutes a contribution to the Global Biodiversity Framework (GBF) adopted at COP 15 in 2022, whose mission is "to halt and reverse biodiversity loss and put nature on the path to recovery for the benefit of people and the planet." The Company thus intends to contribute to this ambitious framework and its national versions, such as the French National Strategy for Biodiversity (SNB) adopted in 2023, in a concrete manner through conservation and restoration measures for nature on its sites and in the regions where it is established.

This ambition is based on **four core principles**: (1) voluntary exclusion zones, (2) biodiversity management in projects, (3) biodiversity management at existing and abandoned sites and (4) promoting biodiversity. This ambition has been incorporated into the Company's One MAESTRO framework. The core principles of this ambition are described in point 5.5.4 of chapter 5, which includes the following principles of action:

- the Company has made a commitment not to conduct any exploration activities in oil fields under the Arctic sea ice;
- the Company recognizes the universal value of UNESCO's world natural heritage areas and honors its commitment not to carry out any oil or gas exploration or extraction activities in these areas (based on UNESCO sites listed at the end of 2023);
- the Company has made a commitment to develop a biodiversity action plan (BAP) for any new site located in an area of interest for biodiversity, that is IUCN (International Union for Conservation of Nature) Protected areas I to IV or Ramsar areas. In addition, for each new project located in an IUCN Protected area I or II or a Ramsar area, the Company commits to implementing measures to produce a net positive impact (gain) in biodiversity;
- it is the Company's intention that a biodiversity action plan be defined by 2025 at the latest and deployed by 2030 at the latest on every existing environmentally significant ISO14001 certified operated site (E&P production sites, refineries, petrochemicals sites, gas-fired power stations). TotalEnergies will report on implementation to the various stakeholders;
- finally, as part of the promotion of biodiversity, TotalEnergies wishes to support awareness-raising and educational actions for young persons on biodiversity and research actions.

LIMITING RISKS FOR THE HEALTH AND SAFETY OF CONSUMERS

Unless certain precautions are taken, some of the petroleum or chemical products marketed by TotalEnergies pose potential consumer health and safety risks. Respecting regulatory requirements is the main measure to limit risk throughout the life cycle of these products. TotalEnergies has also defined the minimum requirements to be observed in order to market its petroleum or chemical products worldwide with the goal of reducing potential risks to consumer health and the environment. These include the identification and assessment of the risks inherent to these products and their use, as well as providing information to consumers. The material safety datasheets that accompany the petroleum and chemical products, including those not classified dangerous, marketed by the Company (available in at least one of the languages used in the relevant country), as well as product labels, are two key sources of information.

The implementation of these requirements is monitored by teams of regulatory experts, toxicologists and ecotoxicologists within the Refining & Chemicals and Marketing & Services segments of the Company. These teams' assignment is to ensure the preparation of safety documentation for the marketed petroleum and chemical products so that they correspond to the applications for which they are intended and to the applicable regulations. These teams therefore draw up the material safety datasheets and compliance certificates (contact with food, toys, pharmaceutical packaging, etc.) and carry out REACH[1] registration (or equivalent in other geographical regions), if necessary. Thanks to their scientific and regulatory monitoring, they support the development of future commercial products and monitor updates of safety data sheets, certificates and registrations so that they remain compliant with regulations in force.

Governance of the process is rounded off within the Company's business units or Subsidiaries of the Refining & Chemicals and Marketing & Services segments with the designation of a Products Safety Manager who ensures compliance during the market release of his or her entity's petroleum and chemical products. The networks of product managers are coordinated by the Company's specialist teams either directly or via an intermediate regional level in the case of the Marketing & Services segment.

The safety data sheets for oil and gas produced by Subsidiaries of the Exploration & Production segment are produced by the Marketing & Services expertise center. The compliance of the go-to-market process of these products is under the Subsidiary's responsibility.

(1) Registration, Evaluation, Authorization and restriction of CHemicals (REACH) EU Regulation.

PREVENTING TRANSPORT ACCIDENTS

In the field of **road transportation**, the Company has for many years adopted a policy intended to reduce the number of accidents by applying standards that are, in some cases, more stringent than certain local regulations. This policy, defined in the One MAESTRO reference framework, applies to all the Company's personnel and personnel of contractors working for Company entities. For example, it includes a ban on telephoning while driving, even with a hands-free set, a ban on using motorized two-wheeled vehicles for business travel, mandatory training for drivers, and the definition of strict technical specifications for Company vehicles (in particular, light vehicles must pass NCAP 5* tests). Additional requirements are defined depending on the level of road traffic risks in the country in question and the nature of the activity.

In the field of **maritime and inland waterways transportation**, the process and criteria for selecting ships and barges are defined by the team in charge of vetting. These criteria take into account not only the ship or barge but also the crew, ensuring that the crew has the qualifications and training required under the STCW (Standards of Training, Certification and Watchkeeping for Seafarers) convention. These same teams also verify the application of the safety management system defined for ships by the ISM (International Safety Management) Code of the IMO (International Maritime Organization) as well as industry recommendations such as OCIMF (Oil Companies International Marine Forum) and SIGTTO (Society of International Gas Tanker and Terminal Operators), including those which take into account the human and organizational factors especially for the prevention of accidents to people on board ships or barges. In addition, TotalEnergies' chartering contracts require that the crew belong to a recognized trade union affiliated to the ITF (International Transport Workers' Federation). The ITF represents the interests of transportation workers' unions in bodies that make decisions about jobs, conditions of employment or safety in the transportation sector, such as the ILO (International Labour Organization) or the IMO.

With regard to **air transportation**, a carrier selection process exists to limit the risks relating to travel by Company and contractors' employees, if their journey is organized by TotalEnergies. This process is based on data from recognized international organizations: ICAO (International Civil Aviation Organization), IOSA (IATA Operational Safety Audit), IOGP (International Association of Oil and Gas Producers), and civil aviation authorities' recommendations. Airlines that do not have a rating from an international body are assessed by an independent body commissioned by the Company.

3.6.3.5 Fundamental principles of purchasing

For procurement, requirements relating to respect by the Suppliers of human rights, health, safety and the environment are specified in an internal rule defining the procurement principles for goods and services, including the Fundamental Principles of Purchasing, which reflect the principles of the Code of Conduct with regard to Suppliers. The relationship between the Company and its Suppliers is based on adhesion to these Fundamental Principles of Purchasing.

The Fundamental Principles of Purchasing lay out the commitments that TotalEnergies expects from its suppliers in the following areas: respect for human rights at work, protection of health, safety and security, action in favor of climate, preservation of the environment, prevention of corruption, conflicts of interest and fraud, respect for competition law, as well as the promotion of economic and social development.

Subsidiaries ensure that the requirements of the Fundamental Principles of Purchasing are communicated to Suppliers and endeavor to include them in contracts or replace them with equivalent principles at the end of negotiation. These principles are also accessible to all suppliers in French and English on TotalEnergies' website.

3.6.3.6 Internal control framework

TotalEnergies consistently ensures that an internal control framework, based on the referential of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) is in place.

TotalEnergies has a reference framework that is supplemented by a series of practical recommendations and return on experience. The structure of this reference framework reflects that of TotalEnergies' organization: a Company level framework, frameworks by business segment, and a specific framework for each significant operational entity.

3.6.4 Assessment procedures

TotalEnergies has defined procedures to assess its Subsidiaries and Suppliers, including in collaboration with independent bodies, which help identify and prevent risks of impacts on human rights, health, safety and the environment. **Staff training, particularly of managers**, is the **necessary** complement to assist the Subsidiaries in the implementation of the TotalEnergies Action Principles (refer to point 3.6.5 in this chapter).

3.6.4.1 Procedures for assessing subsidiaries

HSE ASSESSMENTS

Assessment of the implementation of the HSE framework involves self-assessment by the Subsidiary and HSE audits by experts from TotalEnergies' HSE division.

Subsidiaries must undertake a **self-assessment** at least every two years.

The Audit and return on experience unit of the HSE division conducts an **HSE audit** at least every five years, according to an audit protocol. These audits deal with a set of activities and facilities governed by a single HSE management system. They address notably: management involvement, compliance with applicable rules, risk management, individual involvement at every level, relationships with suppliers present on the Subsidiary's site, skills, preparations for emergency situations, return on experience, self-assessment by the Subsidiary and the continual improvement process. The Company's HSE audit protocol is based on the One MAESTRO framework and includes the requirements of the international standards ISO 14001:2015 (environmental management) and ISO 45001:2018 (occupational health and safety management). The audit protocol is applied in full during self-assessments and according to a risk-based approach during audits. The goal is to identify potential gaps in the implementation of the rules by the Subsidiaries and to enable them to define and implement improvement actions. The progress of improvement actions is reported to management at the appropriate level in the management chain. The status of actions taken following audit observations beyond a defined severity level is reported to the business segment and HSE divisions every semester.

Other targeted evaluation systems are applied, such as the annual Industrial Hygiene survey which is sent to the Company's Subsidiaries in order to evaluate the rate of implementation of risk analyses in the workplace, to verify that potential exposures have been identified, and that action plans are in place.

The HSE division defines the rule and reporting guide and notably ensures the implementation of the standards for the consolidation of data, provided by the Subsidiaries, related to the Company's greenhouse gas (GHG) emissions.

ASSESSMENTS REGARDING HUMAN RIGHTS

The Company appoints a service provider specialized in **ethics and human rights assessments** to check the proper application in the Subsidiaries of the principles included in the Code of Conduct. These assessments include criteria relating to human rights. As part of the process, a panel of employees and external stakeholders of the Subsidiary is questioned in order to understand how its Activities are perceived locally. The content of the assessment is adapted to each Subsidiary and may address issues such as the involvement of Subsidiary management, employee awareness of the Code of Conduct, employee working conditions, supplier selection procedures, security measures taken or proactive collaboration with local stakeholders. Following the assessment, the Subsidiary defines and implements an action plan, and a monitoring procedure is put in place.

At project level, impact assessments are conducted to analyze the societal stakes and context and may be completed where appropriate by specific **human rights impact assessments** of the Company's Activities in sensitive situations (mainly based on criteria linked to the risks to human rights in each particular country) with independent organizations specialized in human rights, or in the prevention and management of conflicts between corporations and local communities. These assessments take account of the salient issues identified by the Company (refer to point 3.6.2.2 in this chapter).

Security, which is identified as a potential salient risk in the map of the risks of impacts on human rights, is subject to **risk assessment processes** at an entity and project level. The Security division is notably tasked with ensuring the implementation of TotalEnergies' commitments to enforce the Voluntary Principles on Security and Human Rights (VPSHR), a multi-stakeholder initiative that TotalEnergies joined in 2012, involving governments, companies and associations, that addresses relations with government security forces or private security companies. As part of this process, the Subsidiary undertakes an assessment of risks in relation to both security and human rights. In addition, a VPSHR self-diagnostic tool has been developed to enable Subsidiaries to assess their own implementation of the VPSHR and to identify areas of improvement. This tool measures the Subsidiary's commitment to VPSHR, personnel training and relations with government security forces and private security companies.

Finally, an **annual self-assessment questionnaire** enables the Subsidiaries in the One MAESTRO scope to evaluate the degree of deployment of the **societal initiative** on the ground. Actions involving dialogue, impact management and the contribution to socioeconomic and cultural development are recorded and analyzed.

3.6.4.2 Procedures for assessing Suppliers

During the pre-contractual phase, the **pre-qualification procedure for Suppliers** of goods and services, concerning six criteria (administrative, anti-corruption, technical, HSE, financial, and sustainability) allows the evaluation of Suppliers as for the respect of human rights at work, safety, health and the environment. This process has been harmonized at Company level[1]. A risk analysis is carried out for each Supplier, followed where deemed necessary by a detailed assessment. The detailed assessment includes questionnaires on each of the aforementioned issues and, if needed, results in an action plan, a technical inspection of the site by employees or an audit of working conditions carried out by a consultant. An IT pre-qualification tool has been in place since 2019 and its deployment continues.

For the selection of Suppliers, TotalEnergies also integrates sustainable development criteria, including respect for human rights at work, safety, health and the environment in the **evaluation of offers**.

During the contractual relationship, TotalEnergies has put in place a **Supplier assessment** procedure, by independent third parties, to identify and prevent the risks of serious violations of human rights and fundamental freedoms and people's health and safety and the environment. Thus, Suppliers at risk are subject to documentary and/or on-site audits to verify compliance with the Fundamental Principles of Purchasing and to assess their performance in terms of sustainable development. An audit plan is established each year and targets priority Suppliers, including Suppliers selected based on the risks they present in terms of human rights and/or the environment with regards to the sector of activity and the country in which they operate.

At the Subsidiary level, the pre-qualification process may be complemented by **specific verifications of compliance with the VPSHR** by a Supplier. When private security companies are used to protect a Subsidiary, preliminary checks are made. They include a review of the recruitment process, technical and professional training (notably on the local context, the use of force and the respect for the rights of individuals), working conditions and the company's reputation. In addition, the proposed Supplier's employees are screened for previous conviction or implication in human rights violations.

Where deemed necessary in certain contexts such as for some raw materials or vetting, dedicated teams may be set up to conduct the pre-qualification process.

The unit put in place in the Company for the selection of **Suppliers of raw materials for biofuels** seeks to ensure that such raw materials are certified sustainable in accordance with the criteria required by the European Union (ISCC EU and ISCC PLUS certifications). These types of certifications include a review of carbon footprint, the preservation of forests, good use of land and respect for human rights. In addition to this mandatory certification, and as recalled above (refer to point 3.6.3.5 of this chapter), the entities concerned endeavor to include the Fundamental Principles of Purchasing in these contracts. In accordance with its commitment, TotalEnergies has ceased its palm oil supplies.

(1) With the exception of certain entities that retain the management of their supplier relations such as Hutchinson, Saft Groupe, Greenflex and TOTSA TotalEnergies Trading SA.

The **Vetting department of Trading & Shipping** defines and applies the selection criteria for the tankers and barges used to transport the Company's liquid petroleum or chemical and gas products. This review aims notably at ascertaining the proposed Supplier's technical qualities relative to internationally recognized industry practices, the crews' experience, and the quality of the shipowners' technical management. A green light from the Vetting department, granted strictly on the basis of technical data and independently of business considerations, is required for all ships and barges chartered by a Subsidiary, third parties transporting cargo belonging to TotalEnergies, or ships and barges that stop over at a terminal operated by a Subsidiary. Audits of shipowners also allows the Company to assess the quality of the technical management systems implemented by operators, crew selection and training, as well as the support provided to vessels.

TotalEnergies is actively involved in the Ship Inspection Report (SIRE), which was set up by the Oil Companies International Marine Forum (OCIMF) to allow the sharing of inspection reports amongst international oil and gas companies, thus contributing to the continuous improvement of safety in oil, gas and chemical shipping.

Last, since 2012, a large-scale inspection program of transportation contractors has also been rolled out by Marketing & Services, the segment with the most transportation within the Company, with the delivery of products to service stations and consumers. This program has been extended to the product transportation activities of the Polymers division of the Refining-Chemicals segment, to the liquid sulfur transportation activities of the Integrated LNG segment, and is being progressively extended to the Exploration & Production segment. It calls on independent transportation experts who inspect the practices and processes adopted by transportation contractors with regard to the recruitment and training of drivers, vehicle inspections and maintenance, route management, and the HSE management system. After inspection, an action plan is adopted. If there is a serious shortcoming or repeated poor results, the freight company may be excluded from the list of approved transportation contractors.

3.6.5 Actions to mitigate risks and prevent severe impacts

Specific actions are taken to mitigate risks and prevent severe impacts, drawing mainly on the Action Principles and assessments described above.

They are also based on return on experience from HSE incidents and include training of TotalEnergies employees, programs to raise the awareness of Suppliers, as well as measures to manage emergency and crisis situations.

With respect to climate, which is a global risk for the planet resulting from all human activities, the Company has structured its approach in order to integrate climate challenges into its strategy and has defined specific objectives within different timeframes, in order to control and reduce the GHG emissions resulting from its Activities (Scope 1+2). These are reported in point 3.6.8.4 of this chapter.

3.6.5.1 Return on experience

The Company implements a process for the analysis of accidents, irrespective of their nature, with the method used and the level of detail involved depending on the actual or potential level of severity of the event.

A return on experience may include an analysis of the incident including of its severity and result in communication to the relevant stakeholders or a wider population within the Company. The purpose of sharing return on experience is to ensure that Subsidiaries are informed and share lessons learned from the incident.

By way of example, a near-miss with a high severity potential undergoes an analysis similar to that of a severe accident. This analysis is considered an essential factor of progress. Depending on its relevance to the other TotalEnergies entities, it may trigger a safety alert and the communication of a formal return on experience. More generally, the corporate culture encourages formal and informal return on experience on all matters relevant to the Vigilance Plan.

3.6.5.2 Awareness-raising and training of TotalEnergies' employees

The Company has a variety of communication and information channels in place, enabling all employees of TotalEnergies SE and its Subsidiaries to have access to the Action Principles defined by the Company in relation to human rights, health, safety and the environment.

Each employee receives a copy of the **Code of Conduct** to raise awareness of the Company's values, including safety and respect for others, which includes respect for human rights. The Code of Conduct is also available to them on the TotalEnergies intranet website in more than fifteen languages. Every new employee is required to read the Code of Conduct (and must certify to having done so). The TotalEnergies induction day includes an initiation to ethics and human rights and an online training on the challenges of business ethics is also available.

HSE training courses, incorporating on-line educational programs as well as technical training tailored to the various Activities, are offered to all Company employees. Programs dedicated to health, safety and the environment are deployed. They may be general or specific to a type of activity or subject area. By way of illustration, the general training depends on the participant's level of responsibility and experience in the Company: *Safety Leadership for Executives*, *HSE training for managers*, and training for new recruits.

These training courses include since 2020 training actions related to climate challenges dedicated to all Company employees. A specific module is dedicated to Company senior executives and managers.

In the Subsidiaries as well as head office, teams regularly engage in crisis management exercises, the scenarios of which are based on potential incidents identified in the risk analysis. Dedicated training (initial and refresher training) also contributes to preparing employees for potential crises including in relation to the various roles played by members of the crisis team (for example crisis team leader, liaison with operations, experts and communicators etc.).

Training programs dedicated to human rights have been set up for senior executives, site directors and employees most exposed to these issues. Awareness-raising sessions are organized regularly for employees, for example as part of ethical assessments of Subsidiaries.

The Human Rights department is developing a training plan for Company employees to encourage understanding of issues relating to human rights and thereby better manage the associated risks. This training plan is rolled out as a priority among employees who are most exposed to risks linked to human rights.

Specific training modules explaining TotalEnergies' ethical commitments and the Fundamental Principles of Purchasing have also been developed for the Company's procurement teams. A training on responsible procurement is also mandatory for the buyers of TotalEnergies Global Procurement.

The Security division developed an online **training including a module on the VPSHR** for security managers in the Subsidiaries and provides training materials for the Company's personnel. Local visits are also organized to deliver in-person training in the training in the Subsidiaries.

In the field of **societal,** an awareness module is available to all employees through the internal training platform. Targeted trainings are also provided.

Internal channels of communication, such as websites accessible to most employees, are also used to **raise employee awareness** of matters pertaining to human rights. Dedicated web pages on ethics and the respect for human rights present the priority areas identified by TotalEnergies. These web pages have several goals: to explain the Action Principles, present how TotalEnergies implements these principles and to help employees adopt the ethical conduct expected of them in their everyday work.

Events such as the annual ***Business Ethics Day*** are used to raise awareness among employees of TotalEnergies SE and its Subsidiaries.

A **Guide to Human Rights** is also made available to employees and stakeholders. Its goal is to raise TotalEnergies employees' awareness on issues relating to human rights in its industry (at work, with local communities and in relation to security) and it provides guidance as to the appropriate behavior to adopt in their activities and relationships with stakeholders. It includes case studies. This guide serves as a reminder of the Company's commitments in relation to human rights. It offers proposed answers to common questions and concerns about human rights, notably child labor, forced labor, discriminatory practices and collective negotiations.

The **Practical guide to dealing with religious questions**, published in 2017, aims to provide practical solutions to issues raised by Company employees and managers worldwide. It draws on the experiences of the business segments in various countries and encourages dialogue, respect and listening as a way to find solutions suited to the local context. Many internal and external experts contributed to this document, including representatives of various religious communities. This guide has been translated into ten languages. It is available on the website dedicated to human rights and is also distributed at training courses.

The HSE Division organizes the Company's **World Safety Day** and **World Environment Day** in order to bring teams on board and raise their awareness of ways of implementing the Action Principles. Various **HSE guides** exist within the One MAESTRO reference framework to share HSE best practices with the Company's Subsidiaries. In addition, periodic HSE communications are published throughout the year (seminars, webinars, symposia). Safety culture is reinforced on a day-to-day basis by the Company's employees through "safety moments" at the beginning of meetings or before hazardous operations, consisting of a short discussion to reiterate the key safety messages and align participants with mutual commitments. A similar approach is implemented to reinforce the culture of sustainable development through various initiatives including sustainability moments (Sustainab'ALL moments).

3.6.5.3 Awareness-raising and training of Suppliers

The **Fundamental principles of purchasing** constitute a contractual commitment by Suppliers and are also a means to raise awareness among Suppliers, notably on HSE and human rights issues. They are communicated to Suppliers at the time of their integration in the Supplier database. A brochure explaining these principles in detail is also handed out to Suppliers at annual meetings or events such as *Suppliers Day*. The Fundamental Principles of Purchasing are also available on the TotalEnergies website. A **practical guide on respect of human rights at work**, intended for Suppliers, is shared with them and is also available on TotalEnergies' website.

Training actions are also carried out for Suppliers, for example **training on responsible security and the VPSHR** delivered to employees of security service providers. Contracts with these service providers mention compliance with the VPSHR and the need to train their personnel about the VPSHR. Additionally, the Security division may deliver this training directly to security service providers.

Suppliers working on Subsidiary sites are made aware of the risks to health, safety and the environment of the activities of the site. They receive support in the management of risks related to their activities, those of the site and any potential interactions, such as in the work permit process or during site safety inspections.

3.6.5.4 Responses to emergency or crisis situations

Crisis management is organized to ensure sufficient preparedness and an efficient response to a crisis or emergency event.

In order to manage any major industrial accident efficiently, TotalEnergies has implemented a global crisis management system, based notably on a 24/7 on-call system, a set of unified procedures deployed in the Subsidiaries and on a dedicated crisis management center that makes it possible to manage two simultaneous crises from head office. The framework requires Subsidiaries to have in place plans and procedures for interventions in the event of leaks, fires or explosions and to test them at regular intervals.

3.6.6 Whistle-blowing mechanisms

TotalEnergies has several whistle-blowing mechanisms that are open **to employees, Suppliers and third parties**.

To support employees on a day-to-day basis, the Company encourages a climate of dialogue and trust enabling individuals to express their opinions and concerns. Employees can turn to their line manager, an HR or other manager, their Compliance Officer or their Ethics Officer.

The Company's employees, Suppliers, as well as any other stakeholder can contact the **Ethics Committee** to ask questions or report any incident involving a risk of non-compliance with the Code of Conduct by using a generic email address (ethics@totalenergies.com). This system for collecting and processing of ethical complaints was set up in 2008, in cooperation with TotalEnergies trade unions organizations on a European level, then detailed in a dedicated internal rule. This complaint mechanism provides that the report transmitted to the Ethics Committee may in particular concern: "a serious abuse or a risk of serious abuse of human rights and fundamental freedoms" and "a serious damage or a risk of serious damage to the health or safety of persons, or to the environment".

The procedure for collecting and processing of ethical complaints, available on TotalEnergies' website since December 2020, describes this mechanism which provides measures to protect whistleblowers including the non-disclosure of their identity, the confidentiality of the procedure for collecting, processing, and closing of the complaints, the prohibition of any retaliation measures against whistleblowers, subject to sanctions, and the respect for the laws and regulations applicable to the protection of personal data. The Ethics Committee is a central structure, in which all business segments of TotalEnergies are represented. All its members are TotalEnergies employees with a good knowledge of its Activities and have demonstrated the independence and impartiality necessary for the performance of their duties. The Ethics Committee assures compliance with the Code of Conduct and ensures its proper implementation. It is assisted in its work by the relevant departments, as well as by a network of local Ethics Officers. The Chairperson of the Ethics Committee, who reports to the Chairman and Chief Executive Officer of TotalEnergies SE, submits an annual Ethics report to the Governance and Ethics Committee of the Board of Directors. The members of the Ethics Committee are subject to a confidentiality obligation. The Committee ensures the confidentiality of the complaints, which can only be lifted with the agreement of the complainant.

The system is supplemented by specific whistle-blowing mechanisms implemented at certain Subsidiaries.

Based on the United Nations Guiding Principles on Business & Human Rights, the One MAESTRO framework requires TotalEnergies' operational entities to deploy procedures to **manage stakeholder grievances** related to the Subsidiary's activities (excluding business claims). This provides residents and local communities with a preferential channel to voice their concerns and grievances. Handling these grievances locally makes it possible to offer a response to anyone who feels that they have been negatively affected by the Activities and to improve internal processes in order to reduce impacts that may be caused by the Activities. Managing grievances consists of: informing the stakeholders of this free process; receiving and registering grievances; acknowledging receipt of the grievances and informing the stakeholders about the follow-up actions; if necessary, proposing a means of settling the grievances in collaboration with the stakeholders and monitoring the handling of the grievance. This process is regularly analyzed to see where improvements can be made.

These grievances mechanisms can also be used to implement the **VPSHR**. In addition, **in the event of an incident, a reporting process** requires the Security division to be informed and an internal analysis to be performed to establish the facts, resulting in a final report. This allows the Subsidiary to re-assess its VPSHR process and to take measures to reduce the risk of incidents.

Suppliers can also contact the **internal supplier mediator** using a generic email address (mediation.fournisseurs@totalenergies.com). Available to Suppliers and procurement teams, the mediator's role is to restore dialogue and help find solutions.

3.6.7 Monitoring procedures

Multi-disciplinary committees review the implementation of measures within their purview. Indicators are used to measure the effectiveness of the measures, progress made and to identify ways of improvement.

COMMITTEES

The **Ethics Committee** is particularly involved in monitoring compliance with the Code of Conduct and can be called upon for advice on its implementation.

The **Human Rights Steering Committee** is made up of representatives from different divisions (including security, procurement and societal) and business segments. It is chaired by the head of TotalEnergies' Sustainability & Climate division. It meets several times a year and coordinate the actions on human rights taken by the business segments and the Subsidiaries, as part of the implementation of the human rights road map submitted to the Executive Committee. All Country Chairs contribute to this monitoring process, notably by acting as the local point of contact for the Security division with respect to compliance with the VPSHR.

Representatives of the Management Committee of TotalEnergies Global Procurement and of the Sustainability & Climate, HSE and Legal divisions as well as of the Ethics Committee meet at least once a year within the **Sustainable Procurement Committee**, which monitors the effective implementation of the Responsible Procurement program.

The **HSE division** has set up cross-functional teams of experts, including in the fields of safety, the environment and crisis management, and monitors the ongoing coordination of HSE issues.

REPORTING

The system of internal reporting and indicators for monitoring implementation of the actions undertaken in TotalEnergies in these areas is based on:

- for social indicators (including health in particular), a guide entitled the Corporate Social Reporting Protocol and Methodology,
- for safety indicators, a Company rule regarding HSE event and statistical reporting; a return on experience analysis process identifies, notably, events for which a formalized analysis report is required in order to draw lessons in terms of design and operation, and
- for environmental indicators, a Company reporting procedure, together with activity-specific instructions.

Consolidated objectives are defined for each key indicator and reviewed annually. The business segments apply these indicators as appropriate to their area of responsibility, analyze the results and set out a plan of action.

3.6.8 Implementation report[1]

3.6.8.1 Human rights

This section is primarily intended to present implementation of measures with respect to Subsidiaries, while the implementation of measures specific to Suppliers is described in point 3.6.8.5 of this chapter.

SUBSIDIARY ASSESSMENTS

TotalEnergies conducts assessments and impact assessments of various kinds:

- Ethics and human rights assessments of Subsidiaries, in particular regarding the working conditions of TotalEnergies employees,
- Impact assessments to analyze the challenges and the societal context of industrial projects, supplemented, if necessary, by specific impact assessments on human rights,
- Subsidiary self-assessments.

Ethics and human rights assessments

In addition to the audits and assistance missions carried out by the Audit and Internal Control Division, which cover certain human rights-related issues, the ethics and human rights-related practices of TotalEnergies' entities are regularly assessed by independent third parties and qualified experts.

Assessed entities are identified according to several criteria, including the level of risk of human rights violation in each country, the number of alerts received the previous year and the date of the Subsidiary's last assessment. These assessments help identify Subsidiaries' best practices, share them within the Company and identify areas for improvement. Knowledge and appropriation of the Code of Conduct are tested and reinforced by ethics and human rights awareness-raising sessions. Employees are encouraged to voice their ethical concerns in a confidential manner and report behaviors potentially contrary to the Code of Conduct.

In 2023, four ethics and human rights assessments were conducted. They concerned four Subsidiaries, totaling around 1,800 employees (in Vietnam, Morocco, South Africa and Republic of the Congo). These assessments confirmed that the Code of Conduct has been duly incorporated by the Subsidiaries.

The follow-up of the action plans put in place further to the 2022 assessments in the Mexican, Indian and Argentine Subsidiaries was also carried out in 2023. It is planned to follow up on the action plan of the Exploration & Production segment Subsidiary in Qatar and of the Saft Groupe Subsidiary in India in 2024.

Impact assessments of industrial projects

When the decision is taken to develop an industrial project, a detailed **baseline study** is conducted to identify in advance the stakeholders potentially affected, describe the local context and assess the main socio-economic and cultural stakes (risks and opportunities) in the affected area. A **societal impact assessment** is then conducted to assess and analyze the opportunities and the direct, indirect or cumulative risks of the project in the short, medium and long term. In 2023, 61 of these studies were initiated or carried out.

In addition to these impact assessments, **specific human rights impact assessments** may also be conducted in high-risk areas or conflict zones with the support of independent experts.

Example: Tilenga and EACOP projects, Uganda and Tanzania

In February 2022 the Final Investment Decision for the Lake Albert Resources Development Project was taken, including both the Tilenga upstream oil project (operated by TotalEnergies EP Uganda) and the construction of the East African Crude Oil Pipeline (EACOP) in Uganda and Tanzania (in which TotalEnergies Holdings EACOP is a major shareholder).

All partners committed to implementing these projects in an exemplary manner, taking into consideration the environmental and biodiversity stakes, as well as the rights of the concerned communities, in accordance with the stringent performance standards of the International Finance Corporation (IFC).

Transparency

In accordance with its guiding principle of transparency in engaging with civil society, since March 2021 TotalEnergies publishes relevant studies, independent third-party reviews and social and environmental action plans related to both the Tilenga and EACOP projects. Such independent reviews help ensure that the projects are carried out in compliance with good international industry practices. Alongside the ongoing dialogue with the local communities, these reviews also allow potential improvements to be identified.

In 2023, TotalEnergies EP Uganda and EACOP demonstrated their commitment to transparency by providing clear, accessible and up-to-date information to their stakeholders on various aspects of their projects. The Tilenga project organized 16 field visits in 2023 totaling 2000 visitors, for NGOs and other stakeholders to monitor and review its social and environmental performance. In 2023, TotalEnergies EP Uganda (TEPU) also answered to more than 22 petitions in various areas covering allegations on human rights and environmental aspects. EACOP has made available on its website in 2023, regular construction updates including disclosing its Human Rights Due Diligence Reports, Gender and Social Inclusion Policy, Free Prior and Informed Consent agreements made with indigenous communities, local content updates. Quarterly engagement with civil society organizations in both countries also provides detailed updates on construction, social performance, land acquisition, environment, and biodiversity programs.

(1) In accordance with Article L.225-102-4 of the French Commercial Code, the report on the effective implementation of the Vigilance Plan is presented below. Since the identification of risks and the prevention of severe impacts on human rights, human health and safety and the environment overlap partially with certain risks covered in the extra-financial performance statement (refer to chapter 5), TotalEnergies has chosen to report below on the implementation of its Vigilance Plan by incorporating certain aspects of its extra-financial performance statement although the latter includes risks of varying degrees.

Human Rights Due Diligence and policies

For Tilenga as well as for EACOP, human rights impact assessments (HRIA) have been carried out as part of the social and environmental impact assessments. In addition, stand-alone human rights impact assessments were published in September 2018 for EACOP and in July 2022 for Tilenga. EACOP updated the HRIA in 2022 and the document is a section of the Human Rights Due Diligence report issued in December 2022, available on EACOP's website. This HRIA report was presented to NGOs in Uganda and in Tanzania in dedicated meetings in 2023.

Dedicated human rights teams in both projects have put in place action plans on the basis of these impact assessments and monitor their implementation. Human Rights Steering Committees have been set up for both projects to provide governance and monitoring. Processes are in place for investigation and fact-finding with respect to human rights allegations.

Both the Tilenga and EACOP projects published policies in 2022 setting out their commitment to human rights through all their activities. In 2023, for ease of access and comprehension, the Tilenga Human Rights policy was translated into a poster with pictograms highlighting human rights commitments and disseminated to the local communities.

In addition, EACOP published a Gender & Social Inclusion policy in November 2023. This policy, based on the UN Global Compact Women's empowerment Principles, is available on the EACOP website in English, Swahili and 3 other local languages. A Gender Action Plan has been also developed and its implementation by the relevant departments inside EACOP started in January 2024.

Stakeholder Engagement

Regular stakeholder engagement occurs with the full spectrum of project stakeholders including Ugandan and Tanzanian local, national and regional governmental authorities; Project-affected Communities (PACs) and Project Affected People (PAP)[1]; traditional and religious authorities; local businesses and tourism operators; developers of associated facilities; civil society organizations (CSOs) and NGOs; academic and research organizations; and Intergovernmental organizations.

A variety of methods and tools are used: village meetings, small group meetings, focus group discussions, one to one meetings, site visits and tours, alternative medium such as community drives etc. Engagement is supported by disclosure materials adapted to the audience including a range of written and visual material, traditional media including community radio, telecommunications and websites. As an example, as part of the Tilenga Project, an innovative series of webinars known as "Let's Talk!" provides a deep dive into topics of interest for civil society. In 2023 subjects covered included Livelihood Restoration, Safety, Human Rights in the Supply Chain, National Content and Cultural Heritage.

A field-based stakeholder engagement team including community relations supervisors (CRS), and community liaison officers (CLO) in Uganda, composed of both male and female officers, are present on the sites and are in dialogue with local communities and have developed strong relations with local government, civil society and community representatives. The field-based community relations supervisors in Tanzania and CLO in Uganda observe and guide construction contractor stakeholder engagement with PACs acting as a "bridge" between the project and communities and to ensuring stakeholder engagement for the project is consistent with EACOP principles of participation, respect for human rights, non-discrimination, empowerment, transparency and accountability.

In Uganda, TotalEnergies EP Uganda has maintained for several years relations with the Civil Society Coalition on Oil and Gas (CSCO), a network of over 60 Ugandan NGOs whose objective is to work towards the sustainable governance of oil and gas resources to maximize benefits to the people of Uganda. In July 2023, a field trip to the Tilenga project facilities was organized for members of CSCO. EACOP in Uganda is also engaging with CSCO in quarterly meetings.

To further improve the engagements with CSOs and NGOs, the 2023 Tilenga NGO Coordination workplan included a focus on having direct engagements with the grassroots NGOs based in the project area. By the end 2023, 54 bilateral engagements had been held with different grassroots NGOs.

Several partnership agreements were signed in 2023 to support environmental, social and human rights objectives including on restoration and conservation of forest reserves (with National Forestry Authority), conservation and restoration of wetlands and riparian vegetation within the Tilenga project Area (with the Ministry of Water and Environment), Road Safety (with the NGO Safe Way Right Way), and biodiversity (with Chimpanzee Sanctuary and Wildlife Conservation Trust and Wildlife Conservation Society).

Road safety sensitization in the community continued in 2023 in the 5 project districts. This included four inception meetings attended by numerous stakeholders including local leaders, police officers and leaders from different associations in the districts. Additionally, in July 2023, TotalEnergies EP Uganda launched the *VIA Road Safety Programme* in Buliisa District aimed at raising road safety awareness among young people. The NGO Safe Way Right Way was contracted to enforce and promote the initiative on behalf of TEPU.

In 2023, EACOP has continued to engage and dialogue frequently with the four vulnerable ethnic groups self-identifying as "Indigenous Peoples" impacted by the project - the Akie, Taturu, Barabaig and Maasai.

(1) A PAP (Project Affected Person) corresponds to a group of individuals forming a household or an entity (institution, company) which has been identified, within the framework of the studies carried out for the program of acquisition of the land necessary for the execution of the project, as having at least one asset impacted by the implementation of the project. An asset can be a dwelling, a construction, a plot of bare or cultivated land, plants, trees, crops.

EACOP's approach with these groups included in particular:

- The implementation of the EACOP Plan for Vulnerable Ethnic Groups self-identifying as "Indigenous Peoples" signed in September 2022. This Plan sets out EACOP's commitments to reinforced engagement, impact mitigation measures adapted to the specific lifestyle of these communities, access to project benefits and capacity building of these communities.
- Signing of the Free Prior and Informed Consent (FPIC) Agreements between EACOP and the Akie Community in July 2022, with the Taturu community in March 2023 and with the Barabaig community in January 2024.
- Collaboration with 3 indigenous NGOs to reinforce engagement using more traditional methods and build the capacity of the four communities on different topics.
- The design of a specific community social investment programme working with one of the indigenous NGOs and an international specialist company.

Land Acquisition

The land acquisition processes for both projects are carried out in compliance with the IFC Performance Standards and national regulatory framework.

The land acquisition program for both projects is well advanced.

In Tilenga, the compensation process for the first tranche of land acquisition, known as "Resettlement Action Plan 1 (RAP1)" concerning 622 PAPs was completed in 2021. Only 7 PAPs did not accept the compensation offered after valuation of their assets. Pursuant to a judgment of the Court of Masindi on April 30th, 2021 which ruled that the compensation amounts offered were fair, TotalEnergies EP Uganda deposited the corresponding funds in a court account for the benefit of these seven PAPs.

The Deployment of the program for RAPs 2 to 5, concerning 4,954 PAPs is well advanced. By the end of 2023, 99,1% PAPs had signed compensation agreements for impacted assets and 98% had already received compensation. All the PAPs who had not yet signed compensation agreements were subject to a Court Application which concerned 42 PAPs owning/claiming ownership rights in 32 land parcels. Several meetings were organized to reach an agreement. Faced with the impasse resulting from the PAPs refusals, the matter was taken to court by the Ugandan government represented by the Attorney General. At a hearing held on December 8, 2023 in the Ugandan town of Hoima (where part of the land affected by the Tilenga project is located), the High Court ruled in favor of the Ugandan government. It also decided to grant the owners concerned the right to file individual claims against the Ugandan government if they contest the value of the compensation awarded by the Chief Government Valuer. TotalEnergies EP Uganda deposited the compensations in a court account as directed by the Court Order on December 22, 2023. Notices to vacate have since been issued to the individuals by the Government.

On the total number of PAPs, a minority of them require relocation to replacement houses as their primary residence is affected by land acquisition. For RAPs 2 to 5, 189 out of 205 replacement houses have been handed over by end of December 2023, as part of the progressive deployment of the program. Until the replacement houses are delivered, the affected PAPs may continue to live in their original house.

Improvements in implementation of the land acquisition process following RAP 1 were integrated into procedures for RAPs 2 to 5 including reinforced information to communities to ensure that PAPs understand that they may continue to cultivate their land until they have received their notice to vacate following compensation.

The major part of EACOP land acquisition program is close to completion. As end of December 2023, 99% of PAPs in Tanzania and 91% of PAPs in Uganda had received compensation.

To support PAPs whose farming may be disrupted by the land acquisition process, transitional food assistance – a mix of food baskets and cash transfers – has been initiated and will continue until livelihoods have been reestablished.

For concerned PAPs, livelihood restoration programs are implemented for at least 3 years after land acquisition or until livelihoods are fully restored. These programs include financial literacy, agricultural programs to improve crops and livestock, tree nurseries, beekeeping, financial management and business capacity, as well as vocational training to support jobseekers.

Respect for Human Rights by suppliers

Both the Tilenga and EACOP projects have established processes to ensure suppliers respect worker rights with regard to pre-qualification, contracting, and verifications, inspections and audits of suppliers.

In TotalEnergies EP Uganda, a presentation was given to contractor senior management at the annual HSE Contractor Forum and sensitization sessions are regularly given to key suppliers. On EACOP side, human rights training sessions were also given to the suppliers and communication materials were developed for workers.

Human Rights in the workplace matters are considered during HSE audits and inspections. In addition to including some Human Rights aspects in HSE audits, targeted Human Rights audits are carried out for TEPU contractors and suppliers. These audits are known as "Sustainability Audits", focusing on sustainable development practices put in place by suppliers and contractors. In December 2023, 8 TEPU contractors and suppliers were audited by an independent third-party auditor. The results of the audits are shared with the concerned contractors, and where necessary, corrective action plans are shared with them for areas that require improvement.

In 2023 EACOP developed and started the implementation of the Industrial Relations (IR) Management System (IRMS) to ensure the project's labor management and working conditions for the contractor workforce are well respected. The IR team in Tanzania was recruited and onboarded in mid-2023 and all construction contractors were trained on the IRMS requirements. The IR team in Uganda was recruited in late 2023 and monitoring of the IR performance started in early 2024. The site-based Industrial Relations Supervisors (IRS, Tanzania) and Industrial Relations Officers (IRO, Uganda) are responsible for developing and implementing key systems and processes, such as site workers forums and committees, monthly reporting to the project, workers grievance mechanisms, and IR training, inductions, and awareness raising at the worksite to communicate on workers' rights.

Further, in 2023 an additional tool called "Worker's Voice Tool" was rolled out on a pilot basis to selected contractors to monitor their respect for workers' rights for Tilenga and EACOP projects. This pilot initiative allows the Project to collect feedback on working conditions on site directly from contractors' workers through surveys sent to their mobile phones or via paper surveys. The surveys have been translated into six local languages used in the projects area to improve participation by diverse workers in both projects.

VPSHR and Human Rights Defenders

The Company adheres to the Voluntary Principles on Security and Human Rights (VPSHR) and ensures that no security personnel are deployed without a prior VPSHR training. A constant dialogue occurs through regular meetings and Human Rights awareness sessions. In 2023, TotalEnergies EP Uganda conducted VPHSR trainings and refresher trainings for 2,098 Government and Private Security personnel.

For EACOP, the Host Government Agreements with Tanzania and Uganda included VPSHR. Risk Assessments have been undertaken in Tanzania and Uganda, and action plans for ongoing implementation of the VPSHR have been developed. A Security Committee has been formed for the project that comprises the EACOP Security Manager and representatives of public security forces from Tanzania and Uganda. This is a key forum for EACOP to promote the VPSHR. In 2023 100% security guards (231 male and 28 female guards), employed in Uganda and in Tanzania by contractors, have been trained on VPSHR.

TotalEnergies EP Uganda and EACOP are committed to respecting the rights of Human Rights Defenders (HRDs) in relation to the projects. They regularly engage with the government, petroleum authorities, police, and civil society to discuss the importance of freedom of expression, peaceful protest, and an open civic space. They have published their positions and policies on HRDs on their websites, and they have provided various channels for stakeholders to make complaints or raise alerts, such as an office in the project area, a toll-free number, Community Liaison Officers (CLOs), an email service and contact through traditional leaders and district authorities. TEPU and EACOP strongly oppose any threats or attacks against HRDs and seek to exercise their influence with relevant persons or authorities where, in the framework of their activities, it is alerted of allegations of threats, intimidation, harassment or violence against stakeholders.

Community grievance mechanisms

Community grievance mechanisms in line with the United Nations guiding principles on business and human rights criteria have been put in place to receive and respond to community grievances including those of PAPs.

For Tilenga, there are a variety of access points to present grievances which include a local office manned daily in Uganda, a toll-free number, an email address, Community Liaison Officers and local authorities who relay such information to the project teams.

Grievances are recorded in a register and an online data management tool within 24 hours. Where possible, they are resolved within 24 hours, but for more complex cases, the process has four levels of escalation. If the proposed solution is accepted, the case is closed. A document confirming the proposed solution and its acceptance is issued (close out form). If the proposed solution is not accepted, discussions with the person who filed the complaint will continue, if necessary, with the support of external stakeholders and independent third parties. If no agreement is reached, the person remains free to take the matter to the appropriate authorities.

In 2023, considerable efforts were made to communicate broadly on the grievance mechanism. For example, for Tilenga, all contractors and CLOs were trained on the mechanism and its implementation, community village sensitizations were conducted in 60 project villages, and materials such as grievance books and brochures were printed and disseminated to the community.

During year 2023, TEPU registered a total of 69 grievances. 48 out of the 69 registered grievances (70%) were resolved and closed. By the end of 2023, 21 grievances remained opened.

EACOP's Community Grievance Management Procedure, launched in both countries in 2017, was updated in 2022 in particular to integrate local dispute resolution processes. Internal Grievance Management Committees have been established for the governance of Grievance Management in each country. Communication on Grievance Procedures has been reinforced through stakeholders' meetings, distribution of leaflets in communities as well as information and a video available on EACOP website.

During year 2023, EACOP registered a total of 175 grievances. By the end of 2023, 35 grievances (registered in 2023 or earlier) remained open.

Example: Mozambique LNG Project

TotalEnergies EP Mozambique Area 1 (TEPMA1) has held since 2019 a participation of 26.5%[1] of Mozambique LNG Area 1 Project. It is the first onshore development of a liquefied natural gas (LNG) plant in the country located on the Afungi Peninsula, District of Palma, in the Cabo Delgado province.

The Project faces significant social challenges with the displacement of households and cultivating lands within the area of construction of the LNG facilities (7,000 ha), which was underway when Project activities were suspended in April 2021, as well as impact on fishers' economy due to the establishment of a Marine Exclusion Zone.

Local security situation

The Cabo Delgado province has experienced the surge of a "terrorist" movement leading to attacks against villages and large towns and causing the displacement of hundreds of thousands of people.

After taking the town of Mocimboa da Praia, in the summer of 2020, located about 80 kilometers from the Project site, the terrorist movement conducted attacks in the northeast Cabo Delgado Province by attacking populations. This situation reached a peak with the attack of the town of Palma located 6km away from the Afungi site on March 24th, 2021. The intensity and duration of the attacks prompted the evacuation of personnel from the site. This situation led Mozambique LNG to declare force majeure on April 26, 2021. Since July 2021, the Mozambican government took military assistance from external partners (Southern African Development Community and Rwandese forces) to retake security control of Cabo Delgado.

Human rights due diligence and Human rights policy

Respect for human rights is a commitment and continuous focal area for Mozambique LNG throughout the Project.

To this end, a Human Rights Impact Assessment (HRIA) had been conducted in 2015 for the Project which was then operated by Anadarko.

To update that assessment and complete it with assessments on the Voluntary Principles on Security and Human Rights (VPSHR) and social performance, a Human Rights Due Diligence (HRDD) was conducted by LKL International Consulting and published in 2020. The due diligence resulted in an action plan addressing the following salient issues: Security (Community security and Interaction with public security providers), Resettlement, Women's rights and gender equity, Workers' rights (Freedom of association), Information and consultation, Community health and safety, Project-induced in-migration (PIIM), Access to remedy.

Mozambique LNG formalized the learnings from these assessments and its approach regarding human rights by adopting its Human Rights Policy in March 2021.

The update of the HRDD launched in December 2022 was conducted in 2023.

Given the rapidly changing situation in the province, TotalEnergies on behalf of the partners of the Mozambique LNG, entrusted Jean-Christophe Rufin, a recognized expert in the field of humanitarian action and human rights, with an independent mission to assess the humanitarian situation in the province of Cabo Delgado. Published in May 2023, his report highlighted the execution quality of the actions undertaken by Mozambique LNG and their positive impact on the living conditions of local population and made recommendations for improvements to Mozambique LNG's actions on the ground.

Mozambique LNG is continuing to pursue transparency, engagement, and communications with internal and external stakeholders about the Project's salient human rights issues. To this end, multiple awareness-raising sessions on human rights were organized in 2023 to train the Project staff, with the participation of the Mozambican government, the Office of the United Nations High Commissioner for Human Rights, CSOs and NGOs in Maputo, Pemba and Palma districts.

VPSHR implementation

The Security Memorandum of Understanding (Security MoU) signed in March 2019 (amended in July 2020) between Mozambique Security Providers (Ministry of National Defense and Ministry of the Interior) and oil and gas companies (Area 1 and Area 4) remained in place until October 2023. This Security MoU is being replaced by a new framework with the Authorities of Mozambique. The new framework has a wider scope, aiming at the restoration and stabilization of public services in the Cabo Delgado province and promoting a suitable environment for proper performance of the Project. It also takes onboard the observations on the Security MoU made by Mr. Jean-Christophe Rufin in his May 2023 report and maintains the undertakings by the protection forces in terms of respect of human rights and VPSHR training.

Police and army personnel together (formerly designated as the Joint Task Force or JTF, now as Protection Forces or PF) deployed to ensure security of Project operations and workforce and the communities residing in the broader Project area of operations, received VPSHR training to ensure adherence to key human rights standards.

VPSHR training sessions have been systematically conducted for all PF officers deployed to site. In 2023, 745 PF officers were trained by qualified personnel with extensive experience on security and VPSHR. The trainers included Mozambique LNG staff and officials occupying high command positions within the PF.

In parallel, five PF officers in charge of relations with local communities in close relation with the Project, continued to deliver humanitarian and social activities together with members of their team, thereby contributing to better resolution of potential disputes.

Finally, Mozambique LNG is also involved in the promotion of VPSHR at national level. Mozambique LNG contributed to the initiative that led to the establishment of an In-Country Working Group on the VPSHR and a Cabo Delgado Technical Working Group launched in April 2022. In 2023, the Project staff attended meetings of the Working Group and made presentations highlighting its work to put the VPSHR into practice.

(1) TEPMA1, operator, holds a share of 26.5% in the Mozambique LNG Area 1 Project, and partners with ENH Rovuma Area Um. S.A. (15%), Mitsui E&P Mozambique Area1 Ltd. (20%), ONGC Videsh Ltd. (10%), Beas Rovuma Energy Mozambique Limited (10%), BPRL Ventures Mozambique B.V. (10%), and PTTEP Mozambique Area 1 Limited (8.5%).

Local grievance mechanism and Incident resolution

Mozambique LNG has implemented a community grievance mechanism, managed remotely, supported notably by a 24h-toll-free telephone line to address any concerns or incidents.

When PF-related incidents are reported, they are investigated by the Project staff, and referred to the PF command for additional investigation. Mozambique LNG takes measures to preserve the anonymity of complainants.

In 2023, monthly reports on the implementation of VPSHR were provided to the representatives of the parties of the Security MoU. Ministerial authorities are regularly engaged and discuss about the implementation of the VPSHR with Mozambique LNG.

In addition, the Project monitors VPSHR incidents on a case-by-case basis by alerting and communicating directly with the authorities and taking the appropriate measures.

Resettlement

The construction and operation of the Mozambique LNG Project and the Area 4 Rovuma LNG project involve the physical displacement of the Quitupo community and economic displacement of households cultivating lands, intertidal collectors and fishing activities within the Project area.

To manage involuntary displacement and ensure the re-establishment and development of livelihoods within the Project area, Mozambique LNG and Area 4 Rovuma LNG projects have developed a Resettlement Plan that was approved by the Government of Mozambique.

The Resettlement Plan implementation was affected by the suspension of activities in Afungi in March 2021. Project teams continued engaging remotely with the resettlement-affected community stakeholders. The implementation of the Resettlement Plan has resumed since June 2022.

Construction of the Quitunda village was completed in 2023, allowing the relocation of remaining families in Quitupo.

Along with the Resettlement Plan, compensation activities resumed in June 2022. At year-end 2023, 99% of land-based impacted households had signed their compensation agreements and compensation related grievances are being handled as part of the grievance management system. Compensation for fishers and intertidal collectors has resumed in 2023.

Livelihood & Socioeconomic Development Initiatives

The Mozambique LNG Project employs investments into different socioeconomic development projects within its neighboring communities and society. Following the recommendations of Mr. Jean-Christophe Rufin, the Project created a Foundation in 2023 for the implementation a socio-economic development program covering the whole territory of the Cabo Degaldo province, as part of a consistent and sustainable development strategy. As of end of December 2023 the Foundation has been registered with the national authorities, and consultations are ongoing with the Government, development institutions and civil society on both its governance and its scope.

In 2023, Mozambique LNG continued to engage with the communities in Cabo Delgado, and support their recovery and development after the security crisis. Various socioeconomic development initiatives related to income generation, economic diversification, agriculture, fishery, education, WASH (water, sanitation and hygiene) sectors were implemented, reaching thousands of beneficiaries, including creation of more than 7,800 local jobs.

The Project is committed to ensuring the sustainable and inclusive development and retained the Vulnerable People Program to facilitate a broader humanitarian response. The actions include distribution of food and basic goods, a vulnerable people's nutrition program in Quitunda and Maganja, actions to facilitate the return of government health care workers and the coordination of support efforts with government, local NGOs and other entities in Afungi.

Subsidiary self-assessment

In addition to Subsidiary and industrial project assessments, two types of **Subsidiary self-assessment** should be noted.

With regard to the implementation of **VPSHR**, the self-assessment and risk analysis tools were revised in 2022 to make them more adaptable to the local context. In 2023, the strategy for implementing these tools mainly targeted the Subsidiaries of countries that had not participated in the 2022 campaign, or whose rate of compliance with VPSHR was low. They have thus been deployed to Subsidiaries in 98 countries with a response rate of 100%.

With regard to the implementation of the **societal approach**, the Subsidiaries must carry out an annual self-assessment in this area and internal *reporting* to identify the societal actions carried out locally. These self-assessments are analyzed by the HSE division in order to adapt the support it provides to Subsidiaries (offers of training, assistance). In 2023, 100% of the Subsidiaries in the One MAESTRO roll-out scope, with an operational activity, carried out their self-assessment.

ACTIONS TO MITIGATE RISKS AND PREVENT IMPACTS

TotalEnergies has numerous tools for **raising employee awareness** of issues related to human rights. The Company held **training courses tailored to the challenges faced in the field** by employees who are particularly exposed to these issues.

In 2023, several training sessions were held as part of the implementation of the Human Rights training plan:

For target groups

More than 3,500 employees belonging to the priority categories were trained in face-to-face training sessions in 2023.

- Within the Marketing & Services segment, 1,750 employees were trained. These employees include members of the Management Committees as well as other priority categories of employees (network directors, segment managers and service station managers) within the Subsidiaries, particularly in South Africa and Egypt but also in Côte d'Ivoire, Cameroon, the Dominican Republic, Lebanon, Jordan and Mozambique.
- Within the Exploration & Production segment, nearly 400 employees were trained in respect for human rights, including members of the Management Committees of the Subsidiaries in Mozambique, Lebanon and Brazil.
- In the Integrated Power and Integrated LNG segments, more than 800 employees were trained in respect for human rights in France (Saft Groupe and Total Eren sites) and in Brazil (Casa dos Ventos).

– In the Refining & Chemicals segment, more than 450 employees were trained in respect for human rights, including members of the segment's Management Committee and certain priority groups at Hutchinson sites in Vietnam, Brazil and India.

Finally, in France, more than 70 employees from all TotalEnergies business segments participated in two workshops organized in partnership with Shift, on crisis communication management regarding human rights. These employees include members of the Company's communications teams and human rights network.

Training on ethics and human rights was followed by around 20 newly appointed executives in 2023.

For all employees

The online module on human rights in the workplace with a focus on respecting the ILO's core conventions, which has been accessible to all employees since 2019 in all countries and mandatory for all management employees, continued to be deployed in the countries where TotalEnergies is present. It is available in five languages and more than 69,000 employees had followed it by the end of 2023.

In addition, representatives of the Human Rights department regularly participate in external events with other companies and institutional players to share experiences and best practices in this area.

For the **societal**, several activities intended to raise awareness among the various entities on societal issues and tools were deployed in 2023:

– At the level of the Company:
  – a societal module of the HSE for Managers training program, 10 sessions of which were delivered in 2023 with a total of more than 230 participants.
  – a webinar on land acquisition and involuntary relocation with around 50 participants;
  – 4 awareness sessions on societal indicators in the HSE Campus, with around 40 participants from all segments.
  – a specific session adapted to the Nature Based Solutions division on the subject of Land Acquisition and involuntary relocation with around 20 participants.
  – 6 webinars, attended by more than 160 participants, were organized in October 2023 for the launch of the societal reporting campaign.
– In Marketing & Services, a societal module was included in the MS HSE Fundamentals training for new HSE managers. Close to 70 employees were trained in 2023.
– In the Integrated Power segment, 4 awareness webinar sessions on managing societal impacts reached more than 370 participants.
– In Exploration & Production, 4 training sessions in 2023 were attended by a total of around 50 people from 9 countries (Angola, Bolivia, Brazil, Republic of the Congo, Denmark, France, Italy, Norway and Uganda).
– A new social awareness module, created in 2022, is available to all employees through the internal training platform (e-learning). It reached close to 230 participants in 2023.

In 2023, the digital platform named Societal Academy, which makes the necessary educational resources accessible to Subsidiaries, such as rules, guides, training materials, feedback and best practices, was improved by the addition of new content.

In certain situations, intervention by government security forces or private security companies is necessary to protect the Company Subsidiaries' staff and assets. TotalEnergies regularly organizes training sessions and awareness-raising activities for its employees on the risk of disproportionate use of force and, more specifically, on the VPSHR. In 2023, this awareness-raising work led the VPSHR liaisons to continue the revision the content of the training courses in order to make them more accessible and better adapted to changes and issues related to human rights and security and to offer these new modules as part of VPSHR training missions in Subsidiaries, for more than 960 participants. This improvement was made mainly by developing a new online training module for the Country Security Officers, who support Country Chairs in their role of being responsible for the Company's security at country level and who are the representatives of the Company Security division in charge, among other things, of implementing the VPSHR. In 2023, 126 Country Security Officers completed this online training.

In addition, specific awareness-raising work on compliance with the VPSHR and their deployment in the entities considered most at risk is carried out annually. The contribution of the Subsidiaries to the annual "ADRA Campaign" (*Auto-Diagnostic and Risk-Assessment*) enables the VPSHR teams of the Security division to assist them with improvement actions throughout the year.

WHISTLE-BLOWING MECHANISMS

TotalEnergies has set up several levels of whistle-blowing mechanisms that cover the entire Company or are specific to certain projects.

In 2023, the **Ethics Committee** received about 170 reports (internal, external, anonymous) regarding compliance with the Code of Conduct, more than 70% of them concerning matters relating to Human Resources. All reports received are addressed and, when necessary, recommendations are made in order to lead to the implementation of corrective actions. Irrespective of whether the referral is well founded, mediation may be necessary. When the Ethics Committee observes a breach of the Code of Conduct, management draws the necessary conclusions and sanctions may be imposed in keeping with the applicable law and the procedures negotiated locally with staff representatives (examples include verbal reminders, written warnings, suspension or dismissal).

The *Collection and processing of ethical complaints* procedure published internally and on the TotalEnergies website since December 2020, then updated, formally sets out the existing approach for collecting and processing complaints sent to the Ethics Committee by internal or external stakeholders concerning behaviors or situations contrary to the Code of Conduct. It ensures that the identity of the person making the report is protected, rules out any reprisals against them or against those taking part in the processing of the complaint, and respects applicable laws and regulations in terms of protecting personal data.

The Subsidiaries have also put in place **mechanisms for managing grievances made by external stakeholders**. Deployment is gradual throughout the Company.

At the end of 2023, 100% of the Subsidiaries within the One MAESTRO scope with an operational activity, had a grievance management mechanism in place.

Complaints received by the Subsidiaries in connection with the societal impact of their activities may concern: access to land and habitat, economic losses/loss of livelihood, risks to the environment and health, employment and the value chain, road safety, logistics and transportation, adverse impact on culture heritage, security and social conduct, the quality of local dialogue and the management of socio-economic development projects. The number of complaints received in 2023 is 638, with a percentage of solved complaints of 80%.

In case of **incidents related to the implementation of the VPSHR,** a reporting is quickly made to the Security division, and a report is compiled after internal analysis to assess the facts and to determine the measures to be taken to reduce the risk of future incidents.

MONITORING PROCEDURES

The Company **human rights roadmap**, built with the different business segments and the departments concerned, is presented at regular intervals to members of the Company's management team to support the ongoing efforts to enforce the Code of Conduct and respect for human rights. The Human Rights Steering Committee monitored the implementation of this roadmap.

For each specialty or business segment, the roadmap addresses questions of governance (for example, an internal procedure to be updated), new trainings to be developed, the prioritization of salient issues in a given specialty or segment, dialogue with stakeholders (for example, by appointing and training CLOs), risk assessment (for example, in the impact assessments of new projects), preventive and remediation actions, monitoring and communication. The Human Rights Department and the Ethics Committee rely on a network of more than 100 Ethics officers across the countries in which TotalEnergies operates. They are in charge of promoting the values set out in the Code of Conduct among employees working at Subsidiaries and ensuring that the Company's commitments are correctly implemented at a local level.

Each business segment, as well as the TotalEnergies Global Procurement branch in charge of the Responsible Purchasing program, have designated a human rights representative who coordinates this subject for its scope and cooperates with the Human Rights department with which it meets regularly in order to address the subjects in progress.

Regarding the **VPSHR**, TotalEnergies takes part in **follow-up meetings** with the other members of the initiative as part of the process of continuous improvement. In March 2023, TotalEnergies published its 2022 VPSHR report, which contains information on the implementation of VPSHR in Subsidiaries worldwide, and reviews progress made. This report is available on the TotalEnergies website. The information set out in the report is based on annual reporting organized by the Security division that brings together the results of a VPSHR questionnaire, and of the risk and compliance analyses for each Subsidiary operating in a sensitive context. It contains examples of action taken to raise awareness and process incidents. The 2023 VPSHR report will be published in 2024.

3.6.8.2 Health and safety

This section is primarily intended to present implementation of measures with respect to Subsidiaries, while the implementation of measures specific to Suppliers is described in point 3.6.8.5 of this chapter.

SUBSIDIARY ASSESSMENTS

In addition to the HSE self-assessments of the Subsidiaries at least every two years, the Subsidiaries operating the sites are audited every three to five years. The periodicity of HSE audits is defined according to a risk-based approach, which takes into account, among other things, the results of previous HSE audits and the status of the corresponding action plans.

In 2023, 39 HSE audits were conducted.

ACTIONS TO MITIGATE RISKS AND PREVENT IMPACTS

In terms of HSE, **training intended for various target groups** (new arrivals, managers, senior executives and directors) is provided in order to establish a broad-based, consistent body of knowledge that is shared by all:

- *Safety Pass:* these safety induction courses were started on January 1, 2018 for new arrivals. Various courses exist depending on the position and cover the Company's main HSE risks, the risks linked to the site activities as well as those linked to the workplace. The theoretical content is supplemented by practical life-saving actions training sessions,
- *HSE for Managers* is aimed at current or future operational or functional managers within one of the Company's entities. This training was delivered in virtual classroom mode as well as face-to-face in 10 sessions in 2023, in which about 230 managers took part,
- *Safety Leadership for Executives* is intended for the Company's senior executives. Its objective is to give senior executives the tools allowing them to communicate and develop a safety culture within their organization. Four sessions were held in 2023 to train approximately 40 Company's senior executives.

In order to ensure and reinforce knowledge of the reference framework, a knowledge evaluation tool containing over 3,000 multiple-choice questions was developed in 2018 for use by the HSE managers of Subsidiaries, operated sites and their teams. This tool can also be used to determine a suitable training plan, if necessary. Approximately 20 evaluations were carried out in 2023.

World Safety Day is held each year by the HSE division. The theme in 2023 was "Technological risks: Everyone's involved, everyone has a role". In addition, TotalEnergies encourages and promotes its Subsidiaries' safety initiatives. Each year, the Company recognizes and awards the best HSE initiative carried out in a Subsidiary.

As regards crisis management, the intervention teams at Subsidiaries and head office practice their crisis management activities regularly on the basis of scenarios identified by the risk analyses. These personnel may follow dedicated training depending on their specific functions. The context of the COVID-19 pandemic demonstrated the Company's capacity for resilience, where the Company used, in various formats, its procedures and methodologies to organize crisis management exercises in person, remotely or in a hybrid format. This was made possible in particular through the development of digital crisis units for the headquarters, business segments and Subsidiaries and the deployment of associated training. In 2023, around 650 individuals were thus trained in crisis management in Subsidiaries and at head office.

TotalEnergies also continued to roll out its *Incident Management System* (IMS) at Subsidiaries operating liquid hydrocarbon or natural gas exploration and production sites in the Exploration & Production, Integrated LNG and Integrated Power segments. The IMS is a harmonized system for the management of emergency situations. It is described in an IPIECA (*International Petroleum Industry Environmental Conservation Association)* good practices guide and is being progressively adopted by the majors. In 2023, 275 employees were trained in the IMS and seven Exploration & Production Subsidiaries carried out a large-scale application exercise, bringing the total number of trained employees to 1055 and the number of Subsidiaries where the IMS is deployed to 23.

Return on experience (feedback) on HSE incidents is regularly collected. A return on experience document describes the HSE incident or the corresponding accident, includes an analysis and recommendations applicable to similar situations. 72 documents (feedback, best practices, alerts) were disseminated within the Company in 2023.

MONITORING PROCEDURES

In the field of prevention of major industrial accidents, the Company monitors the number of Tier 1 and Tier 2 losses of containment as defined by the American Petroleum Institute (API) and the International Association of Oil & Gas Producers (IOGP). After reaching its target in 2022, the Company has strengthened its demands and has set itself a new target of a number of Tier 1 and Tier 2 events below 50 in 2023. This objective was achieved in 2023. In addition to the 48 Tier 1 and Tier 2 events linked to operations indicated in the table below, the Company experienced 6 Tier 1 or Tier 2 events due to acts of sabotage or theft in 2023.

Losses of primary containment[(a)]	2023	2022	2021
Losses of primary containment (Tier 1)	19	11	29
Losses of primary containment (Tier 2)	29	37	48
Losses of primary containment (Tier 1 and Tier 2)	48	48	77

(a) Tier 1 and Tier 2: indicator of the number of losses of primary containment with more or less significant consequences (fires, explosions, injuries, etc.), as defined by API 754 (for downstream) and IOGP 456 (for upstream). Excluding acts of sabotage and theft.

Tier 1 and 2 events had moderate consequences in terms of safety (lost time injuries, fires or pollutions). The Company did not have any major industrial accidents in 2023.

In the field of road transportation, to measure the results of its policy, TotalEnergies has, for many years, been monitoring the number of severe road accidents involving its employees and those of contractors. Over the past 5 years (2018 - 2023), the 63% reduction in the number of serious accidents demonstrates the efforts made, particularly thanks to the prevention campaigns targeting the drivers of heavy goods vehicles.

Based on the use of new technologies to prevent road accidents, TotalEnergies internal rules ask for all new heavy vehicles in the Marketing & Services segment to be equipped with certain driver assistance systems[(1)] wherever these technologies are offered by manufacturers. The decision was also made to generalize, at Company's perimeter, the use of fatigue and distraction detection systems, after conclusive tests carried out over several months on heavy vehicles in the Africa Marketing & Services zone. Deployment is underway globally with the aim of having these devices, as well as lane departure warning and frontal collision warning systems, on all heavy vehicles by the end of 2024. The Company's Rules require all the Company's light vehicles, as well as the contractors' dedicated light vehicles, to be also equipped with the same devices during fleet renewals.

Furthermore, for 2023-2024 the third part of the SafeDriver video campaign was launched with the theme "All SafeDrivers". The topics covered are: "I control my vehicle in all circumstances", "I don't drive if I'm tired and I avoid any distraction while driving" and "I'm attentive to others while driving".

Number of severe road accidents[(a)]	2023	2022	2021
Light vehicles and public transportation[(b)]	4	3	1
Heavy goods vehicles (trucks)[(b)]	7	12	20

(a) Overturned vehicle or other accident resulting in the injury of a crew member or a passenger (recordable accident).
(b) TotalEnergies vehicles or vehicles under long-term contract (over 6 months) with TotalEnergies.

In the field of safety, in particular in the workplace, the indicators monitored by TotalEnergies include work-related accidents whether they occur at workplace, during transportation within the framework of long-term contracts, or during an industrial accident. In addition to its aim of zero fatalities in the exercise of its activities, TotalEnergies has set itself the target of continuously reducing the TRIR indicator and, for 2024, of reducing it below 0.62 for all personnel of the Company and its contractors. The 2023 target was 0.65.

Safety indicators	2023	2022	2021
Millions of hours worked – All Personnel	400	392	389
Company Personnel	212	217	215
Contractors' employees[(a)]	188	175	174
Number of occupational fatalities – All Personnel	2	3	1
Company Personnel	0	0	1
Contractors' employees[(a)]	2	3	0
Number of occupational fatalities per hundred million hours worked – All Personnel	0.50	0.77	0.26
TRIR[(b)]: number of recorded incidents per million hours worked – All Personnel	0.63	0.67	0.73
Company Personnel	0.51	0.60	0.59
Contractors' employees[(a)]	0.77	0.76	0.91
LTIR[(c)]: (lost time injury rate) number of lost time accidents per million hours worked – All Personnel	0.40	0.45	0.48
Company Personnel	0.42	0.51	0.47
Contractors' employees[(a)]	0.38	0.39	0.48
SR[(d)]: number of days lost due to accidents at work per million hours worked - All Personnel	12	15	15

(a) As defined in point 5.11.4 of chapter 5.
(b) TRIR: Total Recordable Incident Rate.
(c) Lost Time Injury Rate.
(d) SR: Severity rate.

In 2023, out of the 252 occupational accidents reported, 248 related to accidents at the workplace. 72% of these occurred, in decreasing order of the number accidents, walking, when handling loads or objects, using portable tools or working with powered systems.

The Company's efforts on safety have allowed it to reduce the TRIR by more than 60% between 2013 and 2023. This improvement is due to constant efforts in the field of safety and, in particular:

- the prevention of the risks of serious and fatal accidents by campaigns aimed at road transport and high-risk work,
- the implementation of the HSE rules and guides, which are regularly updated and audited,
- training and general awareness raising with safety issues for all levels of management (World Safety Day, special training for managers),
- HSE communication efforts targeting all Company personnel,
- the maintaining of HSE objectives into the remuneration policy for TotalEnergies employees (refer to point 5.6.1.2 of chapter 5).

(1) Such as AEB (advanced emergency braking). LDW (lane departure warning) and EBS (electronic braking system) for motor vehicles and RSS (roll stability support) for semi-trailers.

Despite the measures implemented and detailed below, there were regrettably two accidental fatalities among the personnel of contractors in 2023. In February, in the Netherlands, a worker lost his life in a reactor during a catalyst unloading operation in an inert atmosphere. In May, during excavation work at a service station in France a worker was struck by a metal beam he was guiding while handling it with a mechanical shovel. For each of these accidents, specific prevention measures have been taken at the Company level beyond the overall programs already in place, including the ban of any entry into confined spaces under an inert atmosphere during catalyst unloading operations. For each new catalyst unloading operation, alternative solutions have been developed and implemented at all TotalEnergies sites, and communicated to the industry's safety networks. Work supervision measures at service stations were furthermore reinforced.

In the field of occupational health, the annual Industrial Hygiene survey sent to the Company's Subsidiaries in order to evaluate the rate of implementation of risk analyses in the workplace, to verify that potential exposures have been identified, and that action plans are in place.

	2023	2022	2021
Entities having carried out workplace Health risk analysis	92%	91%	88%

In this field, TotalEnergies uses the following indicators:

Health indicators (WHRS scope)	2023	2022	2021
Percentage of employees with specific occupational risks benefiting from regular medical monitoring	100%	99%	97%
Number of occupational illnesses recorded in the year (in accordance with local regulations)	107%	129	158

3.6.8.3 Environment

This section is primarily intended to present implementation of measures with respect to Subsidiaries, while the implementation of measures specific to Suppliers is described in point 3.6.8.5 of this chapter.

SUBSIDIARY ASSESSMENTS

HSE audits, which include a section on the environment, are described in point 3.6.8.2 of this chapter.

The One MAESTRO reference framework states that the environmental management systems of the sites operated by the Company that are important for the environment[1] must be ISO14001 certified within two years of start-up of operations or acquisition: 100% of these 79 sites were compliant in 2023. In addition to this requirement, at year-end 2023, a total of 281 sites operated by the Company were ISO14001 certified, including 14 newly certified sites.

ACTIONS TO MITIGATE RISKS AND PREVENT IMPACTS AND MONITORING PROCEDURES

In terms of **preventing the risk of accidental pollution**, TotalEnergies monitors indicators that allow it to assess the preparedness of Company operated sites for oil spills.

Oil spill preparedness	2023	2022	2021
Number of sites whose risk analysis identified at least one risk of major accidental pollution to surface water	122	113	119
Proportion of those sites with an operational oil spill contingency plan	100%	100%	100%
Proportion of those sites that have performed an oil spill response exercise or whose exercise was prevented following a decision by the authorities	99%	92%	97%

In accordance with industry best practices, TotalEnergies monitors accidental liquid hydrocarbon spills of more than one barrel. Spills that exceed a predetermined severity threshold are reviewed on a monthly basis and annual statistics are sent to the Performance Management Committee of the Company. All spills are followed by corrective actions aimed at returning the environment to an acceptable state as quickly as possible.

Accidental liquid hydrocarbon spills of a volume of more than one barrel that affected the environment, excluding sabotage	2023	2022	2021
Number of spills	27	49	65
Total volume of spills *(thousands of m^3)*	1.7	0.1	2.0
Total volume recovered *(thousands of m^3)*	~0.0[a]	0.1	1.7

(a) Precisely 40 m^3.

The reduction in the accidental events continued in 2023. A significant offshore spill was treated by dispersion in Nigeria.

As part of TotalEnergies' policy of **avoiding**, **reducing** and where necessary **offsetting** the environmental footprint and effects on nature in general of its operations, discharges of substances are identified and quantified by type of environment (water, air or soil) so that appropriate measures can be taken to better control them.

In 2015, SO_2 emissions reached 59 kt. TotalEnergies has set itself the target of reducing its emissions by 75% in 2030 (compared to 2015), which entails not exceeding 15 kt.

Atmospheric chronic emissions	2023	2022	2021
SO_2 emissions *(in kt)*	12	13	16
NO_x emissions *(in kt)*	60	60	59
NMVOC emissions[a] *(in kt)*	43	48	58

(a) Non-methane volatile organic compounds.

SO_2 emissions that are likely to cause acid rain are regularly checked and reduced. In 2023, SO_2 emissions decreased due to investment implementation in Belgium, to an operating stop at a refinery in Belgium and to the supply of low sulphur content crude oils.

NOX emissions mainly concern the hydrocarbon exploration and production activities. They are mostly located offshore, far from the coast.

In January 2022, TotalEnergies set a new target for the quality of onshore discharge water to be achieved by 2030. Compared to the previous objective, it divides by 15 the maximum hydrocarbon content expected for these discharges. At year-end 2023, 100% of onshore sites comply with the previous objective of 15 mg/l and 86% with the reinforced objective of 1 mg/l introduced in 2022. Studies have been launched to improve the discharges from sites that are still not in compliance.

(1) Production sites of the subsidiaries of the Exploration & Production segment subsidiaries, sites producing more than 250 kt/y in the Refining & Chemicals and Marketing & Services segments, and gas-fired power plants in the Integrated Power segment, operated by the Company.

Discharged water quality	2023	2022	2021
Hydrocarbon content of offshore continuous water discharges *(in mg/l)*	11.6	12.9	13.7
% of sites that meet the target for the quality of offshore discharges *(30 mg/l)*	92%	93%	92%
Hydrocarbon content of onshore continuous water discharges *(in mg/l)*	1.9	1.8	2.6

Discharged water quality	2023	2022	2021
% of sites that meet the target for the quality of onshore discharges of goal 2030: 1 mg/l	86%	73%	80%

As part of the implementation of its **biodiversity ambition,** an overview of measures already taken and updated for 2023 under the four core principles of this ambition is provided in point 5.5.4 of chapter 5.

3.6.8.4 Climate

SCOPE OF REPORT

This part of the implementation report relates to greenhouse gas emissions resulting from the Company's Activities (Scope 1+2), in accordance with the provisions of Article L. 225-102-4 of the French Commercial Code. TotalEnergies also reports on indirect greenhouse gas emissions related to the use by customers of energy products (Scope 3[(1)]) and related actions, in accordance with Article L. 225-102-1 of the French Commercial Code, in its extra-financial performance statement (refer to point 5.4 of chapter 5).

GOVERNANCE

In order to contribute concrete responses to the issue of climate change, TotalEnergies relies on a structured organization and governance.

Climate issues are addressed at the highest level of the organization by the Board of Directors and the Executive Committee, which have fully committed to transforming TotalEnergies into an integrated energy company and a major player in the energy transition. The Chairman and Chief Executive Officer with the members of his Executive Committee as well as the Lead Independent Director participate all year long to a nourished dialogue with shareholders and different stakeholders on the Company's climate issues. As an illustration, on April 4 and 5, 2023, the Lead Independent Director exchanged with diverse shareholders representing close to 20% of the share capital of TotalEnergies SE. These meetings have been the opportunity of a dialogue about the transition strategy of TotalEnergies, its progress and the update of its climate ambition.

The Board of Directors also reports annually to the shareholders on the progress made. As in 2022 and 2021, the Board of Directors submitted at the Annual Shareholders' Meeting on May 26, 2023 to the shareholders of TotalEnergies SE for their opinion the Sustainability & Climate Progress Report 2023, reporting on the progress made in the implementation of the Corporation's ambition in terms of sustainable development and energy transition towards carbon neutrality and its related targets by 2030, and complementing this ambition. This resolution was approved by close to 89% of the votes cast.

In support of the Company's governance bodies, the Sustainability and Climate division shapes the approach to climate and accompanies the strategic and operational divisions of the Company's business segments. By defining and monitoring indicators, progress can be measured and the Company's actions can be adjusted (details of the indicators used are provided in point 5.4.4 of chapter 5).

Oversight by the Board of Directors

TotalEnergies' Board of Directors endeavors to promote value creation by the business in the long term by taking into consideration the social and environmental challenges of its business activities. It determines the Company's strategic orientation and regularly reviews, in connection with this strategic orientation, the opportunities and risks such as financial, legal, operating, social and environmental risks, and the measures taken as a result. It thus ensures that climate-related issues are incorporated into the Company's strategy and the investment projects that are submitted to it. It examines climate change risks and opportunities during the annual strategic outlook review of the Company's business segments. It reviews performance each year.

The skills of the directors in the area of climate are presented in section 4.1.1.5 of chapter 4. A continuing training program relating to the climate for directors has been approved in 2021 and it includes different modules about the following themes: Energy, Climate Change and Environmental Risks; Energy and Climate; Climate Change and Financial Risks and Opportunities; Causes and challenges of global warming. In 2022, as part of this training program, directors participated in the Climate Fresco (a scientific, collaborative and creative workshop designed to raise awareness of climate change and in particular its causes and consequences). In 2023, several Directors attended individual climate-related trainings, either in-person or via digital courses.

Directors are invited to Company's site visits. The visits contribute in a very concrete way to the training of Directors and allow them to deepen their knowledge of the specificities of the Company, its challenges, its businesses - including new businesses - and its teams. They are often the occasion for thematic presentations.

In this context, site visits were organized in 2023, by groups of directors accompanied by a member of the Executive Committee, in Congo (Exploration & Production, Marketing & Services, Nature Based Solution), in Qatar (LNG, Renewable, Exploration & Production), in Texas (Refining, Renewables, Trading) and, in France, at Pau (Technical Center, Biogas, Methane R&D) and at La Mède (biofuels, renewables, local development).

(1) GHG Protocol – Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).

To carry out its work, the Board of Directors relies on its Strategy & CSR Committee, whose Rules of procedure were amended first in September 2017, and again in July 2018 in order to broaden its missions in the realm of CSR and in questions relating to the inclusion of climate-related issues in the Company's strategy. In this regard, the Strategy & CSR Committee held on September 20 and 21, 2023 a strategy seminar to review the following topics: energy demand analysis scenarios, hydrogen activity and a presentation dedicated to the Integrated Power activity. At this occasion, Directors exchanged views with Dan Yergin, Vice President of S&P Global, on the challenges of energy transition in the United States and worldwide. The strategy seminar also provided an opportunity to examine the levers of Integrated Power's profitability, as well as the state of technology and the evaluation of the costs of hydrogen.

The Audit Committee, which is already reviewing the extra-financial performance declaration, has taken steps to take on the new tasks arising from the regulations on the reporting of sustainability information. In particular, it will monitor the process of drawing up the sustainability report that will succeed the extra-financial performance declaration, and which will be published for the first time in 2025 in relation to the 2024 financial year. It also monitors the certification of sustainability information.

The Board of Directors has also been integrating climate issues into the compensation structures for several years. The criteria for determining the variable part of the compensation of the Chairman and Chief Executive Officer include quantitative criteria related to the evolution of greenhouse gas emissions on the operated facilities (Scope 1+2), and since 2024, related to the Integrated Power cash flow (CFFO) generation. The evaluation of the personal contribution of the Chairman and Chief Executive Officer provide qualitative criteria that also include climate issues, through criteria related to (i) steering the transformation strategy towards carbon neutrality, in line with the 2020/2030 targets announced to investors, in particular the increase of gas and power production, as well as the evolution of its sales mix, (ii) profitable growth in renewables and electricity, as well as (iii) CSR performance assessed notably through the integration of climate issues in the Company's Strategy, the Company's commitment and ratings regarding CSR, as well as the policy of diversity.

The variable compensation of the Company's senior executives (approximately 300 people at the end of 2023) includes a criterion linked to the achievement of the GHG emissions reduction target.

Since 2020, the criteria for awarding performance shares to the Chairman and Chief Executive Officer and to all the Company's employees also include performance conditions related to climate-targets (refer to point 4.3.2 in chapter 4).

Role of management

The Executive Committee chaired by the Chairman & Chief Executive Officer ensures that climate-related issues are taken into account and built into operational roadmaps. The Executive Committee is responsible for identifying and analyzing risks that could affect the achievement of TotalEnergies' objectives.

The TotalEnergies Risk Management Committee (TRMC) assists the Executive Committee. The TRMC's primary duties are to ensure that the Company's risk mapping is updated on a regular basis and that its existing risk management processes, procedures and systems are effective.

The Strategy & Sustainability Division coordinates the Company's activities through the entities in charge of strategy and markets analysis, sustainability and climate, and also safety, health and environment, legal affairs, relations with public authorities and internal audit. Its President also chairs the Risk Committee (CoRisk) which is in charge of the Company's investments.

The Finance Division ensures an ongoing dialogue with investors, analysts and extra-financial rating agencies on climate challenges and on extra-financial issues more broadly. In all, more than 450 meetings were held in France and worldwide in 2023.

STRATEGY

A. OUR AMBITION AND OUR PROGRESS

1. Global challenges: more energy, less emissions

Energy is an essential resource, everywhere indispensable for living: for food, lighting, heating and cooling, transport, healthcare, construction and trade.

Historically, energy demand has grown in line with demographic growth and rising living standards.

The world's population is set to grow by almost 2 billion additional inhabitants by 2050. This prospect will have significant implications for achieving the UN's Sustainable Development Goals (SDGs) to improve prosperity and social well-being while protecting the environment and biodiversity.

In the **countries of the Global South,** where access to energy is already one of the limiting factors in human development, populations aspire to improve their quality of life.

In **OECD countries,** energy has enabled socio-economic development that no country is prepared to forego.

The IPCC reiterated in 2021[1] that global warming is the consequence of greenhouse gases (GHG) emissions linked to human activities, and warned of the environmental and socio-economic impacts of this already tangible climate change.

"TotalEnergies supports the Paris Agreement."

Since the Paris Agreement in 2015, States have jointly pledged *"to strengthen the global response to the threat of climate change, in the context of sustainable development and the fight to eradicate poverty, in particular by holding the increase in global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels"*.

The energy system must therefore be transformed, because energy is at the heart of this global climate challenge: GHG emissions linked to the production or use of energy account for over 60% of global emissions in 2021 (ref. IPCC & IEA), as the global energy system is still 80% relying on fossil fuels.

There is an urgent need to accelerate the development of a decarbonized energy system, while maintaining the current energy system at a level sufficient to meet global demand and organize a just, orderly and equitable transition of energy systems.

(1) Climate Change 2021: The Physical Science Basis and other assessment reports 6.

2. Global challenges: COP28 and actions to be taken

TotalEnergies welcomes the agreement reached in Dubai that calls for "*transitioning away from fossil fuels*" in a "*just, orderly and equitable manner*." Within this framework, TotalEnergies notes with interest the agreement's reference to transitional fuels such as gas.

TotalEnergies supports the objectives of tripling the amount of renewable energy and doubling energy efficiency by 2030, as well as slashing methane emissions within that time frame. These objectives are at the heart of TotalEnergies' roadmap for 2030.

This agreement reinforces TotalEnergies' transition strategy, which aims, on the one hand, to contribute to the development of a new decarbonized energy system based on electricity and renewables, in which gas plays a useful role as a flexible transitional energy; and, on the other hand, to support a just, orderly and equitable transition away from fossil fuels, notably in emerging countries that legitimately aspire to economic and social development for their populations.

Given the energy-related emissions as shown in the chart hereafter, **reducing the associated emissions implies in the short term:**

- Minimising the share of coal in the electricity mix, starting from OECD countries,
- Decarbonizing the road transport sector (currently 90% powered by petroleum products),
- Aiming for the elimination of methane emissions from fossil fuel production processes.

To achieve this, massive investments are needed, not only in renewable energy, but also in electricity networks and systems enabling to ensure the availability of the new electricity system.

Another challenge is to **reduce fossil fuel consumption at the right pace.** In the Global South, fossil fuels remain an affordable solution for providing growing populations with access to energy, and therefore greater prosperity.

In OECD countries, an accelerated transition means retiring existing assets at country, industry and household levels, and investing in new low-carbon assets.

The transition will not take place without **social acceptability** (both between North and South and within OECD countries) and without genuine efforts in terms of **climate justice.**

Accelerating the pace of investment in low-carbon energies requires **strong cooperation between the private and public sectors:**

- In OECD countries, simplify and speed up the permitting process to accelerate the deployment of grids and renewable energies.
- Actively support the transition of the Global South through (i) the development of multilateral financial guarantees essential to project financing and (ii) the deployment of training programs to support the local implementation of new technological solutions.

3. A two-pillar multi-energy strategy

a. TotalEnergies stays the course of its balanced integrated multi-energy strategy…

TotalEnergies reaffirms the relevance of its balanced integrated multi-energy strategy considering the developments in the oil, gas and electricity markets. Anchored on two pillars, Oil & Gas, notably LNG, and electricity, the energy at the heart of the energy transition, the Company is in a very favorable position to take advantage of energy prices evolution. Thanks to the refocusing of the Oil & Gas portfolio on assets and projects with low breakeven and low GHG emissions, and to the diversification into electricity, notably renewable, through an integrated strategy from production to customer, the Company is implementing its transition strategy while ensuring an attractive shareholder return policy.

b. …responsibly producing low cost, low emission Oil & Gas

While drastically lowering the emissions from its operations, TotalEnergies plans to grow its Oil & Gas production by 2-3% per year over the next five years, predominantly from LNG, thanks to its rich low cost low emission Upstream portfolio.

The Company plans notably to develop a top-tier pipeline of LNG projects (Qatar North Field Expansion, Papua LNG, Energía Costa Azul LNG and Rio Grande in the US, Mozambique LNG) while leveraging its leading position in Europe in regasification and its leading LNG exporter position in the United States.

TotalEnergies plans to launch the production of its portfolio of high-return oil projects (Brazil, Gulf of Mexico, Iraq, Uganda) recently enriched with exploration successes in Suriname and Namibia.

The key indicator of our progress on this pillar is the reduction in Scope 1+2 emissions because our first duty as a producer of hydrocarbons is to reduce the GHG emissions linked to their production.

c. …and developing a profitable and differentiated Integrated Power model to create a future cash engine of the Company

TotalEnergies is replicating its integrated Oil & Gas business model into the electricity value chain to achieve a profitability (ROACE[1]) of ~12% for the Integrated Power segment, equivalent to Upstream Oil & Gas ROACE at 60 $/b, above the returns of the traditional Utilities model.

The Company is building a world class cost-competitive portfolio combining renewable (solar, onshore wind, offshore wind) and flexible assets (CCGT, storage) to deliver low-carbon electricity available 24/7. In particular, TotalEnergies is leveraging its scale effect in equipment purchase to optimize its investment costs and industrialize its renewable assets through digital to lower operating costs. TotalEnergies also uses the strength of its balance sheet to keep market exposure, allowing it to capture additional margins in a market exposure.

The Company aims to grow its power generation to more than 100 TWh by 2030, investing around $4 billion per year; the generated cash flow of this segment was $2.2 billion in 2023 and will be more than $4 billion in 2028, becoming net cash-flow positive at that time.

Additionally, TotalEnergies invests in low-carbon molecules (biofuels and biogas, as well as hydrogen and its derivatives: e-fuels and SAF).

(1) Refer to the glossary for definitions and additional information on alternative performance measures (APM,Non-GAAP measures) and to point 1.9 of chapter 1 for reconciliation tables.

4. A Net Zero Company by 2050 together with society

TotalEnergies reaffirms its ambition to be a major player in the energy transition and shares a vision of what its activities could be to achieve carbon neutrality by 2050, together with society.

By 2050, TotalEnergies would produce:

- about 50% of its energy in the form of electricity, including the corresponding storage capacity, totaling around 500 TWh/year, on the premise that TotalEnergies would develop about 400 GW of gross renewable capacity;
- about 25% of its energy, equivalent to 50 Mt/year of low-carbon energy molecules in the form of biogas, hydrogen, or synthetic liquid fuels from the circular reaction: $H_2 + CO_2 \rightarrow$ e-fuels;
- around 1 Mboe/d of Oil & Gas (about a quarter of the production in 2030, consistent with the decline envisaged by the IEA's Net Zero scenario), primarily liquefied natural gas (about 0.7 Mboe/d, or 25-30 Mt/year) with very low-cost oil accounting for the rest. Most of that oil would be used in the petrochemicals industry to produce about 10 Mt/year of polymers, of which two thirds would come from the circular economy.

That Oil and Gas would represent about 10 Mt CO_2e/year of Scope 1 residual emissions, with methane emissions aiming towards zero (below 0.1 Mt CO_2e/year); those emissions would be offset in full by projects using nature-based solutions (natural carbon sinks).

In 2050, our trading portfolio would be aligned with our productions and sales portfolio.

5. 2030: Our objectives for more energy and less emissions

Over the decade 2020-2030, TotalEnergies' energy transition strategy based on two pillars is reflected notably in the production targets shown below.

Production

We plan to increase our energy production (oil, gas and electricity) by 4% per year between 2023 and 2030, while reducing emissions (Scope 1+2 and methane) from our operated facilities.

6. How TotalEnergies' 2030 objectives compare to the IEA scenarios

Reducing GHG emissions at our operated facilities (Scope 1+2) is key to our ambition to supply more energy while curbing GHG emissions. Our objective of cutting net Scope 1+2 emissions from our operated activities by 40% is consistent with the reduction targets of the European Union's "Fit-for-55" program (a 37% decrease between 2015 and 2030) and the IEA's 2023 Net Zero Emissions (NZE) scenario (a 31% decrease between 2015 and 2030).

An independent third party (Wood Mackenzie) has audited the calculations made and the trajectories presented.

B. OUR ORDERLY ENERGY TRANSITION

1. Oil: Today's energy

a. Producing oil differently: focus on low cost and low-carbon intensity oil assets

In 2023, global demand for petroleum products reached 101.8 Mb/d, i.e. +2.3 Mb/d compared to 2022, and should continue to grow over the decade according to the IEA (105.7 Mb/d by 2028)[1]. These demand forecasts remain dependent in particular on population and economic growth, market penetration pace of low-carbon technology innovations such as electric vehicles and changes in behavior.

In addition, it will evolve in a differentiated way according to the specific energy transition roadmaps of the various countries.

Thus, demand for oil could start to decline around 2030, but at a slower rate than the current natural decline rate of existing fields (around 4% per year).

TotalEnergies therefore believes that new oil projects are still needed to meet this demand and to keep prices at an acceptable level in order to create the conditions for a just transition that allows people time to adapt their energy use. In 2023, TotalEnergies produced 1.4 Mb/d of oil, equivalent to its 2019 level, representing around 1.5% of world production.

The first responsibility of TotalEnergies as an oil producer is to produce differently, meaning while minimizing emissions. To that end, we approve hydrocarbon projects on the basis of performance criteria, notably technical costs and carbon intensity (Scope 1+2). We operate our fields in accordance with strict requirements concerning safety, emissions reduction and environmental impact. The cash flow generated by these Oil & Gas activities contributes to accelerating our investments in renewable energy.

b. Relentlessly reducing our Scope 1+2 emissions, Oil & Gas

Our primary responsibility as a producer of fossil fuels is to substantially reduce emissions on our facilities. We are resolutely continuing to reduce emissions from our operated sites. Across the 2015 scope of our Oil & Gas activities, emissions from our operated assets fell by more than 34% from 2015 levels, dropping from 46 to 30 Mt CO_2e in 2023 (a decrease by 36% for Oil & Gas operated upstream and a decrease by 32% in Refining & Chemicals).

In 2023, with more than 140 GHG emissions reduction projects coming to fruition, we reduced our emissions by 1.5 Mt CO_2e across our operated assets.

These ongoing reduction efforts have made it possible to reduce the Scope 1+2 equity intensity of our Upstream Oil & Gas assets, from 20 kg CO_2e/boe in 2020 to 18 kg CO_2e/boe in 2023[2]. These results put us among the players with the best intensities in the industry.

c. Scope 1+2 emissions reduction by 2030

Scope 1+2 emissions reduction objectives

TotalEnergies reaffirms its decarbonization objective, which aims to reduce its Scope 1+2 net emissions by -40% to 2030 compared to 2015, net of 5-10 Mt of natural carbon sinks.

Our objectives include emissions generated by the growth strategy in electricity we have pursued since 2015, which has prompted us to create a flexible power generation portfolio of plants (CCGT).

In 2023, GHG emissions from our operated assets were 24% lower than in 2015, standing at close to 35 million tons of CO_2e. Between 2022 and 2023, the reduction in these emissions is 13%. It is mainly due to lower utilization rate of CCGTs, emissions reduction projects, such as for example the reduction of burning in Angola, and Nigeria, and the improvement of energy efficiency.

(1) Source IEA Oil June 2023.
(2) Equity Oil & Gas Upstream intensity is calculated excluding integrated LNG assets.

To achieve our 2030 target, we are mobilizing every tool at our disposal to avoid and reduce emissions from our operations. Compensation from natural carbon sinks will only begin from 2030 onwards, to offset residual emissions in pursuit of our objective, on the basis of a consumption of about 10% of our stock of carbon credit units per year.

d. Our energy efficiency plan: $1 Billion over 2 years

Energy efficiency plan – 2023 Progress

Generating energy savings in our operations is beneficial in several ways: we contribute to the collective campaign for energy efficiency, we help to reduce our carbon emissions and we lower our costs.

In September 2022, TotalEnergies launched a plan to accelerate energy efficiency gains at its operated sites worldwide. We are investing $1 billion in efforts to further reduce our energy use.

This plan, centered on four key levers, will support the measures adopted over the past several years within the Company's business segments. Each business segment has developed a plan to accelerate its energy savings, with more than 150 initiatives logged at Exploration & Production, over 200 projects at Refining & Chemicals and more than 40 initiatives at Marketing & Services and Gas, Renewables & Power.

To keep up with these efforts, a growing number of sites are ISO 50001 certified. The projects already identified which will be launched in 2024 should make it possible to achieve the reduction objective of 2 Mt CO_2e.

2. Gas: a transition fuel

a. Liquified Natural Gas: a key fuel for the energy transition

In the gas markets, TotalEnergies focuses on Liquefied Natural Gas (LNG), which can be shipped everywhere in the world and thus contributes to energy security, as it has been the case in Europe since 2022 with the strong reduction of Russian pipeline gas deliveries.

The growth of renewable electricity, intermittent and seasonal by nature, will require an increase in flexible power generation resources. The flexible production of gas-fired power plants, which emit half as much GHG as coal-fired power plants for the same amount of electricity produced[(1)], enables to secure electricity generation which does not depends on weather conditions contrary to renewable energy, and to face demand fluctuations. In addition, natural gas plays an essential role in reducing emissions from power generation as a replacement of coal, particularly in Asia where this one still accounts for a very large part of the electricity mix of many countries (e.g. 63% in China, 72% in India)[(2)].

With diversified positions, and in particular its leading position of exporter in the United States - over 10 Mt in 2023 - TotalEnergies is the 3rd world's largest LNG player, with 44 Mt sold in 2023. The Company intends to consolidate its position as an integrated player by developing a first-class portfolio that will enable it to achieve 50% growth in volumes between 2023 and 2030.

Reducing the carbon footprint of the LNG portfolio

TotalEnergies aims to gradually reduce GHG emissions of the value chain, from the production of the gas to end use.

In addition to efforts to reduce methane emissions, initiatives are being implemented throughout the whole chain. The electrification of liquefaction plant processes is helping to reduce LNG's carbon footprint today, and tomorrow this reduction will be reinforced by CO_2 capture and storage projects.

We are also working to reduce shipping emissions by renewing our fleet of chartered LNG carriers with modern, high-performance vessels.

b. Aiming for Zero methane emissions

Methane is a greenhouse gas with a global warming potential 30 times higher than that of CO_2 and a much shorter atmospheric lifetime[(3)]. This makes reducing methane emissions a priority in efforts to mitigate global warming. To date, more than 150 countries have signed the Global Methane Pledge launched in Glasgow in 2021, which aims to reduce methane emissions by 30% from 2020 levels by 2030. Anthropogenic methane emissions come mostly from energy, waste and agriculture. Around 25%[(4)] come from the Oil & Gas industry. TotalEnergies believes that it is the industry's responsibility to aim for zero methane emissions by 2030 and wants to set an example for the industry. Our plan is based on three actions: eliminating routine flaring, eliminating vents and repairing leaks as soon as they are detected.

Continuous excellence in our operations

TotalEnergies has already reduced its operated methane emissions by more than 60% since 2015, date of the Paris Agreement, even though the Oil & Gas industry as a whole has maintained an almost constant level of emissions over this period, according to IEA estimates. In early 2022, TotalEnergies set very ambitious, specific targets for the decade ahead that call for a 50% reduction from 2020 levels by 2025 and 80% by 2030[(5)]. These targets cover all of the Company's operated assets and go beyond the 75% reduction in methane emissions from Oil & Gas by 2030 (vs 2020) as recommended by the IEA when creating the NZE scenario. TotalEnergies is making rapid progress towards this objective: in 2023, our operated methane emissions were 34 kt, down 47% vs 2020. TotalEnergies now aims to reach its 2025 target of -50%, one year ahead of schedule, in 2024.

TotalEnergies is a signatory of the Oil & Gas Decarbonization Charter launched at COP28, which includes the ambition "Aiming for near-zero Upstream methane emissions by 2030". In line with this collective ambition, TotalEnergies is strengthening its methane intensity[(6)] target of less than 0.1% by 2030 on its gas facilities, by extending it to all its operated Upstream Oil and Gas facilities.

At the same time, TotalEnergies is fully assuming its leadership role in the fight to collectively reduce methane emissions.

Our drone-based methane detection and quantification technology made available to several national oil companies

TotalEnergies works alongside its partners to implement best practices on its non-operated assets.

The Company is a pioneer in the detection and quantification of emissions in real-life conditions. After deploying its AUSEA (Airborn Ultralight Spectrometer for Environmental Application) drones at all its upstream operated sites worldwide, TotalEnergies has performed in 2023 the first AUSEA flights on non-operated assets during four campaigns in: Qatar, Brazil, Azerbaijan and the United Arab Emirates.

TotalEnergies has also announced in recent months the signing of five cooperation agreements with national oil companies to make its AUSEA methane emissions detection and quantification technology available: Petrobras in Brazil, SOCAR in Azerbaijan, Sonangol in Angola, NNPC[(7)] in Nigeria and ONGC[(8)] in India.

(1) IEA 2023, Life Cycle Upstream Emission Factors (Pilot Edition).
(2) Source: Enerdata.
(3) Around 12 years compared with centuries for CO_2. Global Warming Potential of 80 over 20 years and 30 over 100 years (Source: IPCC 6th Assessment Report).
(4) IEA Global Methane Tracker 2023, License CC BY 4.0.
(5) Excluding biogenic methane.
(6) Methane emissions intensity in relation to commercial gas produced.
(7) Nigerian National Petroleum Company Limited.
(8) Oil and Natural Gas Corporation.

Highlights

- **OGMP 2.0 Gold standard**

In its "An Eye on Methane" report for 2023, the United Nations Environment Programme (UNEP)[1] confirmed TotalEnergies' Gold Standard status for the 3rd year in a row, and rated our strategy for engaging partners in our non-operated assets as "all-stars"[2]. Each year, this report reviews the deployment by Oil & Gas companies of the Oil & Gas Methane Partnership's OGMP 2.0 framework, which was created in 2020 to guide reporting on methane in the Oil & Gas industry. The framework encourages companies to continue improving their reporting of operated and non-operated emissions and focuses on performing on-site measurements to verify that estimates are exhaustive and accurate.

- **Support for the World Bank's new methane trust fund**

TotalEnergies was the first company to announce a contribution of $25 million over the period 2024-2030 to the Global Flaring and Methane Reduction (GFMR) trust fund launched by the World Bank at COP28. The GFMR will target, finance and support strategic projects to eliminate routine flaring and reduce methane emissions in countries with the greatest emissions reduction potential.

c. Expanding geological carbon storage to reduce our emissions and those of our customers

The IEA's NZE scenario[3] includes the use of CCS[4] up to of 6 Gt CO_2 per year in 2050, to reduce part of the emissions from residual Oil & Gas consumption, as well as those from industrial processes (cement, lime, steel, etc.). This capacity is more than 100 times greater than the 45 Mt CO_2 per year currently captured worldwide.

Our CCS strategy gives priority to decarbonizing our activities in order to reduce Scope 1+2 emissions from our Upstream Oil & Gas assets, refining and LNG plants. For example, at the Snøhvit liquefaction plant, where we are a partner alongside Equinor, around 8 Mt of native CO_2 have been stored since 2008. Similarly, the native CO_2 separated in the new NFE and NFS LNG liquefaction trains currently under development will be stored by QatarEnergy. The same will be true for the native CO_2 separated on Cameron LNG to be stored in the Hackberry CCS storage facility in the context of a new train project by Cameron LNG. Finally, for our Ichthys LNG asset in Australia, we are studying a native CO_2 storage solution for start-up before 2030.The study of CCS solutions on our assets therefore complements the efforts already mentioned to reduce emissions (electrification, energy efficiency, flaring reduction, etc.).

The Company also invests in CO_2 storage projects for third parties ("Storage as a Service"), offering CO_2 storage solutions to large industrial customers who can thus reduce their Scope 1 emissions and secure the future of their activities. By 2023, we have already invested around $100 million in this business. We will continue to invest heavily in storage projects, both for our own assets and for third parties, to achieve our objective of developing more than 10 Mt CO_2 of storage capacity by 2030.

Europe is at the heart of this CCS strategy. Our Company is one of the incumbent operators in the North Sea and has recognized operational and geological expertise in the area. The United Kingdom, Norway and Europe have set themselves objectives, regulations and provided significant financial support to promote the cross-border deployment of CCUS[5]. We are currently developing five projects in the North Sea that will provide decarbonization solutions for our assets and those of our customers. Our ambition is to continue to acquire new exploration permits to increase our CO_2 storage capacity after 2030.

We are also investigating the use of carbon in various forms (CCU[6]).

d. Offsetting residual emissions with natural carbon sinks

Natural areas preservation and restoration can be a lever for achieving net zero emissions worldwide by 2050.

Only in 2030 will TotalEnergies begin voluntary offsetting of its residual emissions via NBS (Nature Based Solutions) carbon credits, and will offset only Company's Scope 1+2 residual emissions.

We are working to build a high-quality portfolio and are paying close attention to the integrity and permanence of the emissions reductions and sequestration achieved by the activities financed in this way.

We are in favor of strengthening a global framework of trust to further reinforce robust and recognized voluntary crediting mechanisms.

We are investing in forestry, regenerative agriculture and wetlands protection projects. Our strategy aims to combine and balance the value of people's financial revenue from agriculture and forestry and the value of the benefits to soil, biodiversity, the water cycle and the production of carbon credits. When that approach is successful, the local standard of living improves and degradation of the land diminishes – as do emissions. This search for balance among different practices makes a just transition possible.

At 2023 year end, our stock of credits stood at just under 11 million out of which the very large majority is certified by VERRA VCS standard (> 99%; the remaining < 1% being certified by the Australian Carbon Credit Units Scheme of the Australian Government). We have allocated $100 million annually for these projects, and the cumulative budget pledged for all of these campaigns amounts to nearly $725 million over their cumulated lifespan, with the accumulated credits expected to total 44 million in 2030 and 71 million in 2050.

The final tally of credits obtained will be determined once the projects have been completed. If such a stock of 44 million credits is built up in 2030 and on the basis of a consumption of 10% of the stock per year from 2030, then TotalEnergies would use around 5 million credits per year from 2030 onwards.

Highlight: Invest in a fund

In 2023, the Company has made the decision to invest $100 million over 15 years in the projects of the Nature Based Carbon fund managed by Climate Asset Management, which focuses on preserving or restoring three types of ecosystems: degraded natural forests, grasslands impacted by human activity and wetlands.

e. Anticipating changes in demand by adapting our sales of petroleum products

A significant part of TotalEnergies' Downstream refining and marketing activities are located in Europe. The European Union with its Green Deal and its "Fit for 55" regulatory package, has the ambition to be the first carbon-neutral continent by 2050.

These major trends are leading us t-o accelerate the transition of our Downstream activities in Europe to reduce our exposure to petroleum products and to develop in new mobilities.

(1) 3rd International Methane Emissions Observatory report.
(2) « *All-stars of non-operated joint venture engagement: TotalEnergies has submitted one of the most comprehensive strategies for engaging its non-operated joint ventures. The company has provided detailed information on how it is supporting, progressing and collaborating with each non-operated joint venture. It has also provided detailed observations on its reconciliation attempts and a gap analysis process. In addition, TotalEnergies is providing technology access and support to its non-operated joint venture operators.* » (Source IMEO report 2023).
(3) IEA 2023; Net Zero Roadmap, 2023 update, License CC BY 4.0.
(4) Carbon Capture & Storage.
(5) Carbon Capture Utilization & Storage.
(6) Carbon Capture & Utilization.

Thus, at a global level, we expect to reduce our sales of petroleum products by 40% by 2030, so that we do not sell or refine more fuel than our oil production. This means, in particular, that our service-station networks have to adapt to lower demand for fuels, notably through disposals in Europe.

Conversely, this strategy is leading us to develop actively in new mobilities: in low-carbon molecules, we have initiated the conversion of its refineries into biorefineries in Europe; in electric mobility, the Company is accelerating our growth with a plan to deploy charging points on major corridors and motorways and in large cities in Europe. In hydrogen, we are notably developing a European network of hydrogen stations for trucks, in partnership with Air Liquide.

3. Electricity: the energy of decarbonation

a. Our major development in electricity: an integrated approach

Electricity demand, which is vital to the success of the energy transition, is expected to grow sharply, as decarbonization is at the heart of the roadmaps of countries committed to carbon neutrality by 2050. In response, Integrated Power, a new pillar of the Company's strategy, is developing an integrated model encompassing the entire value chain, from power generation to sales and trading activities, with a profitability target of ~12% ROACE[1].

TotalEnergies net electricity production target is to produce more than 100 TWh by 2030, thanks to a 4 to 5-fold increase in renewable production (19 TWh in 2023) and a 2-fold increase in flexible assets production (15 TWh in 2023). As part of its ambition to achieve carbon neutrality by 2050, TotalEnergies is building a competitive portfolio of renewable (solar, onshore and offshore wind) and flexible (CCGT, storage) assets to provide its customers with less and less carbon-intensive electricity available 24/7.

The Company's levers to grow with a return on average capital employed of ~12% are selectivity in its choices of projects; integration across the entire electricity value chain; cost control using our project management and offshore development skills; mobilizing external financing at competitive rates and making partial divestments to accelerate cash flow generation and diversify our portfolio's exposure.

b. Our renewable electricity capacity build-up

We are executing our roadmap in renewable electricity.

At year-end 2023, TotalEnergies reached a gross installed production capacity of 22 GW of renewable electricity and intends to continue developing these activities to reach 35 GW by 2025 and 100 GW by 2030, a level that would bring us among the world's top five producers of renewable electricity (wind and solar) excluding China.

c. Developing electric mobility

TotalEnergies plans to invest more than $1 billion in electric mobility between 2024 and 2028, developing a network of high-power electric charging stations along motorways, major roads and in urban hubs in Europe.

By 2028, the Company's ambition is to have 1,000 high power charging sites in Europe.

In addition to this network adapted to road roaming, TotalEnergies supports its B2B customers in their transition to electric mobility by offering services for the deployment and supervision of charging stations at the workplace, as well as at employees' homes. For heavy duty trucks in particular, the Company is developing a tailor-made offer for road haulers, with smart charging and green electricity supply solutions in addition to in-depot charging. To meet their charging needs outside their depots, TotalEnergies plans to install high power charging points suited to this type of vehicles along European corridor from 2024 onwards.

The Company is also developing its recharging network in a number of cities around the world, with a portfolio of over 30,000 charging points in operation or under deployment in Paris, London, Brussels and Singapore.

Finally, TotalEnergies supports its individual customers at home, with home charging solutions that include an energy supply contract or on the road with subscription offers allowing access to a very large network of charging stations.

From the production of renewable electricity to the operation of charging services, the Company is present across the entire electric mobility value chain.

4. New low-carbon energy and innovations to achieve Net Zero by 2050

a. New low-carbon energy

The energy transition also requires the development of low-carbon energy based on the conversion of biomass and waste or the production of e-fuels combining hydrogen with CO_2 used as a raw material.

TotalEnergies is thus developing these new energy: biofuels, biogas, hydrogen and e-fuels.

Biofuels

Today, biofuels emit 50% less CO_2 than their fossil fuel equivalents[2], making them a decarbonization pathway for liquid fuels. Because demand is strong, this is a high-margin market, but access to feedstocks (plants, residues, sugar, etc.) remains a barrier to growth. Among these biofuels, TotalEnergies favors the production of Sustainable Aviation Fuel (SAF) to decarbonize the aviation industry. To avoid land use conflicts, TotalEnergies is developing solutions based on primarily food industry waste and residues (used oils, animal fats). Our aim is to increase the share of circular feedstocks to more than 75% as from 2024 in its production of biofuels.

Biogas

Biogas, produced from the decomposition of organic waste, is a renewable gas. Injected into gas networks in the form of biomethane, it contributes to the decarbonization of natural gas uses.

TotalEnergies' gross production capacity of 1.1 TWh/year eq. biomethane has almost doubled compared with 2022. The Company now intends to pursue its development through growth, mainly in Europe and the United States, with a 2030 target of 10 TWh of net production.

(1) Refer to the glossary for the definition and further information on alternative performance measures (Non-GAAP measures) and to point 1.9 of chapter 1 for reconciliation tables.
(2) According to the European Directive 2018/2001 named RED II.

Hydrogen and e-fuels

Hydrogen

The production of green hydrogen will require the massive deployment of renewable electricity production capacities, to which TotalEnergies is contributing through its investments and the development of the Integrated Power segment. For our operations, our priority is to decarbonize the hydrogen consumed in our European refineries by 2030. TotalEnergies aims to replace carbon based or grey hydrogen by green hydrogen, produced by electrolysis of water using electricity from renewable energy sources.

Synthetic fuels, e-fuels

CO_2 can be combined, in reaction with renewable hydrogen, to produce synthetic fuels or gas. In 2023, TotalEnergies is setting milestones in its synthetic fuels roadmap.

b. Focus Sustainable Aviation Fuel (SAF)

TotalEnergies intends to become a major player in the production of SAF (Sustainable Aviation Fuel), with a target of 1.5 Mt/year by 2030.

This production is currently being developed on our existing platforms in Europe, the Middle East and Asia, notably Grandpuits, Normandie, La Mède and SATORP.

- **Grandpuits:** The biorefinery is scheduled to come on stream in 2025. It plans to process 420 kt/year of feedstock, mainly waste and residues, to produce up to 285 kt/year of SAF by 2028. In 2022, TotalEnergies has joined forces with SARIA (European leader in the collection and valorization of organic materials into sustainable products) to guarantee the supply of lipidic feedstock.
- **Normandy:** TotalEnergies plans to increase SAF production from 130 kt/year in 2025 to 160 kt/year by 2027.
- **La Mède:** Since 2022, biodiesel produced at La Mède has already been used to produce SAF at the TotalEnergies plant in Oudalle, near Le Havre. In 2024, TotalEnergies plans to continue to invest in the site, so as to be able to process up to 100% waste from the circular economy (used oils and animal fats) and will produce locally 14 kt/year of SAF by 2025.
- **SATORP:** For the first time in the Middle East, SATORP has succeeded in co-processing used cooking oil to produce a fuel that meets all the quality criteria of the SAF ISCC+ certified specifications.
- **Partnerships**
  - In Japan, TotalEnergies has partnered with ENEOS Corporation to study the feasibility of a SAF production unit at the ENEOS refinery in Wakayama. The planned unit, which would have a production capacity of 335 kt/year of SAF, would process waste or residues from the circular economy.
  - In China, TotalEnergies is studying with its partner Sinopec the development of SAF production of around 230kt/year. This unit would mainly process local residues and waste.

Sustainable aviation fuels produced from used cooking oil make it possible to reduce CO_2 **emissions by 80%**[(1)] over the entire life cycle, compared to their fossil fuel equivalent.

Beyond the SAF currently produced from used cooking oil, our mission is to prepare the next generation of aviation fuels, such as e-SAF.

Together with Masdar, the UAE Civil Aviation Authority, Airbus, Falcon Aviation Services and Axens, TotalEnergies has demonstrated the potential for converting methanol into SAF. Based on the use of renewable electricity, it could enable the production of e-SAF from CO_2 converted into methanol.

c. Innovating to accelerate the energy transition

Each year, TotalEnergies devotes around $1 billion[(2)] to R&D and innovation and mobilizes more than 3,500 employees.

R&D at TotalEnergies

In 2023, 65% of our R&D focused on new energies (renewable electricity, low-carbon molecules), batteries and reducing our environmental footprint (methane, CCUS, water, biodiversity, etc.). This evolution of our research and innovation towards new low-carbon energy points to the Company's future.

One of the missions of our new OneTech branch, created in 2021 to meet the Company's new challenges and mobilize the teams, is to provide solutions for reducing CO_2 emissions and improving the energy efficiency of our projects from the design phase, as well as to accelerate innovation in all our assets. To that end, OneTech mobilizes integrated teams working on the design, construction and operation of our energy facilities, right including R&D, reinforced by the development, testing and deployment of innovative external solutions for our assets to cope with identified issues in our operations.

Leveraging digital technology to reduce our emissions

TotalEnergies' Digital Factory brings together around 300 developers, data scientists and other digital specialists with the objective to develop digital solutions to optimize our industrial assets (environmental impact, availability, costs) or to offer new services to our customers.

(1) Panorama 2020 - Biofuels incorporated into fuels in France, published by the Ministry of Ecological Transition and Territorial Cohesion.
(2) R&D budget excluding Hutchinson.

TARGETS AND INDICATORS RELATED TO CLIMATE CHANGE

TotalEnergies has set targets and introduced a number of indicators to steer its performance.

The Company's climate targets include among others the following:

2030 targets worldwide (Scope 1+2)	In facts
– Reduce GHG emissions (**Scope 1+2**) from operated facilities from 46 Mt CO_2e in 2015 to less than 38 Mt CO_2e by 2025. By 2030, the target is a reduction of at least 40% of net emissions[1] compared to 2015 for its operated activities, thus bringing them to between 25 Mt and 30 Mt CO_2e	– A reduction in GHG emissions (Scope 1+2) from operated facilities from 46 Mt CO_2e in 2015 to **35 Mt CO_2e** in 2023
– Reduce **methane emissions**[2] from operated facilities by 50% between 2020 and 2025, and by 80% between 2020 and 2030	– Methane emissions already reduced by **50%** between 2010 and 2020 and by **47%** between 2020 and 2023
– Reduce **methane emissions intensity** below 0.1% of commercial gas produced at Upstream operated Oil & Gas facilities	– Methane intensity of **0.11%** for operated commercial gas produced at Upstream operated Oil & Gas facilities (less than 0,1% for Upstream operated Gas facilities)
– Reduce **routine flaring**[3] to less than 0.1 Mm^3/d by 2025, with the goal of eliminating it by 2030	– More than **96%** reduction in routine flaring between 2010 and 2023

Indicators related to climate change[4]

		Operated domain			
GHG emissions - Scope 1+2		2023	2022	2021	2015
Scope 1 Direct GHG emissions	**Mt CO_2e**	**32**	**37**	**34* (33)**	**42**
Breakdown by segment					
Upstream oil & gas activities	Mt CO_2e	12	14	14	19
Integrated LNG, excluding upstream gas operations	Mt CO_2e	<1	<1	<1	–
Integrated Power	Mt CO_2e	6	9	5	–
Refining & Chemicals	Mt CO_2e	14	15	15* (14)	22
Marketing & Services	Mt CO_2e	<1	<1	<1	<1
Breakdown by geography					
Europe: EU 27 + Norway + UK + Switzerland	Mt CO_2e	19	23	20* (19)	22
Eurasia (incl. Russia)/Oceania	Mt CO_2e	<1	<1	1	5
Africa	Mt CO_2e	8	9	9	12
Americas	Mt CO_2e	5	5	5	4
Breakdown by type of gas					
CO_2	Mt CO_2e	31	36	32	39
CH_4	Mt CO_2e	1	1	1	2
N_2O	Mt CO_2e	<1	<1	<1	<1
Scope 2 Indirect emissions from energy use	**Mt CO_2e**	**2**	**2**	**2* (2)**	**4**
of which Europe: EU 27 + Norway + UK + Switzerland	*Mt CO_2e*	*1*	*1*	*1* (1)*	*2*
Scope 1+2	**Mt CO_2e**	**35**	**40**	**37* (36)**	**46**
of which oil & gas facilities	*Mt CO_2e*	*30*	*33*	*33* (32)*	*46*
of which CCGT	*Mt CO_2e*	*4*	*7*	*4*	*–*
Direct emissions of biogenic CO_2[a]	Mt CO_2e	0.1	0.1		

* Excluding the COVID-19.
(a) Biogenic CO_2 emissions from the Company's biogas assets. In accordance with the GHG Protocol these emissions are not included in Scope 1.

(1) The calculation of net emissions takes into account negative emissions from natural sinks like forests, regenerative agriculture and wetlands.
(2) Excluding biogenic methane.
(3) Routine flaring, as defined by the working group of the Global Gas Flaring Reduction program within the framework of the World Bank's Zero Routine Flaring initiative.
(4) Refer to point 5.11 of chapter 5 for the reporting perimeter.

GHG emissions - methane		Operated domain 2023	2022	2021	2015
Methane emissions[(a)]	kt CH_4	34	42	49	94
Breakdown by segment					
Upstream oil & gas activities	kt CH_4	33	41	48	92
Integrated LNG, excluding upstream gas operations	kt CH_4	<1	0	<1	0
Integrated Power	kt CH_4	<1	1	<1	0
Refining & Chemicals	kt CH_4	1	1	1	1
Marketing & Services	kt CH_4	0	0	0	0
Breakdown by geography					
Europe: EU 27 + Norway + UK + Switzerland	kt CH_4	5	7	7	9
Eurasia (incl. Russia)/Oceania	kt CH_4	1	1	1	33
Africa	kt CH_4	18	23	23	49
Americas	kt CH_4	9	12	18	3

(a) Excluding biogenic methane emissions, equal to less than 1 kt CH_4 in 2023. Biogenic methane is nevertheless included in the calculation of Scope 1.

Intensity indicators		2023	2022	2021	2015
Intensity of GHG emissions (Scope 1+2) of operated Upstream oil & gas activities[(a)]	kg CO_2e/boe	17	17	17	21
Intensity of methane emissions from operated oil & gas facilities (Upstream)	%	0.11	0.11	0.13	0.23
Intensity of methane emissions from operated gas facilities (Upstream)	%	<0.1	<0.1	<0.1	<0.1

(a) This indicator doesn't include integrated LNG assets in its perimeter.

Other indicators		2023	2022	2021	2015
Net primary energy consumption (operated scope)	**TWh**	**157**	**166**	**148**	**153**
Renewable energy consumption (operated scope)	TWh	2	1	–	–
Global energy efficiency indicator (GEEI)	Base 100 in 2010	86.4	85.1	87.0	90.8
Flared gas[(a)] (Upstream oil & gas activities operated scope)	Mm^3/d	2.5	3.3	3.6	7.2
of which routine flaring	*Mm^3/d*	*0.3*	*0.5*	*0.7*	*2.3*[(b)]

(a) This indicator includes safety flaring, routine flaring and non-routine flaring.
(b) Volumes estimated upon historical data.

3.6.8.5 Suppliers

SUPPLIER ASSESSMENT

The Supplier pre-qualification process

The IT Supplier pre-qualification tool developed in 2019, gradually rolled out, is designed to automate and document the Supplier pre-qualification process. At the end of 2023, more than 20,000 Suppliers were integrated into this tool.

The Supplier assessment process

The Company set itself the objective of assessing its 1,300 priority Suppliers by the end of 2025, on their sustainable development performance (including respect of human rights, working conditions and environment), via documentary and/or on-site audits carried out by independent third parties.

In 2023, 37% of the 1,300 priority Suppliers were assessed via documentary audits (EcoVadis) and on-site audits.

Supplier evaluation via documentary audits

In 2023, TotalEnergies joined forces with EcoVadis to evaluate its Suppliers in terms of sustainable development. EcoVadis carries out a documentary assessment to assess the maturity and performance of Suppliers in terms of the environment, human rights, ethics and responsible purchasing. Each company is evaluated by independent analysts on essential issues depending on its size, location and business segment. The EcoVadis rating may be shared by the Supplier with its other customers. It also gives rise to an improvement plan.

In 2023, 180 Suppliers were evaluated via EcoVadis. 98% of them obtained a score above 45/100, a score beyond which EcoVadis considers that the supplier is "committed to CSR", and the average score is 65/100.

Supplier assessment via on-site audits

Between 2016 and 2022, the Company conducted audits linked to working conditions. Since 2022, the Company has applied a new, expanded audit framework to cover labor and human rights issues – such as child labor, forced labor, discrimination, freedom of association and collective bargaining, working conditions, working hours, health and safety at work – but also environmental issues such as the protection of biodiversity, the responsible use of water and natural resources, the fight against pollution, as well as climate issues. These audits, carried out by an independent third party, include an on-site visit, a documentary review and interviews with workers. Tested in 2022, this audit framework was used for the 2023 audit plan.

The Company set itself the objective of evaluating 300 Suppliers via these on-site audits in 2023 and this objective was achieved. In total, since 2016, the Company has audited 740 priority Suppliers in more than 86 countries, covering more than 230,000 people.

The Company ensures that its Suppliers are committed to a process of continuous progress. Thus, in the event of a deficiency observed during the on-site audit, a Supplier must put in place an action plan, followed by the TotalEnergies teams and whose effectiveness is verified by an independent external service provider.

Among the 740 Suppliers audited since 2016, 171 resulted in verified improvements positively impacting nearly 60,000 workers concerning the right to a weekly day off, access to drinking water on site and overtime pay. The others are being monitored.

In 2023, the Company developed an internal audit management tool which centralizes data from audits carried out since 2016. This allows management and operational teams to understand and address the issues specific to their ecosystems in order to better support Suppliers in the improvement of their practices. For example, the Company organized training for buyers and Suppliers in Vietnam in June 2023, targeting the topics raised during the 16 audits carried out in this country.

Other initiatives

Workers's voice tool

Aware of the importance of guaranteeing respect for working conditions on the sites of major construction projects, TotalEnergies wanted to test a complementary approach to the already existing audit and complaint reporting systems. In 2023, the Company implemented a pilot "workers' voice survey" within two of its large industrial projects: Tilenga in Uganda and EACOP in Tanzania. This pilot aims to directly interview workers via their mobile phones in order to collect information on respect for human rights and working conditions on site. The percentage of workers participating via this system currently varies from 12% to 72% depending on the sites. The objective is to involve Suppliers' workers (tier 1 and beyond) who work on site. Worker participation is voluntary and anonymous. Among workers volunteering to participate in the system, the response rate to regular surveys varies from 87% to 95%. TotalEnergies shares the results of these surveys with Suppliers who are required to propose action plans.

Minerals

The origin, extraction and refining conditions and the use of certain minerals, ores and raw materials are the subject of particular attention, given the potential risks to human rights and the environment. In 2022, TotalEnergies conducted an internal study to identify the Company's priorities in this area. This study, based on a materiality analysis and a risk analysis, identified three priorities: cobalt, polysilicon and conflict minerals (gold, tungsten, tin and tantalum).

- Cobalt: since cobalt can be used in the manufacture of certain batteries, Saft Groupe has been conducting an annual campaign since 2021 to collect information from its Suppliers. Saft Groupe relies on the Extended Minerals Reporting Template (EMRT) provided by the Responsible Minerals Initiative® (RMI®) to identify the processing units in its supply chain and the country of origin of the cobalt ores. As part of a progress-led approach, Saft Groupe is also a member of the Global Battery Alliance (GBA), within the World Economic Forum (WEF), a global platform for establishing and collaborating on a sustainable battery value chain.
- Polysilicon: polysilicon is used in the manufacture of solar panels. TotalEnergies Global Procurement carries out traceability audits upstream of the Supplier's selection or commissions an independent third party to conduct them. TotalEnergies has joined a pool of US developers who jointly commission and share traceability audits.
- Conflict minerals: the pre-qualification process identifies Suppliers using minerals from conflict zones for the Company's purchases. Thus, pursuant to Rule 13p-1 of the U.S. Securities Exchange Act of 1934, as amended, which implemented certain provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, since 2014, TotalEnergies has filed with the United States Securities and Exchange Commission (SEC) an annual document relating to "minerals from conflict zones" sourced from the Democratic Republic of the Congo or neighboring countries. This document indicates whether, during the preceding calendar year, any such minerals were necessary for the operation or for the production of a product manufactured by TotalEnergies SE or one of its consolidated companies or contracted by TotalEnergies SE or one of its consolidated companies to be manufactured. The purpose of this regulation is to prevent the direct or indirect funding of armed groups in central Africa. For more information, please refer to TotalEnergies' most recent publication, available on the TotalEnergies website or sec.gov. As conflict minerals may potentially be present in the electrical and electronic components used in battery manufacturing, Saft Groupe conducts an annual campaign to collect information from its Suppliers. Saft Groupe relies on the Conflict Minerals Reporting Template (CMRT) provided by the Responsible Minerals Initiative® (RMI®) to determine the presence of conflict minerals in its supply chain and to identify the processing units for these minerals that are likely to participate in it and the country of origin of the ores. Saft Groupe became a member of the RMI in 2022.

In 2023, the Company created the Strategic Materials division within the Integrated Power segment. This division analyzes TotalEnergies' exposure in this area. A Risk and Resilience division was also created in 2023 within TotalEnergies Global Procurement in order to develop better knowledge of its supply chain.

MITIGATION AND PREVENTIVE ACTIONS

In February 2022, the Company completed the update of the Fundamental Principles of Purchasing to more precisely detail its requirements with regard to its Suppliers, particularly in terms of human rights, respect for biodiversity and responsible use of natural resources.

The training of buyers and the awareness raising and mobilization of Suppliers for a responsible purchasing approach are among the priorities of TotalEnergies' Sustainable Procurement program.

Training of buyers

TotalEnergies has set up a number of channels of communication to raise employees' awareness of risks and concerns relating to its supply chain. Training modules explaining the Company's ethical commitments and the Fundamental Principles of Purchasing have been developed for and made available to buyers of the Company. In addition to training buyers, numerous awareness-raising initiatives are regularly carried out in order to strengthen the responsible purchasing culture within the Company.

Buyers are the first players in the sustainable procurement process, with their internal contacts as well as with the Company's Suppliers. It is therefore necessary for them to share a common base of knowledge in terms of sustainable development and sustainable procurement. Since July 2022, TotalEnergies has provided its buyers with a dedicated training, mandatory for any new entrant to the role.

At the end of 2023, 61% of TotalEnergies purchasing function employees were trained in sustainable procurement i.e., the double of the trained population compared to 2022.

In addition to training, numerous awareness-raising initiatives are regularly carried out in order to strengthen the sustainable procurement culture within the Company. In April 2023, the President TotalEnergies Global Procurement presented the sustainable procurement program via a webinar which reached nearly 400 people. In 2023, a thematic webinar on Supplier audits was followed by more than 220 employees. A mid-year webinar brought together more than 400 employees from the procurement function. The sustainable procurement department also sends a quarterly newsletter to all buyers as well as to business managers.

Awareness-raising and training of Suppliers

The Company regularly conducts awareness-raising actions with its Suppliers on the responsible procurement approach, particularly on respect for human rights, the protection of workers' health and safety and the preservation of the environment. In 2023, the Company organized supplier days, which were an opportunity to raise awareness among stakeholders regarding sustainability issues, notably in March in China and in July in Nigeria. The Company has also raised awareness among its Suppliers through training sessions entirely dedicated to sustainable development, such as the one organized in May 2023 in Vietnam.

In order to support its Suppliers in improving their practices, the Company also published in May 2022 a Practical Guide on Human Rights at Work for Suppliers, accessible on the TotalEnergies website.

The Company also organizes a Suppliers Day every two years, the last having been organized in November 2022. This is an event bringing together nearly 200 representatives of the Company's Suppliers – the Chairman and CEO and two members of the Executive Committee are intervened and underlined the Company's ambition as well as the commitment expected from Suppliers in terms of sustainable development. This event was the opportunity to award for the first time a Sustainability Award to one of the Company's Suppliers.

Progress with other companies

In December 2018, the Company committed to pursuing its efforts with regard to decent work and respect for human rights in its supply chain by signing six commitments contained in the United Nations Global Compact, and, in this context, participates in certain webinars. TotalEnergies is also a member of the IPIECA Supply Chain Working Group.

WHISTLEBLOWING MECHANISMS

An email address (mediation.fournisseurs@totalenergies.com) is available on the TotalEnergies website to enable the Company's suppliers to contact the dedicated internal mediator. The mediator's mission is to facilitate relations between the Company and its French and international suppliers. The general purchasing terms and conditions also mention the possibility of recourse to mediation.

MONITORING PROCEDURES

The Responsible Purchasing Department within TotalEnergies Global Procurement monitors the implementation of the Sustainable Procurement program, particularly in terms of Suppliers' respect for human rights, health, safety and the environment. The implementation of this program is monitored by the Company's governing bodies and a Steering Committee meeting at least once a year.

4

Report on corporate governance

The information set out in this chapter forms the Board of Directors' report on corporate governance, produced pursuant to Article L. 225-37 of the French Commercial Code. This report was prepared on the basis of the deliberations of the Board of Directors, and with the assistance of several of the Corporation's corporate functional divisions, including in particular the Legal, Finance and People & Social Engagement Departments. After the sections relevant to their respective duties were reviewed by the Governance and Ethics Committee and the Compensation Committee, the report was approved by the Board of Directors.

4.1 Administration and management bodies

4.1.1 Composition of the Board of Directors

As of March 13, 2024

14 directors	**1** Lead Independent Director	**82%** independent directors[a]	**5.7 years** Average length of service on the Board	**45.5%** of women[b]	**7** nationalities represented

(a) Excluding the director representing employee shareholders and the directors representing employees, in accordance with the recommendations of the AFEP-MEDEF Code (point 10.3). For more information, refer to point 4.1.1.4.
(b) Excluding the directors representing employees in accordance with Article L. 225-27-1 of the French Commercial Code and the director representing employee shareholders in accordance with Articles L. 225-23 and L. 22-10-5 of the French Commercial Code.

The Corporation is administered by a Board of Directors whose 14 members include a director representing employee shareholders elected on the proposal of the shareholders specified in Article L. 225-102 of the French Commercial Code, in accordance with the provisions of Articles L. 225-23 and L. 22-10-5 of the French Commercial Code (hereafter referred to as the "director representing employee shareholders"), and two directors representing employees appointed in accordance with the provisions of Article L. 225-27-1 of the French Commercial Code and the Corporation's Articles of Association (the first appointed by the Central Social and Economic Works Council of the Upstream Global Services UES Amont – Global Services – Holding and the second appointed by the SE Committee, known as "TotalEnergies European Works Council").

Mr. Patrick Pouyanné is the Chairman and Chief Executive Officer of TotalEnergies SE. He has served as Chairman of the Board of Directors since December 19, 2015, the date on which the functions of Chairman of the Board of Directors and Chief Executive Officer of the Corporation were combined (refer to point 4.1.5.1).

A Lead Independent Director is in place. His duties are specified in the Rules of Procedure of the Board of Directors (refer to point 4.1.2.1).

Directors are appointed for a three-year period (Article 11 of the Corporation's Articles of Association)[1]. The terms of office of the members of the Board are staggered to space more evenly the renewal of appointments and to ensure the continuity of the work of the Board of Directors and its Committees, in accordance with the recommendations of the AFEP-MEDEF Code, which the Corporation refers to.

The profiles, experience and expertise of the directors are detailed in the biographies hereafter.

CHANGES THAT OCCURRED WITHIN THE MEMBERSHIP OF THE BOARD OF DIRECTORS AND COMMITTEES DURING FISCAL YEAR 2023

Appendix 3 of the AFEP-MEDEF Code – Situation as of March 13, 2024

	Departure	Appointment/designation	Reappointment
Board of Directors			
05/26/2023	Patricia Barbizet	Dierk Paskert	Marie-Christine Coisne-Roquette[a]
	Jérôme Contamine	Anelise Lara	Mark Cutifani
02/28/2023			Romain Garcia-Ivaldi[b]
02/16/2023			Angel Pobo[b]
Audit Committee			
05/26/2023	Patricia Barbizet	Marie-Christine Coisne-Roquette[a]	
	Jérôme Contamine	Glenn Hubbard	
Governance and Ethics Committee			
05/26/2023	Patricia Barbizet	Mark Cutifani	
Compensation Committee			
05/26/2023	Marie-Christine Coisne-Roquette[a]	Anne-Marie Idrac	
Strategy & CSR Committee			
05/26/2023	Patricia Barbizet	Jacques Aschenbroich[c]	

(a) Lead Independent Director until May 26, 2023.
(b) Director representing employees.
(c) Lead Independent Director since May 26, 2023.

(1) The Articles of Association also contain specific provisions concerning the terms of office of directors representing employees, taking into account the method of their appointment.

OVERVIEW OF THE BOARD OF DIRECTORS AS OF MARCH 13, 2024

Appendix 3 of the AFEP-MEDEF Code

As of March 13, 2024	Personal information: Age	Sex	Nationality	Number of shares	Experience: Number of directorships[a]	Position on the Board: Independence[b]	Initial date of appointment	Term of office expires	Length of service on the Board	Participation in Board Committees
Patrick Pouyanné *Chairman and Chief Executive Officer*	60	M	France	410,695	1	x	2015	2024	9	✓
Jacques Aschenbroich *Lead Independent Director*	69	M	France	1,000	2	✓	2021	2024	3	✓
Marie-Christine Coisne-Roquette	67	F	France	5,000	1	x	2011	2026	13	✓
Lise Croteau	63	F	Canada	1,100	2	✓	2019	2025	5	✓
Mark Cutifani	65	M	Australia	2,000	0	✓	2017	2026	7	✓
Romain Garcia-Ivaldi *Director representing employees*	35	M	France	178	0	n/a	2020	2026	4	✓
Maria van der Hoeven	74	F	Netherlands	1,800	0	✓	2016	2025	8	✓
Glenn Hubbard	65	M	United States	1,000	1	✓	2021	2024	3	✓
Anne-Marie Idrac	72	F	France	1,539	1	✓	2012	2024	12	✓
Emma de Jonge *Director representing employee shareholders*	60	F	Netherlands	184	0	n/a	2022	2025	2	✓
Anelise Lara	62	F	Brazil	1,000	0	✓	2023	2026	1	
Jean Lemierre	73	M	France	1,042	1	✓	2016	2025	8	✓
Dierk Paskert	62	M	Germany	1,200	0	✓	2023	2026	1	
Angel Pobo *Director representing employees*	54	M	France	539	0	n/a	2020	2026	4	✓

(a) Number of directorships held by the director at listed companies outside his or her group, including foreign companies, assessed in accordance with the recommendations of the AFEP-MEDEF Code, point 20 (refer to point 4.1.1.3 of this chapter).
(b) As of December 31, 2023.

As of March 13, 2024

Audit Committee

5 members
75% independent members[a]

Maria van der Hoeven*
Marie-Christine Coisne-Roquette
Lise Croteau**
Romain Garcia-Ivaldi[b]
Glenn Hubbard

Governance and Ethics Committee

5 members
80% independent members

Jacques Aschenbroich*
Marie-Christine Coisne-Roquette
Mark Cutifani
Anne-Marie Idrac
Jean Lemierre

Compensation Committee

4 members
100% independent members[a]

Mark Cutifani*
Jacques Aschenbroich
Anne-Marie Idrac
Angel Pobo[b]

Strategy & CSR Committee

6 members
60% independent members[a]

Patrick Pouyanné*
Jacques Aschenbroich
Marie-Christine Coisne-Roquette
Anne-Marie Idrac
Emma de Jonge[c]
Jean Lemierre

(a) Excluding the director representing employee shareholders and the directors representing employees, in accordance with the recommendations of the AFEP-MEDEF Code (point 10.3).
(b) Director representing employees.
(c) Director representing employee shareholders.
* Chair of the Committee.
** Financial expert.

RENEWAL OF DIRECTORSHIPS AND APPOINTMENT PROPOSED TO THE SHAREHOLDERS' MEETING TO BE HELD ON MAY 24, 2024

The directorships of Mr. Patrick Pouyanné, Mr. Jacques Aschenbroich, Mr. Glenn Hubbard as well as of Ms. Anne-Marie Idrac expire at the end of the Annual Ordinary Shareholders' Meeting on May 24, 2024.

Renewal of directorships

The Board of directors, at its meeting held on September 21, 2023, after having reaffirmed its support to the quality and the relevance of the strategy implemented, considered that it was highly desirable that Mr. Patrick Pouyanné, Chairman and Chief Executive Officer, continues to drive this strategy's deployment at the helm of the Company. On the proposal of the Governance and Ethics Committee, it therefore unanimously decided to propose the renewal of the mandate of Mr. Patrick Pouyanné to the Shareholders' Meeting to be held on May, 24 2024. In the frame of the balanced governance implemented since 2015, it also unanimously decided to propose the renewal of the mandate of Mr. Jacques Aschenbroich, who has held the position of Lead Independent Director since May 2023.

Mr. Patrick Pouyanné has been Chief Executive Officer since October 22, 2014 and Chairman and Chief Executive Officer since December 19, 2015.

While reaffirming its support to the quality and the relevance of the strategy implemented since 2020, the Board of Directors considers as appropriate to ensure the continuity of the Company's governance and leadership. Since 10 years, Patrick Pouyanné has done an extraordinary work in steering TotalEnergies in a complex environment, delivering outstanding financial results and engaging the Company in the energy transition more quickly and consistently than its peers. The Board of Directors unanimously looks forward to his continued leadership and his strategic vision to continue TotalEnergies' transition, with determination and consistency, relying on two pillars: Oil & Gas on the one hand, Electricity and Renewables on the other hand. This vision, which creates value in the medium and long term, and this strategic stability are an asset and a differentiating factor for TotalEnergies compared with its peers.

The discussions held with the Governance and Ethics Committee in the best interests of the Corporation had led to a firm proposal to continue to combine the functions of Chairman and Chief Executive Officer. Indeed, this management form of the Corporation is considered to be the most appropriate for dealing with the challenges and specificities of the energy sector, which is facing major transformations. More than ever, this context requires agility of movement, which the unity of command reinforces, by giving the Chairman and Chief Executive Officer the power to act and increased representation of the Corporation in its strategic negotiations with States and partners of the Company.

The unity of the power to manage and represent the Company is also well regulated by the Company's corporate governance.

The balance of power is established through the quality, complementarity and independence of the members of the Board of Directors and its four Committees, as well as through the Articles of Association and the Board's Rules of Procedure, which define the means and prerogatives of the Lead Independent Director, notably:

- in his relations with the Chairman and Chief Executive Officer: contribution to the agenda of Board meetings or the possibility of requesting a meeting of the Board of Directors and sharing opinions on major issues;
- in his contribution to the work of the Board of Directors: chairing meetings in the absence of the Chairman and Chief Executive Officer, or when the examination of a subject requires his abstention, evaluation and monitoring of the functioning of the Board, prevention of conflicts of interest, and dialogue with the directors and Committee Chairpersons;
- in his relations with shareholders: the possibility, with the approval of the Chairman and Chief Executive Officer, of meeting with them on corporate governance issues, a practice that has already been used on several occasions.

The balance of power within the governance bodies, in addition to the independence of its members, is further strengthened by the full involvement of the directors, whose participation in the work of the Board and its Committees is exemplary. The diversity of their skills and expertise also enables the Chairman and Chief Executive Officer to benefit from a wide range of contributions.

In addition, the Board's rules of procedure provide that any investment or divestment transactions contemplated by the Company involving amounts in excess of 3% of shareholders' equity must be approved by the Board, which is also kept informed of all significant events concerning the Corporation's operations, in particular investments and divestments in excess of 1% of shareholders' equity.

Lastly, the Corporation's Articles of Association provide the necessary guarantees of compliance with good governance practices in the context of a unified management structure. In particular, they provide that the Board may be convened by any means, including orally, or even at short notice depending on the urgency of the matter, by the Chairman or by one third of its members, including the Lead Independent Director, at any time and as often as the interests of the Corporation require.

Mr. Jacques Aschenbroich, a French national, has been a director of TotalEnergies SE (since May 28, 2021), Lead Independent Director, Chairman of the Governance and Ethics Committee, member of the Compensation Committee and member of the Strategy & CSR Committee of TotalEnergies SE. In addition to his participation in a balanced governance of your Company, as mentioned above, the renewal of his term of office will allow him to continue to provide the Board of Directors with his experience as the head of a major industrial company and his skills in mobility, digital and governance.

At its meeting on March 13, 2024, the Board of Directors, upon the proposal of the Governance and Ethics Committee, also decided to submit to the Annual Shareholders' Meeting to be held on May 24, 2024, the renewal of the directorship of Mr. Glenn Hubbard.

Mr. Glenn Hubbard, an American economist, has been a director of TotalEnergies SE since May 28, 2021 and a member of the Audit Committee since May 2023. The renewal of his term of office will enable him to continue to provide the Board with the benefit of his knowledge of American markets, which is a highly valuable asset given the scale of capital invested in this country and the growing importance of the Company's North American shareholder base.

The renewal of the terms of office as directors of Mr. Pouyanné, Mr. Aschenbroich and Mr. Hubbard will therefore be submitted to the next Annual Shareholders' Meeting for approval, for a three-year term expiring at the end of the Annual Shareholders' Meeting to be called in 2027 to approve the 2026 financial statements.

The Board of Directors thanked Mrs. Anne-Marie Idrac for her invaluable contribution to the work of the Board and its Committees over the past 12 years.

Proposed appointment of director

The Board of Directors, at its meeting on March 13, 2024, decided, on the proposal of the Governance and Ethics Committee, to submit to the Annual Shareholders' Meeting on May 24, 2024 the appointment of Mrs. Marie-Ange Debon as a director for a three-year term, expiring at the end of the Annual Shareholders' Meeting to be held in 2027 to approve the 2026 financial statements.

Mrs. Marie-Ange Debon, a French national, is graduated from the French École des hautes études commerciales (HEC) and from the French École nationale de l'administration (ENA) and holds a master's degree in law. Chairwoman of the Keolis Group Executive Board, she has extensive experience acquired in administration and then in large international groups in the environmental and transport sectors and she will be able in particular to make the Board benefit from her skills in financial, regulatory and governance matters for large companies.

The Board of Directors would like to point out that the directors of TotalEnergies SE have different profiles. They are present, active and involved in the work of the Board of Directors and the Committees in which they participate. The complementarity of their professional experience and their skills are all assets for the quality of the deliberations of the Board of Directors in the context of the decisions it is called upon to make.

4.1.1.1 Profiles, experience and expertise of the directors (information as of December 31, 2023)[(1)]

Patrick Pouyanné

Chairman and Chief Executive Officer of TotalEnergies SE*

Chairman of the Strategy & CSR Committee

Born on June 24, 1963 (French)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 29, 2015
Last reappointment: Annual Shareholders' Meeting on May 28, 2021
End of current term: Annual Shareholders' Meeting on May 24, 2024

Number of TotalEnergies shares held: 410,695
Number of TotalEnergies Actionnariat France collective investment fund units held: 13,091.5928 (as of December 31, 2023)

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Main function: Chairman and Chief Executive Officer of TotalEnergies SE*

Biography & Professional Experience

A graduate of École Polytechnique and a Chief Engineer of France's Corps des Mines, Mr. Pouyanné held, between 1989 and 1996, various administrative positions in the Ministry of Industry and other cabinet positions (technical advisor to the Prime Minister – Édouard Balladur – in the fields of the Environment and Industry from 1993 to 1995, Chief of staff for the Minister for Information and Aerospace Technologies – François Fillon – from 1995 to 1996). In January 1997, he joined TotalEnergies' Exploration & Production division, first as Chief Administrative Officer in Angola, before becoming Company representative in Qatar and President of the Exploration and Production subsidiary in that country in 1999. In August 2002, he was appointed President, Finance, Economy and IT for Exploration & Production. In January 2006, he became Senior Vice President, Strategy, Business Development and R&D in Exploration & Production and was appointed a member of the Company's Management Committee in May 2006. In March 2011, Mr. Pouyanné was appointed Deputy General Manager, Chemicals, and Deputy General Manager, Petrochemicals. In January 2012, he became President, Refining & Chemicals and a member of the Company's Executive Committee.

On October 22, 2014, he became Chief Executive Officer of TOTAL S.A. and Chairman of the Company's Executive Committee. On May 29, 2015, he was appointed by the Annual Shareholders' Meeting as director for a three-year term. The Board of Directors appointed him as Chairman of the Board of Directors as of December 19, 2015. Mr. Pouyanné thus became the Chairman and Chief Executive Officer. Following the renewal of Mr. Pouyanné's directorship at the Shareholders' Meeting on June 1, 2018 and then on May 28, 2021 for a three-year period, the Board of Directors renewed Mr. Pouyanné's term of office as Chairman and Chief Executive Officer for a period equal to that of his directorship.

Mr. Pouyanné is thus the Chairman and Chief Executive Officer of TotalEnergies SE.

On June 1, 2022, Mr. Pouyanné was appointed Chairman of the French association, Entreprises pour l'Environnement (EpE). Mr. Pouyanné has also been the Chairman of the Alliance pour l'Education – United Way association since June 2018, having accepted this office as Chairman and Chief Executive Officer of the Corporation. In addition, he has been a member of the Board of Directors of Capgemini (since May 2017), of the Board of Directors of École Polytechnique (since September 2018), of the Institut du Monde Arabe (since 2017) and of the foundation La France s'engage (since 2017). Mr. Pouyanné is an Officer of the Légion d'honneur.

Directorships and functions held

Directorships held at any company during fiscal year 2023

Within the Company

- Chairman and Chief Executive Officer of TotalEnergies SE* and Chairman of the Strategy & CSR Committee

Outside the Company

- Director of Capgemini S.E.* (since May 10, 2017), member of the Strategy & CSR Committee (until May 2022), member of the Ethics & Governance Committee and, since May 2022, Chairman of the Compensation Committee

Directorships that have expired in the previous five years

None

Other positions held during fiscal year 2023

- Chairman of the l'Association Alliance pour l'Education – United Way (since June 2018)
- Chairman of the French business coalition Entreprises pour l'Environnement (EpE) (since June 1, 2022)
- Member of the Board of Directors of École Polytechnique (a public scientific, cultural and professional establishment under French law) (since September 2018)
- Member of the Board of Directors of the Institut Polytechnique de Paris (until May 2024)
- Member of the Board of Directors of AFEP (French Association of private companies) (since 2014)
- Member of the Board of Directors of the Institut du Monde Arabe (since 2017)
- Member of the Board of Directors of the La France s'engage foundation (since September 2017)

(1) Including the information referred to in Articles L. 22-10-10 and L. 225-37-4 of the French Commercial Code, and point 12.1 of Annex I to Commission Delegated Regulation EU 2019/980 of March 14, 2019, supplementing Regulation (EU) 2017/1129 of the European Parliament and of the Council on the form, content, review and approval of the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market.

* For information relating to the offices held by directors, companies marked with an asterisk are listed companies.

Jacques Aschenbroich

Independent director – Lead Independent Director

Chairman of the Governance and Ethics Committee
Member of the Compensation Committee
Member of the Strategy & CSR Committee

Born on June 3, 1954 (French)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 28, 2021
End of current term: Annual Shareholders' Meeting on May 24, 2024

Number of TotalEnergies shares held: 1,000 (as of December 31, 2023)

Business address: 111 quai du Président Roosevelt, 92130 Issy Les Moulineaux, France

Main function: Chairman of the Board of Directors of Orange*

Biography & Professional Experience

As an engineer graduate of the Corps des Mines, Mr. Jacques Aschenbroich held several positions in the French administration and served in the Prime Minister's office in 1987 and 1988. He then pursued an industrial career in the Saint-Gobain group from 1988 to 2008. After having managed subsidiaries in Brazil and Germany, he became Managing Director of the Flat Glass division of Compagnie de Saint-Gobain and went on to become Chairman of Saint-Gobain Vitrage in 1996.

As Senior Vice-President of Compagnie de Saint-Gobain from October 2001 to December 2008, he managed the flat glass and high-performance materials sectors as from January 2007 and, as the Vice-Chairman of Saint-Gobain Corporation and General Delegate to the United States and Canada, he directed the operations of the group in the United States as from September 1, 2007. He was also a director of Esso SAF until June 2009.

Mr. Jacques Aschenbroich was appointed Director and Chief Executive Officer of Valeo in March 2009 and then Chairman and Chief Executive Officer of Valeo, positions he held from February 2016 to January 26, 2022. Following the change in the Valeo Group's governance, he remained the Chairman of the Board of Directors of Valeo from January 26, 2022 until December 31, 2022, when Mr. Jacques Aschenbroich left the Chairmanship and the Board of Directors of Valeo.

In May 2022, Jacques Aschenbroich was appointed Chairman of the Board of Directors of Orange.

Directorships and functions held

Directorships held at any company during fiscal year 2023

- Chairman of the Board of Directors of Orange* since May 2022
- Director of TotalEnergies SE*, Lead Independent Director since May 26, 2023, chairman of the Governance and Ethics Committee, member of the Compensation Committee and, since May 26, 2023, member of the Strategy & CSR Committee
- Director of BNP Paribas*, Chairman of the Corporate Governance, Ethics, Nominations and CSR Committee, and member of the Financial Statements Committee
- Director of Veolia Environnement*, Chairman of the Comité de recherche, innovation et développement durable and member of the Comité des comptes et de l'audit until May 28, 2021
- Chairman of Valeo Finance, Valeo S.p.A. (Italy) and Valeo (UK) Limited (United Kingdom)

Directorships that have expired in the previous five years

- Chairman of the Board of Directors of Valeo* until December 31, 2022 and Chief Executive Officer of Valeo until January 26, 2022

Other positions held during fiscal year 2023

- Chairman of the Board of Directors of the Ecole nationale supérieure des mines ParisTech
- Co-Chair of the Franco-Japanese Business Club
- Vice-Chairman of the Institut de la Finance Durable

Marie-Christine Coisne-Roquette

Director

Member of the Audit Committee
Member of the Governance and Ethics Committee
Member of the Strategy & CSR Committee

Born on November 4, 1956 (French)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 13, 2011
Last reappointment: Annual Shareholders' Meeting on May 26, 2023
End of current term: 2026 Annual Shareholders' Meeting

Number of TotalEnergies shares held: 5,000 (as of December 31, 2023)

Business address: Sonepar, 25 rue d'Astorg, 75008 Paris, France

Main function: Chairwoman of Sonepar S.A.S. and of Colam Entreprendre SAS

Biography & Professional Experience

Ms. Coisne-Roquette has a Bachelor's Degree in English. A lawyer by training, with a French Masters' in law and a Specialized Law Certificate from the New York bar, she started her career as an attorney in 1981 at the Paris and New York bars, as an associate of Cabinet Sonier & Associés in Paris. In 1984, she became a member of the Board of Directors of Colam Entreprendre, a family holding company that she joined full time in 1988. As Chairwoman of the Board of Colam Entreprendre and the Sonepar Supervisory Board, she consolidated family ownership, reorganized the group structures and strengthened its shareholding base to sustain the group's growth strategy. Chairwoman and Chief Executive Officer of Sonepar as of 2002, Marie-Christine Coisne-Roquette became Chairwoman of Sonepar S.A.S. in 2016. At the same time, she heads Colam Entreprendre as its Chairwoman and Chief Executive Officer. Formerly a member of the Young Presidents' Organization (YPO), she served on the Executive Committee of MEDEF (France's main employers' association) for 13 years and was Chairwoman of its Tax Commission from 2005 to 2013. She was a member of the Economic, Social and Environmental Council from 2013 and 2015 and is currently a director of TotalEnergies SE.

Directorships and functions held

Directorships held at any company during fiscal year 2023

Within the Sonepar group

- Chairwoman of Colam Entreprendre S.A.S.
- Permanent Representative of Colam Entreprendre S.A.S., Chairwoman of Sonepar S.A.S.
- Director of Sonepack SAS since mid-2020
- Chairwoman of Développement Mobilier et Industriel (S.A.S.)
- Managing Partner of Ker Coro (société civile immobilière)

Outside the Sonepar group

- Director of TotalEnergies SE*, member of the Audit Committee since May 26, 2023, member of the Governance and Ethics Committee and of the Strategy & CSR Committee
- Director of EssilorLuxottica*

Directorships that have expired in the previous five years

- Chief Executive Office of Sonepack S.A.S. until mid-2020
- Chairwoman of CMI until June 2020
- Member of the Supervisory Board of Akuo Energy S.A.S. (until June 2020)

Other positions held during fiscal year 2023

- Director at the association FONDACT
- Director at the Fondation Recherche Alzheimer
- Member of the Board of Directors of AFEP (French association of private companies)
- Vice Chair of the Board of Directors of the Association Nationale des Sociétés par Actions (ANSA)
- Member of the Bureau and director of MEDEF International

Lise Croteau

Independent director

Member of the Audit Committee

Born on May 5, 1960 (Canadian)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 29, 2019
Last reappointment: Annual Shareholders' Meeting on May 25, 2022
End of current term: 2025 Annual Shareholders' Meeting

Number of TotalEnergies shares held: 100
Number of TotalEnergies ADS held: 1,000 (as of December 31, 2023)

Business address: 580 Chemin de la Réserve, Mont-Tremblant, Québec, J8E 3L8, Canada

Main function: Independent director

Biography & Professional Experience

Ms. Croteau began her career in 1982 as an auditor within the audit firms, today Raymond Chabot Grant Thornton, then Deloitte, and she joined Hydro-Québec in 1986 where she held positions of control, of risk management and of financial management of increasing responsibility.

From 2015 to 2018, she held the position of Executive Vice President and Chief Financial Officer of Hydro-Québec prior to retiring.

A chartered professional accountant since 1984, Ms. Croteau holds a Bachelor's degree in Business Administration and in 2008 was named a Fellow of the Order of Chartered Professional Accountants of Québec in recognition of her contribution to the profession and for her collaboration in the development of Canadian accounting standards for derivatives.

Her functions within Hydro-Québec have enabled her in particular to develop significant expertise in risk management from 2008, as she has been in charge of risk management, responsible for the company's risk portfolio drawn up as part of the annual exercise of the company's long-term strategic planning. In this context, she had in particular to identify, quantify and monitor risk trends and means of mitigation.

Mrs Croteau was also in charge of market risk management activities, and "Middle Office" credit of Hydro-Québec's market activities for energy transactions on Northeast American markets, debt management and management of the company's employee pension fund.

Ms. Croteau has been an independent director of Boralex since 2018, the Chair of the Audit Committee since 2019 and a member of the Investment and Risk Management Committee since 2021. Boralex, listed in Toronto, is a Canadian leader in renewable energies with operations in wind, solar, hydroelectricity and storage. It also has operations in France, the United States and the United Kingdom.

Since June 2019, Ms. Croteau has been a director on the Boards of Québecor inc. and Québecor Média inc. as well as a member of the Human Resources and Corporate Governance Committee and of the Audit and Management Risks Committee since May 2022, when she was also appointed director of the Board of Directors of Vidéotron and member of the Audit and Management Risks Committee. Québecor is a Canadian leader in the telecommunications, entertainment, news media and culture fields.

Directorships and functions held

Directorships held at any company during fiscal year 2023

- Director of TotalEnergies SE* and member of the Audit Committee
- Director of Québecor inc.* since June 16, 2019, member of the Human Resources and Corporate Governance Committee and member of the Audit and Management Risks Committee since May 12, 2022; director of Québecor Média inc. since June 16, 2019, member of the Human Resources and Corporate Governance Committee and member of the Audit and Management Risks Committee since May 12, 2022 and director and member of the Audit and Management Risks Committee of Vidéotron (Québecor's wholly-owned subsidiary) since May 12, 2022
- Director of Boralex* since 2018, Chairwoman of the Audit Committee since 2019 and member of the Investment and Risk Management Committee since 2021

Directorships that have expired in the previous five years

- Director of TVA Group Inc.* until June 16, 2019

Other positions held during fiscal year 2023

None

Mark Cutifani CBE

Independent director

Chairman of the Compensation Committee
Member of the Governance and Ethics Committee

Born on May 2, 1958 (Australian)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 26, 2017
Last reappointment: Annual Shareholders' Meeting on May 26, 2023
End of current term: 2026 Annual Shareholders' Meeting

Number of TotalEnergies shares held: 2,000 (as of December 31, 2023)

Business address: 19 Oxshott Rise, Cobham, KT11 2RW, United Kingdom

Main function: Director and Executive Business Advisor

Biography & Professional Experience

Mr. Cutifani is a Director and Executive Business Advisor after retiring from Anglo American plc. in June 2022. He has more than 47 years of experience in the mining industry in various parts of the world, covering a broad range of products. He was previously the Chief Executive Officer of AngloGold Ashanti Limited. Before joining AngloGold Ashanti, Mr. Cutifani was COO responsible for global nickel business at Vale. Prior to that, he held various management roles at Normandy Group, Sons of Gwalia, Western Mining Corporation, Kalgoorlie Consolidated Gold Mines and CRA (Rio Tinto).

Mr. Cutifani has a degree in Mining Engineering (with honors) from the University of Wollongong in Australia. He is a Fellow of the Royal Academy of Engineering, the Australasian Institute of Mining and Metallurgy and the Institute of Materials, Minerals and Mining in the United Kingdom.

Mr. Cutifani received an honorary doctorate from the University of Wollongong in Australia in 2013 and an honorary doctorate from Laurentian University in Canada in 2016. Mr. Cutifani is Commander of the Order of the British Empire (CBE).

Directorships and functions held

Directorships held at any company during fiscal year 2023

- Director of TotalEnergies SE*, Chairman of the Compensation Committee and, since May 26, 2023, member of the Governance and Ethics Committee
- Senior Independent Non-Executive Director – Laing O'Rourke (Private) since September 1, 2022
- Chair of Vale Base Metals since July 2023
- Non-Executive Director – Development Partner Institute since August 2022

Directorships that have expired in the previous five years

- Director and Chief Executive of Anglo American plc.* until April 19, 2022
- Non-executive director of Anglo American Platinum Limited until May 12, 2022
- Chairman of De Beers plc. until May 12, 2022
- Chairman of De Beers Investments plc. until May 12, 2022

Other positions held during fiscal year 2023

- Chairman of Board of Trustees – Power of Nutrition since July 2022
- Chair – International Advisory Committee for Global Foundation since July 2022
- Member of International Advisory Committee – AUSIMM since October 2022
- Advisor to Mevco since April 2023
- Advisor to ERM since July 2023

Romain Garcia-Ivaldi

Director representing employees

Member of the Audit Committee

Born on September 14, 1988 (French)
Director representing employees of TotalEnergies SE since June 9, 2020
Last reappointment (by the Central Social and Economic Works Council of the Corporation): February 28, 2023
End of current term: 2026 Annual Shareholders' Meeting

Number of TotalEnergies shares held: 178
Number of TotalEnergies Actionnariat France collective investment fund units held: 4,582.355
Number of FCPE TotalEnergies France Capital+ collective investment fund units held: 3
(as of December 31, 2023)

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Main function: Employee of TotalEnergies SE*

Biography & Professional Experience

A graduate of ENSTA Paris engineering school and IFP School, Mr. Garcia-Ivaldi began his career at TotalEnergies in 2012 as an economist on oil and gas projects in Americas region. Between 2015 and 2021, he was a reservoir engineer, serving in a variety of positions in Paris and Lagos (Nigeria). He is currently an economist of new business for TotalEnergies SE. He also obtained the "Certificat Administrateur de Sociétés" IFA-Sciences Po. He also completed the "Climate Change: Economics and Governance" training program at the London School of Economics.

Mr. Garcia-Ivaldi was chairman of the Supervisory Board of the TotalEnergies Actionnariat France and TotalEnergies France Capital+ employee shareholding funds from November 9, 2018 to June 17, 2020.

Directorships and functions held

Directorships held at any company during fiscal year 2023

- Director representing employees of TotalEnergies SE* and member of the Audit Committee

Other positions held during fiscal year 2023

None

Directorships that have expired in the previous five years

None

Maria van der Hoeven

Independent director

Chairwoman of the Audit Committee

Born on September 13, 1949 (Dutch)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 24, 2016
Last reappointment: Annual Shareholders' Meeting on May 25, 2022
End of current term: 2025 Annual Shareholders' Meeting

Number of TotalEnergies shares held: 1,800 (as of December 31, 2023)

Business address: Sadatdomein 31, 6229 HC Maastricht, The Netherlands

Main function: Independent director

Biography & Professional Experience

Ms. van der Hoeven trained as a teacher, becoming a professor in economic sciences and administration then a school counselor. She subsequently headed the Adult Vocational Education Center in Maastricht for seven years, before leading the Limburg Technology Center. She was a member of the Dutch Parliament, served as Minister of Education, Culture and Science from 2002 to 2007, and was Minister of Economic Affairs of the Netherlands from 2007 to 2010. Ms. van der Hoeven was Executive Director of the International Energy Agency (IEA) from September 2011 to August 2015. During this period, she helped to increase the number of members of the Agency and emphasized the close link between climate and energy policy. In September 2015, Ms. van der Hoeven joined the Board of Trustees of Rocky Mountain Institute (USA) and in the spring of 2016, she became a member of the Supervisory Board of Innogy SE (Germany). Ms. van der Hoeven was Vice Chairwoman of the High-level Panel of the European Decarbonisation Pathways Initiative within the European Commission between 2016 and 2018. Since January 2020, she has been a member of the Supervisory Board of COVRA, a privately held Dutch company that serves as the central depository for radioactive waste in the Netherlands.

Directorships and functions held

Directorships held at any company during fiscal year 2023

- Director of TotalEnergies SE* and Chairwoman of the Audit Committee
- Member of the Supervisory Board of Covra since January 2020 (Netherlands)

Directorships that have expired in the previous five years

- Member of the Board of Trustees of Rocky Mountain Institute (USA) until October 30, 2021
- Member of the Supervisory Board of Innogy SE* until October 4, 2019

Other positions held during fiscal year 2023

- Member of the EACLN, European Audit Committee Leaders Network, since August 2021
- Member of the Supervisory Board of Erasmus Entreprise (Netherlands) since June 2021
- Special Advisor on energy literacy to the Secretary General of World Energy Council (WEC) since May 2021
- Member of the Board of Leaders pour la Paix (France) since January 2019
- Member of the International Advisory Panel on Energy in Singapore since January 2019
- Senior fellow in CIEP (Clingendael International Energy Programme) (Netherlands)

Glenn Hubbard

Independent director

Member of the Audit Committee

Born on September 4, 1958 (American)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 28, 2021
End of current term: Annual Shareholders' Meeting on May 24, 2024

Number of TotalEnergies shares held: 1,000 (as of December 31, 2023)

Business address: 572 Kravis Hall, 665 West 130th Street, New York, NY 10027, United States

Main function: Russell L. Carson Professor of Finance and Economics, Columbia University and Chairman of the Board, MetLife, Inc.

Biography & Professional Experience

Mr. Glenn Hubbard obtained in 1983 a PhD in Economics at Harvard University. After graduation, he joined Northwestern University as Assistant Professor of Economics, where he stayed for five years. In 1988 he joined Columbia University, where he continues to teach today. Since then, he has been a visiting professor at Harvard's Kennedy School of Government and Harvard Business School as well as The University of Chicago. In 1991, Glenn Hubbard was appointed Deputy Assistant Secretary for Tax Policy at the United States Department of the Treasury. In 1993, he joined the Federal Reserve Bank of New York's Panel of Economic Advisors, a position he vacated in 2001 when he became Chairman of the United States Council of Economic Advisers (CEA). He also served as Chair of the Economic Policy Committee of the Organization for Economic Cooperation and Development (OECD) as well as a Member of the White House National Economic Council, National Security Council, and the President's Council on Science and Technology. He stepped down as Chair of the CEA in 2003, returning to Columbia University. In 2007, he also rejoined the Panel of Economic Advisors for the Federal Reserve Bank of New York, a position he maintained for 10 years. In 2004, he joined the Boards of Dex Media, KKR Financial Corporation, and Automatic Data Processing (ADP), positions he held for many years. In 2004, he was named Dean of Columbia Business School (Columbia University's graduate school of business), keeping this position until 2019. In 2007, Glenn Hubbard joined the Board of MetLife, Inc. where he continues to serve today after being named Lead Independent Director in 2017 and Chairman in 2019.

Directorships and functions held

Directorships held at any company during fiscal year 2023

- Chairman of the Board of MetLife, Inc.*
- Director of BlackRock Fixed Income Funds
- Director of TotalEnergies SE* and, since May 26, 2023, member of the Audit Committee

Directorships that have expired in the previous five years

- Director of Automatic Data Processing until November 2020

Other positions held during fiscal year 2023

- Russell L. Carson Professor of Finance and Economics, Columbia University
- Co-Chair, Committee on Capital markets Regulation
- Board Member of Resources for the Future

Anne-Marie Idrac

Independent director

Member of the Governance and Ethics Committee
Member of the Compensation Committee
Member of the Strategy & CSR Committee

Born on July 27, 1951 (French)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 11, 2012
Last reappointment: Annual Shareholders' Meeting on May 28, 2021
End of current term: Annual Shareholders' Meeting on May 24, 2024

Number of TotalEnergies shares held: 1,539 (as of December 31, 2023)

Business address: 9 place Vauban 75007 Paris, France

Main function: Chairwoman of the Board of Directors of Sanef

Biography & Professional Experience

A graduate of Institut d'Études Politiques de Paris and formerly a student at École Nationale d'Administration (ENA-1974), Ms. Idrac began her career holding various positions as a senior civil servant at the French Ministry of Infrastructure (Ministère de l'Équipement) in the fields of environment, housing, urban planning and transportation. She served as Executive Director of the public institution in charge of the development of Cergy-Pontoise (Établissement public d'Aménagement de Cergy-Pontoise) from 1990 to 1993 and Director of land transport from 1993 to 1995. Ms. Idrac was France's State Secretary for Transportation from May 1995 to June 1997, elected member of Parliament for Yvelines from 1997 to 2002, regional councilor for Île-de-France from 1998 to 2002 and State Secretary for Foreign Trade from March 2008 to November 2010. She also served as Chairwoman and Chief Executive Officer of RATP from 2002 to 2006 and then as Chairwoman of SNCF from 2006 to 2008.

Directorships and functions held

Directorships held at any company during fiscal year 2023

- Director of TotalEnergies SE*, member of the Governance and Ethics Committee, member of the Compensation Committee and member of the Strategy & CSR Committee
- Director of Air France-KLM* and Chairwoman of the Sustainable Development and Compliance Committee
- Director of Sanef and Chairwoman of the Board of Directors of this Company since December 12, 2023

Directorships that have expired in the previous five years

- Director of Saint-Gobain* and Chairwoman of the Nominations and Compensation Committee until June 2022
- Director of Bouygues* until June 2021

Other positions held during fiscal year 2023

- Chairwoman of the professional association France Logistique since January 2020
- Member of the Board of Directors of the Fondation Robert Schuman
- Chairwoman of the Fondation Alima since November 2020

Emma de Jonge

Director representing employee shareholders

Member of the Strategy & CSR Committee

Born on March 20, 1963 (Dutch)
Director representing employee shareholders of TotalEnergies SE since the Annual Shareholders' Meeting on May 25, 2022
End of current term: 2025 Annual Shareholders' Meeting

Number of TotalEnergies shares held: 184
Number of TotalEnergies Actionnariat France collective investment fund units held: 931.703
(as of December 31, 2023)

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Main function: Employee of TotalEnergies*

Biography & Professional Experience

After obtaining a double degree in information systems and management at the University of Grenoble, Emma de Jonge began her career as a project manager and pre-sales support in the Cap Gémini group in 1987. She joined Elf Aquitaine in 1990, where she held several positions as project manager, buyer and internal consultant in the Refining Distribution IT Department. In 2004, as assistant to the SAP support manager for 150 subsidiaries of Total Marketing & Services, she managed relations with the subsidiaries' managers and supplier relations.

From 2010, Emma de Jonge worked primarily as a project manager and in change management in international contexts, in the Europe Card Development Department and then in the Governance Department of Total Marketing & Services. In 2017, she continued these activities as Head of Procure to Pay and then as project manager, first within TotalEnergies Global Procurement, and then within TotalEnergies Global Services in 2022.

Furthermore, Emma de Jonge holds the IFA-Science Po Corporate Director Certificate. She is a member of the European Works Council (since 2020) and was an elected member of the Supervisory Board of the TotalEnergies Actionnariat France collective investment fund from 2020 to November 2023.

Directorships and functions held

Directorships held at any company during fiscal year 2023

- Director representing employee shareholders of TotalEnergies SE*, member of the Strategy and CSR Committee

Directorships that have expired in the previous five years

None

Other positions held during fiscal year 2023

- Elected member of the CSE AGSH TotalEnergies Paris (since 2018)
- Elected member of the CSEC AGSH TotalEnergies (since 2018)
- Member of the TotalEnergies European Works Council (since 2020)
- Elected member of the Supervisory Board of the TotalEnergies Actionnariat France collective investment fund since 2020 until November 23, 2023

Anelise Lara

Independent director

Born on May 24, 1961 (Brazilian)

Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 26, 2023
End of current term: 2026 Annual Shareholders' Meeting

Number of TotalEnergies shares held: 1,000 (as of December 31, 2023)

Business address: Instituto Brasileiro de Petróleo e Gás Avenida Almirante Barroso, 52 – 26º andar - Centro, Rio de Janeiro - RJ, Brasil - CEP: 20031-918

Main function: Independent director

Biography & Professional Experience

Mrs. Anelise Lara is a chemical engineer with an MSc in Petroleum Engineering and a Ph.D. in Earth Sciences from "Université Pierre et Marie Curie," France. She was also certified in ESG Competent Boards Program, including climate change risks, in 2021. Mrs. Lara has 37 years of experience in the energy industry. In 1986, she joined Petrobras, the most important company in the energy segment in Brazil. She began her career in the Research and Development Center. In 2003, she joined the Exploration and Production Department as General Manager for the Reservoir Team at the corporate level. In 2011, after the first pre-salt discoveries, she was appointed General Manager for pre-salt development projects. Then in 2013, she was invited to become the Director of the Libra Joint Project Team. In 2016, she was appointed as Head of M&A, responsible for a portfolio of more than 40 projects of divestments and strategic partnerships in Brazil and abroad. During this period, Mrs. Lara was also a member of the Company's Investment Committee. In 2019, she was appointed as Chief Executive Officer for Refining, Natural Gas, and Power, responsible for the strategic, risk management, HSE, and operational results of Refining, Gas & Power areas, covering the areas of refining, biofuels, petrochemicals, fertilizers plants, distribution and transportation of natural gas, regas terminals, and thermal power plants. She left Petrobras in January 2021. Mrs. Lara served as President of the Society of Petroleum Engineers (SPE) – Brazil Section from 2005 to 2008. She also joined the International Board of SPE from 2014 until 2017 as Regional Director for Latin America and Caribe. She also served as Chair of the Brazilian Petroleum Institute (IBP) from 2019 to 2021. Mrs. Lara volunteers for the cause of D&I (diversity and inclusion). She is a board member of WILL (Women Leadership in Latin America) and has already mentored many young women interested in working in the energy segment.

Directorships and functions held

Directorships held at any company during fiscal year 2023

- Director of TotalEnergies SE* since May 26, 2023
- Board Member of Mubadala Capital Downstream Brazil, since March 2022
- Board Member of Trident Energy since April 2022; Member of the ESG Committee; Member of the Technical Committee

Directorships that have expired in the previous five years

- Chief Executive Officer for Refining, Natural Gas, and Power of Petrobras until January 2021
- Chair of the Brazilian Petroleum Institute until March 2021

Other positions held during fiscal year 2023

- Advisory Board Member for Ultrapar* since September 2022
- Board Member of IBP (Brazilian Petroleum Institute)
- Board member of WILL (Women Leadership in Latin America)

Jean Lemierre

Independent director

Member of the Governance and Ethics Committee
Member of the Strategy & CSR Committee

Born on June 6, 1950 (French)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 24, 2016
Last reappointment: Annual Shareholders' Meeting on May 25, 2022
End of current term: 2025 Annual Shareholders' Meeting

Number of TotalEnergies shares held: 1,042 (as of December 31, 2023)

Business address: BNP Paribas, 3 rue d'Antin 75002 Paris, France

Main function: Chairman of the Board of Directors of BNP Paribas*

Biography & Professional Experience

Mr. Lemierre is a graduate of the Institut d'Études Politiques de Paris and the École Nationale d'Administration. He also has an undergraduate law degree. Mr. Lemierre held various positions at the French tax authority, including as Head of the Fiscal Legislation Department and Director-General of Taxes. He was then appointed as Cabinet Director at the French Ministry of Economy and Finance before becoming Director of the French Treasury in October 1995. Between 2000 and 2008, he was President of the European Bank for Reconstruction and Development (EBRD). He became an advisor to the Chairman of BNP Paribas in 2008 and has been Chairman of the Board of Directors of BNP Paribas since December 1, 2014. During his career, Mr. Lemierre has also been a member of the European Monetary Committee (1995-1998), Chairman of the European Union Economic and Financial Committee (1999-2000) and Chairman of the Paris Club (1999-2000). He later became a member of the International Advisory Council of China Investment Corporation (CIC) and the International Advisory Council of China Development Bank (CDB). He is currently Chairman of the Centre d'Études Prospectives et d'Informations Internationales (CEPII) and a member of the Institute of International Finance (IIF).

Directorships and functions held

Directorships held at any company during fiscal year 2023

Within the BNP Paribas group

- Chairman of the Board of Directors of BNP Paribas*
- Director of TEB Holding AS

Outside the BNP Paribas group

- Director of TotalEnergies SE*, member of the Governance and Ethics Committee and of the Strategy & CSR Committee

Directorships that have expired in the previous five years

None

Other positions held during fiscal year 2023

- Member of the Board of Directors of AFEP (French association of private companies)
- Chairman of Centre d'Études Prospectives et d'Informations Internationales (CEPII)
- Member of the Institute of International Finance (IIF)
- Member of the International Advisory Council of China Development Bank* (CDB)
- Member of the International Advisory Council of China Investment Corporation (CIC)
- Member of the International Advisory Panel (IAP) of the Monetary Authority of Singapore (MAS)
- Vice-Chairman of Paris EUROPLACE since 2014
- Member of the Board of the Institut de la Finance Durable (Paris)

Dierk Paskert

Independent director

Born on April 29, 1961 (German)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 26, 2023
End of current term: 2026 Annual Shareholders' Meeting

Number of TotalEnergies shares held: 1,200 (as of December 31, 2023)

Business address: Asamstr. 5, 83700 Rottach-Egern, Germany

Main function: Independent director

Biography & Professional Experience

Mr. Dierk Paskert obtained a PhD in Economics at Münster University in 1990. Having made his first professional steps in Investment Banking with Trinkaus Samuel Montague and West Merchant Bank, he started his industrial career in VEBA Group from 1995 onwards. With VEBA Group focusing entirely on power and gas and turning into E.ON, he became Senior Vice-President for Corporate Development at E.ON AG in 2003. He was inter alia responsible to further internationalize the gas business (Ruhrgas), to integrate the power and gas activities downstream and to develop the first renewable strategy of E.ON. In 2008 he joined the Board of E.ON-Energie and directed the Transmission and Distribution Grid business in Germany, Czech, Hungary, Slovakia, Romania and Bulgaria. In 2012, he was asked by the German Industry Association to found and manage Resource Alliance, a Joint-Venture of 16 German Industrial Companies focusing on supply of critical raw materials. From 2017 until end of 2022, he was appointed CEO of Encavis AG, a M-Dax listed Independent Power Producer (IPP) from Renewable Energy Sources. He was Member of the Executive Risk Committee. Whilst growing the production portfolio to > 4 GW and focusing on Power Purchase Agreements as well as Traded Markets, he introduced in particular a risk management system coping with the growing merchant exposure of the company in Renewable Energy.

Directorships and functions held

Directorships held at any company during fiscal year 2023

- Director of TotalEnergies SE* since May 26, 2023
- Member of the Administrative Board KAEFER SE&Co
- Member of the Board of Directors The Mobility House AG, member of the Risk Committee, member of the Strategy Committee
- Member of the Supervisory Board Intilion AG
- Member of the Board of Directors of Solarpack SA, Bilbao

Directorships that have expired in the previous five years

- Member of the Board of Directors Pexapark AG (until January 11, 2023)
- Member of the Board of Management and Chief Executive Officer Encavis AG (until December 31, 2022)

Other positions held during fiscal year 2023

- Member of the Advisory Board East-Energy GmbH

Angel Pobo

Director representing employees

Member of the Compensation Committee

Born on August 14, 1969 (French)
Director representing employees of TotalEnergies SE since October 14, 2020
Last reappointment (by the SE Committee): February 16, 2023
End of current term: 2026 Annual Shareholders' Meeting

Number of TotalEnergies shares held: 539
Number of TotalEnergies Actionnariat France collective investment fund units held: 1,909.4489 (as of December 31, 2023)

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Main function: Employee of TotalEnergies SE*

Biography & Professional Experience

Mr. Pobo joined TotalEnergies in 1989 as part of Argedis, the subsidiary responsible for service station management and operations in France, where he held a variety of positions before becoming site director in 1998. In 2013, he became a member of the European Works Council. He was the central union representative for the Marketing & Services Unit of Economic and Employee Interest (UES) from 2014 to 2017, and then for the Upstream/Global Services/Holding Company UES beginning in 2017. He is also the union representative on the Economic and Employee Interest Committee and the Central Economic and Employee Interest Committee. On October 14, 2020, he was appointed by the SE Committee, known as the European Works Committee, to sit on the Board of Directors of TotalEnergies SE as a director representing employees and accordingly resigned from his union responsibilities.

Directorships and functions held

Directorships held at any company during fiscal year 2023

- Director representing employees of TotalEnergies SE* and member of the Compensation Committee

Other positions held during fiscal year 2023

- Mayor of Aubais (France)

Directorships that have expired in the previous five years

None

DIRECTORSHIPS OF TotalEnergies SE THAT EXPIRED IN 2023

Patricia Barbizet

Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 16, 2008 until the Annual Shareholders' Meeting on May 26, 2023

Member of the Audit Committee, Member of the Governance and Ethics Committee, Member of the Strategy & CSR Committee until May 26, 2023

Born on April 17, 1955 (French)

Main function: Chairwoman of Temaris et Associés SAS

Biography & Professional Experience

A graduate of École Supérieure de Commerce de Paris (ESCP-Europe) in 1976, Patricia Barbizet started her career in the Treasury division of Renault Véhicules Industriels, and then as CFO of Renault Crédit International. In 1989, she joined the group of François Pinault as CFO, and was CEO of Artémis, the Pinault family's investment company, between 1992 and 2018. She was also CEO and Chairwoman of Christie's from 2014 to 2016.

Patricia Barbizet was Vice Chairwoman of the Board of Directors of Kering and Vice Chairwoman of Christie's Plc. She has been a member of the Board of Directors of TotalEnergies SE since 2008, and was a director of Bouygues, Air France-KLM and PSA Peugeot-Citroën. She chaired the Investment Committee of the Fonds Stratégique d'Investissement (FSI) from 2008 to 2013.

Directorships and functions held

Directorships held at any company during fiscal year 2023[(1)]

- Chairwoman of Temaris et Associés SAS since October 2018
- Director of TotalEnergies SE*, member of the Audit Committee, of the Governance and Ethics Committee and of the Strategy & CSR Committee until May 26, 2023
- Director of Colombus Holdings since July 2019
- Director of Pernod Ricard* since November 2018

Directorships that have expired in the previous five years

- Director of TotalEnergies SE*, member of the Audit Committee, of the Governance and Ethics Committee and of the Strategy & CSR Committee until May 26, 2023
- Director of Axa* until April 28, 2022
- Director of Groupe Fnac Darty* until May 2019

Other positions held during fiscal year 2023

- Chairwoman of the Board of Directors of the public institution (EPIC) Cité de la Musique – Philharmonie de Paris
- Chairwoman of the Supervisory Board of Investissements d'Avenir (French governmental body)
- Chairwoman of the Haut Comité de Gouvernement d'Entreprise (HCGE)

Jérôme Contamine

Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 29, 2020 until the Annual Shareholders' Meeting on May 26, 2023

Member of the Audit Committee until May 26, 2023
Born on November 23, 1957 (French)

Main function: Independent director

Biography & Professional Experience

The French-born Mr. Contamine is a graduate of Ecole Polytechnique, ENSAE and ENA. After spending four years as an auditor of the French Court of Auditors (Cour des Comptes), he served in a variety of positions between 1988 and 2000 at Elf Aquitaine and later TotalEnergies. From 2000 to 2009, he was Executive Vice President of Finance at Veolia Environnement and he was a member of the Board of Directors of Valeo from 2006 to 2017. From 2009 to 2018, he was Chief Financial Officer of Sanofi. Mr. Contamine is a director, a member of the Audit and Internal Control Committee and the Chairman of the Compensation Committee of Société Générale.

Directorships and functions held

Directorships held at any company during fiscal year 2023[(2)]

- Director of TotalEnergies SE* and member of the Audit Committee until May 26, 2023
- Director of Société Générale*, member of the Audit and Internal Control Committee, Chairman of the Compensation Committee
- Chairman of Sigateo
- Director, Chairman of the Audit Committee, member of the Nominations and Compensation Committee of Galapagos NV*

Directorships that have expired in the previous five years

- Director of TotalEnergies SE* and member of the Audit Committee until May 26, 2023
- Director of Valeo*

Other positions held during fiscal year 2023

- Member of the Financial Committee of the Fondation des Apprentis d'Auteuil

(1) Information as of May 26, 2023.
(2) Information as of May 26, 2023.

4.1.1.2 Absence of conflicts of interest or convictions

The Board of Directors' Rules of Procedure stipulate the specific rules for preventing conflicts of interest applicable to directors in the following terms (refer to point 4.1.2.1 for the full version of the Rules of Procedure):

"**2.5. Duty of loyalty**

Directors must not take advantage of their office or duties to gain, for themselves or a third party, any monetary or non-monetary benefit.

They must notify the Chairman of the Board of Directors and the Lead Independent Director, if one has been appointed, of any existing or potential conflict of interest with the Corporation or any subsidiary of the Company, and they must refrain from participating in the vote relating to the corresponding resolution as well as from participating in any debates preceding such vote.

Directors must inform the Board of Directors of their participation in any transaction that directly involves the Corporation, or any subsidiary of the Company, before such transaction is finalized.

Directors must not assume personal responsibilities in companies or businesses having activities in competition with those of the Corporation or any subsidiary of the Company without first having informed the Board of Directors.

Directors undertake not to seek or accept from the Corporation, or from companies related to the Corporation, directly or indirectly, any advantages liable to be considered as being of a nature that may compromise their independence."

"**7.2 Duties of the Lead Independent Director**

5. Prevention of conflicts of interest

Within the Governance and Ethics Committee, the Lead Independent Director organizes the performance of due diligence in order to identify and analyze potential conflicts of interest within the Board of Directors. He informs the Chairman and Chief Executive Officer of any conflicts of interest identified as a result and reports to the Board of Directors on these activities.

Pursuant to the obligation to declare conflicts of interest set out in article 2.5 of these Rules, any director affected by an existing or potential conflict of interest must inform the Chairman and Chief Executive Officer and the Lead Independent Director."

The Lead Independent Director has performed due diligence in order to identify and analyze potential conflicts of interest.

The Lead Independent Director was thus consulted by directors who were considering accepting a mandate in other companies. No situation relating to a project to take up a mandate or an external function by a director has led the Lead Independent Director to refer the matter to the Governance and Ethics Committee.

On the basis of the work carried out, the Board of Directors noted the absence of potential conflicts of interest between the directors' duties with respect to TotalEnergies and their private interests.

To the Corporation's knowledge, there is no family relationship among the members of the Board of Directors of TotalEnergies SE; there is no arrangement or agreement with the major shareholders, customers or suppliers under which a director was selected; and there is no service agreement that binds a director to TotalEnergies SE or to any of its subsidiaries and provides for special benefits under the terms thereof.

The current directors of TotalEnergies have informed the Corporation that they have not been convicted of fraud, have not been associated with bankruptcy, sequestration, receivership or court-ordered liquidation proceedings, and have not been subject to any incrimination, conviction or sanction pronounced by an administrative authority or professional body, nor have they been prohibited from managing a company or disqualified as stipulated in item 12.1 of Annex I of Commission Delegated Regulation (EU) 2019/980 of March 14, 2019, over the last five years.

4.1.1.3 Plurality of directorships held by directors

The number of directorships held by directors in listed companies outside their group, including foreign companies, was assessed as of December 31, 2023, in accordance with the recommendations of the AFEP-MEDEF Code (point 20), which states that "*an executive officer should not hold more than two other directorships in listed corporations, including foreign corporations, outside of his or her group. [This] limit [...] does not apply to directorships held by an executive officer in subsidiaries and holdings, held alone or together with others, of companies whose main activity is to acquire and manage such holdings. [...] A director may not hold more than four other directorships in listed corporations, including foreign corporations, outside of the group.*"

TotalEnergies

SUMMARY OF OTHER DIRECTORSHIPS HELD BY MEMBERS OF THE BOARD OF DIRECTORS

As of December 31, 2023	Number of directorships held at listed companies[(a)]	Compliance with the criteria of the AFEP-MEDEF Code
Patrick Pouyanné	1	✓
Jacques Aschenbroich	2	✓
Marie-Christine Coisne-Roquette	1	✓
Lise Croteau	2	✓
Mark Cutifani	0	✓
Romain Garcia-Ivaldi[(b)]	0	✓
Maria van der Hoeven	0	✓
Glenn Hubbard	1	✓
Anne-Marie Idrac	1	✓
Emma de Jonge[(c)]	0	✓
Anelise Lara	0	✓
Jean Lemierre	1	✓
Dierk Paskert	0	✓
Angel Pobo[(b)]	0	✓

(a) In accordance with the criteria of the AFEP-MEDEF Code.
(b) Director representing employees.
(c) Director representing employee shareholders.

4.1.1.4 Directors' independence

At its meeting on March 13, 2024, the Board of Directors, on the proposal of the Governance and Ethics Committee, reviewed the independence of the Corporation's directors as of December 31, 2023. Upon that Committee's proposal, the Board considered that, pursuant to the AFEP-MEDEF Code to which the Corporation refers, a director is independent when "*he or she has no relationship of any kind whatsoever with the corporation, its group or its management that may interfere with the exercise of his or her freedom of judgment*".

For each director, this assessment was based on the independence criteria set forth in points 10.5 to 10.7 of the AFEP-MEDEF Code, updated in December 2022, and as described below.

Criterion 1: Employee corporate officer within the previous five years

"Not to be or not to have been within the previous five years:

- *an employee or executive officer of the company;*
- *an employee, executive officer or director of a company consolidated within the corporation;*
- *an employee, executive officer or director of the company's parent company or a company consolidated within this parent company."*

Criterion 2: Cross-directorships

"Not to be an executive officer of a company in which the corporation holds a directorship, directly or indirectly, or in which an employee appointed as such or an executive officer of the corporation (currently in office or having held such office within the last five years) holds a directorship."

Criterion 3: Significant business relationships

"Not to be a customer, supplier, commercial banker, investment banker or consultant:

- *that is significant to the corporation or its group;*
- *or for which the corporation or its group represents a significant portion of its activity.*

The evaluation of the significance or otherwise of the relationship with the company or its group must be debated by the Board, and the quantitative and qualitative criteria that led to this evaluation (continuity, economic dependence, exclusivity, etc.) must be explicitly stated in the annual report."

Criterion 4: Family ties

"Not to be related by close family ties to a company officer."

Criterion 5: Auditor

"Not to have been an auditor of the corporation within the previous five years."

Criterion 6: Period of office exceeding 12 years

"Not to have been a director of the corporation for more than twelve years. Loss of the status of independent director occurs on the date of this 12th anniversary."

Criterion 7: Status of non-executive officer

"A non-executive officer cannot be considered independent if he or she receives variable compensation in cash or in the form of securities or any compensation linked to the performance of the corporation or group."

Criterion 8: Status of the major shareholder

"Directors representing major shareholders of the corporation or its parent company may be considered independent, provided these shareholders do not take part in the control of the corporation. Nevertheless, beyond a 10% threshold in capital or voting rights, the Board, upon a report from the nominations committee, should systematically review the qualification of a director as independent in the light of the make-up of the corporation's capital and the existence of a potential conflict of interest."

It was confirmed, regarding the independence as of December 31, 2023, of Mr. Aschenbroich, Ms. Croteau, Mr. Cutifani, Ms. van der Hoeven, Mr. Hubbard, Ms. Idrac, Ms. Lara, Mr. Lemierre, as well as Mr. Paskert that the independence analyzes previously carried out remained relevant.

In particular, the following was noted as of the date of December 31, 2023.

- The level of business relations between the companies of the Company and those of the Orange group, of which **Mr. Aschenbroich** is Chairman of the Board of Directors, is not significant for TotalEnergies or for Orange. The amount of purchases made by the Company from Orange in 2023 (*i.e.*, $36.6 million) represents 0.12% of the purchases made by the Company in 2023 (*i.e.*, approximately $30.45 billion[1]). The amount of purchases made by Orange from the Company's companies in 2023 (*i.e.*, $41.63 million) represents less than 0.20% of the total amount of purchases made by Orange in 2023 (*i.e.*, $20.87 billion). It was established that there is no economic dependency or exclusive business relations between the two groups.
- The level of business relations between the Company's companies and those of the BNP Paribas group, of which **Mr. Lemierre** is Chairman of the Board of Directors, and **Mr. Aschenbroich** is a director, chairman of the Corporate Governance, Ethics, Nominations and CSR Committee and member of the Financial Statements Committee, is not significant for TotalEnergies and BNP Paribas. It represents an insignificant portion of BNP Paribas' overall activity (less than 0.2% of the net banking income[2] of this bank) and an insignificant portion of the total amount of external financing for the Company's activities (less than 5%). It was noted the absence of economic dependence and exclusivity in the business relations between the two groups.

  It was thus concluded that Mr. Lemierre and Mr. Aschenbroich could be deemed to be independent directors.
- The level of business relations between the Company's companies and those of the Vale Base Metals group, of which **Mr. Cutifani** is Chairman, is not significant for TotalEnergies or for Vale Base Metals. The amount of purchases made by the Company from Vale Base Metals in 2023 (*i.e.*, $10 million) represents 0.04% of the purchases made by the Company in 2023 (*i.e.*, approximately $30.45 billion). Vale Base Metals did not realize purchases from the Company's companies in 2023. It was established that there is no economic dependency or exclusive business relations between the two groups.

  It was thus concluded that Mr. Cutifani could be deemed to be an independent director.
- The level of business relations between the Company's companies and those of the MetLife Inc. group, of which **Mr. Hubbard** is Chairman of the Board of Directors, is not significant for TotalEnergies or MetLife Inc. The amount of insurance premiums paid by the Company's companies to the MetLife Inc. group in 2023 represents a non significant portion of the revenues generated by this group in 2023. It was noticed that there is no significant business relationship, economic dependency or exclusive business relationships between the two groups.

  It was thus concluded that Mr. Hubbard could be deemed to be an independent director.
- The level of business relations between the Company's companies and those of the Sanef group, of which **Ms. Idrac** is Chairwoman of the Board of Directors, is not significant for TotalEnergies or for Sanef. The amount of purchases made by Sanef from the Company in 2023 represents approximately $600,000, i.e., an amount not significant with regards to the purchases made by the Company in 2023 (*i.e.*, approximately $30.45 billion). The amount of purchases made by Sanef group from the Company's companies in 2023 (*i.e.*, $4 million) represents approximately 1.3% of the total amount of purchases made by Sanef in 2023 (*i.e.*, approximately $310 million). Sanef group also collected in 2023 $18.32 million in royalties paid by the Company in its capacity as holder of 19 subconcession contracts, organizing its service over 35 motorway service areas (service areas and/or electric vehicle charging infrastructure). These contracts were awarded in accordance with the principles of public procurement law. The amount of these royalties represents approximately 0.81% of Sanef group's 2023 sales (which amounted to $2,26 billion).

  It was established that there is no economic dependency or exclusive business relations between the two groups.

  It was thus concluded that Mrs. Idrac could be deemed to be an independent director.

Ms. Coisne-Roquette, who was appointed director by the Shareholders' Meeting on May 13, 2011, cannot be considered as an independent director pursuant to Article 10.5.6 of the AFEP-MEDEF Code.

The percentage of independent directors within the Board in its composition as of December 31, 2023, was 82%[3]. The rate of independence of the Board of Directors is higher than that recommended by the AFEP-MEDEF Code, which specifies that at least half of the members of the Board in widely-held companies with no controlling shareholders should be independent.

With regard to Ms. Debon, whose appointment as a director will be submitted to the Shareholders' Meeting on May 24, 2024, no relationship has been established with the Corporation, the Company or its General Management that would be likely to compromise her freedom of judgment.

In particular, the level of business relations between the Company's companies and those of the Keolis group, of which **Ms. Debon** is Executive Chair (*Présidente du Directoire*), is not significant for TotalEnergies or for Keolis. The amount of purchases made by Keolis from the Company in 2023 is lower than $10,000 i.e., an amount not significant with regards to the purchases made by the Company in 2023 (i.e., approximately $30.45 billion). The amount of purchases made by Keolis from the Company's companies in 2023 is approximately $35 million, a very small amount compared with the total amount of purchases made by Keolis in 2023, of approximately $2.2 billion. It was noted that there is no economic dependency or exclusive business relations between the two groups.

Ms. Debon has also indicated that she will not be seeking renewal of her directorship in Technip Energies, which expires in May 2024. Lastly, Ms. Debon is a director of Arkema, and in the context of the agreements relating to the management of contingent environmental liabilities entered into in 2006 at the time of the Arkema spin-off, the Company has ensured that Ms. Debon will not be the addressee of any documents relating to these environmental liabilities that may be discussed by either company, and will not be present at any debates or votes on the subject.

It was thus concluded that Ms. Debon could be deemed to be independent.

(1) Purchases of goods and services (excluding petroleum products and chartering for Trading-Shipping activities).
(2) 2023 net banking income.
(3) Excluding the director representing employee shareholders and the directors representing employees, in accordance with the recommendations of the AFEP-MEDEF Code (point 10.3).

SUMMARY OF THE INDEPENDENCE OF THE MEMBERS OF THE BOARD OF DIRECTORS

Appendix 3 of the AFEP-MEDEF Code – Independence of directors

As of December 31, 2023

Criteria[a]	Patrick Pouyanné	Jacques Aschenbroich	Marie-Christine Coisne-Roquette	Lise Croteau	Mark Cutifani	Romain Garcia-Ivaldi[b]	Maria van der Hoeven	Glenn Hubbard	Anne-Marie Idrac	Emma de Jonge[c]	Anelise Lara	Jean Lemierre	Dierk Paskert	Angel Pobo[b]
Criterion 1: Employee corporate officer within the past 5 years	✗	✓	✓	✓	✓	n/a	✓	✓	✓	n/a	✓	✓	✓	n/a
Criterion 2: Cross-directorships	✓	✓	✓	✓	✓	n/a	✓	✓	✓	n/a	✓	✓	✓	n/a
Criterion 3: Significant business relationships	✓	✓	✓	✓	✓	n/a	✓	✓	✓	n/a	✓	✓	✓	n/a
Criterion 4: Family ties	✓	✓	✓	✓	✓	n/a	✓	✓	✓	n/a	✓	✓	✓	n/a
Criterion 5: Auditor	✓	✓	✓	✓	✓	n/a	✓	✓	✓	n/a	✓	✓	✓	n/a
Criterion 6: Period of office exceeding 12 years	✓	✓	✗	✓	✓	n/a	✓	✓	✓	n/a	✓	✓	✓	n/a
Criterion 7: Status of non-executive officer	✓	✓	✓	✓	✓	n/a	✓	✓	✓	n/a	✓	✓	✓	n/a
Criterion 8: Status of the major shareholder	✓	✓	✓	✓	✓	n/a	✓	✓	✓	n/a	✓	✓	✓	✓
Compliance with the independence criteria of the AFEP-MEDEF Code	✗	✓	✗	✓	✓	n/a[d]	✓	✓	✓	n/a[d]	✓	✓	✓	n/a[d]

(a) In this table, ✓ signifies that a criterion for independence is satisfied and ✗ signifies that a criterion for independence is not satisfied.
(b) Director representing employees.
(c) Director representing employee shareholders.
(d) Excluding the director representing employee shareholders and the directors representing employees, in accordance with the recommendations of the AFEP-MEDEF Code (point 10.3).

4.1.1.5 Diversity policy of the Board of Directors

The Board of Directors places a great deal of importance on its composition and the composition of its Committees. In particular, it draws on the work of the Governance and Ethics Committee, which reviews annually and proposes, as circumstances may require, desirable changes to the composition of the Board of Directors and Committees based on TotalEnergies' strategy.

The Governance and Ethics Committee conducts its work within the framework of a formal procedure so as to ensure that the directors' areas of expertise are complementary and their backgrounds are diverse, to maintain an overall proportion of independent members that is appropriate to the TotalEnergies' governance structure and shareholder base, to allow for a balanced representation of women and men on the Board, and to promote an appropriate representation of directors of different nationalities. These principles underpin the selection process for directors.

As part of an effort that began several years ago, the composition of the Board of Directors has changed significantly since 2010 to achieve better gender balance and an openness to more international profiles. Based on its composition as of March 13, 2024, the 14 members of the Board of Directors include 8 male directors and 6 female directors, with 7 nationalities represented.

In accordance with Articles L. 225-27-1, L. 225-23 and L. 22-10-5 of the French Commercial Code, the directors representing employees and the director representing employee shareholders are not taken into account for the application of the provisions relating to the gender balance of the Board. Therefore, the proportion of women on the Board was 45.5% as of December 31, 2023 (5 women and 6 men out of 11 directors). The threshold of 40% of directors of each gender required by Articles L. 225-18-1 and L. 22-10-3 of the French Commercial Code was reached on December 31, 2023.

COMPETENCE OF THE DIRECTORS

	Patrick Pouyanné	Jacques Aschenbroich	Marie-Christine Coisne-Roquette	Lise Croteau	Mark Cutifani	Romain Garcia-Ivaldi	Glenn Hubbard	Maria van der Hoeven	Anne-Marie Idrac	Emma de Jonge	Anelise Lara	Jean Lemierre	Dierk Paskert	Angel Pobo	Total	Total (%)
Corporate management	✓	✓	✓	✓	✓				✓		✓	✓	✓		9	64%
International	✓		✓	✓	✓	✓	✓	✓	✓			✓	✓		10	71%
Finance, accounting, economics	✓	✓	✓	✓		✓	✓				✓	✓	✓		9	64%
Risk management			✓	✓				✓			✓	✓	✓		6	43%
Governance	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		12	86%
Climate - sustainable development	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓		11	79%
Industry	✓	✓	✓	✓	✓	✓				✓	✓		✓		9	64%
Energy	✓		✓	✓		✓		✓		✓	✓		✓	✓	9	64%
Public affairs, geopolitics	✓	✓	✓		✓		✓	✓	✓		✓	✓	✓		10	71%

FOCUS ON THE COMPETENCE OF DIRECTORS IN CLIMATE MATTERS

Patrick Pouyanné

Patrick Pouyanné has been involved in climate issues since the 1990s when he was in the French administration. Thus, he followed the preparation of the COP1 in Berlin in 1995 when he was technical advisor in charge of environmental issues in the French Prime Minister's office.

Since his appointment at the head of the Company at the end of 2014, Patrick Pouyanné has committed TotalEnergies to a major energy transition with determination and consistency, more rapidly and resolutely than his peers. His roadmap is to drive forward the energy transition while creating value for the Company's shareholders, with a dual challenge for TotalEnergies: to supply more energy with less emissions. It gives TotalEnergies with a new ambition in terms of sustainable development and the energy transition towards carbon neutrality.

Starting in 2021, he proposes that the Board of Directors submit this ambition to the Annual Shareholders' Meeting for approval. At the Annual Shareholders' Meeting on May 24, 2024, TotalEnergies will be the only CAC40 company to have submitted its ambition in terms of sustainable development and energy transition to shareholders for an advisory opinion for the 4th consecutive year.

As Chairman of the Board of Directors and Chairman of the Strategy & CSR Committee, Patrick Pouyanné takes the initiative of organizing strategic seminars for directors on climate-related issues, with contributions from recognized leaders and experts. In October 2020, Ms Christina Figueres spoke at a seminar on "Climate issues and the impact on energy demand: implications for the Company's strategy". In October 2021, Mr. Fatih Birol, Executive Director of the International Energy Agency, spoke on energy and climate issues. In October 2022, Mr. Larry Fink, Chairman & CEO of BlackRock, spoke at the strategy seminar on the following topics: energy markets - geopolitics; new energies in mobility by 2030 (road, marine and aviation); integrated electricity business model. At the September 2023 strategy seminar, Patrick Pouyanné invited Dan Yergin, Vice President of S&P Global, to discuss the challenges of energy transition in the United States and worldwide. The strategy seminar also provided an opportunity to examine Integrated Power's profitability drivers, as well as the state of hydrogen technologies and cost assessments.

Patrick Pouyanné also brings his strategic vision on the major global challenges of sustainable development, participating in numerous international forums such as the World Economic Forum and the United Nations Global Compact. At COP28 at the end of 2023, more than 50 oil and gas companies signed the OGDC (Oil & Gas Decarbonization Charter), committing them to reducing emissions from their operations and, in particular, aiming for zero methane emissions by 2030. Under the leadership of Patrick Pouyanné, TotalEnergies has actively supported the success of OGDC.

Jacques Aschenbroich

The automotive industry, and mobility in general, are particularly concerned by the challenge of decarbonization, which requires massive investments in technologies and products. At the head of Valeo since 2009 until 2022, Jacques Aschenbroich has implemented a strategic plan aimed at ensuring the group's growth through the development of technologies to reduce CO_2 emissions. As early as 2010, he put the reduction of CO_2 at the center of the strategy. In 2015, Valeo signed the Climate Manifesto, through which major companies affirm their driving role and leadership in favor of a more sustainable world. In 2021, Valeo presented its commitment to carbon neutrality by 2050 (with an intermediary target to reduce by 45% the carbon footprint by 2030) and joined the "Business Ambition for 1.5 °C" campaign, bringing together companies committed to carbon neutrality by 2050 using the SBTi (Science-Based Targets initiative) framework.

Jacques Aschenbroich brings to the Board of Directors of TotalEnergies his experience as the head of an industrial, international and technological group that is exposed to climate issues.

Marie-Christine Coisne-Roquette

As Chairwoman of Sonepar and its animating holding, Marie-Christine Coisne-Roquette is driving the strategy of the Sonepar group, the world leader in the distribution of electrical equipment, solutions and related services to professionals.

She engaged Sonepar in a global Sustainable Development approach by adhering to the United Nations Global Compact and Science Based Targets and by joining the Medef's "Ambition 4 Climate" initiative. Sonepar implements a sustainable development approach in close partnership with its stakeholders and has launched the "Energy Transition Academy", an online training program for its 45,000 employees and customers to help them reduce their emissions and become actors of change. The energy transition is at the heart of the family-owned group's activity, both through the adoption of a trajectory to reduce its carbon footprint and through the promotion of a "green offer" that provides its customers with clean energy solutions and the development of circular, renewable and eco-efficient products and services.

As a Lead Independent Director on the Board of Directors of TotalEnergies until May 2023, Marie-Christine Coisne-Roquette participated in numerous discussions and roadshows with shareholders and investors on climate change and energy transition issues.

Lise Croteau

After serving as Executive Vice President and Chief Financial Officer of Hydro-Québec, one of the world's largest producers of hydroelectricity, Ms. Lise Croteau now uses her skills and knowledge of renewables and of the management of risks related to climate change in the service of the companies in which she sits as an independent director. Since 2018, she has been a director of Boralex, the Canadian leader in renewable energy, and since June 2019, a director of Québecor inc.

Mark Cutifani

As the Chief Executive of the mining company Anglo American Plc. until April 2022, Mark Cutifani has driven a transformational strategy for the group in a sector particularly challenged by climate issues. As head of the company, Mark Cutifani had been instrumental in advancing climate and environmental transition plans, including refocusing the company's business and separating it from its thermal coal assets.

Romain Garcia-Ivaldi

A graduate of ENSTA Paris and IFP School, and currently an economist for new exploration and production projects at TotalEnergies, Romain Garcia-Ivaldi concretely contributes as a director representing employees to the Board of Directors' discussions on the challenges of the transformation of the industry and energy efficiency as well as to issues related to extra-financial reporting within the Audit Committee. Romain Garcia-Ivaldi has taken part in numerous training sessions offered by the Company on the challenges of the energy transition.

He also holds a certificate for company directors from IFA-Sciences Po. He also completed the "Climate Change: Economics and Governance" training program at the London School of Economics.

Maria van der Hoeven

Maria van der Hoeven led the International Energy Agency (IEA) from 2011 to 2015 during a period of great change in the global energy economy, with a particular focus on the consideration of climate change in energy policy. One of her main priorities has been the implementation of a new strategy to integrate the main emerging players in the energy sector of the 21st century. Another of her priorities was to extend energy services to the one billion people in the world who had no access to them. In recognition of the IEA's efforts to address the crisis of energy poverty, Maria van der Hoeven served on the advisory board of the UN Sustainable Energy for All initiative. She was named a Senior Fellow of the Clingendael International Energy Program in 2015. Her personal skills led to her appointment as Vice-Chair of the European Decarbonisation Pathways Initiative High-Level Experts Group of the European Commission, whose final report was published in November 2018. Maria van der Hoeven was also appointed as a member of the Global Commission on Economics and Climate and the Global Commission on the Geopolitics of Energy Transformation, an independent initiative launched at the IRENA Assembly in January 2018. Previously, Maria van der Hoeven served as the Minister of Economic Affairs of the Netherlands from 2007 to 2010, during which time she influenced energy policy on the national, regional and global levels. Before becoming Minister of Economic Affairs, Maria van der Hoeven was Minister of Education, Culture and Science from 2002 to 2007. She was a member of the Board of Directors of Rocky Mountain Institute, an organization recognized in the field of the energy transition.

Glenn Hubbard

Glenn Hubbard is Professor of Finance and Economics and Dean of the Columbia Business School at Columbia University, holding the Russell L. Carson Chair in Finance and Economics. He has published numerous scientific articles on economics and finance. His work covers a variety of areas, including energy economics and taxation, and in particular the issue of CO_2 pricing, as well as the role of companies in climate change mitigation and how they address their exposure to climate risk. Glenn Hubbard is co-chair of the American committee on capital markets regulation and was the co-chair of the Study Group on Corporate Boards.

Glenn Hubbard is also a member of the Board of Directors of Resources for the Future, a non-profit organization dedicated to independent economic research in the areas of the environment, natural resources and energy. Glenn Hubbard is also a director of BlackRock Fixed Income Funds and the Chairman of MetLife, a US-based energy transition insurer that has set environmental goals for 2030 to reduce the environmental impact of its global operations and supply chain. MetLife is a founding member of the Climate Leadership Council, supporting carbon pricing.

Anne-Marie Idrac

Former Secretary of State for Transport, Secretary of State for Trade to the Minister of the Economy, Industry and Employment, Member of Parliament, President of the RATP and then of the SNCF, Anne-Marie Idrac is now an independent director and consultant.

She has been working on companies' environmental and sustainability issues for many years. She took over the chairmanship of the CSR Club of the IFA (French Institute of Directors) in 2013, when it was created, with the objective of promoting the integration of social and environmental responsibility and sustainability of corporate projects into strategic thinking. This work led to the publication in 2017, under the aegis of the IFA, of a report on the theme "CSR & sustainability of corporate projects, strategic missions of Boards".

Anne-Marie Idrac's competence in the field of transport and logistics led her to join the Air France-KLM Board of Directors in 2017 and to take over the chairmanship of its Sustainable Development and Compliance Committee. She then took part in discussions on decarbonizing the air transport sector, which was the first sector to organize itself at the global level by defining CO_2 emission-reduction targets. Air France-KLM supports the objectives of the International Air Transport Association (IATA). In 2018, she was appointed as the senior official for the French strategy for the development of self-driving vehicles.

She was also a director of Saint-Gobain, which has published a roadmap for its commitment to achieve zero net carbon emissions by 2050, including intermediate emission-reduction targets for 2030. She was until 2020 a director and Chairperson of the Bouygues Sustainable Development Committee, when the group engaged its decarbonization process by focusing on innovative low-carbon solutions for its customers. She has chaired France Logistique since 2020 and is, in this capacity, very involved in the energy transition of road freight transport, participating in public/private, national and European work in this field.

Emma de Jonge

Emma de Jonge joined the Company in 1990. In 2020, she is an elected member of the Supervisory Board of the TotalEnergies Actionnariat France and is appointed as a director representing employee shareholders at the Shareholders' Meeting held on May 25, 2022. Emma de Jonge is a member of the TotalEnergies European Works Council (Committee of the European Company), social negotiation body within which the social issues of the Company's transformation and changes in the Energy sector are dealt with.

She takes advantages of her knowledge of the Company and her experience in the Information Systems, Procurement and Project Management to contribute to the work of the Board's as part of its transformation strategy.

Emma de Jonge participated in numerous training courses offered within the Company on the challenges of energy transition and also holds a certificate for company directors from IFA-Sciences Po.

Anelise Lara

As Chief Executive of Petrobras Refining, Gas and Energy, a Brazilian oil&gas company, until January 2021, Anelise Lara actively contributed to the transformation strategy of this company towards energy transition. She also helped this company to reduce its GHG emissions in its operations, while reducing energy consumption and maximizing the use of renewable energies at operational sites. In addition, Anelise Lara created "Biorefinery 2030", a program aimed at the production of renewable fuels.

Anelise Lara has also taken part in numerous seminars in Brazil and abroad on climate issues and the energy transition. She also holds the ESG Certificate issued by the Competent Board learning platform, whose content is particularly focused on climate challenges and the energy transition.

Jean Lemierre

Jean Lemierre is the Chairman of BNP Paribas. As early as 2015, BNP Paribas committed to accelerate the energy transition by aligning its financing and investment activities with the conclusions of the Paris Agreement. In 2021, the group took another important step in the fight against global warming and the energy transition towards a more planet-friendly economy, by joining the Net-Zero Banking Alliance. This initiative brings together banks wishing to contribute to the financing of a "net zero" economy by 2050, in particular through strong commitments to align the greenhouse gas emissions generated by their lending and investment activities with a target of global carbon neutrality by 2050.

In addition, Jean Lemierre has been the Vice-Chairman of the Paris Europlace Association since 2014, whose priorities include the promotion of sustainable and responsible finance. In this context, Paris Europlace's objective is to perpetuate and raise awareness of the Paris financial center's action in environmental and sustainable finance and to develop initiatives on the European and international levels in these various fields. As a result, Paris Europlace launched a new initiative "Paris Green & Sustainable Finance" in May 2016, which became "Finance for Tomorrow" in June 2017. This initiative aims to promote sustainable finance in France and internationally, by helping to redirect financial flows ("Shift the Trillions") towards a low-carbon and inclusive economy, in line with the Paris Agreement.

With his experience and competence in sustainable finance, Jean Lemierre contributes to the reflections of the Board of Directors and the Strategy & CSR Committee, of which he is a member, on these subjects.

Dierk Paskert

Having served in senior executive roles in Chemicals, Transport & Logistics as well as Energy, Dierk Paskert has been exposed to climate matters related to industrial activities throughout his career, starting in the 90ies. He fundamentally believes that using the inexhaustible natural sources of energy to a much larger extent compared to the past will make the biggest contribution to achieve ambitious climate goals as stated in the Paris Agreement.

In particular he was responsible to form the first Renewable Energy strategy for E.ON in 2007. As CEO of Encavis, a producer of electricity from renewable energy sources, he was first to boost bilateral off take agreements between energy producer and industry without using any support mechanisms granted by governments. Furthermore, Dierk Paskert is an avid investor in new technologies with positive impact on climate change, including E-Mobility, Renewable Energy Production and Battery Storage. It's the combination of new technologies and the usage of sustainable, natural resources catching his interest.

Angel Pobo

Angel Pobo joined the Company in 1989. In October 2020, he was appointed by the SE Works Council to sit on the Company's Board of Directors as the director representing employees, and became a member of the Strategy & CSR Committee in 2021. He uses his knowledge of the Company to bring a social dimension to the Board of Directors and the Strategy & CSR Committee, particularly at a time when the Company is taking a major turn in its strategy and initiating an in-depth transformation. Angel Pobo has taken part in numerous training sessions offered by the Company on the challenges of the energy transition.

4.1.1.6 Training of directors and knowledge of the Company

Training of Directors

Directors may ask to receive training in the specificities of the Company, its businesses and its business sector, as well as any training that may help them perform their duties as directors.

A continuing training program relating to the climate for directors has been approved in 2021. It includes in particular various modules on the following themes: Energy, Climate Change and Environmental Risks; Energy and Climate; Climate Change and Financial Risks and Opportunities; Causes and issues of global warming.

In 2022, as part of this training program, directors participated in the Climate Fresco (a scientific, collaborative and creative workshop designed to raise awareness of climate change and in particular its causes and consequences).

In 2023, a number of directors attended individual climate-related trainings, either in-person or via digital courses.

The directors representing employees receive in-house training time at the Corporation and/or economics training offered by an outside body chosen by the director, after the Secretary of the Board has accepted the body and the training program. This training time, which was initially set at 20 hours per year, was increased to 60 hours per year by decision of the Board of Directors at its meeting on July 26, 2017, a decision the Board confirmed at its meeting on July 29, 2020, pursuant to Article L. 225-30-2 of the French Commercial Code.

In addition, the director representing employee shareholders may, at his or her request, be given training time set at 40 hours per year. Training may be undertaken within the Corporation or the Company, and/or provided by an external body chosen by the director, once the body and program have been accepted by the Secretary of the Board, in line with the conditions set out in the regulations.

Pursuant to Article R. 225-34-3 of the French Commercial Code, and upon a proposal made by the Governance and Ethics Committee, the Board of Directors decided that the training should enable the directors representing employees and the directors representing employee shareholders to acquire and refine the knowledge and techniques needed for the performance of their duties, and that the content of the training should principally address the role and operations of the Board of Directors, the rights and obligations of directors and their liability, and the organization and business activities of the Corporation and more generally the Company. It includes a climate component in accordance with what the Board decided to propose to all of its members at its meeting held on October 27, 2021. The training may be provided at an outside training facility or within the Corporation itself. The Secretary of the Board, with the consent of the Chairman of the Board of Directors, is responsible for the procedures by which the training program determined by the Board of Directors is implemented.

Site visits and knowledge of the Company

Directors are invited to Company's site visits. These site visits by the directors are opportunities to meet with the Company's employees, partners and local leading figures in the energy sector.

Site visits contribute in a very concrete way to the training of directors and allow them to deepen their knowledge of the specificities of the Company, its challenges, its businesses - including new businesses - and its teams. They are often the occasion for thematic presentations.

In this context, site visits were organized in 2023, by groups of directors accompanied by a member of the Executive Committee, in Congo (Exploration & Production, Marketing & Services, Nature Based Solution), in Qatar (LNG, Renewable, Exploration & Production), in Texas (Refining, Renewables, Trading) and, in France, at Pau (Technical Center, Biogas, Methane R&D) and at La Mède (biofuels, renewables, local development).

Site visits are planned for 2024.

In addition, on the occasion of the annual strategic seminar, the Directors visited L'Industreet in Stains, a flagship action in terms of the TotalEnergies Foundation's social commitment in the field of training and employment for young people. This campus of new industrial professions trains young people aged 18 to 30 free of charge, without any diploma requirements, in industrial professions with a shortage of manpower. In total, more than 700 young people have already been welcomed since 2021. The pedagogy is innovative, based on "doing to learn" and global ("interpersonal skills and know-how") and the courses are personalized. More than 200 young people have already graduated certified with a success rate of 99%, more than half of whom are employed, the others having chosen to continue their training on higher degrees. Ultimately, the campus aims to train 400 young people per year.

In 2022, the Audit Committee members visited the trading offices of two of the Company's entities in Geneva. In 2021, the directors visited the Digital Factory on the occasion of a Board of Directors' meeting held there.

The directors also have regular contact with Company management, either with members of the Executive Committee at Board meetings or operational managers during visits to the Company's sites. These interactions help the directors better understand TotalEnergies' activities in a practical way.

4.1.2 Functioning of the Board of Directors

9	97.6%	1
meetings of the Board of Directors in 2023	Directors' average attendance rate at Board meetings in 2023	executive session chaired by the Lead Independent Director in 2023

4.1.2.1 Working procedures of the Board of Directors

The working procedures of the Board of Directors are set out in its Rules of Procedure, which specify the mission of the Board of Directors and the rules related to the organization of its work. The Board's Rules of Procedure also specify the obligations of each director, as well as the role and powers of the Chairman and the Chief Executive Officer.

A member of the Central Social and Economic Committee attends the Board meetings in an advisory capacity, pursuant to Article L. 2312-75 of the French Labor Code.

The Rules of Procedure of the Board of Directors are reviewed on a regular basis in order to adapt them to changes in governance rules and practices. In 2014, changes were made to include, in particular, new provisions relating to information of the Board of Directors in the event of new directorships being assumed by the directors or changes in existing directorships, together with a reminder of the obligations of confidentiality inherent to the work of the Board. In December 2015, changes were made to provide for the appointment of a Lead Independent Director in the event of the combination of the functions of Chairman of the Board and Chief Executive Officer and to define his or her duties. In July 2018, changes were made in response to the new demands pertaining to social and environmental responsibility further to the revision of the AFEP-MEDEF Code in June 2018. In July 2020, the Rules of Procedure governing the Board of Directors were amended further to reflect the Corporation's conversion into a European company and the changes introduced by the PACTE Law. In July 2021, it was again amended to incorporate the change of name of the Corporation, decided at the Shareholders' Meeting on May 28, 2021.

The text of the latest unabridged version of the Rules of Procedure of the Board of Directors, as approved by the Board of Directors at its meeting on July 28, 2021, is provided below. It is also available on the Corporation's website under "Our Company/Our identity/Our governance."

Rules of procedure of the Board of Directors

The Board of Directors of TotalEnergies SE[1] has approved the following rules of procedure.

1. Role of the Board of Directors

The Board of Directors is a collegial body that determines the course of the Corporation's business and oversees its implementation, in accordance with its corporate interest by taking into account the social and environmental challenges of its activity. With the exception of the powers and authority expressly reserved for shareholders and within the limits of the corporate purpose, the Board may address any issue related to the Corporation's operation and make any decision concerning the matters falling within its purview. Within this framework, the Board's duties and responsibilities include, but are not limited to, the following:

- appointing the executive directors[2] and supervising the handling of their responsibilities;
- striving to promote creation of long-term value by the Company;
- defining the Corporation's strategic orientations and, more generally, that of the Company;
- regularly reviewing, in relation with such strategic orientations, opportunities and risks such as financial, legal, operational, social and environmental risks as well as measures taken as a result;
- being informed of market developments, the competitive environment and the main challenges facing the Company, including with regard to social and environmental responsibility;
- approving investments or divestments being considered by the Company that exceed 3% of shareholders' equity as well as any significant transaction outside the announced strategy of the Company;
- reviewing information on significant events related to the Corporation's operations, in particular for investments and divestments involving amounts exceeding 1% of shareholders' equity;
- conducting any audits and investigations it deems appropriate. In particular, the Board, with the assistance of the Committees it has established, ensures that:
  - authority has been properly defined and that the various corporate bodies of the Corporation make proper use of their powers and responsibilities,
  - no individual is authorized to commit to pay or to make payments, on behalf of the Corporation, without proper supervision and control,
  - a system for preventing and detecting corruption and influence peddling is in place,
  - a non-discrimination and diversity policy within the Corporation and its Company exists and is implemented,
  - the internal control function operates properly and the statutory auditors are able to perform their mission satisfactorily, and
  - the Committees duly perform their responsibilities;
- approving the internal assessment procedure regarding ordinary agreements finalized under normal conditions as well as "regulated" agreements;
- ensuring the quality of the information provided to shareholders and financial markets through the financial accounts that it closes and the reports that it publishes, as well as when major transactions are completed;
- convening and setting the agenda for Shareholders' Meetings or meetings of bond holders;
- ensuring that its composition as well as that of the Committees it establishes are balanced in terms of diversity (nationality, age, gender, skills and professional experience);
- preparing on an annual basis, according to criteria set by the Code of corporate governance to which the Corporation refers, the list of directors it deems to be independent amongst the directors other than the director representing employee shareholders and the director or directors representing employees who are not counted for the purpose of determining the proportion of independent directors within the Board of Directors as well as within its Committees; and
- appointing a Lead Independent Director under the conditions set out in article 7, when the Chairman of the Board of Directors is also the Chief Executive Officer pursuant to a decision by the Board of Directors.

2. Obligations of the Directors of TotalEnergies SE

Before accepting a directorship, all candidates receive a copy of the Corporation's Articles of Association and these Rules of Procedure. They must ensure that they have broad knowledge of the general and particular obligations related to their duty, especially the laws and regulations governing directorships in European companies (*Societas Europaea*) registered in France, whose shares are listed in one or several regulated markets. They must also ensure that they are familiar with the guidelines set out in the Corporate Governance Code to which the Corporation refers.

Accepting a directorship creates an obligation to comply with applicable regulations relating in particular to the functioning of the Board of Directors, and with the ethical rules of professional conduct for directors as described in the Corporate Governance Code to which the Corporation refers.

It also creates an obligation to comply with these rules of procedure and to uphold the Company's values as described in its Code of Conduct.

When directors participate in and vote at meetings of the Board of Directors, they are required to represent all of the Corporation's shareholders and to act in the interest of the Corporation as a whole.

2.1. Independence of judgment

Directors undertake to maintain, in all circumstances, the independence of their analysis, judgment, decision-making and actions as well as not to be unduly influenced, directly or indirectly, by other directors, particular groups of shareholders, creditors, suppliers or, more generally, any third party.

2.2. Other directorships or functions

Directors must keep the Board of Directors informed of any position they hold on the management team, board of directors or supervisory board of any other company, whether French or foreign, listed or unlisted. This includes any positions as a non-voting member (*censeur*) of a board. To this end, directors expressly undertake to promptly notify the Chairman of the Board of Directors, and the Lead Independent Director if one has been appointed, of any changes to the positions held, for any reason, whether appointment, resignation, termination or non-renewal.

2.3. Participation in the Board's work

Directors undertake to devote the amount of time required to duly consider the information they are given and otherwise prepare for meetings of the Board of Directors and of the Committees of the Board of Directors on which they sit. They may request from the executive directors any additional information they deem necessary or useful to their duties. If they consider it necessary, they may request training on the Company's specificities, businesses and industry sector, its challenges in terms of social and environmental responsibility as well as any other training that may be of use to the effective exercise of their duties as directors.

(1) TotalEnergies SE is referred to in these rules of procedure as the "Corporation" and collectively with all its direct and indirect subsidiaries as the "Company".
(2) The term "executive director" refers to the Chairman and Chief Executive Officer, if the Chairman of the Board of Directors is also responsible for the management of the Corporation; the Chairman of the Board of Directors and the Chief Executive Officer, if the two roles are carried out separately; and, where applicable, any Deputy Chief Executive Officers or Chief Operating Officers, depending on the organisational structure adopted by the Board of Directors.

Unless unable, in which case the Chairman of the Board shall be provided advance notice, directors are to attend all meetings of the Board of Directors, meetings of Committees of the Board of Directors on which they serve and Shareholders' Meetings.

The Chairman of the Board ensures that directors receive all relevant information concerning the Corporation, including that of a negative nature, particularly analyst reports, press releases and the most important media articles.

2.4. Confidentiality

Directors and any other person who attends all or part of any meeting of the Board of Directors or its Committees are under the strict obligation not to disclose any details of the proceedings.

All documents reviewed at meetings of the Board of Directors, as well as information conveyed prior to or during the meetings, are strictly confidential.

With respect to all non-public information acquired during the exercise of their functions, directors are bound, even after their functions have ceased, by professional secrecy not to divulge such information to outside parties of the Corporation and to employees of the Company. This obligation goes beyond the mere duty of discretion provided for by law.

Directors must not use confidential information obtained prior to or during meetings for their own personal benefit or for the benefit of anyone else, for whatever reason. They must take all necessary steps to ensure that the information remains confidential. Confidentiality and privacy are lifted when such information is made publicly available by the Corporation.

2.5. Duty of loyalty

Directors must not take advantage of their office or duties to gain, for themselves or a third party, any monetary or non-monetary benefit.

They must notify the Chairman of the Board of Directors and the Lead Independent Director, if one has been appointed, of any existing or potential conflict of interest with the Corporation or any subsidiary of the Company, and they must refrain from participating in the vote relating to the corresponding resolution as well as from participating in any debates preceding such vote.

Directors must inform the Board of Directors of their participation in any transaction that directly involves the Corporation, or any subsidiary of the Company, before such transaction is finalized.

Directors must not assume personal responsibilities in companies or businesses having activities in competition with those of the Corporation or any subsidiary of the Company without first having informed the Board of Directors.

Directors undertake not to seek or accept from the Corporation, or from companies related to the Corporation, directly or indirectly, any advantages liable to be considered as being of a nature that may compromise their independence.

2.6. Duty of expression

Directors undertake to clearly express their opposition if they deem a decision being considered by the Board of Directors is contrary to the Corporation's corporate interest and they must endeavor to convince the Board of Directors of the pertinence of their position.

2.7. Transactions in the Corporation's securities and stock exchange rules

While in office, directors are required to hold the minimum number of registered shares of the Corporation as set by the Articles of Association.

Generally speaking, directors must act with the highest degree of prudence and vigilance when completing any personal transaction involving the financial instruments of the Corporation, its subsidiaries or affiliates that are listed or that issue listed financial instruments.

To that end, directors must comply with the following requirements:

1. Any shares or ADRs of the Corporation or its listed subsidiaries are to be held in registered form, either with the Corporation or its agent, or as administered registered shares with a French broker (or North American broker for ADRs), whose contact details are communicated by the director to the Secretary of the Board of Directors.
2. Directors shall refrain from directly or indirectly engaging in (or recommending engagement in) transactions involving the financial instruments (shares, ADRs or any other securities related to such financial instruments) of the Corporation or its listed subsidiaries or shareholding, or any listed financial instruments for which the director has insider information.

   Inside information is precise information, which has not yet been made public, relating directly or indirectly, to one or more issuers of financial instruments or to one or more financial instruments, and which, if it were made public, would be likely to have a significant effect on the prices of those financial instruments or on the price of financial instruments related to them.
3. Any transaction in the Corporation's financial instruments (shares, ADRs or related financial instruments) is strictly prohibited during the thirty calendar days preceding the publication of its periodic results (quarterly, half-year or annual) as well as on the day of any such announcement.
4. Moreover, directors shall comply with the provisions under which performance shares may not be sold:
   - within thirty calendar days prior to the publication by the Corporation of a press release relating to the half-year and annual results, such publication constituting the announcement of an interim financial report or a year-end report within the meaning of the applicable regulations;
   - as well as in the event of knowledge of inside information within the meaning of Article 7 of Regulation (EU) No 596/2014 on market abuse, and which has not been made public.
5. Directors are prohibited from carrying out transactions on any financial instruments related to the Corporation's share (Paris option market (MONEP), warrants, exchangeable bonds, etc.) and from buying on margin or short selling such financial instruments.
6. Directors are also prohibited from hedging the shares of the Corporation and any financial instruments related to them, and in particular:
   - Corporation shares that they hold; and, where applicable:
     - Corporation shares subscription or purchase options;
     - rights to Corporation shares that may be awarded free of charge; and
     - Corporation shares obtained from the exercise of options or definitively granted.
7. Directors must make all necessary arrangements to declare, pursuant to the form and timeframe provided by applicable law, to the French securities regulator (*Autorité des marchés financiers*) and to the Financial Conduct Authority, as well as to the Secretary of the Board of Directors, any transaction involving the Corporation's securities conducted by themselves or by any other person to whom they are closely related.

3. Functioning of the Board of Directors

3.1. Board meetings

The Board of Directors meets whenever circumstances require and at least every three months.

Prior to each Board meeting, the directors receive the agenda and, whenever possible, all other materials necessary to consider for the session.

Directors may be represented by another director at a meeting of the Board, provided that no director holds more than one proxy at any single meeting.

Whenever authorized by law, directors are considered present for quorum and majority purposes who attend Board meetings through video conferencing or other audiovisual means that are compliant with the technical requirements set by applicable regulations.

3.2. Directors' compensation

Within the limit of a ceiling set by the Shareholders' Meeting, the Board of Directors determines the directors' compensation based on a fixed portion as well as a variable portion that takes into account each director's actual participation in the work of the Board of Directors and its Committees together with, if applicable, the exercise of the duties of the Lead Independent Director.

The Chief Executive Officer or, if the functions are combined, the Chairman and Chief Executive Officer, does not receive any compensation for his participation in the work of the Board and its Committees.

3.3. Secretary of the Board of Directors

The Board of Directors, based on the recommendation of its Chairman, appoints a Secretary of the Board who assists the Chairman in organizing the Board's activities, and particularly in preparing the annual work program and the schedule of Board meetings.

The Secretary of the Board drafts the minutes of Board meetings, which are then submitted to the Board for approval.

The minutes of the Board meetings are drafted in French and executed by the Chairman of the meeting and at least one director. If the Chairman of the meeting is unable to attend, it is executed by at least two directors. Non-binding translations of extracts from the minutes may be drawn up into another language than French. However, only the minutes in French shall prevail.

The Secretary of the Board is authorized to dispatch Board meeting minutes and to certify copies and extracts of the minutes.

The Secretary is responsible for all procedures pertaining to the functioning of the Board of Directors. These procedures are reviewed periodically by the Board.

All Board members may ask the Secretary for information or assistance.

3.4. Evaluation of the functioning of the Board

The Board evaluates its functioning at regular intervals not exceeding three years. The evaluation is carried out under the supervision of the Lead Independent Director, if one has been appointed, or under the supervision of the Governance and Ethics Committee, with the assistance of an outside consultant. The Board of Directors also conducts an annual review of its practices.

4. Role and authority of the Chairman

The Chairman represents the Board of Directors and, except under exceptional circumstances, has sole authority to act and speak on behalf of the Board of Directors.

The Chairman organizes and oversees the work of the Board of Directors and ensures that the corporate bodies operate effectively and in compliance with good governance principles. The Chairman coordinates the work of the Board of Directors and its Committees. The Chairman establishes the agenda for each Board meeting, including items suggested by the Chief Executive Officer.

The Chairman ensures that directors receive, in a timely manner and in a clear and appropriate format, the information they need to effectively carry out their duties.

In liaison with the general management, the Chairman is responsible for maintaining relations between the Board of Directors and the shareholders of the Corporation. The Chairman monitors the quality of information disclosed by the Corporation.

In close cooperation with the general management, the Chairman may represent the Corporation in high-level discussions with government authorities and major partners of the Company, both at a national and international level.

The Chairman is regularly informed by the Chief Executive Officer of significant events and situations relating to the Company, particularly with regard to strategy, organisation, monthly financial reporting, major investment and divestment projects and key financial transactions. The Chairman may ask the Chief Executive Officer or other senior executives of the Corporation, provided that the Chief Executive Officer is informed, to supply any information that may help the Board or its Committees to carry out their duties.

The Chairman may meet with the statutory auditors in order to prepare the work of the Board of Directors and the Audit Committee.

Every year, the Chairman reports to shareholders at the Shareholders' Meeting on the Board of Directors' work.

5. Authority of the Chief Executive Officer

The Chief Executive Officer is responsible for the Corporation's overall management. He represents the Corporation in its relationships with third parties and chairs the Executive Committee. The Chief Executive Officer is vested with the broadest powers to act on behalf of the Corporation in all circumstances, subject to the powers that are, by law, restricted to the Board of Directors and to the Annual Shareholders' Meeting, as well as to the Corporation's corporate governance rules and in particular these rules of procedure of the Board of Directors. The Board of Directors decides on any limitations of the powers of the Chief Executive Officer.

The Chief Executive Officer is responsible for presenting the Company's results and prospects to shareholders and the financial community on a regular basis. At each meeting of the Board of Directors, the Chief Executive Officer presents an overview of significant events of the Company.

The Chief Executive Officer proposes to the Board of Directors who present it to the shareholders at the Shareholders' Meeting, the Management Report of the Corporation as well as the consolidated Management Report.

6. Board Committees

The Board of Directors approved the creation of:

- an Audit Committee;
- a Governance and Ethics Committee;
- a Compensation Committee; and
- a Strategy & CSR Committee.

The roles and composition of each Committee are set forth in their respective rules of procedure, which have been approved by the Board of Directors.

The Committees perform their duties under the authority and for the benefit of the Board of Directors.

Each Committee reports on its activities to the Board of Directors.

7. Lead independent Director

7.1. Appointment of the Lead Independent Director

When the functions of the Chairman of the Board and Chief Executive Officer are combined, the Board of Directors appoints a Lead Independent Director, on the recommendation of the Governance and Ethics Committee, among the directors considered to be independent by the Board of Directors.

The appointed Lead Independent Director holds this position while in office as director, unless otherwise decided by the Board of Directors, which may choose to terminate his duties at any time. If for any reason the director is no longer deemed to be independent, his or her position as Lead Independent Director will be terminated.

The Lead Independent Director, if one is appointed, chairs the Governance and Ethics Committee.

7.2. Duties of the Lead Independent Director

The Lead Independent Director's duties include:

1. Convening meetings of the Board of Directors – Meeting Agenda

   The Lead Independent Director may request that the Chairman and Chief Executive Officer call a meeting of the Board of Directors to discuss a given agenda.

   He may request that the Chairman and Chief Executive Officer include additional items on the agenda of any meeting of the Board of Directors.

2. Participation in the work of the Committees

   If not a member of the Compensation Committee, the Lead Independent Director is invited to attend meetings and participates in the work of the Compensation Committee relating to the annual review of the executive directors' performance and recommendations regarding their compensation.

3. Acting as Chairperson of Board of Directors' meetings

   When the Chairman and Chief Executive Officer is unable to attend all or part of a meeting of the Board of Directors, the Lead Independent Director chairs the meeting. In particular, he or she chairs those Board meetings the proceedings of which relate to the evaluation of the performance of the executive directors and the determination of their compensation, which take place in their absence.

4. Evaluation of the functioning of the Board of Directors

   The Lead Independent Director manages the evaluation process relating to the functioning of the Board of Directors and reports on this evaluation to the Board of Directors.

5. Prevention of conflicts of interest

   Within the Governance and Ethics Committee, the Lead Independent Director organizes the performance of due diligence in order to identify and analyze potential conflicts of interest within the Board of Directors. He informs the Chairman and Chief Executive Officer of any conflicts of interest identified as a result and reports to the Board of Directors on these activities.

   Pursuant to the obligation to declare conflicts of interest set out in article 2.5 of these Rules, any director affected by an existing or potential conflict of interest must inform the Chairman and Chief Executive Officer and the Lead Independent Director.

6. Monitoring of the satisfactory functioning of the Board and compliance with the Rules of Procedure

   The Lead Independent Director ensures compliance with the rules of the Corporate Governance Code to which TotalEnergies SE refers and with the Rules of Procedure of the Board of Directors. He or she may make any suggestions or recommendations that he deems appropriate to this end.

   He or she ensures that the directors are in a position to carry out their tasks under optimal conditions and that they have sufficient information to perform their duties.

   With the agreement of the Governance and Ethics Committee, the Lead Independent Director may hold meetings of the directors who do not hold executive or salaried positions on the Board of Directors. He reports to the Board of Directors on the conclusions of such meetings.

7. Relationships with Shareholders

   The Chairman and Chief Executive Officer and the Lead Independent Director are the shareholders' dedicated contacts on issues that fall within the remit of the Board.

   When a shareholder approaches the Chairman and Chief Executive Officer in relation to such issues, the latter may seek the opinion of the Lead Independent Director before responding appropriately to the shareholder's request.

   When the Lead Independent Director is approached by a shareholder in relation to such issues, he or she must inform the Chairman and Chief Executive Officer, providing his or her opinion, so that the Chairman and Chief Executive Officer may respond appropriately to the request. The Chairman and Chief Executive Officer must inform the Lead Independent Director of the response given.

   With the consent of the Chairman of the Board of Directors, the Lead Independent Director may represent the Board of Directors at meetings with the shareholders of the Corporation on matters of corporate governance.

7.3. Resources – conditions of office and activity report

The Chairman and Chief Executive Officer must regularly update the Lead Independent Director on the Corporation's activities.

The Lead Independent Director has access to all of the documents and information necessary for the performance of his or her duties.

The Lead Independent Director may consult the Secretary of the Board and use the latter's services in the performance of his or her duties.

Under the conditions set out in article 3.2 of these Rules and those established by the Board of Directors, the Lead Independent Director may receive additional compensation for the duties entrusted to him or her.

The Lead Independent Director must report annually to the Board of Directors on the performance of his or her duties. During Annual Shareholders' Meetings, the Chairman and Chief Executive Officer may invite the Lead Independent Director to report on his or her activities.

4.1.2.2 Activity of the Board of Directors in 2023

Directors are in principle summoned to Board meetings by letter sent the week preceding the meetings. Whenever possible, documents to be considered for decisions to be made at Board meetings are sent with the notice of meetings. The minutes of the previous meeting are expressly approved at the following Board meeting.

In 2023, the Board of Directors met 9 times. The overall attendance rate for the directors was 97.6%. The Audit Committee met 7 times, with an attendance rate of 100%; the Compensation Committee met 3 times, with 100% attendance; the Governance and Ethics Committee held 5 meetings, with 96% attendance; and the Strategy & CSR Committee met 3 times, with 100% attendance.

A table summarizing individual attendance at the Board of Directors and Committee meetings is provided below.

DIRECTORS' ATTENDANCE AT BOARD AND COMMITTEE MEETINGS IN 2023

	Board of Directors		Audit Committee		Compensation Committee		Governance and Ethics Committee		Strategy & CSR Committee	
Directors	Attendance rate	Number of meetings	Attendance rate	Number of meetings	Attendance rate	Number of meetings	Attendance rate	Number of meetings	Attendance rate	Number of meetings
Patrick Pouyanné, *Chairman and Chief Executive Officer*	100%	9/9	–	–	–	–	–	–	100%	3/3
Jacques Aschenbroich *Lead Independent Director*	100%	9/9	–	–	100%	3/3	100%	5/5	100%	2/2[e]
Patricia Barbizet[a]	100%	4/4	100%	3/3	–	–	100%	2/2	100%	1/1
Marie-Christine Coisne-Roquette	100%	9/9	100%	4/4	100%	2/2	100%	5/5	100%	3/3
Jérôme Contamine[a]	100%	4/4	100%	3/3	–	–	–	–	–	1[f]
Lise Croteau	100%	9/9	100%	7/7	–	–	–	–	–	1[f]
Mark Cutifani	88.9%	8/9	–	–	100%	3/3	100%	3/3	–	2[f]
Romain Garcia-Ivaldi[b]	100%	9/9	100%	7/7	–	–	–	–	–	1[f]
Maria van der Hoeven	100%	9/9	100%	7/7	–	–	–	–	–	3[f]
Glenn Hubbard	100%	9/9	100%	4/4	–	–	–	–	–	3[f]
Anne-Marie Idrac	100%	9/9	–	–	100%	1/1	100%	5/5	100%	3/3
Emma de Jonge[c]	100%	9/9	–	–	–	–	–	–	100%	3/3
Anelise Lara[d]	80%	4/5	–	–	–	–	–	–	–	2[f]
Jean Lemierre	88.9%	8/9	–	–	–	–	75%	4/5	100%	3/3
Dierk Paskert[d]	100%	5/5	–	–	–	–	–	–	–	2[f]
Angel Pobo[b]	100%	9/9	–	–	100%	3/3	–	–	100%	1/1[f]
Attendance rate	**97.6%**		**100%**		**100%**		**96%**		**100%**[g]	

(a) Director until May 26, 2023.
(b) Director representing employees.
(c) Director representing employee shareholders.
(d) Director since May 26, 2023.
(e) Two participation as a member, and one voluntary participation.
(f) Voluntary participation (director not a member of the Strategy & CSR Committee).
(g) Excluding voluntary participation.

The Board meetings included, but were not limited to, a review of the following subjects:

February 7

- update on relationships between TotalEnergies and Adani Group
- presentation of the new risk mapping
- closing of the 2022 accounts (Consolidated Financial Statements, parent company accounts) after the Audit Committee's report and work performed by the statutory auditors
- draft allocation of the result of the Corporation, setting of the dividend for fiscal year 2022, ex-dividend and payment dates of final dividend for 2022
- 2023 shareholder return policy
- main investor relations messages
- presentation to the Board of the work of the Governance and Ethics Committee, which met on February 1, 2023
- report on the 2022 assessment of the Board of Directors and discussion on its functioning
- report of the Lead Independent Director on her/his mandate for fiscal year 2022
- allocation of the directors' compensation for the 2022 fiscal year
- Market Abuse Regulations – blackout periods
- information on transactions on the Corporation's securities by the executive directors
- update on directors' and executives' liability insurance
- update on directorships and committee memberships and on the designation of the Lead Independent Director
- preparation of the Annual Shareholders' Meeting: management report of the Board of Directors
- report on the implementation of the procedure to assess current transactions finalized under normal conditions and information on regulated agreements finalized by the Corporation
- information on Corporation share buybacks
- reduction in the Corporation's share capital by cancellation of treasury shares
- information on bond issues
- renewal of the authorization to issue bonds
- renewal of the authorization to issue security, commitments and guarantees
- renewal of the authorization to issue guarantees for certain financial transactions

- setting of the calendar related to the dividend (interim dividends and final dividend) for fiscal year 2024
- information on the declarations regarding the crossings of the thresholds in the Corporation's share capital or voting rights
- presentation to the Board of the work of the Compensation Committee, which met on February 1, 2023: employee profit sharing for fiscal year 2022, obligation to hold a higher number of shares for the Chairman and Chief Executive Officer and for members of the Executive Committee, adoption of a clawback policy, assessment of the compensation of the Chairman and Chief Executive Officer for fiscal year 2022 (in his absence), compensation policy for fiscal year 2023

March 15

- spin off project of Canadian oil sands
- update on the sale project of station networks and fuel card activities in Germany and Benelux
- approval of the Company's financial policy
- Sustainability & Climate 2023 Progress Report
- update on the presentation of the Sustainability and Climate strategy exposed to investors on March 21, 2023
- presentation to the Board of the work of the Governance and Ethics Committee at its meeting on March 13, 2023
- assessment of the independence of the directors as of December 31, 2022
- examination of the proposal to be submitted to the Shareholders' Meeting on May 26, 2023 to eliminate double voting rights
- presentation to the Board of the work of the Compensation Committee at its meeting on March 15, 2023
- confirmation of the final grant of performance shares under the 2020 Plan in the light of the fulfillment of the performance conditions
- grant of performance shares to the Chairman and Chief Executive Officer and other beneficiaries (2023 Plan)
- presentation to the Board of the work of the Audit Committee at its meeting on March 13, 2023
- preparation for the Annual Shareholders' Meeting: date and location of the Shareholders' Meeting; setting of the agenda for the Shareholders' Meeting; approval of the various chapters of the Universal Registration Document forming the management report as defined by the French Commercial Code, the report on corporate governance and the special reports on subscription and purchase options on shares of the Corporation and the granting of performance shares; closing ot the report on purchases and sales of the shares of the Corporation as defined by Article L. 225-211 of the French Commercial Code; approval of the report of the Board of Directors and of the text of the draft resolutions submitted to the Shareholders' Meeting; press release
- information on shares buybacks and authorization to buy back shares in the second quarter of 2023
- information on the declarations regarding the crossings of the thresholds in the Corporation's share capital or voting rights
- examination of the evolution of the Corporation's shareholding

April 26

- approval of the sale of the Canadian subsidiary of TotalEnergies specializing in the production of oil sands to Suncor
- report to the Board of the work of the Strategy & CSR Committee at its meeting on March 15, 2023
- presentation of the cybersecurity risk
- consolidated financial statements, results for the first quarter of 2023 after the Audit Committee's report and work performed by the statutory auditors
- presentation to the Board of the work of the Audit Committee at its meeting on April 24, 2023
- setting of a first interim dividend for fiscal year 2023
- main investor relations messages
- preparation and organization of the Shareholders' Meeting on May 26, 2023: feedback on the Lead Independent Director's roadshows and letters from shareholders, examination of shareholder resolution filings, answer to the request of the Central Social and Economic Works Council relating to the project to eliminate double voting rights, amendment of the agenda of the Shareholders' Meeting following the withdrawal of the spin-off and distribution project which became irrelevant after the approval of the project to sell the subsidiary concerned to Suncor
- information on the 2023 capital increase reserved for employees
- information on Corporation share buybacks
- information on the declarations regarding the crossings of the thresholds in the Corporation's share capital or voting rights
- examination of a draft programme for the Board's strategic seminar
- schedule of site visits by directors

May 25

- preparation and organization of the Shareholders' Meeting on May 26, 2023: answers to written questions, information on the vote on draft resolutions and reports of proxy advisors
- delegation of powers to operate on the Corporation's shares
- information related to the 2023 capital increase reserved for employees

July 26

- information on the exercise of the purchase option on the entire capital of Total Eren
- analysis of the outcome of the votes at the Shareholders' Meeting held on May 26, 2023 and in particular of the votes of resolution 14 (say on climate) and of the shareholders' proposed resolution
- confidentiality of the work of the Board of Directors
- setting the dates and location of the meetings for the Shareholders' Meeting
- presentation of the strategic outlook for Exploration & Production, including safety, reduction of the environmental footprint, improvement of operational efficiency, resilience and project selectivity
- Consolidated Financial Statements, results for the second quarter of 2023 and the first half of 2023 after the Audit Committee's report and work performed by the statutory auditors; results of the parent company for the first half of 2023
- half-yearly financial report
- minutes of the Audit Committee meetings on June 12, 2023 and July 24, 2023
- shareholder return policy; setting of a second interim dividend for fiscal year 2023; information on share buybacks and authorization to buy back shares in the third quarter of 2023
- main investor relations messages
- information regarding the charge relating to the granting of performance shares under the 2023 plan and additional granting of 2023 performance shares
- information on the declarations regarding the crossings of the thresholds in the Corporation's share capital or voting rights
- program of the Strategic seminar on September 20 and 21, 2023
- training of directors and site visit projects for members of the Board of Directors

September 21

- information on the calls for tenders won by the Company in Brazil in the contractual areas of Sépia and Atapu
- strategic outlook for Gas, Renewables & Power activities
- Company's five-year plan
- shareholder return policy and share buybacks
- draft communication from the Board on the strategy, governance and management of the Company, in particular on the fact of proposing the renewal of the mandate of Mr. Patrick Pouyanné at the Shareholders' Meeting on May 2024, as well as that of Mr. Jacques Aschenbroich

- approval of the Board's supplementary report on the 2023 capital increase reserved for employees
- approval of the principle of a new capital increase reserved for employees
- information on the declarations regarding the crossings of the thresholds in the Corporation's share capital or voting rights

September 27

- approval of the shareholder return policy; share buyback authorization
- presentation of the draft communication to investors on the outlook of TotalEnergies

October 25

- report of the meetings of the Strategy & CSR Committee on September 20 and 21, 2023
- strategic outlook for Refining & Chemicals' activities
- strategic outlook for Marketing & Services' activities
- Consolidated Financial Statements, results for the third quarter of 2023, after the Audit Committee's report and work performed by the statutory auditors
- presentation to the Board of the work of the Audit Committee at its meetings on October 9 and 23, 2023
- setting of a third interim dividend on the dividend for fiscal year 2023
- main investor relations messages
- information on Corporation share buybacks

December 13

- update on the evolution of Adani situation
- benchmark on the results of the majors
- 2024 budget
- the Corporation's policy on gender equality and pay equity
- information on Corporation share buybacks in 4th quarter 2023 and authorization of Corporation share buybacks for 1st quarter 2024
- additional grant of 2023 performance shares
- information on the notifications regarding the crossings of the thresholds concerning the Corporation
- 2024 work program for the Board of Directors
- evolution of the composition of the Board of Directors
- evolution of the shareholding
- examination of the transposition into French law of the EU Corporate Sustainability Reporting Directive and designation of the Audit Committee to carry out the new missions arising from this transposition.

4.1.2.3 Committees of the Board of Directors

THE AUDIT COMMITTEE

5 members	**75%*** Independence rate	**7** meetings in 2023	**100%** Attendance rate

* Excluding the director representing employees.

Composition

As of March 13, 2024, the Audit Committee is made up of 5 members, with a 75% rate of independence (excluding director representing employees).

Ms. Maria van der Hoeven chairs the Committee. Ms. Marie-Christine Coisne-Roquette, Ms. Lise Croteau, Mr. Romain Garcia-Ivaldi and Mr. Glenn Hubbard sit on the Committee. Ms. Lise Croteau was appointed financial expert in this Committee by the Board of Directors. The careers of the Committee members confirm their possession of acknowledged expertise in the financial, accounting or audit fields (refer to point 4.1.1.1).

Duties

The rules of procedure of the Audit Committee define the Committee's duties as well as its working procedures.

The Audit Committee's rules of procedure were last amended on March 13, 2024 to include the transposition in French law of the European CSRD (Corporate Sustainability Reporting Directive) directive. They had previously been amended on July 28, 2021 to take account of the change in the Corporation's name decided at the Shareholders' Meeting on May 28, 2021, on February 8, 2017, in order to adapt the Committee's role and responsibilities to the European audit reform, on July 25, 2018, in order to take account of new social and environmental responsibility requirements, further to the revision of the AFEP-MEDEF Code in June 2018, and on July 29, 2020, to reflect the Corporation's conversion to a European company and various amendments to the Corporation's Articles of Association that were approved by the Shareholders' Meeting on May 29, 2020.

The text of the unabridged version of the rules of procedure approved by the Board of Directors on July 28, 2021, is available on the TotalEnergies website under "Our Company/Our identity/Our governance."

Notwithstanding the duties of the Board of Directors, the Audit Committee is tasked with the following missions in particular:

Regarding the statutory auditors and the sustainability auditor(s) in charge of carrying out the certification mission of the sustainability information:

- making a recommendation to the Board of Directors on the statutory auditors and the sustainability auditor(s) in charge of carrying out the certification mission of the sustainability information, put before the Annual Shareholders' Meeting for designation or renewal, following their selection procedure organized by General Management and enforcing the applicable regulations;
- monitoring the performance of their missions of audit and certification of sustainability information and, examining notably reports, in particular the additional report drawn up by the statutory auditors for the Committee, while taking account of the observations and conclusions of the High Authority of the Audit (*Haute autorité de l'Audit*) further to the inspection of the auditors in question in application of the legal provisions, where appropriate;

- ensuring that the conditions of independence required for persons exercising the account certification and sustainability information certification missions are met, and analyzing the risks to their independence and the measures taken to mitigate these risks; to this end, examining all the fees paid, including for services other than the certification of the financial statements or for services other than the certification of the sustainability information, and making sure that the rules applying to the maximum length of the terms and the obligation to alternate are obeyed;
- approving the delivery of services other than those relating to the certification of the financial statements or of services other than those relating to the certification of the sustainability information, in accordance with the applicable regulations.

Regarding accounting, financial and sustainability information:

- following the process to produce financial information, the process to produce sustainable information, including in digital form, and the process implemented to determine the information to be disclosed in accordance with sustainability reporting standards, as well as, where appropriate, formulating recommendations to guarantee the integrity, of such processes;
- monitoring the implementation and the proper workings of a disclosures Committee in the Corporation and reviewing its conclusions;
- examining the assumptions used to prepare the financial statements, assessing the validity of the methods used to handle significant transactions and examining the Corporation financial statements and annual, half-yearly, and quarterly Consolidated Financial Statements prior to their examination by the Board of Directors, after regularly monitoring the financial situation, cash position and off-balance sheet commitments;
- guaranteeing the appropriateness and the permanence of the accounting policies and principles chosen to prepare the statutory and Consolidated Financial Statements of the Corporation;
- examining the scope of the consolidated companies and, where appropriate, the reasons why companies are not included;
- examining the process to validate the proved reserves of the companies included in the scope of consolidation;
- reviewing, if requested by the Board of Directors, major transactions contemplated by the Corporation.

Regarding internal control and risk management procedures:

- monitoring the efficiency of the internal control and risk management systems, and of internal audits, in particular with regard to the procedures relating to the production and processing of accounting, financial and sustainability information, including in digital form, without compromising its independence, and in this respect:
  - checking that these systems exist and are deployed, and that actions are taken to correct any identified weaknesses or anomalies;
  - reviewing, based in particular on the risk maps developed by the Corporation, the exposure to risks, such as financial risks (including material off-balance sheet commitments), legal risks, operational risks, social and environmental risks, as well as measures taken as a result;
  - annually examining the reports on the work of the TotalEnergies Risk Management Committee and the major issues for the Company;
  - examining the annual work program of the internal auditors and being regularly informed of their work;
  - reviewing significant litigation at least once a year;
  - overseeing the implementation of the Financial Code of Ethics;
  - proposing to the Board of Directors, for implementation, a procedure for complaints or concerns of employees, shareholders and others, related to accounting, internal control or auditing matters, and monitoring the implementation of this procedure;
  - where appropriate, examining important operations in which a conflict of interests could have arisen;
  - annually examining the results of the controls carried out within the framework of the procedure implemented in order to assess the agreements on current operations finalized under normal conditions and verifying the relevance of the criteria used to qualify those agreements.

The Audit Committee reports to the Board of Directors on the performance of its duties. It also reports on the results of the mission concerning the certification of the financial statements, of the mission of certification of the sustainability information as well as on how these missions contributed to the integrity of the accounting and financial information, and the sustainability information as well as its role in this process. It shall inform the Board of Directors without delay of any difficulties encountered.

Organization of activities

The Committee meets at least seven times each year: each quarter to review in particular the statutory financial statements of the Corporation and the annual and quarterly Consolidated Financial Statements, and at least on three other occasions to review matters not directly related to the review of the quarterly financial statements.

At each Committee meeting where the quarterly financial statements are reviewed, the Chief Financial Officer presents the Consolidated Financial Statements and the statutory financial statements of the Corporation, as well as the Company's financial position and, in particular, its liquidity, cash flow and debt situation. A memo describing risk exposure and off-balance sheet commitments is communicated to the Committee. This review of the financial statements includes a presentation by the statutory auditors underscoring the key points observed.

As part of monitoring the efficiency of the internal control and risk management systems, as well as internal audits with regard to the procedures relating to the production and processing of accounting, financial and sustainability information, the Committee is informed of the work program of the Audit & Internal Control division and its organization, on which it may issue an opinion. The Committee also receives a summary of the internal audit reports, which is presented at each Committee meeting where the quarterly financial statements are reviewed. The risk management processes implemented within the Company, as well as updates to them, are presented regularly to the Committee.

The Committee may meet with the Chairman and Chief Executive Officer or, if the functions are separate, the Chairman of the Board of Directors, the Chief Executive Officer as well as, if applicable, any Deputy Chief Executive Officer of the Corporation. It may perform inspections and consult with managers of operating or non-operating department, as may be useful in performing its duties. The Chairman of the Committee gives prior notice of such meeting to the Chairman and Chief Executive Officer or, if the functions of Chairman of the Board of Directors and Chief Executive Officer are separate, both the Chairman of the Board of Directors and the Chief Executive Officer. In particular, the Committee is authorized to consult with those involved in preparing or auditing the financial statements and sustainability information (Chief Financial Officer and principal Finance Department managers, Audit Department, Strategy & Sustainability) by asking the Corporations Chief Financial Officer to call them to a meeting.

The Committee consults with the statutory auditors regularly, including at least once a year without any Corporation representative present. If it is informed of a substantial irregularity, it recommends to the Board of Directors all appropriate action.

If it considers that it is necessary for the accomplishment of its mission, the Committee asks the Board of Directors for resources to receive assistance or conduct external studies on subjects within its competence. If the Committee calls on external consulting services, it makes sure that they are objective.

Work of the Audit Committee

In 2023, the Audit Committee met 7 times, with an attendance rate of 100%. The Chairman and Chief Executive Officer did not attend any of the meetings of the Audit Committee.

The Audit Committee's work mainly focused on the following areas:

February 6

- review of the Consolidated Financial Statements and statutory financial statements of the parent company for the fourth quarter and of the 2022 fiscal year. Presentation by the statutory auditors of their work performed in accordance with French and American professional audit standards
- review of the Company's financial position
- update on outstanding balance of guarantees granted by TotalEnergies SE as of December 31, 2022
- presentation of the project of spin-off of the upstream activities in Canada
- report on the implementation of the insurance policy of the Company in 2023
- review of the update of the risk mapping
- update on the 2022 internal audit
- presentation of the section of the Universal Registration Document on risk factors, countries under economic sanctions, legal proceedings and arbitration, internal control and risk management procedures relating to accounting and financial information
- update on the Sarbanes-Oxley process: self-assessment carried out by the Company and audit of the internal control related to financial reporting by the statutory auditors as part of the SOX 404 process
- review of the results of the controls carried out concerning the assessment procedure of ordinary transactions entered into under normal terms

March 13

- review of the statutory auditors' reports, their declaration of independence and their obligations to the Audit Committee
- review of the Company's financial policy
- presentation of the 2023 audit plan
- presentation of the statement of extra-financial performance
- presentation of the update to the Vigilance plan and the implementation report
- presentation of the works on the European taxonomy
- process for validating hydrocarbon reserves at the end of the 2022 fiscal year
- presentation of the report on the payments made to governments and of the tax transparency report

April 24

- review of the Consolidated Financial Statements and statutory financial statements of the parent company for the first quarter of 2023, with a presentation by the statutory auditors of a summary of their limited review
- update on the Company's financial position as of March 31, 2023
- presentation of the 2023 health, safety and environment audit plan and review of the fiscal year 2022
- review of the internal audit

June 12 (Nersac, on Saft Groupe's site)

- visit of the sites of Saft Groupe and of Automotive Cells Company (ACC) at Nersac
- update on accounting standards, regulatory developments in financial and extra-financial information and the scope of consolidation

July 24

- review of the Consolidated Financial Statements of the parent company of the second quarter and the first half of 2023, with a presentation by the statutory auditors of a summary of their limited review
- review of the Company's financial position as of June 30, 2023
- review of the internal audit
- review of significant litigation and status update on significant litigation in progress worldwide involving the Company

October 9

- closing of the 2024 agenda of the Audit Committee and calendar of the meetings dates of the Committee for 2024
- review of the Company's fiscal situation
- audit of the financial statements as of December 31, 2023: analysis by the statutory auditors of the main cross-cutting risks covered by the points of attention in their audit plan for the closing of the 2023 financial statements
- presentation by the auditors of the digital approach to auditing

October 23

- review of the Consolidated Financial Statements and statutory financial statements of the third quarter and the first nine months of 2023, with a presentation by the statutory auditors of a summary of their limited review
- review of the Company's financial situation as of September 30, 2023
- update on the internal audits conducted in the third quarter of 2023
- information of the Committee on compliance by relevant employees with the provisions of the Financial Code of Ethics
- examination of the EU Corporate Sustainability Reporting Directive.

At each meeting related to the quarterly financial statements, the Committee reviewed the Company's financial position in terms of liquidity, cash flow and debt, as well as the significant risks and off-balance sheet commitments of TotalEnergies. The Audit Committee was periodically informed of the risk management processes implemented within the Company as well as the work carried out by the Audit & Internal Control division, which was presented at each Committee meeting where the quarterly financial statements were reviewed.

The Audit Committee reviewed the financial statements in a sufficient amount of time as set out in the recommendations of the AFEP-MEDEF Code.

The statutory auditors attended all Audit Committee meetings held in 2023.

The Chief Financial Officer and the Senior Vice President Audit & Internal Control division, as well as the Corporate Treasurer, attended all Audit Committee meetings related to their area. The Vice President Accounting attended all Audit Committee meetings related to his area, except one.

The Chairman of the Committee reported to the Board of Directors on the Committee's work.

THE GOVERNANCE AND ETHICS COMMITTEE

5 members	80% Independence rate	5 meetings in 2023	96% Attendance rate

Composition

As of March 13, 2024, the Governance and Ethics Committee is made up of five members, with a 80% rate of independence. Mr. Jacques Aschenbroich chairs the Committee. Ms. Marie-Christine Coisne-Roquette, Ms. Anne-Marie Idrac, Mr. Mark Cutifani and Mr. Jean Lemierre are members of the Committee.

Duties

The rules of procedure of the Governance and Ethics Committee define the Committee's duties as well as its working procedures.

The Governance and Ethics Committee's rules of procedure were last amended on July 28, 2021 to take account of the change in the Corporation's name decided at the Shareholders' Meeting on May 28, 2021. They had previously been amended on July 25, 2018 to extend the Committee's role and responsibilities to subjects related to compliance and the prevention and detection of corruption and influence peddling, and on July 29, 2020, to take account of the Corporation's conversion to a European company and various amendments to the Corporation's Articles of Association that were approved by the Shareholders' Meeting on May 29, 2020.

The text of the unabridged version of the rules of procedure approved by the Board of Directors on July 28, 2021, is available on the TotalEnergies website under "Our Company/Our identity/Our governance."

The Governance and Ethics Committee is focused on:

- recommending to the Board of Directors the persons that are qualified to be appointed as directors, so as to guarantee the scope of coverage of the directors' competencies and the diversity of their profiles;
- recommending to the Board of Directors the persons that are qualified to be appointed as executive directors;
- preparing the Corporation's corporate governance rules and supervising their implementation;
- ensuring compliance with ethics rules and examining any questions related to ethics and situations of conflicting interests;
- reviewing matters regarding compliance as well as the prevention and detection of corruption and influence peddling.

Its duties include:

- presenting recommendations to the Board of Directors for its membership and the membership of its Committees, and the qualification in terms of independence of each applicant for Directors' positions on the Board of Directors;
- proposing annually to the Board of Directors the list of directors who may be considered as "independent directors";
- examining, for the parts within its remit, reports to be sent by the Board of Directors or its Chairman to the shareholders;
- assisting the Board of Directors in the selection of the organization of the governance of the Corporation as well as the selection and evaluation of the executive directors and examining the preparation of their possible successors including establishing a succession plan, including cases of unforeseeable absence;
- recommending to the Board of Directors the persons that are qualified to be appointed as directors;
- recommending to the Board of Directors the persons that are qualified to be appointed as members of a Committee of the Board of Directors;
- proposing methods for the Board of Directors to evaluate its performance, and in particular preparing means of regular self-assessment of the workings of the Board of Directors, and the possible assessment thereof by an external consultant;
- proposing to the Board of Directors the terms and conditions for allocating directors' compensation and the conditions under which expenses incurred by the directors are reimbursed;
- developing and recommending to the Board of Directors the corporate governance principles applicable to the Corporation;
- preparing recommendations requested at any time by the Board of Directors or the general management of the Corporation regarding appointments or governance;
- examining the conformity of the Corporation's governance practices with the recommendations of the Code of Corporate Governance to which the Corporation refers;
- supervising and monitoring the implementation of the approach of the Corporation with regard to ethics, compliance, prevention and detection of corruption and influence peddling and, in this respect, ensuring that the necessary procedures are in place, including those for updating the Company's Code of Conduct and that this Code is disseminated and applied;
- examining any questions related to ethics and potential situations of conflicting interests;
- examining changes in the duties of the Board of Directors.

Work of the Governance and Ethics Committee

In 2023, the Governance and Ethics Committee held 5 meetings, with 96% attendance. Its work mainly focused on the following areas:

February 1

- assessment of the Board of Directors' practices in 2022
- report of the Lead Independent Director on her mandate
- allocation of the compensation to directors and members of the Committees for fiscal year 2022
- update on the Market Abuse regulation (Regulation (EU) N° 596/2014 of April 16, 2014) and the applicable blackout periods
- information on transactions involving the Corporation's securities by executive directors
- update on directors' and executives' liability insurance
- update on the revision of the AFEP-MEDEF Code in December 2022
- update on the terms of office of the directors, the designation of the Lead Independent Director and the members of the Committees

March 13

- proposals to the Board of Directors on the assessment of the directors' independence, based on the independence criteria specified in the AFEP-MEDEF Code
- proposal to be submitted to the Shareholders' Meeting on May 26, 2023 the elimination of double voting rights
- update on the succession plans

July 26

- presentation of the Company's ethics and compliance policy
- update on the Shareholders' Meeting held on May 26, 2023
- update on the confidentiality of the works of the Board of Directors
- setting of the meeting dates of the Annual Shareholders' Meeting of the Corporation
- discussions on changes in the composition of the Board of Directors

September 11

- change in the Board of Directors' composition
- communication on the terms of office renewals

October 20

- change in the Board of Directors' composition
- dates of the meetings of the Committee in 2025

THE COMPENSATION COMMITTEE

4 members	100%* Independence rate	3 meetings in 2023	100% Attendance rate

* Excluding the director representing employees.

Composition

As of March 13, 2024, the Compensation Committee is made up of four members, with a 100% rate of independence[(1)]. The Committee is chaired by Mr. Mark Cutifani. Ms. Anne-Marie Idrac, Mr. Jacques Aschenbroich and Mr. Angel Pobo (director representing employees) are members of the Committee.

Duties

The rules of procedure of the Compensation Committee define the Committee's duties as well as its working procedures.

The Compensation Committee's rules of procedure were last amended on July 28, 2021 to take account of the change in the Corporation's name decided at the Shareholders' Meeting on May 28, 2021. They had previously been amended on July 25, 2018, in order to take account of new social and environmental responsibility requirements, further to the revision of the AFEP-MEDEF Code in June 2018, and on July 29, 2020, to reflect the Corporation's conversion to a European company and various amendments to the Corporation's Articles of Association that were approved by the Shareholders' Meeting on May 29, 2020.

The text of the unabridged version of the rules of procedure approved by the Board of Directors on July 28, 2021, is available on the TotalEnergies website under "Our Company/Our identity/Our governance."

The Committee is focused on:

- examining the executive compensation policies implemented by the Company and the compensation of members of the Executive Committee;
- evaluating the performance and recommending the compensation of each executive director;
- preparing reports which the Corporation must present in these areas.

The Committee's duties include:

- examining the main objectives proposed by the Corporation's general management regarding compensation of the Company's senior executives, including stock option and performance share grant plans as well as equity-based plans, and advising on this subject;
- presenting recommendations and proposals to the Board of Directors concerning:
  - compensation, pension and life insurance plans, in-kind benefits and other compensation (including severance benefits) for the executive directors of the Corporation; in particular, the Committee proposes compensation structures that take into account the Corporation's strategic orientations, objectives and earnings, market practices as well as one or more criteria related to social and environmental responsibility;
  - stock option and performance share grants, particularly grants of restricted shares to the executive directors;
- examining the compensation of the members of the Executive Committee, including stock option and performance share grant plans as well as equity-based plans, pension and insurance plans and in-kind benefits;
- preparing and presenting reports in accordance with these rules of procedure;
- examining, for the parts within its remit, reports to be sent by the Board of Directors or its Chairman to the shareholders;
- preparing recommendations requested at any time by the Chairman of the Board of Directors or the general management of the Corporation regarding compensation;
- at the request of the Chairman of the Board, examining all draft reports of the Corporation regarding compensation of the executive officers or any other matters within its competence.

Work of the Compensation Committee

In 2023, the Compensation Committee held 3 meetings, with 100% attendance. The Chairman and Chief Executive Officer does not attend the Committee's deliberations regarding his own situation.

Its work mainly focused on the following areas:

February 1

- employee profit sharing for fiscal year 2022
- obligation to hold a higher number of shares for the Chairman and Chief Executive Officer and for members of the Executive Committee
- clawback policy
- assessment of the compensation of the Chairman and Chief Executive Officer for fiscal year 2022
- compensation policy for fiscal year 2023

March 15

- 2023 grant of performance shares to the Chairman and Chief Executive Officer
- presentation of the Letter of the Chairman of the Compensation Committee and presentation of the section of the report on corporate governance regarding compensation
- confirmation of the grant of performance shares in respect of the 2020 plan
- grant of performance shares (2023 plan)
- compensation of the members of the Executive Committee

(1) Excluding the director representing employee shareholders in accordance with the recommendations of the AFEP-MEDEF Code (point 10.3).

December 13

- benchmark elements (peer group remuneration CEO)
- analysis of the proxy advisors' recommendations
- first assessment of the compensation for the Chairman and Chief Executive Officer for 2023 and guidelines governing compensation for the Chairman and Chief Executive Officer for fiscal year 2023

THE STRATEGY & CSR COMMITTEE

6	60%*	3	100%
members	Independence rate	meetings in 2023	Attendance rate

* Excluding the director representing employee shareholders.

Composition

As of March 13, 2024, the Strategy & CSR Committee is made up of six members, including three independent directors and one director representing employees. Mr. Patrick Pouyanné chairs the Committee. Ms. Marie-Christine Coisne-Roquette, Ms. Anne-Marie Idrac, Ms. Emma de Jonge, Mr. Jacques Aschenbroich and Mr. Jean Lemierre are members of the Committee.

Duties

The rules of procedure of the Strategy & CSR Committee define the Committee's duties as well as its working procedures.

The Strategy & CSR Committee's rules of procedure were last amended on July 28, 2021 to take account of the change in the Corporation's name decided at the Shareholders' Meeting on May 28, 2021. They had previously been amended notably on July 25, 2018, in order to take account of new social and environmental responsibility requirements, further to the revision of the AFEP-MEDEF Code in June 2018, and on July 29, 2020, to reflect the Corporation's conversion to a European company and various amendments to the Corporation's Articles of Association that were approved by the Shareholders' Meeting on May 29, 2020.

The text of the unabridged version of the rules of procedure approved by the Board of Directors on July 28, 2021, is available on the TotalEnergies website under "Our Company/Our identity/Our governance."

To allow the Board of Directors of the Corporation to ensure the Company's development, the Strategy & CSR Committee's duties include:

- examining the Company's overall strategy proposed by the Corporation's Chief Executive Officer;
- examining the Company's corporate social and environmental responsibility (CSR) issues and, in particular, matters relating to the incorporation of the Climate challenge in the Company's strategy;
- examining transactions that are of particular strategic importance;
- reviewing the competitive environment, the main challenges the Company faces, including with regard to social and environmental responsibility, as well as the resulting medium and long-term outlook for the Company.

Work of the Strategy & CSR Committee

In 2023, the Strategy & CSR Committee met 3 times, with 100% attendance. Its work mainly focused on the following areas:

March 15

- climate roadmap: 2022 achievements and update
- presentation of the Sustainability & Climate 2023 Progress Report

September 20 and 21 (strategy seminar)

- presentation of the TotalEnergies Outlook 2023: energy demand analysis scenario
- discussion with Dan Yergin, Vice Chairman of S&P Global regarding three main themes: the new geopolitical order, the energy transition and the Inflation Reduction Act (IRA)
- presentation dedicated to the Integrated Power activity and its levers of profitability
- presentation dedicated to hydrogen: state of the art and cost assessment
- visit to L'Industreet in Stains
- shareholder return policy
- Strategy and Outlook presentation to investors.

4.1.3 Report of the Lead Independent Director on her mandate

During the Board meeting of February 6, 2024, Ms. Coisne-Roquette and Mr. Aschenbroich presented a report on their mandates as Lead Independent Director in fiscal year 2023.

The duties of Lead Independent Director were exercised as follows during fiscal year 2023:

Contact with the Chairman and Chief Executive Officer

The Lead Independent Director is a privileged interlocutor of the Chairman and Chief Executive Officer with respect to significant matters concerning the Company's business and preparing meetings of the Board of Directors and of the Governance and Ethics Committee that he chairs. In addition to occasional exchanges, the Lead Independent Director thus met in 2023 the Chairman and Chief Executive Officer on a monthly basis and before each meeting of the Board of Directors.

Assessment of the Board of Directors' practices

The Lead Independent Director conducted the assessment of the Board of Directors' practices in 2023. In this context, he conducted individual interviews with each of the directors. The conclusions of this assessment are disclosed in point 4.1.4 of this chapter.

Prevention of conflicts of interest

The Lead Independent Director has performed due diligence in order to identify and analyze potential conflicts of interest.

The Lead Independent Director was thus consulted by directors who were considering accepting a mandate in other companies. No situation relating to a project to take up a mandate or an external function by a director has led the Lead Independent Director to refer the matter to the Governance and Ethics Committee.

Monitoring of the Board's practices

The Lead Independent Director held a meeting on December 13, 2023 with the directors having no executive nor salaried position on the Board. The directors were able to discuss in a constructive and transparent atmosphere, it being recalled that they were asked from the end of November 2023 to complete the questionnaire submitted to them as part of the annual assessment of the functioning of the Board.

More generally, the working program of the Board meetings in 2024 makes it possible to cover all the matters raised during this meeting.

During the meeting, it was confirmed that the current pace of one executive session per year was deemed appropriate. If necessary, and at the requests of several directors having no executive nor salaried position, an additional session could be organized on a specific topic.

In line with the wish expressed last year, the directors were pleased to note that the new risk mapping had been examined in depth. They expressed the wish that this mapping, as well as the main disputes, should be regularly reviewed by the Board.

In addition, at this meeting, the non-executive directors confirmed their full support for the strategy implemented as adopted by the Board: it makes TotalEnergies the company most committed to the energy transition among the majors, by developing, in a determined and structured manner, an Integrated Power activity. TotalEnergies is one of the major players in the renewable energy sector and the Integrated Power business has reached encouraging levels of profitability.

In this context, they would like to see a reflection on the complementary actions to be taken so that the perception of the in-depth work undertaken by the Company is improved and that this energy transition is fully recognized by the various stakeholders.

Relationship with directors

The Lead Independent Director had several in-depth contacts with the directors, particularly in the context of the preparation of the decision taken by the Board unanimously to propose the renewal of the mandate of Mr. Patrick Pouyanné to the Shareholders' Meeting in May 2024. The Lead Independent Director took also part in the search and selection of a new director and interviewed several potential candidates as part of the work of the Governance and Ethics Committee which led this Committee to recommend to the Board of Directors with a view to submitting to the Shareholders' Meeting the appointment of Ms. Marie-Ange Debon as a director.

Relationships with shareholders

The Chairman and Chief Executive Officer and the Lead Independent Director are the privileged points of contact for shareholders concerning matters under the Board's responsibility. In accordance with the provisions of the Board's Rules of Procedure, when the Chairman and Chief Executive Officer is solicited by a shareholder in this area, he may consult the Lead Independent Director before responding.

When the Lead Independent Director is approached by a shareholder in relation to such issues, he must inform the Chairman and Chief Executive Officer, providing his opinion, so that the Chairman and Chief Executive Officer may respond appropriately to the request. The Chairman and Chief Executive Officer must inform the Lead Independent Director of the response given.

On April 4 and 5, 2023, the Lead Independent Director met with several shareholders representing close to 20% of the share capital of TotalEnergies. The governance of the Corporation, and more particularly the composition of the Board of Directors, were discussed. These meetings also provided an opportunity to discuss TotalEnergies' transition strategy, its progress on this matter, as well as the update on its climate and sustainability ambition, described in the *Sustainability & Climate – 2023 progress report*. The Lead Independent Director had also discussions in April and May 2023 with a proxy advisor.

The Chairman and Chief Executive Officer and the Lead Independent Director also held a dialogue ahead of the Shareholders' Meeting on May 26, 2023 with the representatives of the coalition of shareholders authors of resolution A rejected at 70% of the votes cast at the Shareholders' Meeting. This dialogue continued after the Shareholders' Meeting. At a meeting on October 12, 2023 with the coalition, the Chairman and Chief Executive Officer and the Lead Independent Director thus listened to the arguments of the coalition and explained the motivations for the position expressed by the Board of Directors in its report on the resolutions presented at the Shareholders' Meeting on the climate and sustainability ambition of the Company.

Shareholders' Meeting on May 26, 2023

At the Annual Shareholders' Meeting, Ms. Marie-Christine Coisne-Roquette presented her report on the Board's activity in 2022, the candidacies for director positions presented to the Shareholders' Meeting as well as the composition of the Board of Directors at the end of the Shareholders' Meeting.

Mr. Jacques Aschenbroich, Lead Independent Director from the end of the Shareholders' Meeting on May 26, 2023, presented at the Shareholders' Meeting the missions of the Lead Independent Director.

Visits to Company sites by the directors

Site visits contribute in a very concrete way to the training of Directors and allow them to deepen their knowledge of the specificities of the Company, its challenges, its businesses - including new businesses - and its teams. They are often the occasion for thematic presentations.

In this context, site visits were organized in 2023, by groups of directors accompanied by a member of the Executive Committee, in Congo (Exploration & Production, Marketing & Services, Nature Based Solution), in Qatar (LNG, Renewable, Exploration & Production), in Texas (Refining, Renewables, Trading) and, in France, at Pau (Technical Center, Biogas, Methane R&D) and at La Mède (biofuels, renewables, local development).

Site visits are planned for 2024.

In addition, on the occasion of the annual strategic seminar, the Directors visited L'Industreet in Stains, a flagship action in terms of the TotalEnergies Foundation's social commitment in the field of training and employment for young people. This campus of new industrial professions trains young people aged 18 to 30 free of charge, without any diploma requirements, in industrial professions with a shortage of manpower. In total, more than 700 young people have already been welcomed since 2021. The pedagogy is innovative, based on "doing to learn" and global ("interpersonal skills and know-how") and the courses are personalized. More than 200 young people have already graduated certified with a success rate of 99%, more than half of whom are employed, the others having chosen to continue their training on higher degrees. Ultimately, the campus aims to train 400 young people per year.

4.1.4 Assessment of the Board of Directors' practices

The Lead Independent Director managed, in accordance with point 7.2.4 of the Board's Rules of Procedure, the evaluation process relating to the functioning of the Board of Directors, using a questionnaire sent to each director on November 30, 2023, and which was followed by interviews with each of the Directors. This assessment focused on the functioning of the Board, the processes in place, the ability of the Board to take into consideration important issues thanks to the provision of adequate information and training, if necessary, the activity of the Lead Independent Director, the activity of the committees and of their chairmen, the individual contribution of each Director.

The Lead Independent Director reported on this evaluation to the Governance and Ethics Committee at its meeting on January 31, 2024 and then to the Board of Directors, which discussed its operating conditions, at its meeting on February 6, 2024.

In accordance with point 3.4 of its Rules of Procedure, the Board of Directors conducts a formal assessment of its own functioning at regular intervals of up to three years. The evaluation is carried out under the supervision of the Lead Independent Director, if one has been appointed, or under the supervision of the Governance and Ethics Committee, with the assistance of an outside consultant. The Board of Directors also conducts an annual review of its practices. Furthermore, in accordance with point 7.2.4 of the Rules of Procedure of the Board of Directors, the Lead Independent Director manages the evaluation process relating to the functioning of the Board of Directors and reports on this evaluation to the Board of Directors.

It is reminded that, at the beginning of 2022, a formal assessment, with the assistance of an external consultant, took place under the supervision of the Lead Independent Director. It was carried out in the form of a detailed questionnaire, to which all the directors responded, followed by interviews with each of the Directors. At the beginning of 2023, a debate was held about the annual functioning of the Board based on a questionnaire filled in by Board members.

Furthermore, in accordance with point 7.2.6 of the Rules of Procedure of the Board of Directors which states that the Lead Independent Director may hold meetings of directors who do not hold executive or salaried positions on the Board of Directors, such a meeting was held on December 13, 2023, at the initiative of the Lead Independent Director.

This evaluation revealed a positive assessment of the functioning of the Board of Directors and its committees.

In particular, the following points were noted:

- the entry into the Board of two new directors made it possible to enrich the skills in the field of electricity and renewable energies, to reflect the importance of the capital committed by the Company in Brazil and to increase the internationalization of the Board, whose working language has become English;
- the Board works in a spirit of openness, collegiality and efficiency under the leadership of the Chairman and Chief Executive Officer whose transparency and knowledge of files are praised by all directors and allow for in-depth debates;
- the new Lead Independent Director fully assumes his missions and demonstrates great availability to carry them out;
- the Board devotes a significant part of its work to the transition strategy of the Company and the associated business models;
- various comparative analyzes relating to competitors (strategy, results, shareholder return policy, etc.) were provided to the Board;
- site visits were appreciated in 2023 and are scheduled for 2024;
- the format of Directors' lunches and the discussions to which they give rise are most appreciated and considered to be a quality element of governance;
- the draft minutes of Board meetings are communicated to the Directors within shortened deadlines.

It was pointed out that the suggestions for improving the functioning of the Board identified by the Board of directors at the meeting on February 7, 2023 have been implemented:

- the Board thus reviewed in 2023 the new risk mapping, and cybersecurity risk has been specifically examined;
- information in terms of competitive analysis was developed, in particular on the occasion of the strategic seminar of the Board;
- site visits organized in 2023 in Congo (Exploration & Production, Marketing & Services, *Nature Based Solution*), in Qatar (LNG & Solar & Offshore Production), in Texas (Refining, Renewables) and, in France, at Pau (Technical Center, Biogas, R&D Methan), La Mède (biofuels, local development) and Stains (L'Industreet) made it possible to cover different professions of the Company and were an opportunity for enriching exchanges with the teams;
- at its meeting on July 26, 2023, the Board reassessed the training needs of Directors.

The current pace of one executive session per year is considered appropriate. An additional meeting on a specific subject may be held if, where appropriate, several directors request it.

Actions to deploy in 2024 or identified suggestions of improvement likely to contribute to improving the functioning of the Board are as follows:

- continue the regular examination of the different business models and profitability levers in electricity and renewable energies;
- continue to carry out comparative analyzes of the situation and developments of the main competitors;
- develop efforts in communication so that the in-depth work undertaken by the Company in the energy transition and its leadership in the area compared to its Oil & Gas peers are fully recognized by stakeholders;
- continue to carry out the specific examination in the Board of some of the main risks, in addition to the work of the Audit Committee;
- continue organizing site visits and, more generally, the opportunities for Directors to interact with members of the Executive Committee and local teams in order to best understand the operational, human resources, operating or other issues linked to the reality on the ground and the challenges of the Company;
- assess and support the training needs of Directors resulting from the entry into force of new regulations, particularly in the area of sustainability;
- continue the use of external speakers on specific subjects, particularly within the framework of the strategic seminar of the Board.

4.1.5 General Management

4.1.5.1 Unified Management Form

COMBINATION OF THE MANAGEMENT POSITIONS

Management of the Corporation is assumed either by the Chairperson of the Board of Directors (who then holds the title of Chairman and Chief Executive Officer), or by another person appointed by the Board of Directors with the title of Chief Executive Officer. It is the responsibility of the Board of Directors to choose between these two forms of management under the majority rules described above.

At its meeting on December 16, 2015, the Board of Directors decided to reunify the positions of Chairperson and Chief Executive Officer of the Corporation as from December 19, 2015. Since that date, Mr. Pouyanné has held the position of Chairman and Chief Executive Officer of TotalEnergies SE. After his term of office as director was renewed for a three-year period at the Shareholders' Meeting on May 28, 2021, the Board of Directors reappointed Mr. Pouyanné as Chairman and Chief Executive Officer for the same period, expiring at the end of the 2024 Shareholders' Meeting called to approve the financial statements for fiscal year 2023.

The Board of Directors, at its meeting held on September 21, 2023, after reaffirming its support to the quality and the relevance of the strategy implemented, considered that it is highly desirable that Mr. Patrick Pouyanné, Chairman and Chief Executive Officer, continues to drive this strategy's deployment at the helm of the Company. On the proposal of the Governance and Ethics Committee, it has therefore been unanimously decided to propose the renewal of the mandate of Mr. Patrick Pouyanné to the Shareholders' Meeting to be held on May, 24 2024. In the frame of the balanced governance implemented since 2015, it also unanimously decided to propose the renewal of the mandate of Mr. Jacques Aschenbroich, who has held the position of Lead Independent Director since May 2023.

Unified management form

The discussions held with the Governance and Ethics Committee in the best interests of the Corporation had led to a firm proposal to continue to combine the functions of Chairman and Chief Executive Officer. Indeed, this management form of the Corporation is considered to be the most appropriate for dealing with the challenges and specificities of the energy sector, which is facing major transformations. More than ever, this context requires agility of movement, which the unity of command reinforces, by giving the Chairman and Chief Executive Officer the power to act and increased representation of the Corporation in its strategic negotiations with States and partners of the Company.

Balance of power

The Lead Independent Director also recalled that the unity of the power to manage and represent the Corporation is also particularly well regulated by the Corporation's governance.

The balance of power is established through the quality, complementarity and independence of the members of the Board of Directors and its four Committees, as well as through the Articles of Association and the Board's Rules of procedure, which define the means and prerogatives of the Lead Independent Director, notably:

- in his relations with the Chairman and Chief Executive Officer: contribution to the agenda of Board meetings or the possibility of requesting a meeting of the Board of Directors and sharing opinions on major issues;
- in his contribution to the work of the Board of Directors: chairing meetings in the absence of the Chairman and Chief Executive Officer, or when the examination of a subject requires his abstention, evaluation and monitoring of the functioning of the Board, prevention of conflicts of interest, and dialogue with the directors and Committee Chairpersons;
- in his relations with shareholders: the possibility, with the approval of the Chairman and Chief Executive Officer, of meeting with them on corporate governance issues, a practice that has already been used on several occasions.

The balance of power within the governance bodies, in addition to the independence of its members, is further strengthened by the full involvement of the directors, whose participation in the work of the Board and its Committees is exemplary. The diversity of their skills and expertise also enables the Chairman and Chief Executive Officer to benefit from a wide range of contributions.

In addition, the Board's Rules of procedure provide that any investment or divestment transactions contemplated by the Company involving amounts in excess of 3% of shareholders' equity must be approved by the Board, which is also kept informed of all significant events concerning the Corporation's operations, in particular investments and divestments in excess of 1% of shareholders' equity.

Lastly, the Corporation's Articles of Association provide the necessary guarantees of compliance with good governance practices in the context of a unified management structure. In particular, they provide that the Board may be convened by any means, including orally, or even at short notice depending on the urgency of the matter, by the Chairman or by one third of its members, including the Lead Independent Director, at any time and as often as the interests of the Corporation require.

LEAD INDEPENDENT DIRECTOR

Mr. Jacques Aschenbroich has been acting as Lead Independent Director since the end of the Shareholders' Meeting on May 26, 2023. This position was previously held by Ms. Marie-Christine Coisne-Roquette.

Pursuant to the provisions of the Rules of Procedure of the Board of Directors, the Lead Independent Director chairs the Governance and Ethics Committee.

The duties of the Lead Independent Director are described in detail in the Rules of Procedure of the Board of Directors, the full version of which is provided in point 4.1.2.1.

4.1.5.2 The Executive Committee and the Company Performance Management Committee

THE EXECUTIVE COMMITTEE

The Executive Committee, under the responsibility of the Chairman and Chief Executive Officer, is the decision-making body of the Company.

It implements the strategic vision defined by the Board of Directors and authorizes the corresponding capital expenditures, subject to the Board of Directors' approval for investments exceeding 3% of shareholders' equity and any significant transaction outside the scope of the company's stated strategy, and subject to the Board's review for investments involving amounts exceeding 1% of shareholders' equity.

The Executive Committee meets as often as necessary and generally on a fortnightly basis.

As of December 31, 2023, the members of Executive Committee were as follows:

- Patrick Pouyanné, Chairman and Chief Executive Officer and Chairman of the Executive Committee
- Helle Kristoffersen, President, Strategy & Sustainability
- Stéphane Michel, President, Gas, Renewables & Power
- Thierry Pflimlin, President, Marketing & Services
- Bernard Pinatel, President, Refining & Chemicals
- Jean-Pierre Sbraire, Chief Financial Officer
- Namita Shah, President, OneTech
- Nicolas Terraz, President, Exploration & Production.

The members of the Executive Committee as of December 31, 2023, informed TotalEnergies that they have not been convicted of fraud, have not been associated with bankruptcy, sequestration, receivership or court-ordered liquidation proceedings, and have not been subject to any incrimination, conviction or sanction pronounced by an administrative authority or professional body, prohibited from managing a company or disqualified from doing so over the last five years.

As of January 8, 2024, Aurélien Hamelle joined the Executive Committee as President, Strategy & Sustainability. As of February 1, 2024, Helle Kristoffersen, an Executive Committee member, became President, Asia, based in Tokyo.

THE PERFORMANCE MANAGEMENT COMMITTEE OF THE COMPANY

The mission of the Performance Management Committee of the Company is to examine, analyze and monitor the HSE, financial and operational results of the Company. It is chaired by the Chairman and Chief Executive Officer and meets monthly.

In addition to the members of the Executive Committee, this Committee is made up of the heads of the TotalEnergies' main business units, along with some of the Senior Vice-Presidents of functions at the Company and business segments levels.

BALANCED REPRESENTATION OF WOMEN AND MEN AND DIVERSITY RESULTS IN THE 10% OF POSITIONS AT THE CORPORATION WITH THE HIGHEST RESPONSIBILITIES (ARTICLE L. 22-10-10, 2° OF THE FRENCH COMMERCIAL CODE)

TotalEnergies is committed to respecting the principle of gender equality, principle it promotes and it ensures that it is properly applied. The promotion of gender equality is fostered Company-wide through a global policy of gender diversity, quantitative targets set by executive management, human resources procedures that take gender concerns into consideration, agreements aimed at promoting a better work-life balance and actions to raise awareness and train the workforce.

TotalEnergies' commitment to gender equality in the workplace begins at the recruitment stage and continues throughout a person's career, particularly in the process of identifying high-potential employees and appointing managers.

In order to ensure a better gender balance in its senior management, the Company has set itself the following targets for improvement by 2025 for the highest executive instances in the Company:

- 30% of women on the Executive Committee: women represented 25% in 2023;
- 30% of women in the G70[(1)]: women represented 33.8% in 2023.

The Company has set the same target for its other governing bodies and leadership positions, with women comprising:

- 30% of women among senior executives: 28.3% were women in 2023;
- 30% of women in senior management: 25.1% were women in 2023.

Moreover, TotalEnergies develops talent pools and regularly organizes campaigns to identify high-potential employees in the Company, in order to offer them a specific development program. At year-end 2023, women accounted for 39.6% of the pool of high-potential employees. Furthermore, there is a particular focus on attracting more women to technical and business careers (at year-end 2023, 24.9% of women were among managers on permanent contracts in technical or sales positions[(2)]).

At TotalEnergies SE's level, the Company's commitment has materialized by the entry of two women in the Executive Committee (8 people) since 2016. With regard to gender balance in the 10% of the highest management positions of the Corporation[(3)], the proportion of women equals 23.6%. At Company level, which is the most relevant perimeter in view of the Company's activities, that percentage stands at 26.1%[(4)].

(1) Senior executives with the most important responsibilities.
(2) Technical and sales functions, excluding support functions (e.g., human resources, legal affairs, purchasing, etc.).
(3) TotalEnergies SE, the Company's parent company, has more than 3,000 employees (full-time-equivalent employees present on December 31 of each fiscal year for the period in question).
(4) Proportion calculated on the basis of 97,337 employees.

PROFILE, EXPERIENCE AND EXPERTISE OF THE MEMBERS OF THE EXECUTIVE COMMITTEE

Patrick Pouyanné

Chairman and Chief Executive Officer of TotalEnergies SE

Chairman of the Strategy & CSR Committee

Born on June 24, 1963 (French)

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Biography & Professional Experience

A graduate of École Polytechnique and a Chief Engineer of France's Corps des Mines, Mr. Pouyanné held, between 1989 and 1996, various administrative positions in the Ministry of Industry and other cabinet positions (technical advisor to the Prime Minister – Édouard Balladur – in the fields of the Environment and Industry from 1993 to 1995, Chief of staff for the Minister for Information and Aerospace Technologies – François Fillon – from 1995 to 1996). In January 1997, he joined TotalEnergies' Exploration & Production division, first as Chief Administrative Officer in Angola, before becoming Company representative in Qatar and President of the Exploration and Production subsidiary in that country in 1999. In August 2002, he was appointed President, Finance, Economy and IT for Exploration & Production. In January 2006, he became Senior Vice President, Strategy, Business Development and R&D in Exploration & Production and was appointed a member of the Company's Management Committee in May 2006. In March 2011, Mr. Pouyanné was appointed Deputy General Manager, Chemicals, and Deputy General Manager, Petrochemicals. In January 2012, he became President, Refining & Chemicals and a member of the Company's Executive Committee.

On October 22, 2014, he became Chief Executive Officer of TOTAL S.A. and Chairman of the Company's Executive Committee. On May 29, 2015, he was appointed by the Annual Shareholders' Meeting as director for a three-year term. The Board of Directors appointed him as Chairman of the Board of Directors as of December 19, 2015. Mr. Pouyanné thus became the Chairman and Chief Executive Officer. Following the renewal of Mr. Pouyanné's directorship at the Shareholders' Meeting on June 1, 2018 and then on May 28, 2021 for a three-year period, the Board of Directors renewed Mr. Pouyanné's term of office as Chairman and Chief Executive Officer for a period equal to that of his directorship.

Mr. Pouyanné is thus the Chairman and Chief Executive Officer of TotalEnergies SE.

On June 1, 2022, Mr. Pouyanné was appointed Chairman of the French association, Entreprises pour l'Environnement (EpE). Mr. Pouyanné has also been the Chairman of the Alliance pour l'Education – United Way association since June 2018, having accepted this office as Chairman and Chief Executive Officer of the Corporation. In addition, he has been a member of the Board of Directors of Capgemini (since May 2017), of the Board of Directors of École Polytechnique (since September 2018), of the Institut du Monde Arabe (since 2017) and of the foundation La France s'engage (since 2017). Mr. Pouyanné is an Officer of the Légion d'honneur.

Helle Kristoffersen

President, Asia

Member of TotalEnergies' Executive Committee

Born on April 13, 1964 (French and Danish)
Member of TotalEnergies' Executive Committee since August 19, 2019

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Biography & Professional Experience

Helle Kristoffersen is President, Asia based in Tokyo, member of the Executive Committee.

She was President Strategy & Sustainability from 2021 to January 2024, President Strategy & Innovation from 2019 to 2021, SVP Strategy and Corporate Affairs in Gas Renewables & Power from 2016 to 2019 and SVP Strategy & Business Intelligence from January 2012 to September 2016, deputy SVP Strategy from 2011 to 2012, within the Company she joined in 2011. Between 1994 and 2011, she held a number of general management positions within the Alcatel group, which became Alcatel-Lucent, and then Nokia.

A dual Danish and French national, Helle Kristoffersen is a graduate of the Ecole Normale Supérieure (Ulm) and the Paris Graduate School of Economics, Statistics and Finance (ENSAE). She also holds a master's degree in econometrics from Université Paris Sorbonne. She is an alumna of the French Institute for Higher National Defense Studies (IHEDN) and a Knight of the French Legion of Honor.

Stéphane Michel

President, Gas, Renewables & Power

Member of TotalEnergies' Executive Committee

Born on February 17, 1973 (French)
Member of TotalEnergies' Executive Committee since March 1, 2021

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Biography & Professional Experience

A graduate of École Polytechnique (1994) and École des Mines in Paris (1997), Stéphane Michel is Chief Engineer of the France's Corps des Mines.

After serving as Energy Advisor to the French Finance Minister (2002-2004), Stéphane Michel joined the Company in 2005, working as Business Development Manager for the Downstream Asia division, based in Singapore.

In 2008, Stéphane Michel, is appointed TotalEnergies E&P Qatar JV Business Development Manager and in 2010 Managing Director of TotalEnergies E&P Libya. In 2011, he became TotalEnergies E&P Qatar Managing Director and on April 1, 2014, the E&P Senior Vice President Middle East/North Africa and a Member of the Management Committee of the Exploration & Production segment.

On March 1, 2021, Stéphane Michel is appointed President of Gas, Renewables and Power segment and a member of the Executive Committee.

Thierry Pflimlin

President, Marketing & Services

Member of TotalEnergies' Executive Committee

Born on October 22, 1959 (French)
Member of TotalEnergies' Executive Committee since November 15, 2021

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Biography & Professional Experience

Graduated from the Strasbourg Political Studies Institute and from the HEC Business School, Thierry Pflimlin started his career as commercial attaché at the French Embassy in Hanoi. In 1984, he joined the TOTAL Group where he held a number of international positions in Asia and Africa. After five years as CEO of TOTAL Asia Pacific in Singapore, he moved back to the head office in 2012 to become CEO of TOTAL France. In 2013, he became Senior Vice President Corporate Affairs in the Marketing & Services Division. In September 2016, he became President of Total Global Services. Since November 15, 2021, Thierry Pflimlin has been President, Marketing & Services and a TotalEnergies Executive Committee member. Thierry Pflimlin is a Knight of the French Order of Merit.

Bernard Pinatel

President, Raffinage-Chimie

Member of TotalEnergies' Executive Committee

Born on June 5, 1962 (French)
Member of TotalEnergies' Executive Committee since September 1, 2016

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Biography & Professional Experience

Bernard Pinatel is a graduate of the École Polytechnique and the Institut d'Études Politiques (IEP) de Paris and has an MBA from the Institut Européen d'Administration des Affaires (INSEAD). He is also a statistician-economist (École Nationale de la Statistique et de l'Administration Économique – ENSAE).

He started his career at Booz Allen & Hamilton, before joining the company TotalEnergies in 1991, where he occupied various operational positions in the production plants and head offices of different subsidiaries, including Hutchinson and Coates Lorilleux. He became the CEO France, and then the CEO Europe of Bostik between 2000 and 2006, and the Chairman and Chief Executive Officer of Cray Valley, from 2006 to 2009. In 2010, he became the Chairman and Chief Executive Officer of Bostik. At TotalEnergies, he became a member of the Company's Management Committee in 2011 and was member of the Management Committee of Refining & Chemicals from 2011 to 2014.

When Arkema took over Bostik in February 2015, he was nominated as a member of the Executive Committee of Arkema, responsible for the High-Performance Materials activity.

He joined TotalEnergies on September 1, 2016, and was appointed President of the Refining & Chemicals segment and a member of the Executive Committee.

Jean-Pierre Sbraire

Chief Financial Officer

Member of TotalEnergies' Executive Committee

Born on October 28, 1965 (French)
Member of TotalEnergies' Executive Committee since August 1, 2019

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Biography & Professional Experience

Jean-Pierre Sbraire began his career at TotalEnergies in 1990 in the Trading & Shipping Division. In 1995, he joined Exploration & Production, holding various positions in Paris and Nigeria in finance, economics and business development.

In 2005, he was appointed General Secretary and Finance Manager for TotalEnergies in Venezuela. In 2009, within the Company's Financial Division, he became Senior Vice President, E&P Subsidiaries Financial Operations.

In 2012, he was appointed Vice President, Equity Crude Acquisitions in Trading & Shipping. From September 2016 to September 2017, he served as Company's Treasurer. He then accepted the position of Deputy Chief Financial Officer. In 2019, he was appointed Chief Financial Officer and Executive Committee member.

Jean-Pierre Sbraire is a graduate of ENSTA ParisTech engineering school and has a master's degree from IFP School.

Namita Shah

President, OneTech

Member of TotalEnergies' Executive Committee

Born on August 21, 1968 (French)
Member of TotalEnergies' Executive Committee since September 1, 2016

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Biography & Professional Experience

Namita Shah began her career as an Associate Attorney at Shearman & Sterling, a New York-based law firm, where she spent eight years providing advice and supervising transactions including those involving financings of pipeline and power plant companies.

She joined TotalEnergies in 2002 as a Legal Counsel in the E&P mergers and acquisitions team. In 2008, she joined the New Business team, where she was responsible for business development in Australia and Malaysia. She held this position until 2011 when she moved to Yangon as General Manager, TotalEnergies E&P Myanmar.

On July 1, 2014, she was appointed Senior Vice President, Corporate Affairs, Exploration & Production.

On July 1, 2016, Namita Shah was appointed President, People & Social Responsibility and a member of the Executive Committee.

On September 1, 2021, she was appointed President, OneTech and member of the Executive Committee. She continues to supervise the Company People & Social Engagement team, which reports to her.

Indian and French, Namita Shah is a graduate of Delhi University and the New York University of Law.

Nicolas Terraz

President, Exploration & Production

Member of TotalEnergies' Executive Committee

Born on September 9, 1969 (French)
Member of TotalEnergies' Executive Committee since September 1, 2021

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Biography & Professional Experience

Nicolas Terraz started his career in the French Ministries of Industry (1994-1997) and Public Works and Transportation (1997-2001) and joined TotalEnergies in 2001.

After holding positions in France and in Qatar, Nicolas Terraz served as Managing Director of Total E&P Myanmar (2008-2011), Managing Director of Total E&P France (2011-2014), Vice President New Ventures for Exploration and Production (2014-2015) and Managing Director of Total Upstream Companies in Nigeria (2015-2019).

In 2019, Nicolas Terraz was appointed Senior Vice President Africa and a member of the management committee of the Exploration & Production segment of TotalEnergies.

Born in 1969, Nicolas Terraz is a graduate of the Ecole Polytechnique and the Ecole Nationale des Ponts et Chaussées and earned a Master of Science in Technology and Policy from the Massachusetts Institute of Technology.

4.1.6 Shares held by the administration and management bodies

As of December 31, 2023, based on statements by the persons concerned, registered shares ledger and the register of the FCPE fund units custodian, all of the members of the Board of Directors and the executive officers[1] of TotalEnergies held less than 0.5% of the share capital:

- members of the Board of Directors[2]: 428,277 TotalEnergies shares and 20,518.10 units of the FCPE (collective investment fund) invested in TotalEnergies shares;
- Chairman and Chief Executive Officer: 410,695 TotalEnergies shares and 13,091.59 units of the FCPE (collective investment fund) invested in TotalEnergies shares;
- executive officers: 937,284 TotalEnergies shares and 251,564.58 units of the FCPE invested in TotalEnergies shares.

By decision of the Board of Directors on February 7, 2023:

- Executive directors of the Corporation are required to hold a number of TotalEnergies shares equal in value to five years of the fixed portion of their annual compensation; and
- members of the Executive Committee are required to hold a number of TotalEnergies shares equal in value to four years of the fixed portion of their annual compensation.

Executive directors of the Company and members of the Executive Committee have a maximum period of five years from taking office to reach these holding levels.

Executive directors and members of the Executive Committee cannot sell the performance shares that were definitively awarded to them until they have reached the required level of ownership of TotalEnergies shares.

The number of TotalEnergies shares to be considered comprises TotalEnergies shares and units of FCPEs invested in TotalEnergies shares.

(1) As of December 31, 2023, the Company's executive officers are the members of the Executive Committee, i.e. eight people. During the fiscal year 2020, the Corporation, taking into account the definition used by the US regulations applicable to Executive Officers and in the interest of harmonization, has chosen to reduce the list of its Executive Officers to the members of the Executive Committee in order to align this list with the list of "Persons Discharging Managerial Responsibilities" (PDMR) within the meaning of Article 19.5 of Regulation (EU) No. 596/2014 on Market Abuse. For the purposes of this regulation, PDMRs are defined as the persons referred to in Article L. 621-18-2 (a) of the French Monetary and Financial Code ("the directors") and the persons referred to in Article L. 621-18-2 (b) of the same code that the Corporation has defined as the members of the TotalEnergies Executive Committee.

(2) Including the Chairman and Chief Executive Officer, the director representing employee shareholders and the directors representing employees.

SUMMARY OF TRANSACTIONS IN THE CORPORATION'S SECURITIES (ARTICLE L. 621-18-2 OF THE FRENCH MONETARY AND FINANCIAL CODE)

The following table presents transactions, of which the Corporation has been informed, in the Corporation's shares or related financial instruments carried out in 2023 by the individuals referred to in paragraphs a), b)[(1)] and c) of Article L. 621-18-2 of the French Monetary and Financial Code:

2023		Acquisition	Subscription	Transfer	Exchange	Exercise of options
Patrick Pouyanné[(a)]	TotalEnergies shares	72,000	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	262.23	2,070.94	(1,570.26)	–	–
Jacques Aschenbroich[(a)]	TotalEnergies shares	–	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	–	–	–	–	–
Marie-Christine Coisne-Roquette[(a)]	TotalEnergies shares	–	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	–	–	–	–	–
Lise Croteau[(a)]	TotalEnergies shares	–	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	–	–	–	–	–
Mark Cutifani[(a)]	TotalEnergies shares	–	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	–	–	–	–	–
Dierk Paskert[(a)]	TotalEnergies shares	–	–	–	–	–
Director since May 26, 2023	Units in FCPE and other related financial instruments[(b)]	–	–	–	–	–
Romain Garcia-Ivaldi[(a)]	TotalEnergies shares	–	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	97.66	628.63	(175.98)	–	–
Maria van der Hoeven[(a)]	TotalEnergies shares	–	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	–	–	–	–	–
Glenn Hubbard[(a)]	TotalEnergies shares	–	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	–	–	–	–	–
Anne-Marie Idrac[(a)]	TotalEnergies shares	–	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	–	–	–	–	–
Emma de Jonge[(a)]	TotalEnergies shares	–	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	40.50	875.39	(1,649.62)	–	–
Anelise Lara[(a)]	TotalEnergies shares	–	–	–	–	–
Director since May 26, 2023	Units in FCPE and other related financial instruments[(b)]	–	–	–	–	–
Jean Lemierre[(a)]	TotalEnergies shares	–	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	–	–	–	–	–
Angel Pobo[(a)]	TotalEnergies shares	–	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	38.95	365.48	(160.01)	–	–
Helle Kristoffersen[(a)]	TotalEnergies shares	20,000	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	568.55	2,903.96	(699.41)	–	–
Stéphane Michel[(a)(c)]	TotalEnergies shares	9,000	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	580.45	7,088.49	(5,884.10)	–	–
Thierry Pflimlin[(a)]	TotalEnergies shares	12,000	–	(11,834)	–	–
	Units in FCPE and other related financial instruments[(b)]	394.70	3,708.76	(1,006.61)	–	–
Bernard Pinatel[(a)]	TotalEnergies shares	29,000	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	825.28	4,237.75	(910.55)	–	–
Jean-Pierre Sbraire[(a)]	TotalEnergies shares	20,000	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	1,067.80	10,669.41	(2,890.43)	–	–
Namita Shah[(a)]	TotalEnergies shares	28,000	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	940.22	9,236.10	2,492.06	–	–
Nicolas Terraz[(a)]	TotalEnergies shares	9,500	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	593.81	7,163.89	(1,994.10)	–	–

(a) Including related parties within the meaning of the provisions of Article R. 621-43-1 of the French Monetary and Financial Code.
(b) FCPE primarily invested in TotalEnergies shares and following the categorisation carried out by the fund manager with the AMF (including in particular technical operations).
(c) Anne-Thérèse Michel, a person related to Stéphane Michel, acquired 343.27 FCPE shares in 2023.

(1) The individuals referred to in paragraph b) of Article L. 621-18-2 of the French Monetary and Financial Code include the members of the Executive Committee.

4.2 Statement regarding corporate governance

For many years, TotalEnergies has taken an active approach to corporate governance and at its meeting on November 4, 2008, the Board of Directors decided to refer to the AFEP-MEDEF Code of Corporate Governance for publicly traded companies (available on the AFEP and MEDEF websites).

The Corporation follows all the recommendation made in the AFEP-MEDEF Code in its revised version dated December 2022 and reports on it in accordance with Article L. 22-10-10 of the French Commercial Code.

RECOMMENDATION NOT FOLLOWED	EXPLANATION – PRACTICE FOLLOWED BY TotalEnergies
None	**Not applicable**

4.3 Compensation for the administration and management bodies

4.3.1 Board members' compensation

4.3.1.1 Board members' compensation policy

AGGREGATE AMOUNT OF DIRECTORS' COMPENSATION DUE TO THEIR DIRECTORSHIPS

In accordance with the provisions of Article L. 22-10-14 of the French Commercial Code, the conditions applicable to Board members' compensation are defined by the Board of Directors on the proposal of the Governance and Ethics Committee, under the conditions provided for by Article L. 22-10-8 of the French Commercial Code and within the limit of an annual fixed amount determined by the Annual Shareholders' Meeting.

The Annual Shareholders' Meeting held on May 26, 2023 set the annual compensation cap for directors at 1,950,000 euros as from fiscal year 2023.

The rules for allocating directors' compensation and the terms of payment defined by the Board remain unchanged.

RULES FOR ALLOCATING DIRECTORS' COMPENSATION DUE TO THEIR DIRECTORSHIPS

The allocation rules of the directors' compensation and their payment conditions defined by the Board at its meeting on July 26, 2017, and remain unchanged since. The compensation due to directors by virtue of their directorships are allocated according to a formula comprised of fixed compensation and variable compensation based on fixed amounts per meeting, which makes it possible to take into account each director's actual attendance at the meetings of the Board of Directors and its Committees, subject to the following conditions:

- a fixed annual portion of €20,000 per director*;
- a fixed annual portion* of €30,000 for the Chairman of the Audit Committee**;
- a fixed annual portion* of €25,000 for the Audit Committee members**;
- a fixed annual portion* of €25,000 for the Chairman of the Governance and Ethics Committee and for the Chairman of the Compensation Committee**;
- an additional fixed annual portion* of €30,000 (on top of the amounts above) for the Lead Independent Director;
- an amount of €7,500 per director for each Board meeting actually attended;
- an amount of €3,500 per director for each Governance and Ethics Committee, Compensation Committee or Strategy and CSR Committee meeting actually attended;
- an amount of €7,000 per director for each Audit Committee meeting actually attended;
- a premium of €4,000 in respect of each actual travel from a country outside France to attend a Board or Committee meeting.

NB: * Calculated on a pro rata basis, in the event of change in the course of the year. ** Substituting the €20,000 fixed annual portion per director. In case of accumulation of the functions of director and/or Audit Committee member and/or Chairman of a Committee (Audit, Governance and Ethics, Compensation), the difference between the fixed annual portion per director and the fixed annual portion of the other functions is added.

The Chairman and Chief Executive Officer does not receive directors' compensation for his work on the Board and Committees of the Corporation.

The total amount paid to each director is determined after taking into consideration the director's actual presence at each Board of Directors' or Committee's meeting and, if appropriate, since the decision by the Board of Directors on February 9, 2012, after prorating the amount set for each director such that the overall amount paid remains within the maximum limit set by the Shareholders' Meeting. Directors' compensation for each fiscal year is paid following a decision by the Board of Directors, on the proposal of the Governance and Ethics Committee, at the beginning of the following fiscal year.

The director representing employee shareholders and the directors representing employees receive directors' compensation according to the same terms and conditions as any other director.

Moreover, there is no service contract between a director and the Corporation or any of its controlled companies that provides for the grant of benefits under such a contract.

4.3.1.2 Compensation paid to directors during fiscal year 2023 or allocated during the same fiscal year

At its meeting on February 6, 2024, the Board of Directors, on the proposal of the Governance and Ethics Committee, set the aggregate amount of compensation (formerly fees) allocated to board members due to their directorships in TotalEnergies SE, for fiscal year 2023.

This amount was determined by applying the principles presented in the directors' compensation policy (point 4.3.1.1 of this chapter), and set for each director, after taking into account his/her actual attendance to each meeting of the Board or of the Committees (refer to point 4.1.2.2 of this chapter – table of the directors' attendance at Board and Committees meetings).

Given the number of Board and Committee meetings held during fiscal year 2023, the amount of compensation determined for each director on the basis of the above allocation rules was set at **1,853,000 euros**, *i.e.*, an amount below the cap set by the Shareholders' Meeting on May 26, 2023 (*i.e.*, 1.95 million euros).

The director representing employee shareholders and the directors representing employees benefited from their compensation by virtue of their directorships in the same conditions and under the same basis as the other directors. Mr. Pobo chose to pay, for the entire term of his directorship, all his directors' compensation to his trade union membership organization. Ms. de Jonge and Mr. Garcia-Ivaldi chose to pay all their director's compensation to charities of their choices. During the past two years, the directors currently in office have not received any compensation or in-kind benefits from the Corporation or from its controlled companies other than those mentioned in the table below.

No exceptional compensation was allocated.

Ms. Emma de Jonge, director representing employee shareholders since May 25, 2022, Mr. Romain Garcia-Ivaldi, director representing employees since June 9, 2020, whose term of office renewed on February 28, 2023, as well as Mr. Angel Pobo, director representing employees since October 14, 2020, whose term of office was renewed on February 16, 2023, benefit from the internal defined contribution pension plan applicable to all TotalEnergies SE employees, called PERO (*Plan d'épargne retraite obligatoire* - mandatory retirement savings plan), governed by Article L. 242-1 of the French Social Security Code. The Corporation's commitment is limited to its share of the contribution paid to the insurance company that manages the plan. For fiscal year 2023, this pension plan represented an expense accounted for TotalEnergies SE in favor of Ms. de Jonge of €1,268, in favor of Mr. Garcia-Ivaldi of €663 and in favor of Mr. Pobo of €839.

The table below presents the total compensation paid to directors during fiscal year 2023 or allocated for the same fiscal year.

TABLE OF COMPENSATION ALLOCATED IN RESPECT OF DIRECTORSHIP AND OTHER COMPENSATION BY NON-EXECUTIVE DIRECTORS

Table 3 – Position-recommendation – DOC-2021-02 (Appendix 2)

Gross (€)		Amount allocated in respect of fiscal year 2022	Amount paid during fiscal year 2022	Amount allocated in respect of fiscal year 2023	Amount paid during fiscal year 2023
Patrick Pouyanné	Compensation by virtue of directorship	None	None	None	None
	Other compensation	(a)	(a)	(a)	(a)
Patrick Artus[b]	Compensation by virtue of directorship	n/a	66,664	n/a	n/a
	Other compensation	n/a	–	n/a	n/a
Jacques Aschenbroich[c]	Compensation by virtue of directorship	99,904	59,890	147,000	99,904
	Other compensation	–	–	–	–
Patricia Barbizet[d]	Compensation by virtue of directorship	162,046	153,473	71,500	162,046
	Other compensation	–	–	–	–
Marie-Christine Coisne-Roquette	Compensation by virtue of directorship	146,749	161,000	167,500	146,749
	Other compensation	–	–	–	–
Jérôme Contamine[d]	Compensation by virtue of directorship	145,315	148,000	64,500	145,315
	Other compensation	–	–	–	–
Lise Croteau	Compensation by virtue of directorship	186,902	175,500	192,000	186,902
	Other compensation	–	–	–	–
Mark Cutifani	Compensation by virtue of directorship	130,975	110,000	141,000	130,975
	Other compensation	–	–	–	–
Valérie Della Puppa Tibi[e]	Compensation by virtue of directorship[h]	46,315	112,000	n/a	n/a
	Other compensation	83,624	83,624	n/a	n/a
Romain Garcia-Ivaldi	Compensation by virtue of directorship[i]	148,662	156,473	152,000	148,662
	Other compensation	67,476	67,476	71,291	71,291
Maria van der Hoeven	Compensation by virtue of directorship	191,683	198,473	197,000	191,683
	Other compensation	–	–	–	–
Glenn Hubbard[c]	Compensation by virtue of directorship	116,157	71,890	157,000	116,157
	Other compensation	–	–	–	–
Anne-Marie Idrac	Compensation by virtue of directorship	107,075	115,500	119,000	107,075
	Other compensation	–	–	–	–
Emma de Jonge[e]	Compensation by virtue of directorship[i]	57,414	–	98,000	57,414
	Other compensation	125,683	125,683	134,293	134,293
Anelise Lara[g]	Compensation by virtue of directorship	n/a	n/a	65,000	–
	Other compensation	n/a	n/a	–	–
Jean Lemierre	Compensation by virtue of directorship	110,421	115,500	104,500	110,421
	Other compensation	–	–	–	–
Dierk Paskert[g]	Compensation by virtue of directorship	n/a	n/a	68,500	–
	Other compensation	n/a	n/a	–	–
Angel Pobo	Compensation by virtue of directorship[h]	100,382	101,500	108,500	100,382
	Other compensation	80,618	80,618	84,915	84,915
Total		**2,107,401**	**2,103,264**	**2,143,499**	**1,994,184**

(a) Refer to the summary tables presented in point 4.3.2 of this chapter.
(b) Director until May 28, 2021.
(c) Director since May 28, 2021.
(d) Director until May 26, 2023.
(e) Director until May 25, 2022.
(f) Director since May 25, 2022.
(g) Director since May 26, 2023.
(h) Ms. Della Puppa Tibi and Mr. Pobo chose to pay, for the entire term of their directorships as directors representing employees, all their directors' compensation to their respective trade union membership organizations.
(i) Ms. de Jonge and Mr. Garcia-Ivaldi chose to pay all their director's compensation to charities of their choices.

4.3.2 Chairman and Chief Executive Officer's compensation

Letter of the Chairman of the Compensation Committee

Dear Shareholders,

On behalf of the Board of Directors and the Compensation Committee, which I have the honour of chairing, I am pleased to present the Company's compensation report for the year ended 31 December 2023. The other members of the committee are Jacques Aschenbroich and Anne-Marie Idrac, with Angel Pobo representing the employees.

The Compensation Committee met three times this year to review market evolution and the Company's performance, to ensure that current practices remain sufficiently competitive and are based on a clear alignment between compensation and performance.

The Compensation Committee noted that following the adjustments made in 2023, in particular the elimination of the consideration of outperformance in determining the overall rate of achievement of the financial criteria, the introduction of a "clawback policy" for variable compensation and performance shares, the increase in the shareholding requirement for the Chairman and Chief Executive Officer and the Executive Committee, and the extension of the scope of application of the fairness ratios for the Chairman and Chief Executive Officer, the thirteenth resolution of the General Meeting of 26 May 2023 relating to the compensation policy for the Chairman and Chief Executive Officer received 92.80% of votes in favour, representing a significant increase in the approval rate compared with the previous year.

At its meetings on 13 December 2023 and 31 January 2024, the Compensation Committee examined the compensation for the Chairman and Chief Executive Officer, comparing it with his peers and with market practices in France and on a global basis, with the assistance of two specialist external firms, for companies of comparable size.

In the run-up to the Chairman and CEO's new term of office, the two firms carried out an in-depth review of the French panel of 26 CAC40 companies previously used.

The review of the French panel, which has remained unchanged since 2017, showed a mismatch between TotalEnergies' profile and that of some of the companies on the historical panel of 26 CAC 40 companies, particularly in terms of business scope and market capitalization. The market capitalization of TotalEnergies stands at 3.4 times the average capitalization of the historical panel of 26 companies at year-end 2023. The Compensation Committee therefore decided on a new panel refocused on 15 CAC 40 companies so that the market capitalization of TotalEnergies is 1.5 times the average capitalization of this new panel.

To select this new panel, whose composition is detailed in the report, the Compensation Committee mainly took into account the global presence of the companies, their market capitalization, the private nature of the shareholding and the existence of long-term incentive compensation.

The Compensation Committee has recommended to the Board of Directors, for the duration of the new term of office, the compensation policy for the Chairman and Chief Executive Officer, which will be submitted for shareholder approval at the General Meeting of 24 May 2024 via resolution no. 13 ("say on pay ex ante"), the main elements of which are as follows:

- Base salary will be maintained at its current level of €1,550,000, despite inflation. The base salary had remained unchanged from 2016 to 2022 and was increased from €1,400,000 to €1,550,000 on 1 January 2022. It will therefore remain unchanged for five years from 2022 to 2026.
- Maintenance of the structure and amount of the annual variable portion, bearing in mind that since 2023 the outperformance of certain financial criteria is no longer considered in determining the overall rate of achievement of the financial criteria.
- With the amount of the other compensation components remaining unchanged, an evolution in the number of performance shares to be allocated to the Chairman and Chief Executive Officer from 110,000 to 140,000 shares per year for the years 2024, 2025 and 2026.

In view of the renewal of the Chairman and Chief Executive Officer's directorship, as unanimously proposed by the Board of Directors to the Annual General Meeting, this level of performance share allocation is in line with those applied by companies with comparable scope and market capitalizations. It places the total compensation of the Chairman and Chief Executive Officer in the 3rd quartile of the French panel and at the median of the international panel.

In determining this level of compensation, in addition to examining the compensation paid by comparable companies, the Board of Directors took into consideration the wish to pursue the Company's transition strategy announced in 2020 and the experience and proven ability of the Chairman and Chief Executive Officer to implement it. Since 10 years, Patrick Pouyanné has done an extraordinary work in steering TotalEnergies in a complex environment, delivering outstanding financial results and engaging the Company in the energy transition more quickly and consistently than its peers. The Board of Directors unanimously looks forward to his continued leadership and his strategic vision to continue TotalEnergies' transition, with determination and consistency, relying on two pillars: Oil & Gas on the one hand, Electricity and Renewables on the other hand. This vision, which creates value in the medium and long term, and this strategic stability are an asset and a differentiating factor for TotalEnergies compared with its peers. We believe shareholders will accept positively our will to strengthen the long-term incentive component of the compensation paid to the Chairman and Chief Executive Officer.

The Board of Directors will ensure that there is a consistent evolution in the allocation of performance shares to employees, in terms of the volume of shares allocated and/or the number of beneficiaries, thereby helping to align the interests of the Chairman and Chief Executive Officer and the Company's employees more closely with those of the shareholders.

In regard to the financial criteria taken into account to determine the annual variable portion, the Compensation Committee recommended maintaining the absolute ROE, organic cash breakeven before dividend and benchmarked ROACE criteria with the same weightings as for the 2023 financial year, i.e. 30%, 30% and 20% respectively, and replacing the criterion of year-on-year change in cash flow at constant price ("Underlying Cash Flow Growth"), which accounted for the remaining 30%, with two new criteria linked to cash flow generation.

Although this variation in cash flow from operations criterion measures the Company's underlying structural growth, it cannot be calculated directly from published financial data. The Compensation Committee has therefore recommended that the Board of Directors reintroduce a gearing ratio criterion that measures cash flow generation over the year through the strength of the Company's balance sheet, a key element in the Company's financial communications. As this ratio could be significantly impacted by the Company's M&A policy, the Compensation Committee recommended that it be restated to consider net acquisitions and disposals for the year. This first ratio ("Organic Gearing"), with a weighting of 20%, will therefore be calculated using net debt (excluding leases) at the end of the financial year, restated for net cash used in acquisitions and disposals during the year, all this data being directly available in our publications. In addition, the Compensation Committee also recommended introducing a second cash flow generation criterion, with a weighting of 10%, linked to Integrated Power segment's cash flow (CFFO), to measure the growth of this business, which is at the heart of the Company's transition strategy.

Regarding the performance shares that will be granted in 2024, the Board of Directors decided to renew 4 of the 5 performance criteria of 2023 plan while maintaining the same weightings and to replace that relating to the change in GHG emissions on operated facilities (Scope 1+2) by the criterion of lifecycle carbon intensity of energy products sold to the Company's customers.

Indeed, the assessment of the annual variable compensation of the Chairman and Chief Executive Officer and of the majority of the senior executives of the Company already includes a criterion linked to the change in GHG emissions in absolute value on operated facilities (Scope 1+2). The lifecycle carbon intensity of energy products sold measures the average GHG emissions of energy products used by customers of the Company over their entire life cycle, from their production to their final use, per unit of energy. The results of this indicator are directly available in the annual publications of the Company. The use of this new criterion allows long-term incentive compensation to be linked to the Company's ambition and the ultimate objective of the transition strategy: reduce the carbon content of energy products sold to the Company's customers for their use, while providing them with more energy. This criterion thus makes it possible to reflect the progress of the Company in the implementation of its transition strategy.

On behalf of the Compensation Committee, I would like to thank you for your support and feedback, which we will continue to seek as we review and refine our compensation practices to ensure that they remain aligned with the interests of our shareholders and fully comply with all legal and regulatory requirements.

Mark Cutifani

Chairman of the Compensation Committee

The Board of Directors pays the greatest importance to ensuring that the general principles governing the compensation of executive directors, detailed in point 4.3.2.2, lead to a measured and fair compensation, depending on the results obtained, the responsibility assumed and the market.

The general principles of the compensation policy of the executive directors are based on:

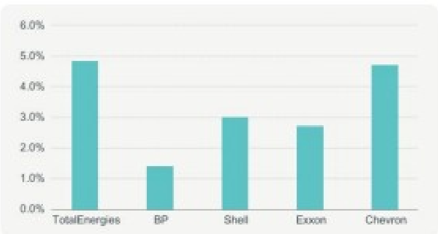
- the compensation of the performance
- the alignment with the interest of shareholders
- the competitiveness compared to a reference group of peers and industrial companies of comparable size.

Key points of the 2023 performance and changes in the compensation of the Chairman and Chief Executive Officer

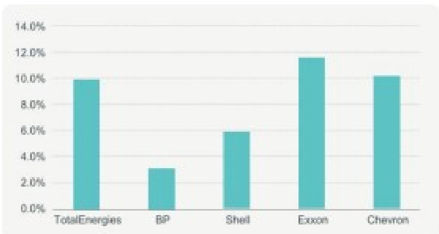
	TSR* (Total Shareholder Return)	Return on equity	Gearing ratio**	Pre-dividend organic cash breakeven	Return on average capital employed (ROACE), comparative	Reduction of GHG emissions from operated facilities (Scope 1+2)
2023	**13.5%**	**20.4%**	**5.0%**	**$22.2/b**	**TotalEnergies: 18.9%**	**35 Mt CO_2e**
					Peers*: 15.1%**	
					TotalEnergies: 28.2%	
2022	33.4%	32.5%	7.0%	$23.2/b	Peers***: 23.4%	40 Mt CO_2e

* The TSR is calculated from the ADR (New York) with the dividend reinvested at year-end.
** Excluding lease commitments.
*** Panel average (ExxonMobil, Shell, BP and Chevron).

10-year TSR

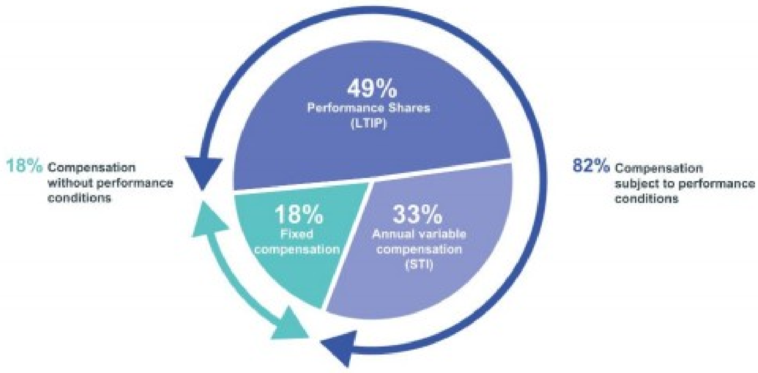


5-year TSR



STRUCTURE OF THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER'S TOTAL COMPENSATION (EXCLUDING BENEFITS)

82% of the compensation is subject to performance conditions



Annual variable compensation (STI) 2023 in % of the base salary

- HSE - GHG: 26.9%
- Financial parameters: 110%
- Personal contribution: 40%

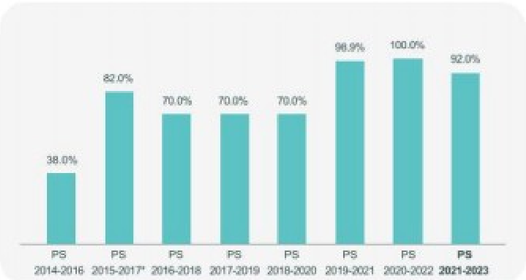
Compensation Performance shares (LTIP) 2023 plan

- TSR vs. peers: 25%
- Annual variation in net cash flow per share vs. peers: 25%
- Pre-dividend organic cash breakeven: 20%
- GHG Scope 1+2: 15%
- Methane emissions: 15%

A compensation aligned with the shareholders' interest

Total "cash" compensation of the Chairman and Chief Executive Officer & TSR (Total Shareholder Return)

History of the rate of achievement of performance criteria for performance share plans



* Note: As the performance criteria differ between the grants made to the executive director and those made to other beneficiaries, the respective achievement rates are 81% and 82%.

	2019 Plan	2020 Plan	2021 Plan
TSR	**Achievement rate: 100%**	**Achievement rate: 100%**	**Achievement rate: 70%**
Annual variation of the net cash flow per share	**Achievement rate: 96.7%**	**Achievement rate: 100%**	**Achievement rate: 100%**
Pre-dividend organic cash breakeven	**Achievement rate: 100%**	**Achievement rate: 100%**	**Achievement rate: 100%**
Change in the GHG from operated facilities (Scope 1+2)	n/a	**Achievement rate: 100%**	**Achievement rate: 100%**
Change in GHG in Europe (Scope 3)	n/a	n/a	**Achievement rate: 96.9%**
Achievement rate of the performance shares plan	**98.9%**	**100.0%**	**92.0%**
Performance shares acquired at the end of the vesting period by the Chairman and CEO	**72,000 x 98.9% = 71,208**	**72,000 x 100% = 72,000**	**90,000 x 92% = 82,800**

A compensation aligned with market practices and consistent with the two reference panels

Comparison groups

The Compensation Committee examines annually the relevance of the two panels of companies selected. These two panels allow us to compare our compensation practices with our peers in the energy sector, but also with companies in our employment pool that are leaders in their markets, in order to offer a competitive compensation program aimed at attracting and retaining the talents of today and tomorrow that are necessary for the development of our Company.

These two reference panels include French, European or American companies, selected from among groups similar in terms of:

- size (sales, capitalization);
- complexity and activities (energy sector);
- internalization of activities;
- and competitors in terms of recruiting talent on an international scale.

The review of the French panel, which remained unchanged since 2017, showed a mismatch between TotalEnergies' profile and that of some of the companies on the historical panel of 26 French companies, particularly in terms of business scope and market capitalization. The market capitalization of TotalEnergies stand at 3.4 times the average capitalization of the historical panel of 26 companies at year-end 2023. The Committee therefore decided on a new panel refocused on 15 CAC 40 companies, so that the market capitalization of TotalEnergies is 1.5 times the average capitalization of this new panel.

To select this new panel, whose composition is detailed hereunder, the Compensation Committee mainly took into account the global presence of the companies, their market capitalization, the private nature of the shareholding and the existence of long-term incentive compensation.

French comparison panel made up of CAC40 companies

Airbus	Dassault Systèmes	L'Oreal	Saint-Gobain	Stellantis
Air Liquide	EssilorLuxottica	LVMH	Sanofi	ST Microelectronics
Danone	Kering	Pernod-Ricard	Schneider Electric	Vinci

International comparison panel

Air Liquide	ENEL	Marathon Petroleum	Schlumberger
BASF	Engie	Mercedes-Benz Group	Siemens
Centrica	ENI	Philips 66	Stellantis
BP	ExxonMobil	Repsol	TechnipFMC
Chevron	General Electric	Shell	Valero Energy
E.ON	Iberdrola	RWE	Volkswagen

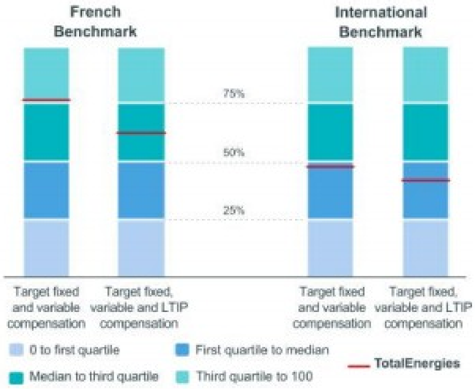
Positioning of the benchmarks

The Consultants (Mercer and Boracay firms) assess the compensation of the executive director by reference to the two above-mentioned reference panels[1].

Compared to the French panel, Mr. Pouyanné's compensation ranks slightly above the third quartile for the total "cash" compensation, and between the mediane and the third quartile for the total compensation including performance shares.

Compared to the international "Energies" panel, Mr. Pouyanné's compensation ranked at the median for his total "cash" compensation and between the first quartile and the median for the total compensation including performance shares.

Considering TotalEnergies' performances at the top of CAC40 companies, the Compensation Committee considers the positioning to be appropriate, somewhat out of step with the international benchmark regarding LTIP.



Other components of the compensation policy

The compensation policy of the Chairman and Chief Executive Officer is decided by the Board of Directors, consistent with the AFEP-MEDEF's recommendations and on the proposal of the Compensation Committee and takes account of the comments of investors and proxy advisors.

The table below shows what the compensation policy of the Chairman and Chief Executive Officer provides, does not provide and takes into account from the advice of stakeholders:

What TotalEnergies does	What TotalEnergies does not do	Advice of the stakeholders that TotalEnergies takes into account
✓ A strong emphasis on variable compensation (approximately 70%-75% of total compensation)	✗ No accumulation of an employment contract and a directorship	✓ From 2022, taking into account for the calculation of the Chairman and CEO compensation ratios, of a population of employees in France representing more than 80% of the total French payroll in accordance with the AFEP recommendations
✓ A significant part corresponding to extra-financial targets thus representing 39% of the variable compensation	✗ No guaranteed variable compensation components	✓ New rule in 2023 for the obligation to hold TotalEnergies' shares: 5 years of base compensation for the Chairman and CEO and 4 years for the members of the Executive Committee within a maximum period of 5 years from taking office
✓ Taking into account for the objectives relating to the annual variable compensation and the performance share plan of financial criteria measured on a peer group in a "pay for performance" logic	✗ No upholding for the executive director of vesting rights to performance shares in case of dismissal or termination for serious or gross misconduct	✓ Deletion as of 2023 of the over-performance for each financial criterion of the annual variable portion of the executive director. Some proxy advisors had underlined that the taking into account of the potential over-performance for each of the 4 financial criteria with an overall cap at 110% of the financial criteria would allow an offsetting between criteria
✓ The granting of performance shares to the executive director is part of a broad plan of more than 12,000 employers (12% of the workforce of the Company)		✓ Clarification for extraordinary circumstances allowing the Board of Directors to adjust the variable compensation of the executive director
✓ Golden hellos capped to the value of opportunities lost in the previous employer		

(1) Methodological note: In order to compare our practice for short-term compensation practice with market practice, our consultants have retained a target bonus for the Chairman and Chief Executive Officer equal to 2/3 of the maximum bonus (average ratio observed between target and maximum bonus for the market). The performance shares (LTIP) were valued on the basis of the IFRS expense recognized for the shares granted in 2022.

4.3.2.1 Compensation of Mr. Patrick Pouyanné for fiscal year 2023

At its meeting on February 6, 2024, the Board of Directors set, on the proposal of the Compensation Committee, the Chairman and Chief Executive Officer's compensation in respect of fiscal year 2023, by applying the principles and criteria set in the compensation policy of the Chairman and Chief Executive Officer for fiscal year 2023 submitted by the Board of Directors to the Ordinary Shareholders' Meeting on May 26, 2023, and approved by the latter at 92.83% (resolution 13).

In accordance with Article L. 22-10-9 of the French Commercial Code, the information presented below reports on the total compensation and benefits of all kinds, paid to Mr. Patrick Pouyanné by virtue of his mandate as Chairman and Chief Executive Officer of TotalEnergies SE for fiscal year 2023 or allocated by virtue of this mandate in respect of the same fiscal year[1], as well as all the other information provided for in this Article L. 22-10-9.

It is reminded that the payment to the Chairman and Chief Executive Officer of the annual variable component for fiscal year 2023 is conditional upon the approval of the Ordinary Shareholders' Meeting on May 24, 2024, of the fixed, variable and extraordinary components of the total compensation and the benefits of all kinds paid during fiscal year 2023 to the Chairman and Chief Executive Officer or allocated to the latter during the same fiscal year, in accordance with Article L. 22-10-34 of the French Commercial Code.

The Ordinary Shareholders' Meeting to be held on May 24, 2024, will be convened to approve the total compensation and the benefits of all kinds paid during fiscal year 2023 or attributed to the Chairman and Chief Executive Officer for the same fiscal year, in accordance with Article L. 22-10-34 of the French Commercial Code.

TABLE SUMMARIZING THE COMPENSATION, OPTIONS AND SHARES ALLOCATED TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER

SUMMARY OF THE COMPENSATION TO THE EXECUTIVE DIRECTOR

+0.3% increase on the allocated compensation in respect for the fiscal year 2023

Table 2 – AMF Position-recommendation – DOC-2021-02 (Appendix 2)

	Fiscal year 2022		Fiscal year 2023	
(€)	Amount allocated for the fiscal year	Amount paid during the fiscal year[(a)]	Amount allocated for the fiscal year	Amount paid during the fiscal year[(a)]
Patrick Pouyanné *Chairman and Chief Executive Officer*				
Fixed compensation	1,550,000	1,550,000	1,550,000	1,550,000
Annual variable compensation	2,731,875	2,506,000	2,741,950	2,731,875
Multi-year variable compensation	–	–	–	–
Extraordinary compensation	–	–	–	–
Compensation due to his directorship as a director	–	–	–	–
In-kind benefits[(b)]	71,604	71,604	75,457	75,457
Total	**4,353,479**	**4,127,604**	**4,367,407**	**4,357,332**
			+0.3%	

(a) Variable portion paid for the prior fiscal year.
(b) Company car and life insurance and health expense reimbursement plans paid for by the Corporation.

+10% increase on the number of performance shares (from 100,000 to 110,000)

The 10% increase in the number of performance shares allocated to the Chairman and Chief Executive Officer in 2023 follows the decision validated by the Shareholders' Meeting on May 28, 2021 to increase the number of performance shares to be allocated to the Chairman and Chief Executive Officer during fiscal years 2021, 2022 and 2023 to respectively 90,000, 100,000 and 110,000 shares to be more in line with the levels practiced by the markets and to increase the alignment of interests between the Chairman and Chief Executive Officer and the shareholders of the Company.

Table of allocated compensation in constant IFRS valuation[(2)]

(in €, except the number of shares)	Fiscal year 2022	Fiscal year 2023	Variation
Patrick Pouyanné *Chairman and Chief Executive Officer*			
Compensation allocated in respect of the fiscal year (detailed in table 2)	4,353,479	4,367,407	+0.3%
Number of performance shares granted during the financial year	100,000	110,000	+10.0%
Valuation of the performance shares allocated with constant IFRS value	*2,977,600*	*3,275,360*	*+10.0%*
Compensation allocated in respect for the financial year with constant IFRS valuation	**7,331,079**	**7,642,767**	**+4.3%**

The evolution of the compensation presented in the table below includes the evolution of the TotalEnergies share price taken into account for the valuation of the performance shares from €37.22 to €46.24 between 2022 and 2023, which gives a value of the granted shares higher, whereas, at constant value, the evolution of the compensation is 4.3% as shown in the table above. Performance shares valuations correspond to a valuation made in accordance with IFRS 2 standard (refer to Note 9 of the Consolidated Financial Statements) and not to a compensation actually received during the financial year. The benefit of the performance shares is subject to the achievement of performance conditions

(1) Including attributions in the form of stock, securities or rights giving access to the company's share capital or rights to the attribution of securities of the Corporation or of the companies mentioned in Articles L. 228-13 and L. 228-93 of the French Commercial Code.
(2) By retaining the fair value of the share in 2022, *i.e.*, €37.22.

assessed over a three-year period.

Table 1 - AMF Position-recommendation - DOC-2021-02 (Appendix 2)

(€, except the number of shares)	Fiscal year 2022	Fiscal year 2023
Patrick Pouyanné *Chairman and Chief Executive Officer*		
Compensation allocated in respect of the fiscal year (detailed in table 2)	4,353,479	4,367,407
Valuation of multi-year variable compensation allocated during the fiscal year	–	–
Valuation of stock options granted during the fiscal year (detailed in table 4)	–	–
Valuation of performance shares granted during the financial year (detailed in table 6)	2,977,600	4,069,120
Number of performance shares granted during the financial year	100,000	110,000
Valuation of the other long-term compensation plans	–	–
Total	**7,331,079**	**8,436,527**

Note: The valuations of the options and performance shares correspond to a valuation performed in accordance with IFRS 2 (refer to Note 9 to the Consolidated Financial Statements) and not to any compensation actually received during the fiscal year. Entitlement to performance shares is subject to the fulfillment of performance conditions assessed over a three-year period.

SUMMARY OF THE MULTI-ANNUAL VARIABLE COMPENSATION PAID TO THE EXECUTIVE OFFICER

Table 10 - AFEP-MEDEF Code

Patrick Pouyanné *Chairman and Chief Executive Officer*	None

Table 11 - AMF Position-recommendation - DOC-2021-02 (Appendix 2)

Executive directors	Employment contract	Supplementary pension plan	Payments or benefits due or likely to be due upon termination or change in duties	Benefits related to a non-compete agreement
Patrick Pouyanné *Chairman and Chief Executive Officer* Start of term of office: December 19, 2015 End of term of office: Shareholders' Meeting on May 24, 2024	NO	YES Internal supplementary defined benefit pension plan[(a)] and defined contribution pension plan	YES[(a)] Severance benefit and retirement benefit	NO

(a) Payment subject to performance conditions. Details of these commitments are provided below. The retirement benefit cannot be combined with the severance benefit.

SUMMARY TABLE OF THE COMPONENTS OF THE COMPENSATION FOR MR. PATRICK POUYANNÉ, CHAIRMAN AND CHIEF EXECUTIVE OFFICER OF TotalEnergies SE, PAID DURING FISCAL YEAR 2023 OR ALLOCATED IN RESPECT OF THE SAME FISCAL YEAR

Components of compensation submitted for vote	Amount paid during fiscal year 2023	Amount allocated in respect of fiscal year 2023 or accounting valuation	Presentation
Fixed compensation	€1,550,000	€1,550,000 (amount paid in 2023)	Mr. Pouyanné's annual fixed compensation in his capacity as Chairman and Chief Executive Officer has been set by the Board of Directors at €1,550,000 (base salary) for fiscal year 2023. This fixed compensation represents 36% of the total cash compensation allocated in respect of fiscal year 2023 (*i.e.*, excluding performance shares and benefit in kind).
Annual variable compensation	€2,731,875 (amount allocated in respect of fiscal year 2022 and paid in 2023)	€2,741,950 (amount allocated in respect of fiscal year 2023 and to be paid in 2024)	The variable portion of Mr. Pouyanné's compensation allocated in respect of fiscal year 2023 by virtue of his duties as Chairman and Chief Executive Officer has been set at €2,741,950. This corresponds to 176.9% (of a maximum of 180%) of his base salary, taking into account the results of the economic parameters and the evaluation of the personal contribution of the Chairman and Chief Executive Officer. This annual variable compensation corresponds to 64% of the total cash compensation allocated in respect of fiscal year 2023 (*i.e.*, excluding performance shares and benefit in kind).
Multi-year variable compensation	n/a	n/a	The Board of Directors has not granted any multi-year or deferred variable compensation.
Compensation by virtue of directorship	n/a	n/a	Mr. Pouyanné does not receive compensation due to his directorship in TotalEnergies SE. Mr. Pouyanné does not receive compensation from companies TotalEnergies SE controls.

Components of compensation submitted for vote	Amount paid during fiscal year 2023	Amount allocated in respect of fiscal year 2023 or accounting valuation	Presentation
Stock options (SO), performance shares (PS) or all other forms of long-term compensation		SO: none PS: €4,069,120[1] (accounting valuation)	On May 26, 2023, Mr. Pouyanné was granted 110,000 existing shares of the Corporation pursuant to the authorization of the Corporation's Extraordinary Shareholders' Meeting of May 26, 2023 (fifteenth resolution) subject to the conditions set out below. These shares were granted under a broader share plan approved by the Board of Directors on March 15, 2023, in favor of close to 12,300 beneficiaries.
Payment for assuming a position	n/a	n/a	Mr. Pouyanné was not granted any payment for assuming his position.
In-kind benefits	–	€75,457 (accounting valuation)	The Chairman and Chief Executive Officer is entitled to a company vehicle. He is covered by the following life insurance plans provided by various life insurance companies: – An "incapacity, disability, death" insurance policy applicable to all employees, partly paid for by the Corporation; – a second "disability and life insurance" plan, fully paid by the Corporation, applicable to executive officers and senior executives whose annual gross compensation is more than 16 times the PASS. The Chairman and Chief Executive Officer also benefits from the health expense reimbursement plan applicable to all employees.
Severance benefit	None	None	The Chairman and Chief Executive Officer is entitled to a benefit equal to two years of his gross compensation in the event of a forced departure related to a change of control or strategy. The calculation is based on the gross compensation (fixed and variable) of the 12 months preceding the date of termination or non-renewal of his term of office. The severance benefit will only be paid in the event of a forced departure related to a change of control or strategy and subject to performance conditions.
Retirement benefit	None	None	The Chairman and Chief Executive Officer is entitled to a retirement benefit equal to those available to eligible members of the Company under the French National Collective Bargaining Agreement for the Petroleum Industry. This benefit is equal to 25% of the fixed and variable annual compensation received during the 12 months preceding retirement. Entitlement to retirement benefits is subject to conditions related to the performance of the beneficiary. The retirement benefit cannot be combined with the severance benefit described above.
Non-compete compensation		n/a	Mr. Pouyanné has not received any non-compete compensation.
Supplementary pension plan		None	The Chairman and Chief Executive Officer benefits from the legal AGIRC-ARRCO scheme, as well as from the internal supplementary defined contribution scheme applicable to all employees of TotalEnergies SE, referred to in Article L. 242-1 of the French Social Security Code, and from the supplementary defined benefit pension scheme, referred to in Article L. 137-11 of the French Social Security Code.
Approval by the Shareholders' Meeting			The commitments made to the Chairman and Chief Executive Officer regarding the pension and insurance plans, the retirement benefit and the severance benefit (in the event of forced departure related to a change of control or strategy) were authorized by the Board of Directors on March 14, 2018, and approved by the Shareholders' Meeting on June 1, 2018.

(1) In accordance with the accounting of the performance shares for fiscal year 2023 in accordance with IFRS 2 which takes into account an award rate hypothesis of 80% at the end of the vesting period, this amount corresponds to the 110,000 shares granted in 2023, valued on the basis of a unit fair value of €46.24. This fair value was calculated in accordance with IFRS 2 on the grant date of the plan, *i.e.*, on May 26, 2023, on the basis of the closing price of the TotalEnergies share on that date of €55.76.

A. Details of the assessment of the performance criteria for the determination of the annual variable compensation for fiscal year 2023

For the setting of the variable portion of Mr. Pouyanné's compensation allocated in respect of fiscal year 2023 due to his duties as Chairman and Chief Executive Officer, the Board of Directors reviewed, at its meeting on February 6, 2024, the level of achievement of the economic parameters based on the quantifiable targets set by the Board of Directors at its meeting on February 7, 2023. The Board of Directors also assessed the Chairman and Chief Executive Officer's personal contribution on the basis of the target criteria set during its meeting on February 7, 2023, to qualitatively assess his management.

The payment to the Chairman and Chief Executive Officer of the annual variable component for fiscal year 2023 is conditional upon the approval of the Ordinary Shareholders' Meeting on May 24, 2024, of the fixed, variable and extraordinary components of the total compensation and the benefits of all kinds paid during fiscal year 2023 to the Chairman and Chief Executive Officer or allocated to the latter during the same fiscal year, in accordance with Article L. 22-10-34 of the French Commercial Code.

It is reminded that the variable portion of Mr. Pouyanné's compensation allocated in respect of fiscal year 2022 by virtue of his duties as Chairman and Chief Executive Officer and paid in 2023 (after the approval by the Ordinary Shareholders' Meeting on May 26, 2023, of the fixed, variable and extraordinary components of the total compensation and the benefit-in-kind paid in respect of fiscal year 2022) was set at €2,731,875 corresponding to 176.25% (of a maximum of 180%) of his fixed annual compensation based on results of the economic parameters and the evaluation of his personal contribution.

Annual variable compensation allocated in respect of fiscal year 2023 (expressed as a percentage of the base salary)

		% targets		% allocated
Summary of the quantifiable targets				
A. Safety and greenhouse gas (GHG) emissions				
a) Safety		20%		16.9%
– TRIR	*6%*		*6%*	
– FIR	*6%*		*2.9%*	
– Evolution of the number of Tier 1 + Tier 2 incidents	*8%*		*8%*	
b) Evolution of GHG emissions (Scope 1+2)		10%		10%
Maximum percentage that may be allocated in respect of Safety and greenhouse gas (GHG) emissions criteria		**30%**		**26.9%**
B. Financial parameters				
– Return on equity (RoE)		30%		30%
– Underlying Cash Flow Growth		30%		30%
– Pre-dividend organic cash breakeven		30%		30%
– Return on average capital employed (ROACE), comparative		20%		20%
Maximum percentage that may be allocated in respect of financial parameters		**110%**		110%
Maximum percentage that may be allocated in respect of quantifiable targets		**140%**		**136.9%**
Personal contribution (qualitative criteria)				
– Steering of the Corporation's strategy of moving towards carbon neutrality, in line with the 2020/2030 targets announced to investors in September 2020, in particular increasing energy production focusing on two pillars, gas and renewable energy/electricity, as well as moving towards a sales mix of 35% oil, 50% gas and 15% electricity		15%		15%
– Profitable growth in renewables and electricity		10%		10%
– Corporate Social Responsibility (CSR) performance, including the integration of climate issues in the Company's strategy, the Company's commitment and ratings regarding CSR, as well as the policy concerning all aspects of diversity		15%		15%
Maximum percentage that may be allocated in respect of the personal contribution		**40%**		**40%**
Total		**180%**		**176.9%**

Safety and Greenhouse gas emissions criteria

The Board of Directors assessed achievement of the targets set for the Safety and Greenhouse gas emissions criteria as follows:

The **safety evolution** was assessed for a maximum of 20% of the base salary through (i) the achievement of the annual TRIR (Total Recordable Incident Rate) target, (ii) the number of accidental deaths per million hours worked, FIR (Fatality Incident Rate), as well as (iii) through change in the Tier 1 + Tier 2 indicator[1]. These three sub-criteria were assessed based on the elements set out in the 2023 compensation policy for the Chairman and Chief Executive Officer, as approved by the Shareholders' Meeting on May 26, 2023.

Concerning the 2023 fiscal year, the following elements were noted:

- the **TRIR** was 0.63, which is below the target of 0.65. The result of this criterion was thus set at its maximum of 6%;
- the FIR was set at 0.499, among the lowest FIR rates of the panel of majors. The result of the benchmarked FIR sub-criterion was thus set at 2.9%, very slightly below its maximum of 3%. The Company suffered two fatalities in 2023, so the zero fatality sub-criterion was not achieved. The overall result for the two sub-criteria relating to the FIR was therefore set at 2.9%, against a maximum of 6%;
- the number of **Tier 1 + Tier 2** incidents was 48, which is below the level of 50 allowing to achieve the target. The result of this criterion was set at its maximum of 8%.

The result of the criterion related to the safety evolution was thus set at 16.9%.

(1) Tier 1 and Tier 2: indicator of the number of loss of primary containment events, with more or less significant consequences, as defined by the API 754 (for downstream) and IOGP 456 (for upstream) standards. Excluding acts of sabotage and theft.

The **evolution of the greenhouse gas (GHG) emissions on operated facilities** was assessed for a maximum weighting of 10% of the base salary, through the achievement of a GHG (Scope 1+2) reduction emission target from 46 Mt CO_2e in 2015 to 38 Mt CO_2e in 2025, corresponding to a reduction of 800 kt CO_2e/y, *i.e.*, a target of 39.6 Mt CO_2e for 2023. This criterion was assessed based on the elements set out in the 2023 compensation policy for the Chairman and Chief Executive Officer, as approved by the Shareholders' Meeting on May 26, 2023. The Board noted that the GHG Scope 1+2 emissions from operated facilities amounted to 34.6 Mt CO_2e in 2023. The result of this criterion was thus set at its maximum of 10%.

Financial parameters

- **The return on equity (ROE)**, as published by the Company on the basis of its balance sheet and consolidated statement of income was assessed for a maximum of 30% of the base salary, based on the elements set out in the 2023 compensation policy of the Chairman and Chief Executive Officer. The Board noted that the ROE for fiscal year 2023 was 20.4%, *i.e.*, above the target. The result of this criterion was thus set at its maximum, *i.e.*, 30%.
- The **Underlying Cash Flow Growth, *i.e.*, the variation of the operating cash flow before working capital changes**[1] was assessed for a maximum of 30% of the base salary, based on the elements set out in the compensation policy of the Chairman and Chief Executive Officer for 2023. The Board thus noted that the Underlying Cash Flow Growth in 2023 compared to 2022 was at a level above the target. The result of this criterion was thus set at its maximum, *i.e.*, 30%.
- **The pre-dividend organic cash breakeven criterion** was assessed at a maximum of 30% of the base salary according to components set in the compensation policy of the Chairman and Chief Executive Officer for 2023. The ability of the Company to resist to the variations of the Brent barrel price is measured by this parameter. Regarding fiscal year 2023, the Board noted that the pre-dividend organic cash breakeven set at $22.2/b, *i.e.*, at a level below the target. The result of this criterion was thus set at its maximum, *i.e.*, set 30%.
- **The return on average capital employed (ROACE) criterion, by comparison,** was assessed as a maximum weighting of 20% of the base salary. TotalEnergies' ROACE, as published from the consolidated balance sheet and the income statement, was compared to the ROACE average of each of the four peers (ExxonMobil, Shell, BP and Chevron). This criterion was assessed based on the elements set out in the 2023 compensation policy for the Chairman and Chief Executive Officer. For fiscal year 2023, the Board noted that TotalEnergies' ROACE was more than 2 points higher than the average of the ROACEs of the four peers, *i.e.*, above the target set. The result of this criterion was thus set at its maximum, *i.e.*,20%.

The result of the financial criteria was set at 110% of the base salary.

Personal contribution

The personal contribution of the Chairman and Chief Executive Officer was assessed at its maximum of 40% of the base salary based on the three criteria set in the compensation policy of the Chairman and Chief Executive Officer for 2023:

- Steering of the Corporation's strategy of moving towards carbon neutrality, in line with the 2020/2030 targets, in particular increasing energy production focusing on two pillars, gas and renewable energy/electricity, as well as moving towards a sales mix of 35% oil, 50% gas and 15% electricity, for up to 15%;
- Profitable growth in renewables and electricity, for up to 10%;
- Corporate Social Responsibility (CSR) performance, including the integration of climate issues in the Company's strategy, the Company's commitment and ratings regarding CSR, as well as the policy concerning all aspects of diversity, for up to 15%.

The Board of Directors set the results of each of these criteria at their maximum, because of the following components which were observed during the past fiscal year:

- **Criterion 1: Steering of the Corporation's strategy of moving towards carbon neutrality,** in line with the 2020/2030 targets, in particular increasing energy production focusing on two pillars, gas and renewable energy/electricity, as well as moving towards a sales mix of 35% oil, 50% gas and 15% electricity;

  During fiscal year 2023, the Board observed that the Chairman and Chief Executive Officer achieved the following:

  - The Company is successfully implementing its strategy of transition to carbon neutrality, and reinforced it in March 2023. **The Company's sales mix for 2030, communicated in 2020 as 35% oil, 50% gas and 15% electrons, was revised in March 2023 to a sales mix of 30% oil, 50% gas and 20% electrons and low-carbon molecules**. TotalEnergies thus retains its status as the oil & gas major most advanced in the energy transition, being in particular the one that devotes the largest CAPEX budgets to low-carbon energies. This year, TotalEnergies stands out in particular for its balanced transition strategy based on two pillars: hydrocarbons, mainly LNG, and electricity.
  - This strategy goes hand in hand with energy production growth of around 4% per year by 2030, the highest among the majors (excluding recent acquisitions in the United States):
    - On the oil and gas side, while reducing emissions linked to its operations, TotalEnergies plans to increase production by 2 to 3% per year over the next five years thanks to its portfolio of low-cost, low-emission projects.
    - The year 2023 saw the confirmation of exploration successes in Suriname, Namibia and Nigeria, paving the way for new developments that will contribute to future growth.
    - In LNG and gas, the Company is progressing in its strategy to become a more significant player with a portfolio of first-rate developments, Qatar North Field Expansion, ECA LNG, Rio Grand LNG, Mozambique LNG, Papua LNG and thus strengthen its position as the leading LNG exporter in the United States. In addition, the Company is a leader in regasification in France and Germany, with the installation of floating storage and regasification units (FSRU).
    - In 2023, two other Oil & Gas majors substantially amended their strategies, reducing or cancelling their hydrocarbon production decline targets and excluding renewables and electricity from their strategic priorities.
  - In power and renewables segment, the Company is building a competitive portfolio of renewable (solar, onshore and offshore wind) and flexible (CCGT, storage) assets to supply its customers, investing $4-5 billion per year.

(1) Refer to the glossary for the definition and further information on alternative performance measures (Non-GAAP measures) and to point 1.9 of chapter 1 for reconciliation tables.

- The new financial information reporting structure implemented from the first quarter of 2023 has given visibility to the Integrated Power segment: the publication of results specific to this segment demonstrates that it is already substantial (production of 33 TWh of electricity in 2023), profitable (ROACE close to 10% in 2023), as well as a significant and fast-growing cash flow contributor (CFFO of $2.2 billion in 2023, more than double that of 2022). Power generation is expected to reach over 45 TWh in 2024 (including over 25 TWh from renewable sources), well on the way to achieving the target of over 100 TWh in 2030.
- Acceleration of the transition strategy with net investments of $16.8 billion for 2023, including over $5 billion in low-carbon energies (vs. $4 billion in 2022).
- Once again this year, the Company demonstrated its ability to implement M&A transactions, fully in line with its transition strategy, made possible by the personal involvement of the Chairman and CEO
  - Acquisitions:
    - pursuit of the strategy in LNG, the energy of the transition, with the entry and launch of the Rio Grande LNG project in Texas
    - 100% integration of Total Eren,
    - finalization of the acquisition of a 34% stake in Casa dos Ventos, Brazil's leading renewable energy developer
    - obtention of marine concessions to develop 3 GW of offshore wind power in Germany,
    - acquisition of Quadra Energy in Germany,
    - acquisition of 1.5 GW of gas-fired power plants in Texas,
    - effective entry into the GGIP multi-energy project in Iraq
  - Disposals:
    - divestment of Canadian oil sands assets, made possible by the spin-off of these assets announced in 2022, in line with the Company's strategy to focus on oil & gas assets with low technical costs and low GHG emissions
    - divestment of network activities in several European countries
- Financial analysts' assessment of the conduct of the transformation and financial performance:
  - In November 2023, Goldman Sachs underlined TotalEnergies' leading position among European oil majors in the development of low-carbon activities
  - TotalEnergies is also ranked as the world's leading solar power developer by research firm Mercom Capital Group.
  - With a total capacity of 41.3 GW, TotalEnergies has become the world's leading solar photovoltaic developer on the basis of projects in operation, under construction and PPA-contracted projects.
  - TotalEnergies is also the leading company in terms of capacity under construction and PPA-contracted projects, with 29.3 GW, followed by Brookfield Renewable Partners (13.6 GW) and Adani Green Energy (11.1 GW).
  - When it comes to developers with the largest operational large-scale solar capacity, TotalEnergies again tops the list, with 12 GW of capacity.
  - Several companies on this list, including TotalEnergies, are actively transitioning to solar and other renewable energy sources. This shift aligns with changing priorities in the energy sector, focusing on achieving the decarbonization targets set by nations and addressing energy security concerns in light of geopolitical developments.

- **Criterion 2: Profitable growth in renewables and electricity**

  During fiscal year 2023, the Board observed that the Chairman and Chief Executive Officer fully achieved the following:

  - Published figures for the new Integrated Power segment confirm profitable growth of the renewables and power activities for 2023.
    - Growth in power generation and power generation capacity for 2023:
      - Net power generation at 33 TWh, of which 19 TWh from renewable sources (+82% year-on-year)
      - Net generation capacities up 42% year-on-year to 17 GW, of which 13 GW from renewables (+66% year-on-year)
      - Gross installed renewable power generation capacities up 33% year-on-year to 22 GW
    - Backed by strong growth in power generation, results are also up strongly for 2023:
      - Adjusted Net Operating Income at $1.9 billion (1.9 times the 2022 earnings)
      - CFFO at $2.2 billion (x2.2 year-on-year)
      - Integrated Power segment posts ROACE at 9.8% for the year.
  - In July 2023, WoodMackenzie published its "Benchmarking the majors" report, highlighting TotalEnergies' leading position in renewables and power, both in terms of capacity and energy generated (PJ/d). Beyond capacity and volumes, the report also highlights the potential for significant free cash flow generation in the second half of the decade (confirming what TotalEnergies indicated at the September 2023 Investor Day: positive net cash flow in 2028).

- **Criterion 3: Corporate Social Responsibility (CSR) performance**, measured according to three axes: the integration of climate issues in the Company's strategy, the Company's commitment and ratings regarding CSR, as well as the policy concerning all aspects of diversity.

  During fiscal year 2023, the Board observed that the Chairman and Chief Executive Officer achieved in particular the following:

  - Publication of the Sustainability & Climate - 2023 Progress Report presenting progress on TotalEnergies' transformation strategy and updated climate ambition Climate
  - Resolution 2023 approved by 89% of shareholders at the Shareholders' Meeting held on May 26, 2023
  - TotalEnergies is the only oil company to have prefigured its activities as a carbon-neutral energy company in 2050 together with society. The targets for Scope 1+2 emissions reductions are in line with the IEA 2022 Net Zero Emissions scenario.

All the set targets being considered as largely met, the personal contribution of the Chairman and Chief Executive Officer was determined at its maximum, *i.e.*, **40%** of the fixed compensation.

B. Details of the performance criteria applicable to performance shares (2023 Plan)

The definitive number of performance shares granted to the Chairman and Chief Executive Officer is subject to the beneficiary's continued presence in the Company during the vesting period and to performance conditions as described below.

Applicable performance conditions are the following:

- For 25% of the shares, the Corporation's ranking against its peers (ExxonMobil, Shell, BP and Chevron) each year during the three vesting years (2023, 2024 and 2025) based on the Total Shareholder Return (TSR) criterion of the last quarter of the year in question, the dividend being considered reinvested based on the closing price on the ex-dividend date.
- For 25% of the shares, the Corporation's ranking against its peers (ExxonMobil, Shell, BP and Chevron) each year during the three vesting years (2023, 2024 and 2025) using the annual variation in net cash flow per share expressed in dollars.

Based on the ranking, a grant rate will be determined each year for these two first criteria: 1st: 180% of the grant; 2nd: 130% of the grant; 3rd: 80% of the grant; 4th and 5th:0%, with a maximum of 100%.

- For 20% of the shares, the level reached by the pre-dividend organic cash breakeven each year during the three vesting years (2023, 2024 and 2025). The pre-dividend organic cash breakeven is defined as the Brent price for which the operating cash flow before working capital changes (MBA) covers the organic investments[1]. The ability of the Company to resist to the variations of the Brent barrel price is measured by this parameter.
- For 15% of the shares, the change in the greenhouse gas (GHG) emissions from operated facilities (Scope 1+2) with regard to the achievement of the target to reduce the GHG emissions set at 38 Mt CO_2e in 2025.
- For 15% of the shares, the criterion of the change in the methane emissions from operated facilities with regard to the achievement of the target to reduce methane emissions set for 2025 at -50% compared to the methane emissions of 2020.

In accordance with Article L. 225-197-1 of the French Commercial Code, Mr. Pouyanné will be required to hold in registered form 50% of the shares definitively granted to him at the end of the three-year vesting period as part of the 2023 plan until the end of his term of office.

In addition, the Board of Directors has noted that, pursuant to the Board's Rules of Procedure applicable to all directors, the Chairman and Chief Executive Officer is not allowed to hedge the shares of the Corporation or any related financial instruments and has taken note of Mr. Pouyanné's commitment to abstain from such hedging operations with regard to the performance shares granted.

Treatment of performance shares in the event of the Chairman and Chief Executive Officer leaving the Company

- In the event of the retirement or of a change of position within the Company, the Chairman and Chief Executive Officer upholds all vesting rights in the course of acquisition,
- In the event of forced departure, other than for serious or gross misconduct, the Board of Directors may decide that the Chairman and Chief Executive Officer upholds his vesting rights in the course of acquisition on a *pro rata* basis according to the length of time of his presence within the Company,
- In the event of resignation or termination of his function for serious or gross misconduct, his vesting rights in the course of acquisition will be lost in whole.

The upholding of existing vesting rights in the course of acquisition under the conditions of departure described above is accompanied by the upholding of the performance criteria set for the definitive grant of the shares.

In case of exceptional circumstances, the Board of Directors may decide to maintain stock options and performance share grants after the executive director left, the decision of the Board of Directors has to be duly motivated and taken in the corporate interest.

C. Details of the commitments made by the Corporation to the Chairman and Chief Executive Officer

Severance benefit

The Chairman and Chief Executive Officer is entitled to a benefit equal to two years of his gross compensation in the event of a forced departure related to a change of control or strategy. The calculation is based on the gross compensation (fixed and variable) of the 12 months preceding the date of termination or non-renewal of his term of office.

It will not be due in case of serious or gross misconduct or if the Chairman and Chief Executive Officer leaves the Corporation of his own volition, accepts new responsibilities within the Company or may claim full retirement benefits within a short time period.

Receipt of this severance benefit is contingent upon a performance-related condition applicable to the beneficiary, which is deemed to be fulfilled if at least two of the following criteria are met:

- the average return on equity (ROE) for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is at least 10%;
- the average gearing ratio for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is less than or equal to 30%; and
- the average pre-dividend organic cash breakeven of the three years preceding the year in which the Chairman and Chief Executive Officer retires is below or equal to \$30/b.

Retirement benefit

The Chairman and Chief Executive Officer is entitled to a retirement benefit equal to those available to eligible members of the Company under the French National Collective Bargaining Agreement for the Petroleum Industry. This benefit is equal to 25% of the fixed and variable annual compensation received during the 12 months preceding retirement.

Receipt of this retirement benefit is contingent upon a performance-related condition applicable to the beneficiary, which is deemed to be fulfilled if at least two of the criteria defined below are met:

- the average return on equity (ROE) for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is at least 10%;
- the average gearing ratio for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is less than or equal to 30%; and
- the average pre-dividend organic cash breakeven of the three years preceding the year in which the Chairman and Chief Executive Officer retires is below or equal to \$30/b.

Supplementary pension plans

Pursuant to applicable legislation, the Chairman and Chief Executive Officer is eligible for the basic French Social Security pension and for pension benefits under the AGIRC-ARRCO supplementary pension plan.

He also participates in the internal defined contribution pension plan applicable to all TotalEnergies SE employees, called PERO (*Plan d'épargne retraite obligatoire* - mandatory retirement savings plan), covered by Article L. 242-1 of the French Social Security Code. The Corporation's commitment is limited to its share of the contribution paid to the insurance company that manages the plan. For fiscal year 2023, this pension plan represented a booked expense to TotalEnergies SE in favor of the Chairman and Chief Executive Officer of €2,640.

(1) Refer to the glossary for the definition and further information on alternative performance measures (Non-GAAP measures) and to point 1.9 of chapter 1 for reconciliation tables.

The Chairman and Chief Executive Officer also participates in a supplementary defined-benefit pension plan, covered by Article L. 137-11 of the French Social Security Code, set up and financed by the Corporation and approved by the Board of Directors on March 13, 2001, for which management is outsourced to two insurance companies effective January 1, 2012. In accordance with the ordinance 2019-697 published on July 4, 2019, this plan is closed to any new participant as from July 4, 2019, and, for participants as of July 4, 2019, and retiring as from January 1, 2020, the amount of supplementary pension provided for in this plan is calculated on the basis of number of years of service as at December 31, 2019, and up to a maximum of 20 years.

This pension plan applies to all TotalEnergies SE employees whose reference compensation exceeded, as of July 4, 2019, an amount equal to 8 times the annual ceiling for calculating French Social Security contributions (PASS), set at €40,524 for 2019 (*i.e.*, €324,192), and above which there is no conventional pension plan.

To be eligible for this supplementary pension plan, participants must have served for at least five years, be at least 60 years old and exercised his or her rights to retirement from the French Social Security. The benefits under this plan are subject to a presence condition under which the beneficiary must still be employed at the time of retirement. However, the presence condition does not apply if a beneficiary aged 55 or older leaves the Corporation at the Corporation's initiative or in case of disability.

The length of service acquired by Mr. Pouyanné as a result of his previous salaried duties held at the Company since January 1, 1997, has been maintained for the benefit of this plan.

The compensation taken into account to calculate the supplementary pension is the average gross annual compensation (fixed and variable portion) over the last three years. This pension plan provides a pension for its beneficiaries equal to 1.8% of the portion of the compensation falling between 8 and 40 times the PASS and 1% for the portion of the compensation falling between 40 and 60 times the PASS, multiplied by the number of years as at December 31, 2019, of service up to a maximum of 20 years.

The sum of the annual supplementary pension plan benefits and other pension plan benefits (other than those set up individually and on a voluntary basis) may not exceed 45% of the average gross compensation (fixed and variable portion) over the last three years. In the event that this percentage is exceeded, the supplementary pension is reduced accordingly. The amount of the supplementary pension determined in this way is indexed to the AGIRC-ARRCO pension point.

The supplementary pension includes a clause whereby 60% of the amount will be paid to beneficiaries in the event of death after retirement.

The Board noted that Mr. Pouyanné can no longer acquire additional pension rights under this plan given the rules for determining pension rights set out in the plan and the 20 years of service of Mr. Pouyanné as of December 31, 2016.

The conditional rights granted to Mr. Patrick Pouyanné for the period from January 1, 1997, to December 31, 2016 (inclusive), are now equal to a reference rate of 36% for the portion of the base compensation falling between 8 and 40 times the PASS and 20% for the portion of the base compensation falling between 40 and 60 times the PASS.

Based on Mr. Pouyanné's years of service capped at 20 years on December 31, 2016, the commitments made by TotalEnergies SE to the Chairman and Chief Executive Officer in terms of supplementary defined benefits and similar pension plans represented, at December 31, 2023, a gross annual retirement pension estimated at €682,756. It corresponds to 15.90% of Mr. Pouyanné's gross annual compensation consisting of the annual fixed portion for 2023 (*i.e.*, €1,550,000) and the variable portion paid in 2024[1] for fiscal year 2023 (*i.e.*, €2,741,950).

Nearly the full amount of TotalEnergies SE's commitments under these supplementary and similar retirement plans (including the retirement benefit) is outsourced for all beneficiaries to insurance companies and the non-outsourced balance is evaluated annually and adjusted through a provision in the accounts. The amount of these commitments as of December 31, 2023, is €18.1 million for the Chairman and Chief Executive Officer (€18.3 million for the Chairman and Chief Executive Officer and the executive and non-executive directors covered by these plans). These amounts represent the gross value TotalEnergies SE's commitments to these beneficiaries based on the estimated gross annual pensions as of December 31, 2023, as well as the statistical life expectancy of the beneficiaries.

The total amount of all the pension plans in which Mr. Pouyanné participates represents, at December 31, 2023, a gross annual pension estimated at €820,741, corresponding to 19.12% of Mr. Pouyanné's gross annual compensation defined above (annual fixed portion for 2023 and variable portion paid in 2024 for fiscal year 2023).

In line with the principles for determining the compensation of the executive directors as set out in the AFEP-MEDEF Code which the Corporation uses as a reference, the Board of Directors took into account the benefit accruing from participation in the pension plans when determining the Chairman and Chief Executive Officer's compensation.

COMPENSATION RATIOS – ANNUAL TREND OF THE COMPENSATION, OF PERFORMANCE OF THE CORPORATION AND OF THE RATIOS

In accordance with Article L. 22-10-9, 6° and 7° of the French Commercial Code, below are indicated the ratios between the level of compensation of the Chairman and Chief Executive Officer and the average and median compensation of TotalEnergies SE employees, as well as the annual trend of the compensation, of performance of the TotalEnergies SE[2], of the average compensation of the Corporation's employees and of the ratios during the last five fiscal years.

Also presented are the ratios between the level of compensation of the Chairman and Chief Executive Officer of TotalEnergies SE and the average and median compensation of employees within a scope extended to all Corporation employees in France more than representing more than 80% of the payroll according to the Afep guidelines.

The elements included in the calculation of the compensation ratios relate to all elements of compensation paid during fiscal year N whether in the numerator **for the executive directors** or in the denominator for **employees** (fixed compensation, variable component paid during fiscal year N in respect of fiscal year N-1, extraordinary or differed compensation, incentive and profit-sharing compensation paid during fiscal year N in respect of N-1, employers' social charges and contributions...) as well as the valuation of the performance shares granted during fiscal year N (excluding in-kind benefits) according to IFRS standards.

It should be mentioned that the employers' social charges and contributions are taking into account for executive directors and employees starting from 2022 in accordance with the Afep guidelines, as updated in February 2021. Data from 2019 to 2021 were thus restated as defined in 2022.

The employees included in the denominator are employees who have been present and active throughout the year in question, their compensation being taken on a full-time basis. Trainees, professional contracts, people on sabbatical or on long-term absence are therefore not included in the denominator.

(1) Subject to approval by the Ordinary Shareholders' Meeting on May 24, 2024.
(2) TotalEnergies SE, the parent company of the Company (full-time-equivalent employees present on December 31 of each fiscal year for the period in question).

Table of ratios pursuant to I. 6° and 7° of Article L. 22-10-9 of the French Commercial Code presented in accordance with Afep guidelines updated in February 2021

	2019	2020	2021	2022	2023
Change (%) in compensation paid to Mr. Patrick Pouyanné, Chairman and Chief Executive Officer of TotalEnergies SE (since December 19, 2015)	-8%	-20%(1)	24%	31%	18%
Information relating to the scope of TotalEnergies SE: 3,092 present employees on permanent contracts (CDI) and in activity (9% of employees in France and 18% of the payroll France) as of December 31, 2023					
Change (%) in average compensation of employees	3%	-7%(2)	2%	25%	10%
Ratio compared to average compensation of employees	40	34	42	44	47
Change in ratio (%) relative to previous year	-11%	-14%	25%	5%	8%
Ratio compared to median compensation of employees	51	42	51	54	61
Change in ratio (%) relative to previous year	-11%	-18%	25%	6%	12%
Additional information on the enlarged scope representing at least 80% of the payroll of the employees France (20,261 employees) as of December 31, 2023					
Change (%) in average compensation of employees	3%	-5%(3)	1%	16%	5%
Ratio compared to average compensation of employees	59	49	61	68	79
Change in ratio (%) relative to previous year	-10%	-16%	25%	13%	15%
Ratio compared to median compensation of employees	74	61	77	86	101*
Change in ratio (%) relative to previous year	-12%	-19%	27%	12%	18%
Performance of TotalEnergies SE (on a consolidated basis)					
Change in net income IFRS	-2%	-164%	42%**	28%	4%
Change in operating cash flow before working capital changes***	7%	-40%	86%	57%	-21%

* This ratio would have been 92 based on the same fair value of performance shares as in 2022.
** Versus 2019.
*** Refer to the glossary for the definition and further information on alternative performance measures (Non-GAAP measures) and to point 1.9 of chapter 1 for reconciliation tables.

4.3.2.2 Compensation policy of the Chairman and Chief Executive Officer

The compensation policy of the Chairman and Chief Executive Officer for fiscal year 2024 was set by the Board of Directors, at its meetings on February 6, 2024, in accordance with the provisions of Article L. 22-10-8 of the French Commercial Code, on the proposal of the Compensation Committee. It will be submitted to the Shareholders' Meeting on May 24, 2024. It is based on the general principles for determining the compensation of executive directors set out below.

GENERAL PRINCIPLES FOR DETERMINING THE COMPENSATION OF THE EXECUTIVE DIRECTORS

The general principles for determining the compensation and other benefits granted to the executive directors of TotalEnergies SE are as follows. They were approved by the Board of Directors and clarified at the Board meeting on March 16, 2022, on two specific points: one concerns the treatment of performance shares granted to the Chairman and Chief Executive Officer in the event of his leaving the Company, and the other concerns the possibility for the Board to approve a compensatory payment in the event of the recruitment of an executive director from outside the Company, where this recruitment results in the loss of deferred benefits *(buy-out award)*. These two clarifications were made in order to take into account certain remarks made by the proxy advisors and certain shareholders:

- Compensation as well as benefits for the executive directors are set by the Board of Directors on the proposal of the Compensation Committee. Such compensation must be reasonable and fair in a context of solidarity and motivation within the company. Compensation for the executive directors is based on the market, the work performed, the results obtained and the responsibilities assumed.
- Compensation for the executive directors includes a fixed portion and a variable portion. The fixed portion is reviewed at least every two years.
- The amount of the variable portion is reviewed each year and may not exceed a stated percentage of the fixed portion. Variable compensation is determined based on pre-defined quantifiable and qualitative criteria that are periodically reviewed by the Board of Directors. Quantifiable criteria are limited in number, objective, measurable and adapted to the Company's strategy.
- The variable portion rewards short-term performance and the progress made toward paving the way for medium-term development. It is determined in a manner consistent with the annual performance review of the executive directors and the Company's medium-term strategy.

(1) The reduction in compensation paid to Mr. Pouyanné between 2019 and 2020 is partly due to the Chairman and Chief Executive Officer's decision to temporarily cut his fixed compensation by 25% as from May 1, 2020, until December 31, 2020, due to the economic context, as well as the significant reduction in the IFRS valuation of performance shares granted in 2020 (fair value of €12.40 per share in 2020 compared to €40.11 in 2019). If the fixed compensation of Mr. Pouyanné had not been reduced by 25% as from May 1, 2020 until December 31, 2020, and if the performance shares granted had been valued on the basis of a unit fair value of €24.85 (fair value based on a calculation using identical parameters and the average of the closing prices for the TotalEnergies share during the year 2020 of €34.957), the compensation ratio of the Chairman and Chief Executive Officer compared to the average compensation of the TotalEnergies SE's employees between 2019 and 2020 would have been 40 (instead of 34), and the compensation ratio of the Chairman and Chief Executive Officer compared to the median compensation of the TotalEnergies SE's employees between 2019 and 2020 would have been 50 (instead of 42). Within the limits of the enlarged perimeter, the compensation ratio of the Chairman and Chief Executive Officer compared to the average compensation of the TotalEnergies SE's employees between 2019 and 2020 would have been 59 (instead of 49), and the compensation ratio of the Chairman and Chief Executive Officer compared to the median compensation of the TotalEnergies SE's employees between 2019 and 2020 would have been 73 (instead of 61).
(2) The reduction in compensation paid to the employees between 2019 and 2020 is partly due to the decrease of the incentive and profit-sharing compensation due to the economic context notably, as well as the significant reduction in the IFRS 2 valuation of performance shares granted in 2020 (fair value of €12.40 per share in 2020 compared to €40.11 in 2019).
(3) The reduction in compensation paid to the employees between 2019 and 2020 is partly due to the decrease of the incentive and profit-sharing compensation due to the economic context notably, as well as the significant reduction in the IFRS 2 valuation of performance shares granted in 2020 (fair value of €12.40 per share in 2020 compared to €40.11 in 2019).

- The Board of Directors monitors the change in the fixed and variable portions of the executive directors' compensation over several years in light of the Company's performance.
- There is no specific pension plan for the executive directors. They are eligible for retirement benefits and pension plans available to certain employee categories in the Company under conditions determined by the Board.
- In line with the principles for determining the compensation of the executive directors as set out in the AFEP-MEDEF Code which the Corporation uses as a reference, the Board of Directors takes into account the benefit accruing from participation in the pension plans when determining the compensation policy of the executive directors.
- Stock options and performance shares are designed to align the interests of the executive directors with those of the shareholders over the long term.

  The grant of options and performance shares to the executive directors is reviewed in light of all the components of compensation of the person in question. No discount is applied when stock options are granted.

  The exercise of options and the definitive grant of performance shares to which the executive directors are entitled are subject to conditions of presence in the Company and performance that must be met over several years.

  The Board of Directors determines the rules related to holding a portion of the shares resulting from the exercise of options as well as the performance shares definitively granted, which apply to the executive directors until the end of their term of office.

  The executive directors cannot be granted stock options or performance shares when they leave office.

  In the event of the retirement or a change of position within the Company, the Chairman and Chief Executive Officer upholds all vesting rights in the course of acquisition.

  In the event of forced departure, other than for serious or gross misconduct, the Board of Directors may decide that the Chairman and Chief Executive Officer upholds his vesting rights in the course of acquisition on a *pro rata basis* according to the length of time of his presence within the Company.

  In the event of resignation or termination of his function for serious or gross misconduct, all vesting rights in the course of acquisition will be lost in whole.

  The upholding of vesting rights in the course of acquisition under the conditions of departure described above is accompanied by the upholding of the performance criteria set for the definitive grant of the shares.

  In case of exceptional circumstances, the Board may decide to maintain stock options and performance share grant rights after the executive director left, the decision of the Board of Directors has to be duly motivated and taken in the corporate interest.
- After three years in office, the executive directors are required to hold at least the number of Corporation shares set by the Board.
- The components of compensation of the executive directors are made public after the Board of Directors' meeting at which they are approved.
- The executive directors do not take part in any discussions or deliberations of the corporate bodies regarding items on the agenda of Board of Directors' meetings related to the assessment of their performance or the determination of the components of their compensation.
- When a new executive director is nominated, the Board of Directors decides on his or her compensation as well as benefits, further to a proposal by the Compensation Committee, and in accordance with the above general principles for determining the compensation of the executive directors.

  The Board of Directors, on the proposal of the Compensation Committee, may approve a compensation payment in the event of the recruitment of an executive director from outside the Company, where this recruitment results in the loss of deferred benefits *(buy-out award)*. The Board will ensure that the amount thus granted does not exceed the loss of these benefits and may make its payment subject to performance conditions. Exceptional compensation or specific benefits when taking office are forbidden, unless the Board of Directors decides otherwise for particular reasons, in the corporate interest and within the limits of the exceptional circumstances.

  At its meeting on February 7, 2023, the Board of Directors adopted a clawback policy under which, in the event of a restatement of the financial statements, the Corporation will require, within the framework and limits of applicable law, the recovery within a reasonable period of time of the variable compensation (in cash and/or equity) paid or awarded to the executive officers, or otherwise vested in them, during the three financial years preceding the decision to make such a restatement in the amount of the portion of such compensation that should not have been paid, vested or awarded on the basis of the restated financial statements. A restatement is defined as any accounting restatement that gives rise to an obligation to make restitution in accordance with Section 10D-1 of the Securities Exchange Act of 1934, the New York Stock Exchange standards and the implementing measures issued thereunder.

COMPENSATION POLICY APPLICABLE TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER FOR FISCAL YEAR 2024

At its meetings on February 6, 2024, the Board of Directors, on the proposal of the Compensation Committee, approved the compensation policy applicable to the Chairman and Chief Executive Officer for the 2024 financial year, after ensuring that it was consistent with the external benchmarks that the Compensation Committee had commissioned and after taking into consideration the opinions expressed by the proxy advisors.

A. The Chairman and Chief Executive Officer's base salary (fixed compensation) for fiscal year 2024

In line with the compensation policy voted by the Shareholders' Meeting on May 28, 2021, Mr. Patrick Pouyanné's annual base salary (fixed compensation) in respect of his duties as Chairman and Chief Executive Officer for fiscal year 2024 is set at €1,550,000. Such fixed compensation has been unchanged since 2022, despite inflation.

B. Annual variable compensation due for fiscal year 2024 (expressed as a percentage of the base salary)

The maximum amount of the variable portion that could be paid to the Chairman and Chief Executive Officer for the fiscal year 2024 is maintained at **180%** of base salary (percentage unchanged compared to the variable portion allocated in respect of fiscal year 2023).

The formula for calculating the variable portion of the Chairman and Chief Executive Officer for fiscal year 2024, which may not exceed 180% of his base salary, includes, as in 2023, quantifiable targets reflecting the Company's performance, up to a maximum of 140% of the fixed portion, and the personal contribution of the Chairman and Chief Executive Officer allowing for qualitative assessment of his management, up to a maximum of 40% of the fixed portion. The total variable portion may thus reach a maximum of 180% of the fixed portion of the Chairman and Chief Executive Officer's compensation.

The economic parameters (quantifiable targets) are based on three themes: Safety for 20%, GHG emissions (Scope 1+2) for 10%, financial for 110%.

On the proposal of the Compensation Committee, the Board of Directors has decided to maintain the criteria of absolute ROE, pre-dividend organic cash breakeven and benchmarked ROACE with the same weightings as for the 2023 fiscal year, respectively for 30%, 30% and 20% of base compensation, and to replace the criterion of year-on-year variation of the operating cash flow before working capital changes at constant price environment ("Underlying Cash Flow Growth") weighing for the remaining 30%, with two new criteria linked to cash flow generation: the "Organic Gearing" criterion for 20% and the "Integrated Power cash flow (CFFO)" criterion for 10%.

While this Underlying Cash Flow Growth variation criterion enables to measure the Company's underlying structural growth, it cannot be directly calculated from published financial data. The Board of Directors has also decided to reintroduce a gearing criterion enabling to measure cash flow generation over the year through the strength of the Company's balance sheet, a key element in the Company's financial communication. Given that this ratio could be significantly impacted by the Company's M&A policy, it is proposed to restate it for net acquisitions and disposals for the year. This new ratio ("Organic Gearing") will therefore be calculated on the basis of net debt (excluding leases) at the end of the year, restated for net capital expenditure on acquisitions and disposals during the year, all of which can be read directly in our publications. In addition, with regard to cash flow, the Board of Directors has decided to introduce an additional criterion linked to Integrated Power's cash flow (CFFO), which depends only very partially on market conditions, but reflects the growth of this business, at the heart of the transition strategy.

At the end, out of the five financial criteria proposed, two of them (ROE for 30% and organic Gearing for 20%), for a cumulative weighting of 50%, are dependent on the environment, whereas the other three (pre-dividend organic cash breakeven, benchmarked ROACE and Integrated Power's cash flow (CFFO)), for a cumulative weighting of 60%, are not directly dependent on the environment.

The personal contribution targets (qualitative criteria) remain focused on the challenges of advancing the transformation of the energy transition.

Annual variable compensation due for fiscal year 2024 (expressed as a percentage of the base salary)

			% targets
Summary of the quantifiable targets			
A. Safety and greenhouse gas (GHG) emissions			
a) Safety		20%	
– TRIR	6%		
– FIR	6%		
– Evolution of the number of Tier 1 + Tier 2 incidents	8%		
b) Evolution of GHG emissions (Scope 1+2)		10%	
Maximum percentage that may be allocated in respect of Safety and greenhouse gas (GHG) emissions criteria			**30%**
B. Financial parameters			
– Return on equity (ROE)		30%	
– Organic Gearing		20%	
– Integrated Power cash flow (CFFO)		10%	
– Pre-dividend organic cash breakeven		30%	
– Return on average capital employed (ROACE), comparative		20%	
Maximum percentage that may be allocated in respect of financial parameters			**110%**
Maximum percentage that may be allocated in respect of quantifiable targets			**140%**
Personal contribution (qualitative criteria)			
– Steering of the Corporation's strategy of moving towards carbon neutrality, in line with the 2020/2030 targets announced to investors, in particular the increase of gas and power production, as well as the evolution of its sales mix		15%	
– Profitable growth in renewables and electricity		10%	
– Corporate Social Responsibility (CSR) performance, notably the integration of climate issues in the Company's Strategy, the Company's commitment and ratings regarding CSR, as well as the policy concerning all aspects of diversity		15%	
Maximum percentage that may be allocated in respect of the personal contribution			**40%**
Total			180%

Safety and Greenhouse gas emissions criteria

The Safety and Greenhouse gas emissions criteria are assessed on the basis of the quantifiable targets set out below for a maximum of 30% of the Chairman and Chief Executive Officer's fixed salary.

The change in safety will be assessed, for a maximum of 20%, through the achievement of an annual TRIR (Total Recordable Incident Rate) target and the number of accidental deaths per million hours worked, FIR (Fatality Incident Rate), as well as through changes in the Tier 1 + Tier 2 indicator[(1)]:

- The maximum weighting of the **TRIR criterion** is 6% of the base salary (as in 2023).
  - The maximum weighting will be reached if the TRIR is below 0.62 (0.65 in 2023).
  - The weighting of the criterion will be zero if the TRIR is above or equal to 0.97 (1.04 in 2023).
  - The interpolations are linear between these points of reference;
- The maximum weighting of the **FIR** criterion will be 6% of the base salary (as in 2023).
  - up to 50%: the maximum weighting of this sub-criterion will be reached if there is no accidental death and is zero from at least one accidental death,

(1) Tier 1 and Tier 2: indicator of the number of loss of primary containment events, with more or less significant consequences, as defined by the API 754 (for downstream) and IOGP 456 (for upstream) standards. Excluding acts of sabotage and theft.

- up to 50%: the maximum weighting of this sub-criterion assessed by comparison with that of the four major competing oil companies (ExxonMobil, Shell, BP et Chevron), will be reached if TotalEnergies' FIR is the best of the panel of majors and will be zero if the FIR is the worst of the panel. The weighting of the criterion is calculated based on TotalEnergies' FIR by linear interpolation between these two points of reference.

– the maximum weighting of the changes in the number of **Tier 1 + Tier 2 incidents** is 8% of the base salary (as in 2023).
  - The maximum weighting will be reached if the number of Tier 1 + Tier 2 incidents is equal to or below 45 (50 in 2023).
  - The weighting of the parameter will be zero if the number of Tier 1 + Tier 2 incidents is equal to or higher than 80 (90 in 2023).
  - The interpolations are linear between these two points of reference.

The change in greenhouse gas (GHG) emissions from operated facilities will be assessed, for a maximum of 10% of the Chairman and Chief Executive Officer's fixed portion, through the achievement of a GHG (Scope 1+2) reduction emission target from 46 Mt CO_2e in 2015 to 38 Mt CO_2e in 2025, corresponding to a reduction of 800 kt CO_2e/y, *i.e.*, a target of 38.8 Mt CO_2e for 2024. The maximum weighting of the GHG criterion is 10% of the base salary:

– the maximum weighting of the criterion, i.e. 10% of the base salary, will be obtained if the GHG emissions (Scope 1+2) from operated facilities reaches the target set at 38.8 Mt CO_2e in 2024 (compared to 39.6 Mt CO_2e in 2023);
– the weighting of the criterion will be zero if the emissions are 2 Mt CO_2e above the target set;
– the interpolations are linear between these points of reference.

Details on the financial parameters

The four financial criteria are assessed on the basis of the quantifiable objectives set out below for a maximum of 110% of the Chairman and Chief Executive Officer's fixed portion:

– The **return on equity (ROE)**, as published by the Company on the basis of its balance sheet and consolidated statement of income, will be assessed as follows. The maximum weighting of the ROE criterion will be 30% of the base salary:
  - the maximum weighting of the criterion will be reached, *i.e.*, 30% of the base salary, if the ROE is higher than or equal to 13%;
  - the weighting of the criterion will be zero if the ROE is lower than or equal to 6%;
  - the interpolations are linear between these two points of reference.

– The **organic gearing** will be assessed as follow. The maximum weighting of the criterion will be 20% of the base salary:
  - the maximum weighting of the criterion, *i.e.*, 20% of the base salary, will be reached if the organic gearing is below or equal to 10%;
  - the weighting of the criterion will be zero if the organic gearing is above or equal to 20%;
  - the interpolations are linear between these two points of reference.

– The **Integrated Power cash flow (CFFO)** will be assessed as follow. The maximum weighting of the criterion will be 10% of the base salary:
  - the maximum weighting of the criterion, *i.e.*, 10% of the base salary, will be reached if the Integrated Power cash flow (CFFO) is above or equal to $2.5 billion;
  - the weighting of the criterion will be zero if the Integrated Power cash flow (CFFO) is below $1.5 billion;
  - the interpolations are linear between these two points of reference.

– The **pre-dividend organic cash breakeven** will be assessed as follows. The maximum weighting of this criterion will be 30% of the base salary:
  - the maximum weighting of the criterion will be reached, *i.e.*, 30% of the base salary, if the breakeven is below or equal to $25/b;
  - the weighting of the criterion will be zero if the breakeven is above or equal to $35/b;
  - the interpolations are linear between these two points of reference.

  The ability of the Company to resist to the variations of the Brent barrel price is measured by the pre-dividend organic cash breakeven.

– The **return on average capital employed (ROACE)**, by comparison, will be assessed as follows. The maximum weighting of the ROACE criterion will be 20% of the base salary. TotalEnergies' ROACE, as published from the consolidated balance sheet and the income statement, will be compared to the ROACE average of each of the four peers (ExxonMobil, Shell, BP and Chevron). The ROACE is equal to the net adjusted operating income divided by the average of the capital employed (at replacement costs, net of deferred income tax and non-current liabilities) of the start and end of the fiscal year:
  - the maximum weighting of the criterion will be reached, *i.e.*, 20% of the base salary, if TotalEnergies' ROACE is 2% above the average of the 4 peers' ROACE;
  - the weighting of the criterion will be zero if TotalEnergies' ROACE is under 2% or more compared to the average of the 4 peers' ROACE;
  - the interpolations will be linear between these two points of reference.

Personal contribution

The criteria for assessing the personal contribution of the Chairman and Chief Executive Officer, up to a maximum of 40% of his fixed portion, are as follows:

– Steering **the Corporation's strategy** of moving towards carbon neutrality, in line with the 2020/2030 targets announced to investors, in particular the increase of gas and power production, as well as the evolution of its sales mix, for up to **15%**;
– Profitable growth in **renewables and electricity**, for up to **10%**;
– **Corporate Social Responsibility (CSR) performance**, including the integration of climate issues in the Company's strategy, the Company's commitment and ratings regarding CSR, as well as the policy concerning all aspects of diversity, for up to **15%**.

Powers of the Board under special circumstances

In the event of a significant change affecting the calculation of the economic parameters for the Company (change in accounting standard, change in the policy of rating agencies, significant patrimonial transaction approved by the Board of Directors, etc.), the Board reserves the right to calculate the parameters mutatis mutandis with justification of the changes *i.e.*, excluding exogenous extraordinary elements.

In addition, the Board of Directors may exercise its discretionary powers regarding the determination of the compensation of the Chairman and Chief Executive Officer, in accordance with Articles L. 22-10-16, paragraph 1 and L. 22-10-17, paragraph 3 of the French Commercial Code, and pursuant to Articles L. 22-10-8 and L. 22-10-34 of the French Commercial Code, in the event of particular circumstances (significant change in the perimeter, completion of a transformation transaction or unexpected changes in the competitive environment...) that could justify that the Board of Directors adjusts, exceptionally and both on the upside and the downside, one or more of the criteria that make up his compensation to ensure that the results of the application of the criteria described above reflect both the performance of the Chairman and Chief Executive Officer and the performance of the Company either in absolute terms or relative to the four peers of the Company, for the economic criteria measured in comparison with these four peers.

This adjustment would be made to the variable compensation of the Chairman and Chief Executive Officer by the Board of Directors on the proposal of the Compensation Committee, within the limit of the variable compensation cap of 180% of the fixed compensation, after the Board of Directors ensured that the interests of the Corporation and of its shareholders are aligned with those of the executive director.

Pursuant to Article L. 22-10-34 of French Commercial Code, the payment of this annual variable portion is subject to the approval of the Shareholders' Meeting to be called in 2025 to approve 2024 financial statements.

C. Performance shares

The granting of performance shares to the Chairman and Chief Executive Officer corresponds to the long-term component of his global compensation. Performance shares are definitively granted at the end of a three-year vesting period. The definitive grant of shares is subject to a presence condition and performance conditions assessed at the end of this three-year vesting period.

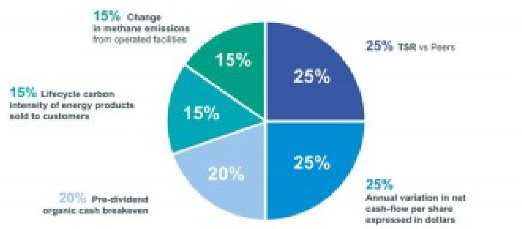
In view of the renewal of other compensation components under unchanged terms, the Board of Directors, on the proposal of the Compensation Committee, has decided to increase the number of performance shares to be granted to the Chairman and Chief Executive Officer from 110,000 to 140,000 shares per year for the fiscal years 2024, 2025 and 2026. The compensation policy for fiscal year 2024 includes the granting of **140,000 performance shares** to the Chairman and Chief Executive Officer as part of a 2024 plan that will not be specific to him.

With a view to the renewal of the Chairman and Chief Executive Officer's directorship, as unanimously proposed by the Board of Directors at the Annual Shareholders' Meeting, this level of performance share grant is more in line with those applied by companies with comparable capitalizations. It places the Chairman and Chief Executive Officer's total compensation at the 3rd quartile of the French panel and at the median of the international panel.

In determining this level of grant, in addition to examining the remuneration practice of comparable companies, the Board of Directors took into consideration the need to pursue the Company's transition strategy announced in 2020, the ambition of which was reinforced in March 2023, and the experience and proven ability of the Chairman and Chief Executive Officer to implement this energy transition with determination and consistency, based on two pillars: Oil & Gas on the one hand, and Electricity and Renewables on the other. This vision, which creates value in the medium and long term, and this strategic stability are an asset and a differentiating factor for TotalEnergies compared with its peers. They should be encouraged by strengthening the long-term incentive component of the Chairman and Chief Executive Officer's compensation.

The Board of Directors will ensure that the allocation of performance shares to employees evolves in a coherent manner, helping to align the interests of the Chairman and Chief Executive Officer and the Company's employees more closely with those of the shareholders.

Performance conditions



The performance shares will be subject to the following performance conditions. The definitive number of granted shares will be based on: (i) the TSR (Total Shareholder Return), (ii) the annual variation of the net cash flow by share in dollars compared to his peers, (iii) the pre-dividend organic cash breakeven, (iv) the change in methane emissions from operated facilities and (v) the change on lifecycle carbon intensity of energy products sold to the customers of the Company, and applied as follows:

- For **25%** of the shares, the Corporation will be ranked against its peers (ExxonMobil, Shell, BP and Chevron) each year during the three vesting years (2024, 2025 and 2026) based on the **TSR criterion** of the last quarter of the year in question, the dividend being considered reinvested based on the closing price on the ex-dividend date.
- For **25%** of the shares, the Corporation will be ranked against its peers (ExxonMobil, Shell, BP and Chevron) each year during the three vesting years (2024, 2025 and 2026) using the **annual variation in net cash flow per share** criterion expressed in dollars.

Based on the ranking, a grant rate will be determined for each year for these two first criteria: 1st: 180% of the grant; 2nd: 130% of the grant; 3rd: 80% of the grant; 4th and 5th:0%, with a maximum of 100%.

- For **20%** of the shares, the **pre-dividend organic cash breakeven criterion** will be assessed each year during the three vesting years (2024, 2025 and 2026) as follows:
  - the maximum grant rate will be achieved, *i.e.*, 100% for this criterion, if the breakeven is less than or equal to \$25/b,
  - the grant rate will be zero if the breakeven is greater than or equal to \$35/b.
  - the interpolations will be linear between these two points of reference.

  The pre-dividend organic cash breakeven is defined as the Brent price for which the operating cash flow before working capital changes covers the organic investments[1]. The ability of the Company to resist to the variations of the Brent barrel price is measured by this parameter.

A grant rate will be determined each year for each of these above criteria. For each of the first three criteria, the average of the three grant rates obtained (for each of the three fiscal years for which the performance conditions are assessed) will be rounded to the nearest 0.1 whole percent (0.05% being rounded to 0.1%) and capped at 100%.

- For **15%** of the shares, the criterion of the **change in the methane emissions from operated facilities** will be assessed with regard to the achievement of the target to reduce methane emissions set for 2026 at -56% compared to the methane emissions of 2020.
  - the maximum grant rate, *i.e.*, 100% for this criterion, will be reached if the methane emissions in 2026 reach the target;
  - the grant rate will be zero if the methane emissions are 10% below the set target for 2026;
  - the interpolations will be linear between these two points of reference.
- For **15%** of the shares, the criterion of the **lifecycle carbon intensity of energy products sold to the customers of the Company** will be assessed with regard to the achievement of the target to reduce this carbon intensity set for 2026 at 17% compared to 2015:
  - the maximum grant rate, *i.e.*, 100% for this criterion, will be obtained if the carbon intensity reach in 2026 the target set;
  - the grant rate will be zero if the carbon intensity reduction is below 13% compared to 2015;
  - the interpolations will be linear between these two points of reference.

The definitive grant rate will be rounded to the nearest 0.1 whole percent (0.05% being rounded to 0.1%).

The number of shares definitively granted after determination of performance conditions will be determined according to the weighting of each of the five criteria and rounded up to the next whole number of shares.

With regard to the performance share plan to be implemented in 2024, the Board has decided to renew 4 of the 5 performance criteria of the 2023 plan, maintaining the same weightings, and to replace the criterion relating to changes in GHG emissions from operated facilities (Scope 1+2) by the criterion of the lifecycle carbon intensity of energy products sold to the customers of the Company.

(1) Organic investments: net investments excluding acquisitions, asset sales and other operations with non-controlling interests.

Indeed, the assessment of the annual variable compensation of the Chairman and Chief Executive Officer and the majority of the senior executives of the Company already includes a criterion linked to the change in GHG emissions in the absolute value on operated facilities (Scope 1+2). The lifecycle carbon intensity of energy products sold measures the average GHG emissions of energy products used by customers of the Company, over their entire lifecycle, from their production to their final use, per unit of energy. The results of this indicator are directly available in the annual publications of the Company. The use of this new criterion allows long-term incentive compensation to be linked to the Company's ambition and the ultimate objective of the transition strategy: reduce the carbon content of energy product sales to the Company's customers, while providing them with more energy. This criterion thus makes it possible to reflect the progress of the Company in the implementation of its transition strategy.

In accordance with Article L. 225-197-1 of the French Commercial Code, at the end of the three-year vesting period, the executive director will be required to hold in registered form 50% of the shares definitively granted to him at the end of the vesting period until the end of his term of office.

Treatment of performance shares in the event of the Chairman and Chief Executive Officer leaving the Company

The Board paid particular attention to the comments made by shareholders concerning the treatment of performance shares granted to the Chairman and Chief Executive Officer in the event of his leaving the Company and clarified the following points:

- In the event of the retirement or of a change of position within the Company, the Chairman and Chief Executive Officer upholds all vesting rights in the course of acquisition,
- In the event of forced departure, other than for serious or gross misconduct, the Board of Directors may decide that the Chairman and Chief Executive Officer upholds his vesting rights in the course of acquisition on a pro rata basis according to the length of time of his presence within the Company,
- In the event of resignation or termination of his function for serious or gross misconduct, his vesting rights in the course of acquisition will be lost in whole.

The upholding of existing vesting rights in the course of acquisition under the conditions of departure described above is accompanied by the upholding of the performance criteria set for the definitive grant of the shares.

In case of exceptional circumstances, the Board of Directors may decide to maintain stock options and performance share grants after the executive director left, the decision of the Board of Directors has to be duly motivated and taken in the corporate interest.

D. Commitments made by the Corporation to the Chairman and Chief Executive Officer

The commitments made by the Corporation to the Chairman and Chief Executive Officer relate to the pension plans, the retirement benefit and the severance benefit to be paid in the event of forced departure related to a change of control or strategy, as well as the life insurance and healthcare benefits. They were approved by the Board of Directors on March 14, 2018, and by the Annual Shareholders' Meeting on June 1, 2018, in accordance with the provisions of Article L. 225-42-1 of the French Commercial Code.

It should be noted that Mr. Pouyanné already benefited from all these provisions when he was an employee of the Corporation, except for the commitment to pay severance benefits in the event of forced departure related to a change of control or strategy. It should also be noted that Mr. Pouyanné, who joined the Company on January 1, 1997, ended the employment contract that he previously had with the Corporation through his resignation at the time of his appointment as Chief Executive Officer on October 22, 2014.

Pension plans

Pursuant to applicable legislation, the Chairman and Chief Executive Officer is eligible for the basic French Social Security pension and for pension benefits under the AGIRC-ARRCO supplementary pension plan.

He also participates in the internal defined contribution pension plan applicable to all TotalEnergies SE employees, called PERO (*Plan d'épargne retraite obligatoire* - mandatory retirement savings plan), covered by Article L. 242-1 of the French Social Security Code. The Corporation's commitment is limited to its share of the contribution paid to the insurance company that manages the plan. For fiscal year 2023, this pension plan represented a booked expense to TotalEnergies SE in favor of the Chairman and Chief Executive Officer of €2,640.

The Chairman and Chief Executive Officer also participates in a supplementary defined-benefit pension plan, covered by Article L. 137-11 of the French Social Security Code, set up and financed by the Corporation and approved by the Board of Directors on March 13, 2001, for which management is outsourced to two insurance companies effective January 1, 2012. In accordance with the ordinance 2019-697 published on July 4, 2019, this plan is closed to any new participant as from July 4, 2019, and, for participants as of July 4, 2019, and retiring as from January 1, 2020, the amount of supplementary pension provided for in this plan is calculated on the basis of number of years of service as at December 31, 2019, and up to a maximum of 20 years.

This plan applies to all TotalEnergies SE employees whose reference compensation exceeded as of July 4, 2019 eight times the annual ceiling for calculating French Social Security contributions (PASS), set at €40,524 for 2019 (*i.e.*, €324,192), and above which there is no conventional pension plan.

To be eligible for this supplementary pension plan, participants must have served for at least five years, be at least 60 years old and exercised his or her rights to retirement from the French Social Security. The benefits under this plan are subject to a presence condition under which the beneficiary must still be employed at the time of retirement. However, the presence condition does not apply if a beneficiary aged 55 or older leaves the Corporation at the Corporation's initiative or in case of disability.

The length of service acquired by Mr. Pouyanné as a result of his previous salaried duties held at the Company since January 1, 1997, has been maintained for the benefit of this plan.

The compensation taken into account to calculate the supplementary pension is the average gross annual compensation (fixed and variable portion) over the last three years. The amount paid under this plan is equal to 1.8% of the compensation falling between 8 and 40 times the PASS and 1% for the portion of the compensation falling between 40 and 60 times this ceiling, multiplied by the number of years of service as of December 31, 2019, up to a maximum of 20 years.

The sum of the annual supplementary pension plan benefits and other pension plan benefits (other than those set up individually and on a voluntary basis) may not exceed 45% of the average gross compensation (fixed and variable portion) over the last three years. In the event that this percentage is exceeded, the supplementary pension is reduced accordingly. The amount of the supplementary pension determined in this way is indexed to the AGIRC-ARRCO pension point.

The supplementary pension includes a clause whereby 60% of the amount will be paid to beneficiaries in the event of death after retirement.

The Board noted that Mr. Pouyanné can no longer acquire additional pension rights under this plan given the rules for determining pension rights set out in the plan and the 20 years of service of Mr. Pouyanné as of December 31, 2016.

The conditional rights granted to Mr. Patrick Pouyanné for the period from January 1, 1997, to December 31, 2016 (inclusive), are now equal to a reference rate of 36% for the portion of the base compensation falling between 8 and 40 times the PASS and 20% for the portion of the base compensation falling between 40 and 60 times the PASS.

Based on Mr. Pouyanné's seniority capped at 20 years on December 31, 2016, the commitments made by TotalEnergies SE to the Chairman and Chief Executive Officer in terms of supplementary defined benefits and similar pension plans represented, at December 31, 2023, a gross annual retirement pension estimated at €682,756. It corresponds to 15.90% of Mr. Pouyanné's gross annual compensation consisting of the annual fixed portion for 2023 (*i.e.*, €1,550,000) and the variable portion paid in 2024[1] for fiscal year 2023 (*i.e.*, €2,741,950).

Nearly the full amount of TotalEnergies SE's commitments under these supplementary and similar retirement plans (including the retirement benefit) is outsourced for all beneficiaries to insurance companies and the non-outsourced balance is evaluated annually and adjusted through a provision in the accounts. The amount of these commitments as of December 31, 2023, is €18.1 million for the Chairman and Chief Executive Officer (€18.3 million for the Chairman and Chief Executive Officer and the executive and non-executive directors covered by these plans). These amounts represent the gross value of TotalEnergies' commitments to these beneficiaries based on the estimated gross annual pensions as of December 31, 2023, as well as the statistical life expectancy of the beneficiaries.

The total amount of all the pension plans in which Mr. Pouyanné participates represents, at December 31, 2023, a gross annual pension estimated at €820,741, corresponding to 19.12% of Mr. Pouyanné's gross annual compensation defined above (annual fixed portion for 2023 and variable portion paid in 2024 for fiscal year 2023).

Retirement benefit

The Chairman and Chief Executive Officer is entitled to a retirement benefit equal to those available to eligible members of the Company under the French National Collective Bargaining Agreement for the Petroleum Industry. This benefit is equal to 25% of the fixed and variable annual compensation received during the 12 months preceding retirement.

The receipt of this retirement benefit is subject to conditions related to the performance of the beneficiary.

Therefore, the conditions applicable to the beneficiary will be deemed to be fulfilled if at least two of the following criteria are met:

- the average return on equity (ROE) for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is at least 10%;
- the average gearing ratio for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is less than or equal to 30%; and
- the pre-dividend organic cash breakeven of the three years preceding the year in which the Chairman and Chief Executive Officer retires is below or equal to $30/b.

The retirement benefit cannot be combined with the severance benefit described below.

Severance benefit

The Chairman and Chief Executive Officer is entitled to a benefit equal to two years of his gross compensation in the event of a forced departure related to a change of control or strategy. The calculation is based on the gross compensation (fixed and variable) of the 12 months preceding the date of termination or non-renewal of his term of office.

The severance benefit will only be paid in the event of a forced departure related to a change of control or strategy. It will not be due in case of serious or gross misconduct or if the Chairman and Chief Executive Officer leaves the Corporation of his own volition, accepts new responsibilities within the Company or may claim full retirement benefits within a short time period.

The receipt of the severance benefit is subject to conditions linked to the beneficiary's performance.

Therefore, the conditions applicable to the beneficiary are deemed to be fulfilled if at least two of the following criteria are met:

- the average return on equity (ROE) for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is at least 10%;
- the average gearing ratio for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is less than or equal to 30%; and
- the pre-dividend organic cash breakeven of the three years preceding the year in which the Chairman and Chief Executive Officer retires is below or equal to $30/b.

Life insurance and health expense reimbursement plans

The Chairman and Chief Executive Officer is covered by the following life insurance plans provided by various life insurance companies:

- an "incapacity, disability, life insurance" plan applicable to all employees, partly paid for by the Corporation, that provides for two options in case of death of a married employee: either the payment of a lump sum equal to 5 times the annual compensation up to 16 times the PASS, corresponding to a maximum of €3,709,440 in 2024, plus an additional amount if there is a dependent child or children, or the payment of a lump sum equal to 3 times the annual compensation up to 16 times the PASS, plus a survivor's pension and education allowance;
- a second "disability and life insurance" plan, fully paid by the Corporation, applicable to executive officers and senior executives whose annual gross compensation is more than 16 times the PASS. This contract, signed on October 17, 2002, amended on January 28, 2015, December 11, 2015, July 4, 2017 and July 7, 2020, guarantees the beneficiary the payment of a lump sum, in case of death, equal to two years of compensation (defined as the gross annual fixed reference compensation (base France), which corresponds to 12 times the monthly gross base salary paid during the month prior to death or sick leave, to which is added the highest amount in absolute value of the variable portion received during one of the five previous years of activity), which is increased to three years in case of accidental death and, in case of accidental permanent disability, a lump sum proportional to the degree of disability. Death benefits are increased by 15% for each dependent child.

Payments due under this contract are made after the deduction of any amount paid under the above-mentioned plan applicable to all employees.

The Chairman and Chief Executive Officer also has the use of a company car and is covered by the health care plan available to all employees.

4.3.3 Executive officers' compensation

TotalEnergies' executive officers include the members of the Executive Committee. As of December 31, 2023, the list of the executive officers of TotalEnergies was as follows (eight people, as of December 31, 2022):

- Patrick Pouyanné, Chairman and Chief Executive Officer and Chairman of the Executive Committee;
- Helle Kristoffersen, President, Strategy & Sustainability, member of the Executive Committee;
- Stéphane Michel, President, Gas, Renewables & Power, member of the Executive Committee;
- Thierry Pflimlin, President, Marketing & Services, member of the Executive Committee;

(1) Subject to approval by the Ordinary Shareholders' Meeting on May 24, 2024.

- Bernard Pinatel, President, Refining & Chemicals, member of the Executive Committee;
- Jean-Pierre Sbraire, Chief Financial Officer, member of the Executive Committee;
- Namita Shah, President, OneTech, member of the Executive Committee;
- Nicolas Terraz, President, Exploration & Production, member of the Executive Committee.

In 2023, the aggregate amount paid directly or indirectly by TotalEnergies' French and foreign companies as compensation to TotalEnergies' executive officers in office as of December 31, 2023 (8 people, as of December 31, 2022) was €12.53 million (compared to €11.48 million in 2022). The variable component (based on economic, Safety performance and personal contribution criteria) represented 53.2% of this global amount of €12.53 million.

4.3.4 Stock option and performance share grants

4.3.4.1 General policy

In addition to its employee shareholding development policy, TotalEnergies SE has implemented a policy to involve employees and senior executives in its future performance which entails granting performance shares each year. TotalEnergies SE also granted stock options until 2011. These shares are granted under selective plans based on a review of individual performance at the time of each grant.

The share plans offered by TotalEnergies SE concern only TotalEnergies shares and no shares of the TotalEnergies listed subsidiaries are granted by the Company.

All grants are approved by the Board of Directors, on the proposal of the Compensation Committee. For each plan, the Compensation Committee recommends a list of beneficiaries, the conditions as well as the number of shares granted to each beneficiary. The Board of Directors then gives final approval for this list and the grant conditions.

Grant of performance shares

Grants of performance shares under selective plans become definitive only at the end of a three-year vesting period, subject to the fulfillment of applicable presence and performance conditions. At the end of the vesting period, the TotalEnergies shares are definitively granted to the beneficiaries. For plans granted before 2022, beneficiaries had to hold the shares that were granted to them at the end of the vesting period, for a two-year holding period.

Stock options

Stock options were granted until 2011. Since the 2011 plan, the Board of Directors has not granted any new TotalEnergies stock options, and all the stock option plans have since expired.

The 21st resolution of the Extraordinary Shareholders' Meeting on May 29, 2020, authorized the Board of Directors to grant stock options to certain Company employees and executives for a period of 38 months. This authorization, that was not used by the Board, expired on July 29, 2023 and has not been renewed.

4.3.4.2 Monitoring of grants to the executive directors

STOCK OPTIONS

As of December 31, 2023, Mr. Pouyanné did not hold any TotalEnergies stock options.

Stock options granted in 2023 to each executive director by the issuer and by any TotalEnergies company - Table 4 - AMF position-recommendation - DOC-2021-02 (Appendix 2)

Executive directors	Plan N° and date	Nature of the options (purchase or subscription)	Valuation of options (€)[a]	Number of options granted during the fiscal year	Strike price	Exercise period
Patrick Pouyanné						
Chairman and Chief Executive Officer	–	–	–	–	–	–

(a) According to the method used for the Consolidated Financial Statements.

Stock options exercised in fiscal year 2023 by each executive director - Table 5 - AMF position-recommendation - DOC-2021-02 (Appendix 2)

	Plan N° and date	Number of options exercised during the fiscal year	Strike price
Patrick Pouyanné			
Chairman and Chief Executive Officer	–	–	–

GRANT OF PERFORMANCE SHARES

Mr. Pouyanné is granted performance shares as part of the broader grant plans approved by the Board of Directors for certain Company employees.

The performance shares granted to him are subject to the same requirements applicable to the other beneficiaries of the grant plans.

SUMMARY TABLES

Shares granted to each director[(a)] in fiscal year 2023 by the issuer and by any TotalEnergies company - Table 6 – AMF position-recommendation – DOC-2021-02 (Appendix 2)

Executive and non-executive directors	Plan N° and date	Number of shares granted during the fiscal year	Valuation of the shares (€)[(b)]	Acquisition date	Date of transferability	Performance conditions
Patrick Pouyanné Chairman and Chief Executive Officer	2023 Plan 05/26/2023	110,000	4,069,120	05/27/2026	05/27/2026	– For 25% of the shares, the Corporation's ranking against its peers (ExxonMobil, Shell, BP and Chevron) based on the Total Shareholder Return (TSR) during the three vesting years (2023, 2024 and 2025). The TSR considered is that of the last quarter of the year, the dividend being considered reinvested based on the closing price on the ex-dividend date. – For 25% of the shares, the Corporation's ranking against its peers (ExxonMobil, Shell, BP and Chevron) based on the annual variation in net cash flow per share expressed in dollars during the three vesting years (2023, 2024 and 2025). – For 20% of the shares, the level reached by the pre-dividend organic cash breakeven with regard to the target set for the three vesting years (2023, 2024 and 2025). The pre-dividend organic cash breakeven is defined as the Brent price for which the operating cash flow before working capital changes (MBA) covers the organic investments[(c)]. The ability of the Company to resist to the variations of the Brent barrel price is measured by this parameter. – For 15% of the shares, the change in the greenhouse gas (GHG) emissions from operated facilities (Scope 1+2) with regard to the achievement of the target to reduce the GHG emissions set for 2025. – For 15% of the shares, the criterion of the change in methane emissions from operated facilities with regard to the achievement of the target to reduce methane emissions set for 2025.
Romain Garcia-Ivaldi Director representing employees since June 9, 2020	2023 Plan 05/26/2023	350	12,947.20	05/27/2026	05/27/2026	
Emma de Jonge Director representing employee shareholders since May 25, 2022	2023 Plan 05/26/2023	–	–	–	–	
Angel Pobo Director representing employees since October 14, 2020	2023 Plan 05/26/2023	344	12,725.25	05/27/2026	05/27/2026	
Total		**110,694**	**4,094,792.45**			

(a) List of executive and non-executive directors who had this status during fiscal year 2023.
(b) In accordance with the accounting of the performance shares for fiscal year 2023 in accordance with IFRS 2 which takes into account an award rate hypothesis of 80% at the end of the vesting period, this amount corresponds to the shares granted in 2023, valued on the basis of a unit fair value of 46.24 euros. This fair value was calculated in accordance with IFRS 2 on the grant date of the plan, *i.e.*, May 26, 2023, on the basis of a closing price of the TotalEnergies share on that date of 55.76 euros.
(c) Refer to the glossary for the definitions and further information on Non-GAAP measures (alternative performance measures) and to point 1.9 of chapter 1 for reconciliation tables.

Shares that have become transferable for each director[a] - Table 7 – AMF position-recommendation – DOC-2021-02 (Appendix 2)

Executive and non-executive directors	Plan N° and date	Number of shares that became transferable during fiscal year 2023	Vesting conditions
Patrick Pouyanné Chairman and Chief Executive Officer	2020 Plan 03/18/2020	72,000	The performance conditions are based for: – For 1/4 of the shares, the Corporation's ranking against its peers (ExxonMobil, Shell, BP et Chevron) based on the TSR criterion during the three vesting years (2020, 2021 and 2022). The TSR considered is that of the last quarter of the year, the dividend being considered reinvested based on the closing price on the ex-dividend date. – For 1/4 of the shares, the Corporation's ranking each year against its peers (ExxonMobil, Shell, BP et Chevron) using the annual variation in net cash flow per share criterion expressed in dollars during the three vesting years (2020, 2021 and 2022). – For 1/4 of the shares, the level reached by the pre-dividend organic cash breakeven with regard to the target set for the three vesting years (2020, 2021 and 2022). – For 1/4 of the shares, the change in the greenhouse gas (GHG) emissions from oil & gas operated facilities (Scope 1+2) with regard to the achievement of the target to reduce the GHG emissions set for the three vesting years (2020, 2021 and 2022).
Romain Garcia-Ivaldi Director representing employees since June 9, 2020	2020 Plan 03/18/2020	–	
Emma de Jonge Director representing employee shareholders since May 25, 2022	2020 Plan 03/18/2020	–	
Angel Pobo Director representing employees since October 14, 2020	2020 Plan 03/18/2020	–	

(a) List of executive and non-executive directors who had this status during fiscal year 2023.

For the 2020 plan, the vesting rate of shares granted, subject to performance conditions, linked to the TSR criterion, the annual change in net cash flow per share, the organic *cash* breakeven before dividends and the reduction in the greenhouse gas (Scope 1+2) was 100%.

The breakdown of the vesting rate of shares granted by criterion and by vesting year is detailed as follows:

- TSR criterion: 180% for 2020, 130% for 2021 and 80% for 2022;
- Annual variation in net cash flow per share criterion: 80% for 2020, 130% for 2021 and 180% for 2022;
- Pre-dividend organic cash breakeven criterion: 100% for the three vesting years (2020, 2021 and 2022);
- Change in the greenhouse gas (GHG) emissions criterion: 100% for the three vesting years (2020, 2021 and 2022).

4.3.4.3 Follow-up of TotalEnergies stock option plans as of December 31, 2023

Since the 2011 plan, the Board of Directors has not granted any new TotalEnergies stock options, and all the stock option plans have since expired.

History of TotalEnergies stock option grants – Information on stock options - Table 8 – AMF position - recommendation – DOC-2021-02 (Appendix 2)

	Plan
TotalEnergies stock option grants	none
Date of the Shareholders' Meeting	–
Date of Board meeting/grant date	–
Total number of options granted by the Board of Directors, including to:	–
Executive and non-executive directors[a]	–
– *P. Pouyanné*	none
– *R. Garcia Ivaldi*	none
– *E. de Jonge*	none
– *A. Pobo*	none
Date as of which the options may be exercised:	–
Expiry date	–
Subscription or purchase price(€)	–
Cumulative number of options exercised/subscribed as of December 31, 2023	**–**
Cumulative number of options canceled or expired as of December 31, 2023	**–**
Number of options remaining at the end of the year	–

(a) List of executive and non-executive directors who had this status during fiscal year 2023.

Stock options granted to the 10 employees (other than executive or non-executive directors) receiving the largest number of options/Stock options exercised by the 10 employees (other than executive or non-executive directors) exercising the largest number of options - Table 9 – AMF position-recommendation – DOC-2021-02 (Appendix 2)

	Total number of options granted/exercised	Weighted average strike price (€)	Plan
Options granted in fiscal year 2023 by TotalEnergies SE and its affiliates[a] to the 10 employees of TotalEnergies SE and its affiliates (other than executive or non-executive directors) receiving the largest number of options (aggregate – not individual information)	–	–	none
Options held on TotalEnergies SE and its affiliates[a] and exercised in fiscal year 2023 by the 10 employees of TotalEnergies SE and its affiliates (other than executive or non-executive directors at the date of the exercises) who purchased or subscribed for the largest number of shares (aggregate – not individual information)	–	–	none

(a) Pursuant to the conditions of Article L. 225-180 of the French Commercial Code.

4.3.4.4 Follow-up of TotalEnergies performance share grants as of December 31, 2023

BREAKDOWN HISTORY OF TotalEnergies PERFORMANCE SHARE GRANTS BY CATEGORY OF BENEFICIARY

The following table gives a breakdown of TotalEnergies performance share grants by category of beneficiary (executive officers, other senior executives and other employees):

		Number of beneficiaries	Number of notified shares	Percentage	Average number of options per beneficiary
2019 Plan[a]	Executive officers[b]	13	326,500	5.1%	25,115
Decision of the Board of Directors of March 13, 2019	Senior executives	290	1,514,000	23.5%	5,221
	Other employees[c]	10,730	4,606,569	71.5%	429
	Total	**11,033**	**6,447,069**	**100%**	**584**
2020 Plan[a]	Executive officers[b]	13	303,700	4.5%	23,362
Decision of the Board of Directors of March 18, 2020	Senior executives	292	1,580,400	23.5%	5,412
	Other employees[c]	10,838	4,843,252	72.0%	447
	Total	**11,143**	**6,727,352**	**100%**	**604**
2021 Plan	Executive officers[b]	8	272,000	4.0%	34,000
Decision of the Board of Directors of March 17, 2021, with effect from May 28, 2021	Senior executives	280	1,579,100	23.3%	5,640
	Other employees[c]	11,039	4,913,448	72.6%	445
	Total	**11,327**	**6,764,548**	**100%**	**579**
2022 Plan	Executive officers[b]	8	284,000	4%	35,500
Decision of the Board of Directors of March 16, 2022	Senior executives	275	1,683,000	23%	6,120
	Other employees[c]	11,494	5,386,271	73%	469
	Total	**11,777**	**7,353,271**	**100%**	**624**
2023 Plan[d]	Executive officers[b]	8	337,500	4%	42,188
Decision of the Board of Directors of March 15, 2023, with effect from May 26, 2023	Senior executives[d]	270	1,746,300	22%	6,468
	Other employees[c]	12,008	5,901,403	74%	491
	Total	**12,286**	**7,985,203**	**100%**	**650**

(a) For the 2019 plan, the vesting rate of shares granted, subject to performance conditions, linked to the TSR criterion, the annual change in net cash flow per share and the organic *cash* breakeven, was 98.9%. For the 2020 plan, the vesting rate of granted shares, subject to performance conditions, linked to the TSR, the annual variation of the net cash flow per share, the organic cash breakeven point and to greenhouse Gas (GHG) emissions from operated facilities (Scope 1+2), was 100%.

(b) The executive officers as of the date of the Board meeting authorizing the grant.

(c) Mr. Garcia-Ivaldi is a TotalEnergies SE employee and a TotalEnergies SE director representing employees since June 9, 2020, was granted 350 shares under the 2023 plan and none under the 2021 and 2022 plan. Ms. de Jonge is a TotalEnergies SE employee and a TotalEnergies SE director representing employee shareholders since May 25, 2022, and was not granted any shares under the 2023 plan. Mr. Pobo is a TotalEnergies SE employee and TotalEnergies SE director representing employees since October 14, 2020 and was granted 344 shares under the 2023 plan, none under the 2022 plan and 250 shares under the 2021 plan.

(d) Includes 37,000 performance shares granted to 4 executives recruited in 2023 under the Board of Directors' decision of December 13, 2023.

The breakdown of TotalEnergies performance share grants by gender and category of beneficiary is as follows:

		Percentage of beneficiaries by gender and by category of beneficiaries		Average number of performance shares granted by beneficiary	
		Men	Women	Men	Women
2019 Plan	Senior management (JL 15+)[(a)]	83%	91%	1,392	1,405
	JL 10 to 14	24%	26%	288	264
	JL 9-	2%	2%	122	122
2020 Plan	Senior management (JL 15+)[(a)]	83%	86%	1,444	1,453
	JL 10 to 14	24%	24%	299	279
	JL 9-	2%	2%	126	130
2021 Plan	Senior management (JL 15+)[(a)]	83%	87%	1,406	1,492
	JL 10 to 14	24%	25%	298	282
	JL 9-	2%	2%	127	127
2022 Plan	Senior management (JL 15+)[(a)]	82%	88%	1,524	1,656
	JL 10 to 14	26%	27%	328	309
	JL 9-	2%	2%	138	139
2023 Plan[(b)]	Senior management (JL 15+)[(a)]	80%	84%	1,596	1,689
	JL 10 to 14	26%	26%	340	321
	JL 9-	2%	2%	145	147

(a) Including senior executives.
(b) Includes 37,000 performance shares granted on December 13, 2023 to 4 executives recruited in 2023 in accordance with the decision of the Board of Directors on December 13, 2023.
JL: Job level of the position according to the Hay method (unique classification and job evaluation reference).

In 2023, the Board of Directors, at its meeting of March 15, 2023, with effective date on May 26, 2023, granted a performance share plan to certain employees and executive directors of TotalEnergies SE or its subsidiaries. Shares granted to the Chairman and Chief Executive Officer under the 2023 Plan represent 0.004%[(1)] of the Corporation's share capital on the attribution date. Moreover, the Board of Directors, at its meeting on December 13, 2023, granted performance shares to four newly recruited senior executives.

The performance shares, which were previously bought back by the Corporation on the market, are definitively granted to their beneficiaries at the end of a three-year vesting period from the grant date.

The vesting of performance shares is subject to a presence condition and performance conditions.

For the 2023 grants, the applicable performance conditions are the following:

- For 25% of the shares, the Corporation's ranking against its peers (ExxonMobil, Shell, BP and Chevron) based on the Total Shareholder Return (TSR) during the three vesting years (2023, 2024 and 2025). The TSR in question is that of the last quarter of the year, the dividend being considered reinvested based on the closing price on the ex-dividend date.
- For 25% of the shares, the Corporation's ranking against its peers (ExxonMobil, Shell, BP and Chevron) based on the annual variation in net cash flow per share expressed in dollars during the three vesting years (2023, 2024 and 2025).
- For 20% of the shares, the level reached by the pre-dividend organic cash breakeven with regard to the target set for the three vesting years (2023, 2024 and 2025). The pre-dividend organic cash breakeven is defined as the Brent price for which the operating cash flow before working capital changes (MBA) covers the organic investments[(2)]. The ability of the Company to resist to the variations of the Brent barrel price is measured by this parameter.
- For 15% of the shares, the criterion of the change in the greenhouse gas (GHG) emissions from operated facilities (Scope 1+2) with regard to the achievement of the target to reduce the GHG emissions set for 2025.
- For 15% of the shares, the criterion of the change in methane emissions from operated facilities with regard to the achievement of the target to reduce these methane emissions set for 2025.

(1) On the basis of a share capital divided into 2,490,262,024 shares.
(2) Refer to the glossary for the definitions and further information on Non-GAAP measures (alternative performance measures) and to point 1.9 of chapter 1 for reconciliation tables.

BREAKDOWN HISTORY OF TotalEnergies PERFORMANCE SHARE PLANS

History of TotalEnergies performance share grants - Information on performance shares granted - Table 10 - AMF Position-recommendation - DOC-2021-02 (Appendix 2)

	2019 Plan	2020 Plan	2021 Plan	2022 Plan	2023 Plan[a]
Date of the Shareholders' Meeting	**06/01/2018**	**06/01/2018**	**06/01/2018**	**05/28/2021**	**05/26/2023**
Date of Board meeting/grant date	**03/13/2019**	**03/18/2020**	**05/28/2021**	**03/16/2022**	**05/26/2023**
Closing price on grant date	€51.210	€21.795	€38.145	€45.540	€55.760
Average purchase price per share paid by the Corporation	€45.13	€57.70	€59.91	n/a	n/a
Total number of performance shares granted, including to:	6,447,069	6,727,352	6,764,548	7,353,271	7,985,203
Executive and non-executive directors[b]	72,280[c]	72,300[c]	90,250	100,000	110,694
– *P. Pouyanné*	*72,000*	*72,000*	*90,000*	*100,000*	*110,000*
– *R. Garcia-Ivaldi*	*n/a*	*n/a*	–	–	*350*
– *E. de Jonge*	*n/a*	*n/a*	*n/a*	*n/a*	–
– *A. Pobo*	*n/a*	*n/a*	*250*	–	*344*
Start of the vesting period	03/13/2019	03/18/2020	05/28/2021	03/16/2022	05/26/2023
Definitive grant date, subject to the conditions set (end of the vesting period)	03/14/2022	03/20/2023	05/29/2024	03/17/2025	05/27/2026
Vesting rate after determination of the performance conditions:					
Executive director	*98.9%*	*100%*	*92.0%*	*n/a*	*n/a*
– *Employees*	*98.9%*	*100%*	*92.0%*	*n/a*	*n/a*
Total number of performance shares definitively granted[d] at the end of the vesting period, including:	6,177,104	6,462,222	n/a	n/a	n/a
– *P. Pouyanné*	*71,208*	*72,000*	*n/a*	*n/a*	*n/a*
Disposal possible from (end of the lock-up period)	03/15/2024	03/21/2025	05/30/2026	03/17/2025	05/27/2026
Number of performance shares granted:					
– *Outstanding as of January 1, 2023*	–	*6,574,961*	*6,661,580*	*7,320,181*[e]	–
– *Notified in 2023*	–	–	–	–	*7,985,203*
– *Canceled in 2023*	–	*(128,577)*	*(98,291)*	*(86,348)*	*(42,040)*
– *Definitively granted in 2023*	–	*(6,446,384)*	*(5,250)*	*(5,568)*	*(190)*
Outstanding as of December 31, 2023	**–**	**–**	**6,558,039**	**7,228,265**	**7,942,973**

(a) Includes 37,000 performance shares granted on December 13, 2023 to 4 executives recruited in 2023 in accordance with the decision of the Board of Directors on December 13, 2023 and the Shareholders' Meeting on May 26, 2023. For these performance shares, the vesting period begins on December 13, 2023 and the final grant date is December 14, 2026, subject to the conditions set (end of the vesting period). The closing share price on the grant date was €61.36.
(b) List of executive and non-executive directors who had this status during fiscal year 2023. Mr. Garcia-Ivaldi is a TotalEnergies SE employee and a TotalEnergies SE director representing employees since June 9, 2020. Ms. de Jonge is a TotalEnergies SE employee and a TotalEnergies SE director representing employee shareholders since May 25, 2022. Mr. Pobo is a TotalEnergies SE employee and a TotalEnergies SE director representing employees since October 14, 2020.
(c) The number of performance shares granted to executive and non-executive directors includes performance shares granted to executive and non-executive directors (directors representing employees or directors representing employee shareholders) who had this quality at the grant date.
(d) Shares definitively granted include early grants following the death of the beneficiaries of shares for the respective plan.
(e) Restated data following the wrongful cancellation of 2,600 granting rights.

If all the performance shares outstanding at December 31, 2023, were definitively granted, they would represent 0.90%[1] of the Corporation's share capital on that date.

Performance shares granted to the 10 employees (other than executive and non-executive directors) receiving the largest number of performance shares granted

	Number of performance shares notified/ definitively granted	Award date	Definitive grant date (end of the vesting period)	Date of transferability (end of the lock-up period)
Performance share granted by decision of the Board of Directors at its meeting on March 15, 2023, with effective date May 26, 2023, to the 10 employees of TotalEnergies SE and its affiliates (other than executive or non-executive directors at the date of the exercises) who purchased or subscribed for the largest number of performance shares[a]	284,000	05/26/2023	05/27/2026	05/27/2026
Performance shares definitively granted in fiscal year 2023 to the 10 employees of TotalEnergies SE and its affiliates (other than executive and non-executive directors on the date of the decision) receiving the largest number of performance shares	170,500	03/18/2020	03/20/2023	03/21/2025

(a) These shares will be definitively granted to their beneficiaries at the end of a three-year vesting period, *i.e.*, on May 27, 2026, subject to five performance conditions being met.

(1) On the basis of a share capital divided into 2,412,251,835 shares.

4.4 Additional information about corporate governance

4.4.1 Regulated agreements and undertakings and related party transactions

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

REGULATED AGREEMENTS AND UNDERTAKING

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

In addition, to TotalEnergies' knowledge, there exists no agreement, other than the agreements related to its ordinary course of business and signed under normal conditions, engaged, directly or through an intermediary, between, on the one hand, any director or shareholder holding more than 10% of TotalEnergies SE's voting rights and, on the other hand, a company controlled by TotalEnergies SE within the meaning of Article L. 233-3 of the French Commercial Code.

RELATED-PARTY TRANSACTIONS

Details of related-party transactions as specified by the regulations adopted under EC regulation 1606/2002, entered into by TotalEnergies' companies during fiscal years 2021, 2022 or 2023, are provided in Note 8 of the notes to the Consolidated Financial Statements (refer to point 8.7 of chapter 8). These transactions primarily concern equity affiliates and non-consolidated companies.

4.4.2 Delegations of authority and powers granted to the Board of Directors with respect to share capital increases and authorization for share cancellation

Table compiled in accordance with Article L. 225-37-4, 3° of the French Commercial Code summarizing the use of delegations of authority and powers granted to the Board of Directors with respect to share capital increases during fiscal year 2023

Type		Cap on par value, or number of shares or expressed as % of share capital	Use in 2023 by value or number of shares	Available balance as of 12/31/ 2023 by value or number of shares[(a)]	Date of the delegation of authority or authorization by the Extraordinary Shareholders' Meeting	Expiry date and term of authorizatio n granted to the Board of Directors
Maximum cap for the issuance of securities granting immediate or future rights to share capital	Securities representing debt securities giving rights to a portion of share capital	€10bn in securities	–	€10bn	May 25, 2022 (17th, 18th, 19th and 21st resolutions)	July 25, 2024 26 months
	Share capital par value	An overall cap of €2.5bn (i.e., a maximum of 1,000 million shares issued with a preemptive subscription right), from which can be deducted:	26 million shares	€2.435 bn (i.e., 974 million shares)	May 25, 2022 (17th resolution)	July 25, 2024 26 months
		1/ a specific cap of €650 million, i.e. a maximum of 260 million shares for issuances without a preferential subscription right (with potential use of an extension clause), including in compensation with securities contributed within the scope of a public exchange offer, provided that they meet the requirements of Article L. 22-10-54 of the French Commercial Code, from which can be deducted:	–	€650 million	May 25, 2022 (18th and 20th resolutions)	July 25, 2024 26 months
		1a/ a sub-cap of €650 million with a view to issuing, through an offer as set forth in Article L. 411-2-1 of the French Monetary and Financial Code, shares and securities resulting in a share capital increase, without a shareholders' preemptive subscription right	–	€650 million	May 25, 2022 (19th and 20th resolutions)	July 25, 2024 26 months
		1b/ a sub-cap of €650 million through in-kind contributions when the provisions of Article L. 22-10-54 of the French Commercial Code are not applicable	–	€650 million	May 25, 2022 (21st resolution)	July 25, 2024 26 months
		2/ a specific cap of 1.5% of the share capital on the date of the Board decision for share capital increases reserved for employees participating in a Company savings plan	18 million shares[(b)]	18.2 million shares	May 26, 2023 (16th resolution)	July 26, 2025 26 months
Stock options granted to Company employees and to executive directors		0.75% of share capital on the date of the Board decision to grant options	–	–	May 29, 2020 (21st resolution)	Expired on July 29, 2023
Performance shares granted to Company employees and to executive directors		1% of share capital on the date of the Board decision to grant the shares	8.0 million shares	16.1 million shares[(c)]	May 26, 2023 (15th resolution)	July 26, 2026 38 months

(a) Based on share capital as of December 31, 2023, divided into 2,412,251,835 shares.
(b) The meeting of the Board of Directors on September 21, 2023 decided to proceed with a share capital increase in 2024 with a cap of 18,000,000 shares (subscription to the shares under this operation is planned for the second quarter of 2024, subject to the decision of the Chairman and Chief Executive Officer). As a result, the available balance under this authorization amounts to 18,183,777 shares as of December 31, 2023.
(c) The number of shares that may be granted under the 15th resolution of the Extraordinary Shareholders' Meeting held on May 26, 2023 may not exceed 1% of the share capital on the date of the Board of Directors' decision. In addition, the shares granted pursuant to the presence and performance conditions to the Executive Directors under the 15th resolution of the Extraordinary Shareholders' Meeting held on May 26, 2023, may not exceed 0.015% of the capital existing on the date of the Board meeting that decided on the grant, *i.e.*, 361,837 shares based on share capital as of December 31, 2023.

USE OF THE AUTHORIZATION TO CANCEL SHARES OF THE CORPORATION DURING FISCAL YEAR 2023

Pursuant to the terms of the 23rd resolution of the Shareholders' Meeting held on May 25, 2022, the Board of Directors is authorized to cancel shares of the Corporation up to a maximum of 10% of the share capital of the Corporation existing as of the date of the operation within a 24-month period.

In 2023, pursuant to this authorization, the Board of Directors decided to reduce the share capital of the Corporation:

- on September 21, 2023, with effective date on September 25, 2023, by canceling 86,012,344 treasury shares and
- on February 7, 2023, by canceling 128,869,261 treasury shares.

Furthermore, the Board of Directors, at its meeting on February 6, 2024, used this authorization and decided to reduce the share capital of the Corporation by canceling 25,405,361 treasury shares with effect on February 12, 2024. On February 12, 2024, the share capital of the Corporation was therefore 5,967,116,185.00 euros, divided into 2,386,846,474 shares, each with a nominal value of 2.50 euros.

4.4.3 Provisions of the Articles of Association governing shareholders' participation in Shareholders' Meetings

The Corporation's Articles of Association amended as a result of the change of corporate name of the Corporation were approved by the Annual Shareholders' Meeting of May 28, 2021. The statutory provisions of TotalEnergies SE presented below are those resulting from the Articles of Association of TotalEnergies SE.

4.4.3.1 Calling of shareholders to Shareholders' Meetings

Shareholders' Meetings are convened and conducted under the conditions provided for by law.

The Board of Directors, the statutory auditor or a court-appointed representative can ask for a meeting to be convened, as well as one or more shareholders together holding at least 5% of the share capital.

The Ordinary Shareholders' Meeting is convened to take any decisions that do not modify the Corporation's Articles of Association. It is held at least once a year within six months of the closing date of each fiscal year to approve the financial statements of that year. It may only deliberate, at its first meeting, if the shareholders present, represented or participating by remote voting hold at least one fifth of the shares that confer voting rights. No quorum is required at its second meeting. In accordance with regulation (EC) 2157/2001 on the Statute for a European company (SE), the Ordinary Shareholders' Meeting rules by a majority of votes cast by the shareholders present or represented by proxy. The votes cast do not include those attached to shares in which the shareholder did not take part in the vote, abstained, or returned a blank or invalid vote.

Only the Extraordinary Shareholders' Meeting is authorized to modify the Articles of Association. It may not, however, increase shareholders' commitments. It may only deliberate, at its first meeting, if the shareholders present, represented or participating by remote voting hold at least one quarter, and, at the second meeting, one fifth of the shares that confer voting rights. In accordance with regulation (EC) 2157/2001 on the Statute for a European company (SE), the Extraordinary Shareholders' Meeting rules by a majority of two thirds of votes cast by the shareholders present or represented by proxy. The votes cast do not include those attached to shares in which the shareholder did not take part in the vote, abstained, or returned a blank or invalid vote.

One or more shareholders holding a certain percentage of the Corporation's share capital (calculated using a decreasing scale based on the share capital) may ask for items or draft resolutions to be added to the agenda of a Shareholders' Meeting under the terms and conditions and within the deadlines set forth by the French Commercial Code. Requests to add items or draft resolutions to the agenda must be sent no later than 20 days after the publication of the notice of meeting that the Corporation must publish in the French official journal of legal notices (*Bulletin des annonces légales obligatoires*, BALO). Any request to add an item to the agenda must be justified. Any request to add a draft resolution must be accompanied by the draft resolution text and brief summary of the grounds for this request. Requests made by shareholders must be accompanied by a proof of their share ownership as well as their ownership of the portion of capital as required by the regulations. Review of the item or draft resolution filed pursuant to regulatory conditions is subject to those making the request providing a new attestation justifying the shares being recorded in a book-entry form in the same accounts on the second business day preceding the date of the meeting.

The Central Social and Economic Committee may also request the addition of draft resolutions to the meeting agendas under the terms and conditions and within the deadlines set by the French Labor Code. In particular, requests to add draft resolutions must be sent within 10 days following the date on which the notice of meeting was published.

4.4.3.2 Admission of shareholders to Shareholders' Meetings

Participation in any form in Shareholders' Meetings is subject to registration of the shares, either in the registered account maintained by the Corporation (or its securities agent) or recorded in bearer form in a securities account maintained by a financial intermediary. Proof of this registration is obtained under a certificate of participation (*attestation de participation*) delivered to the shareholder. Registration of the shares must be effective no later than midnight (Paris time) on the second business day preceding the date of the Shareholders' Meeting. If the shares are sold or transferred prior to this record date, the certificate of participation will be canceled, and the votes sent by mail and proxies sent to the Corporation will be canceled accordingly. If shares are sold or transferred after this record date, the certificate of participation will remain valid and votes cast or proxies granted will be taken into account.

4.4.4 Information regarding factors likely to have an impact in the event of a public takeover or exchange offer

In accordance with Article L. 22-10-11 of the French Commercial Code, information relating to factors likely to have an impact in the event of a public offering is provided below.

- **Structure of the share capital**

  The structure of the Corporation's share capital as well as the interests that the Corporation is aware of pursuant to Articles L. 233-7 and L. 233-12 of the French Commercial Code are presented in points 6.4.1 to 6.4.3 in chapter 6.

- **Restrictions on the exercise of voting rights and transfers of shares provided in the Articles of Association – Clauses of the agreements of which the Corporation has been informed in accordance with Article L. 233-11 of the French Commercial Code**

  The provisions of the Articles of Association relating to shareholders' voting rights are mentioned in point 7.2.4 of chapter 7. The Corporation has not been informed of any clauses as specified in paragraph 2 of Article L. 22-10-11 of the French Commercial Code.

- **Holders of securities conferring special control rights**

  There are no securities conferring special control rights as specified in paragraph 4 of Article L. 22-10-11 of the French Commercial Code.

- **Control mechanisms provided for in an employee shareholding system**

  The rules relating to the exercise of voting rights within the Corporation collective investment funds are presented in point 6.4.2 of chapter 6.

- **Shareholder agreements of which the Corporation is aware and that could restrict share transfers and the exercise of voting rights**

  The Corporation is not aware of any agreements between shareholders as specified in paragraph 6 of Article L. 22-10-11 of the French Commercial Code which could result in restrictions on the transfer of shares and exercise of the voting rights of the Corporation.

- **Rules applicable to the appointment and replacement of members of the Corporation's Board of Directors and amendment of the Articles of Association**

  No provision of the Articles of Association or agreement made between the Corporation and a third party contains a specific provision relating to the appointment and/or replacement of the Corporation's directors that is likely to have an impact in the event of a public offering.

- **Powers of the Board of Directors in the event of a public offering**

  The delegations of authority or authorizations granted by the Shareholders' Meeting that are currently in effect limit the powers of the Board of Directors during public offering on the Corporation's shares.

- **Agreements to which the Corporation is party and which are amended or terminated in the event of a change of control of the Corporation – Agreements providing for the payment of compensation to members of the Board of Directors or employees in the event of their resignation or dismissal without real and serious grounds or if their employment were to be terminated as a result of a public offering**

  Although a number of agreements made by the Corporation contain a change in control clause, the Corporation believes that there are no agreements provided for in paragraph 9 of Article L. 22-10-11 of the French Commercial Code. The Corporation also believes that there are no agreements provided for in paragraph 10 of Article L. 22-10-11 of the French Commercial Code. For commitments made for the Chairman and Chief Executive Officer in the event of a forced departure owing to a change of control or strategy, refer to point 4.3.2 of this chapter.

4.4.5 Statutory auditors

4.4.5.1 Auditor's term of offices

ERNST & YOUNG Audit

1/2, place des Saisons, 92400 Courbevoie – Paris-La Défense, Cedex 1

Appointed: May 14, 2004
Last reappointment: May 25, 2022, for a six-fiscal year term

Laurent Vitse, Stéphane Pédron

PricewaterhouseCoopers Audit

63, rue de Villiers, 922008 Neuilly-sur-Seine

Appointed: May 25, 2022, for a six-fiscal year term

Cécile Saint-Martin, Olivier Lotz

French law (Article L. 823-3 of the French Commercial Code) provides that the auditors are appointed for renewable six-fiscal year terms. The terms of office of the statutory auditors and of the alternate auditors will expire at the end of the Shareholders' Meeting to be convened in 2028 to approve the financial statements for fiscal year 2027.

4.4.5.2 Fees received by the statutory auditors (including members of their networks)

	ERNST & YOUNG Audit				PricewaterhouseCoopers Audit				KPMG S.A.			
	Amount in M$ (excluding VAT)		%		Amount in M$ (excluding VAT)		%		Amount in M$ (excluding VAT)		%	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Audit												
Statutory auditors, certification, examination of the parent company and consolidated accounts	**22.8**	**24.6**	**78.1**	**78.7**	**16.4**	**22.2**	**87.1**	**87.4**	**1.8**	**n/a**	**31.6**	**n/a**
TotalEnergies SE	5.3	5.4	18.0	17.3	2.8	4.8	14.7	18.9	1.7	n/a	29.8	n/a
Fully consolidated subsidiaries	17.5	19.2	60.1	61.3	13.6	17.4	72.4	68.5	0.1	n/a	1.8	n/a
Services other than statutory audit – Audit-related services	**2.6**	**3.9**	**9.0**	**12.5**	**0.3**	**1.0**	**1.8**	**4.0**	**1.5**	**n/a**	**26.3**	**n/a**
TotalEnergies SE	0.3	0.3	1.0	0.9	0.0	0.1	0.3	0.5	0.4	n/a	7.0	n/a
Fully consolidated subsidiaries	2.3	3.6	8.0	11.5	0.3	0.9	1.6	3.5	1.1	n/a	19.3	n/a
Subtotal	**25.4**	**28.5**	**87.1**	**91.1**	**16.7**	**23.2**	**89.0**	**91.4**	**3.3**	**n/a**	**57.9**	**n/a**
Other services provided												
Legal, tax, labor law	3.0	2.1	10.2	6.8	1.3	1.3	6.9	5.0	1.3	n/a	22.8	n/a
Other	0.8	0.6	2.7	2.1	0.8	0.9	4.2	3.6	1.1	n/a	19.3	n/a
Subtotal	**3.8**	**2.8**	**12.9**	**8.9**	**2.1**	**2.2**	**11.0**	**8.6**	**2.4**	**n/a**	**42.1**	**n/a**
Total	**29.1**	**31.3**	**100**	**100**	**18.8**	**25.4**	**100**	**100**	**5.7**	**n/a**	**100**	**n/a**

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

5

Extra-financial performance

Chapter 5 of this Universal Registration Document constitutes the consolidated statement of extra-financial performance as per Articles L. 22-10-36 and L. 225-102-1 of the French Commercial Code and discloses how the Corporation and the entities included in the scope of consolidation, in accordance with Article L. 233-16 of the French Commercial Code, take into account the social and environmental consequences of their activities, as well as the effects of those activities with regard to respect for human rights and fighting corruption and tax evasion.

Pursuant to the aforementioned Articles, this statement also includes information about the impact on climate change of the Corporation's activity and the use of the goods and services that it produces; its societal commitments in order to promote sustainable development and the circular economy; the collective agreements in place within the Corporation and their impact on the Corporation's financial performance as well as on employees' working conditions; actions aimed at fighting discrimination and promoting diversity; and the measures taken on behalf of people with disabilities[(1)].

This statement of extra-financial performance was prepared with the assistance of several of the Corporation's corporate functional divisions, in particular the Legal, Finance, People & Social Engagement and Strategy & Sustainability Divisions. The statement was reviewed by the Audit Committee and was thereafter approved by the Board of Directors.

The data presented in the statement of extra-financial performance are provided on a current-scope basis. The reporting scopes and methodology concerning the information in this chapter are presented in point 5.11 of this chapter.

5.1 Sustainable development at the heart of the strategy

OUR APPROACH TO SUSTAINABLE DEVELOPMENT

TotalEnergies is engaged in a transition strategy and aims to achieve carbon neutrality (net zero emissions) by 2050, together with society.

TotalEnergies is present in about 120 countries. The nature of its activities and its geographical footprint in sometimes complex environments place the Company at the junction of a range of society's concerns relating to people, the environment and business ethics. TotalEnergies puts sustainable development in all its dimensions at the heart of its strategy, projects and operations to contribute to the well-being of the populations.

Energy is at the heart of the most daunting challenges of the 21st century, defined in the U.N.'s 2030 Agenda in the form of its 17 Sustainable Development Goals (SDGs).

To achieve its 2050 Net Zero Ambition, together with society, the Company affirms its purpose: to provide as many people as possible with energy that is more reliable, more affordable and more sustainable, and places Sustainability at the heart of its strategy, its projects and its operations.

Our commitment is based on the values defined in our Code of Conduct and our approach to sustainability is structured around 4 axes:

- climate and sustainable energy,
- caring for the environment,
- acting for the well-being of employees,
- having a positive impact for stakeholders.

The sustainable development approach is carried out by the Strategy & Sustainability division, managed by the President Strategy & Sustainability, a member of the Executive Committee.

A Code of Conduct that affirms the Company's values and principles of action

TotalEnergies is guided by its values and operating principles, which apply to the conduct of its operations. These are described in the Code of Conduct and are binding on all subsidiaries and employees. The Code of Conduct specifies that TotalEnergies abides by the OECD Guidelines for Multinational Enterprises as well as the principles of the United Nations Global Compact, and that the Company is committed to respecting internationally recognized human rights. It states the Company's commitments and expectations for each of its stakeholders and serves as a reference for employees and any other person working with the Company. It also describes the procedures in place to allow everyone to express their concern about the implementation of the Code of Conduct.

Helping our collective corporate culture to evolve in favour of sustainable development

To help our collective corporate culture evolve in favour of sustainable development, we have mobilized our 100,000 employees through the progress plans defined at each of our sites as part of the Sustainab'ALL program, in which the Company sets out its material contribution to sustainability.

TotalEnergies, with a view to a just transition, has structured its sustainable development approach for conducting its activities in order to contribute to the United Nations Sustainable Development Goals (SDGs), to which TotalEnergies has committed to contribute from 2016.

As part of its determination to strengthen its efforts on the goals in which it can act with most authority as an integrated energy Company, TotalEnergies involves its employees in identifying the SDGs on which it can have the greatest impact, in connection with its ambition to reach carbon neutrality (net zero emissions) by 2050, together with society. Through workshops, more than 27,000 employees took part in 2022 in the setting up of 10 objectives and indicators related to the SDGs. In 2023, nearly 250 of the Company's most important sites, business units, divisions or subsidiaries[(2)] representing 94.4% of employees, defined a local action plan built around the 10 sustainable development indicators with objectives to be achieved within their own scope by 2025. These action plans are linked to the activities of the entity concerned, its specificities and local issues. These plans form the Sustainab'ALL program through which TotalEnergies gives concrete expression to its contribution to sustainable development. The Company's contributions to the SDGs are illustrated below in the form of pictograms.

(1) TotalEnergies has not made any specific societal commitments to prevent food waste and food poverty or to promote animal welfare and responsible, fair and sustainable food, as these are not significant issues in view of the nature of the Company's activities.
(2) Excluding Hutchinson.

IDENTIFICATION AND ASSESSMENT OF MAIN CHALLENGES AND RISKS

The Company employs a continuous process of identifying and mapping risks in order to develop sector-specific policies that reflect the desired level of control. The Company manages its activities through internal management systems implemented at the different levels of the Company.

In doing so, the Company performs regular assessments, following a variety of procedures, of the risks and impacts linked to its activities in the areas of society, people's health and safety, the environment, climate, human rights and business ethics, as well as its supply chain.

- as regards health, safety and the environment, risks are identified as part of a dynamic process that draws in particular on lessons learned, which are included in the HSE (Health, Safety and Environment) reference framework known as One MAESTRO (*Management and Expectations Standards Toward Robust Operations*).
- the identification of climate-related risks and challenges is carried out by the Sustainability & Climate division.
- the Human Resources division is responsible for identifying labor risks and challenges.
- in terms of human rights, TotalEnergies relies in particular on the Reporting Framework for the UN Guiding Principles to identify its key risks.
- in terms of purchasing, a mapping of CSR risks has been drawn up and regularly updated since 2012.

In conjunction with these risk identification processes, a dialogue based on stakeholders' involvement and participation is implemented in order to develop constructive and transparent relationships with them and to identify the main challenges and expectations and contribute to their evaluation and prioritization. Modalities of dialogue are presented in the table hereafter.

The assessments of main challenges and risks are generally carried out:

- prior to investment, acquisitions and divestitures decisions on the Company's industrial projects (evaluation by the Risk Committee of safety and security studies, impact assessments, particularly environmental and societal, and evaluation of consistency with the Company's climate strategy, prior to review by the Executive Committee);
- during operations;
- prior to placing new substances on the market (toxicological and ecotoxicological studies, life cycle analyses).

These assessments incorporate the regulatory requirements of the countries where the Company operates and generally accepted professional practices. In addition, internal control systems are structured and regularly adjusted to align with the specific nature of the strategic areas and orientations set by the Board of Directors and General Management.

TotalEnergies has thus identified the main risks and challenges linked to its activities. As part of its statement of extra-financial performance, these are listed in the introduction to the sections relating to health, safety, climate change, the environment, social information, human rights, the fight against corruption and tax evasion, societal policy and relations with sub-contractors and suppliers.

For each of the challenges identified, the Company has deployed policies and operational action plans with quantitative and qualitative objectives aimed to reduce the negative impacts and increase the positive impacts of its operations from an economic, social and environmental perspective.

Open dialogue with stakeholders

TotalEnergies sets up dialogue procedures based on the consultation and involvement of stakeholders in order to develop constructive and transparent relations with them. This dialogue contributes to identifying the main risks and impacts of the Company's operations and, more generally, to a better understanding of changing trends and of the main societal expectations of each of the large stakeholder categories. Listening to stakeholders is an essential part of the just transition.

Employees		More information
Main stakeholders	– More than 100,000 employees – Employee representative bodies – Trade unions and employee associations	Sections 5.6 and 3.6
Main modalities of dialogue	– Surveys and questionnaires – Negotiation, concertation, consultation or information of representative bodies – Signing of agreements – Processing of alerts	

Main tools and frameworks for dialogue	– 2 internal opinion surveys[1] alternating every other year:
	  – TotalEnergies Survey: more than 85,600 employees in 122 countries participated in the latest edition conducted in 2022;
	  – TotalEnergies Pulse Survey: nearly 45,000 employees participated in this first edition conducted in 2023
	– TotalEnergies European Works Council
	– Employee representative bodies and collective bargaining: 91.5% of employees had trade union representation and/or employee representation in 2023; 404 agreements signed with employee representatives worldwide were in force in 2023
	– Signing of international agreements such as with IndustriALL Global Union (2015-2019).
	– Membership of and participation in the Global Deal[2] (since 2017)
	– Whistleblowing mechanisms	

Main entities/teams involved	– Human resources	
Main topics of common interest and identified expectations	– Health and safety – Physical and mental health, well-being at work, working hours, work organization – Compensation – Training, employability and skills, mobility – Equal opportunity, diversity – Social dialogue – Respect for human rights in the workplace – Social and environmental responsibility	

Investors and financial players		More information
Main stakeholders	– Individual shareholders – Institutional investors – Investor coalitions – Financial and extra-financial analysts – Extra-financial rating agencies – Market regulators	Sections 5.4 and 6.6 Chapters 3, 6 and 11
Main modalities of dialogue	– Financial and extra-financial publications – Individual or group meetings – Questionnaires from rating agencies and analysts (financial and/or extra-financial)	
Main tools and frameworks for dialogue	– Investor presentations on the occasion of the publication of annual and quarterly results, at a "Strategy, Sustainability & Climate" event in March, and at the "Strategy & Outlook" events in September and "TotalEnergies' Energy Outlook" published in November – Approximately 1,200 meetings held (individual interviews and roadshows) including 450 exchanges dedicated to extra-financial topics – Written answers to commitment letters from shareholders or investor groups such as Climate Action 100+ – Annual Shareholders' Meeting: answers given to the questions asked online via the dedicated platform, answers given to written questions. For the 2023 Shareholders' Meeting, the Board of Directors submitted the Sustainability & Climate Progress Report 2023 to the shareholders of TotalEnergies SE for their opinion. The report discloses the progress made towards achieving the Company's ambition for sustainable development and the energy transition towards carbon neutrality and related targets by 2030 (resolution approved by almost 89% of the votes cast).	

(1) TotalEnergies Survey is an in-house opinion survey for all employees worldwide allowing the Company to gather their views and expectations with regard to their working situation and their perceptions of the company, both at the local level and Company-wide. TotalEnergies Pulse Survey is a complementary survey to the TotalEnergies Survey, launched in 2023 by decision of the Executive Committee to enable employee engagement to be measured each year, conducted on a scope Company excluding Hutchinson.
(2) International initiative of the OECD and the ILO in favor of social dialogue.

Investors and financial players		More information
Main tools and frameworks for dialogue	– An ISO 9001 certified team dedicated to relationships with individual shareholders and offering a comprehensive communication package, featuring dedicated direct-line, email address, and postal address – Shareholders' Circle – Shareholder Advisory Committee	Sections 5.4 and 6.6 Chapters 3, 6 and 11
Main entities/teams involved	– Executive management – Board of directors – Finance Department; Financial Communications; Individual Shareholder Relations – Legal Department	
Main topics of common interest and identified expectations	– Corporate governance – Financial and extra-financial performance – Investment strategy – Climate: decarbonization strategy and trajectory; information on risks and performance indicators – Operational, financial and extra-financial risk management – Transparency – Extra-financial reporting frameworks	

Customers		More information
Main stakeholders	– Private customers (B2C) – Business customers (B2B) – Government (B2G) – Consumers and users of products and services	Sections 5.3, 5.8, 5.9 Chapter 2
Main modalities of dialogue	– Commercial relationship – Key account management – Technical and commercial partnerships – Complaints and claims	
Main tools and frameworks for dialogue	– Customer Relationship Management (mainly via the Salesforce platform) – Team dedicated to monitoring close to 180 of the Company's active customers around the world – Annual customer satisfaction surveys; global B2B satisfaction survey conducted every two years (latest in 2023) – Barometer on reputation and image (every two years) – Processing complaints and claims	
Main entities/teams involved	– Marketing/Strategy of business segments – Sales teams – Consumer Services – Research & Development	
Main topics of common interest and identified expectations	– Consumer health & safety – Carbon intensity of products used – Energy efficiency services – Low-carbon goods and services – Access to energy – Energy price – Digitization of services – Competition law	

Suppliers		More information
Main stakeholders	– Network of over 100,000 suppliers and subcontractors	Sections 5.10, 3.6
Main modalities of dialogue	– Qualification – Call for tenders – Assessment and action plans – Contractualization – Awareness raising – Audits	
Main tools and frameworks for dialogue	– Fundamental principles of purchasing – Supplier pre-qualification process: by the end of 2022, more than 20,800 suppliers were integrated into the tool used to monitor the process	

Suppliers		More information
Main tools and frameworks for dialogue	– 300 on-site audits and 180 documentary audits carried out by 2023 on 1,300 priority suppliers – Surveys and questionnaires – Suppliers Day (every two years) – Alert mechanism including internal mediator	Sections 5.10, 3.6
Main entities/teams involved	– TotalEnergies Global Procurement – Subsidiaries purchasing teams	
Main topics of common interest and identified expectations	– Fight against climate change and taking into account suppliers' carbon footprint in the procurement decision process – Human rights in the supply chain (including risks related to child labor, forced labor, working conditions, discrimination, health and safety of workers) – Environment in the supply chain (including risks related to pollution and damage to biodiversity) – Support for the economic development of SMEs and adapted and protected sector companies – Compliance with contractual terms and payment deadlines	

Professional associations		More information
Main stakeholders	– Professional or multi-stakeholder business organizations	Sections 5.4, 5.5, 5.9 List of associations available on TotalEnergies' website
Main modalities of dialogue	– Consultations – Memberships and participation in collective initiatives	
Main tools and frameworks for dialogue	– Review every two years of the list of professional associations and chambers of commerce of which TotalEnergies is a member: the last review was carried out in 2023 and covered 1,108 organizations – Evaluation every two years of the public positions of the main professional associations of which the Company is a member on the subject of climate – TotalEnergies company's Advocacy Directive (December 2021)	
Main entities/teams involved	– Public Affairs – Business segments – Legal department – Climate Department	
Main topics of common interest and identified expectations	– Climate: energy transition; transparency and consistency of supported positions – Environment and safety - regulations and risk management – Employment and economic development	

Civil society		More information
Main stakeholders	– Communities neighboring sites – Institutions and multilateral agencies – Universities and research centers – Experts and researchers – NGOs – Media	Sections 5.3, 5.4, 5.5, 5.7, 5.8, 5.9, 3.5, 3.6
Main modalities of dialogue	– Project management – Listening – Interrogation and alerts – Cooperation – Partnerships (especially with university chairs) – Mediation	
Main tools and frameworks for dialogue	– Assessment of the safety, environmental and societal challenges for new projects – Voluntary Principles on Security and Human Rights (VPSHR) initiative and tools for self-diagnosis and risk analysis – Societal impact studies begun or conducted in 2023: 61 – Management of complaints from neighboring communities – Citizen Action - TotalEnergies Foundation Program	

Civil society		More information
Main entities/teams involved	– Health, Safety and the Environment – Business segments – Security – OneTech – Sustainability & Climate – Legal department – Communication – TotalEnergies' corporate foundation	Sections 5.3, 5.4, 5.5, 5.7, 5.8, 5.9, 3.5, 3.6
Main topics of common interest and identified expectations	– Human rights, including Indigenous and tribal peoples' rights, right to health and adequate standard of living – Climate, including the energy transition – Protection of the environment and biodiversity – Employment - conversion of sites with a view to a just transition – Economic development of areas where the Company is established – Innovation and R&D – Access to energy – Major accident risk prevention – Access to land, sea and resources – Impacts on cultural and religious practices and heritage	

Public authorities		More information
Main stakeholders	– Host countries – Authorities – Administrations	Sections 5.3, 5.4, 5.5, 5.7, 5.8, 5.9, 3.5, 3.6
Main modalities of dialogue	– Agreements and authorizations – Project management – Cooperation – Mediation	
Main tools and frameworks for dialogue	– Compliance program – TotalEnergies company's Advocacy Directive (December 2021) – Voluntary Principles on Security and Human Rights	
Main entities/teams involved	– Executive management – Country chairs – Legal department – Public Affairs – Security	
Main topics of common interest and identified expectations	– Climate change – Fighting corruption and tax evasion – Human rights – Protection of the environment and biodiversity – Major accident risk prevention – Economic development – Access to energy	

TRANSPARENCY, A PRINCIPLE OF ACTION

The Company believes that transparency is an essential principle of action in building a trust-based relationship with its stakeholders and enables a path of continuous improvement.

Pending the adoption of an international, standardized extra-financial reporting framework, TotalEnergies endeavors to report its performance on the basis of the various commonly used extra-financial reporting frameworks. As such, TotalEnergies refers to the Global Reporting Initiative (GRI) standards and those of the Sustainability Accounting Standards Board (SASB), for which detailed tables of correspondence are available on its website. TotalEnergies' reporting includes the World Economic Forum's core indicators(1) (refer to chapter 11). Furthermore, the Company follows the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) for its climate reporting and initiated to take into account the recommendations of the TNFD (The Taskforce on Nature-related Financial Disclosures). TotalEnergies provides additional information on its website in pages specifically dedicated to its sustainability development approach.

(1) Measuring Stakeholder Capitalism: Towards Common Metrics and Consistent Reporting of Sustainable Value Creation, white paper, September 2020.

EVALUATION OF OUR TRANSITION BY THIRD-PARTIES

Extra-financial ratings

	TotalEnergies December 2023	Ranking vs our peers(1)
MSCI ESG Research	AA	2nd (tie)
Sustainalytics	28 Medium risk	1st
ISS ESG	B- Prime	1st (tie)
Moody's ESG Solutions	65 Advanced	n/a
S&P Global	74	1st
CDP(2)	A-	1st (tie)

(1) Peers: BP, Shell, Exxon, Chevron, Eni, Equinor.
(2) CDP: 1st for CDP Water and improvement in our rating; 1st tie for CDP Climate, same rating than 2023.

Today, TotalEnergies is recognized in the rankings of the main extra-financial rating agencies as a benchmark in its sector for the quality of its consideration of environmental issues, social responsibility requirements and good governance. TotalEnergies is also praised for its transparency in these areas. In 2023, we have improved the majority of our extra-financial ratings.

We also maintain our presence in a number of extra-financial indices made up of the best-performing companies in terms of sustainable development. In 2023, TotalEnergies is in particular included in the FTSE4Good index, the DJSI World and DJSI Europe indexes, the MSCI Europe ESG Leaders, the MSCI World ESG Screened and the MSCI Europe ESG Screened.

MSCI

In their enhanced Implied Temperature Rise (ITR) model seeking to align with the best practice guidance from the Glasgow Financial Alliance for Net Zero (GFANZ), MSCI have estimated in February 2024 that TotalEnergies, with a 1.8°C ITR score (the lowest among its peers), is in line with the Paris agreement's goal of limiting global mean temperature to well below 2°C. Several benchmark rankings in 2023 and early 2024 also confirmed the progress made by the Company in the field of energy transition and sustainable development, in particular:

1. **Carbon Tracker Absolute Impact 2023**: in 2023, TotalEnergies climbed to 2nd place out of 25 (up 1 place on 2022) in this report, which evaluates the emissions targets of the 25 biggest Oil & Gas companies.

2. **Mercom Capital Group ranking**: TotalEnergies is the 1st solar developer in the world.

3. **Ecovadis**: in 2023, TotalEnergies obtained a score of 83/100 for its subsidiary SAFT (which obtained Platinum status in 2023 and is positioned in the 99th percentile), 78/100 for its Refining-Chemicals branch, and 79/100 for its Marketing & Services branch.

4. **Workforce Disclosure Initiative (WDI)**: score of 87% in 2023 (+1% versus 2022), above the industry average (66%). The WDI assesses the transparency of companies' human resources management.

5. **Tax transparency VBDO ranking**: +1 point versus 2022, top 10 ranking maintained.

5.2 Business model

The business model implemented by the Corporation and all of the entities included in the scope of consolidation in accordance with Article L. 233-16 of the French Commercial Code is set forth in the integrated report (refer to point 1.1.3 of chapter 1). The business activities of the Company are presented in detail in chapter 2.

5.3 Health & Safety for everyone

It is around safety, a cardinal value of the Company, in accordance with the strictest standards and with regard to health that the operational measures and indicators used to manage the Company's activities are based.

The activities of TotalEnergies involve health and safety risks for its employees, contractors, and residents in the vicinity of its industrial sites. Furthermore, certain products marketed by TotalEnergies may present risks for the health and safety of consumers.

In this context, TotalEnergies has therefore identified its main health and safety risks:

- risk of major industrial accident;
- risk of workplace accident;
- risk of transport accident;
- risk of damage to health at the workplace;
- risk of damage to the health and safety of consumers.

The risks and challenges relating to people's health and safety are identified as part of a dynamic process that draws in particular on lessons learned, which are included in the HSE reference framework known as One MAESTRO (Management and Expectations Standards Toward Robust Operations).

To address its challenges, TotalEnergies relies on the HSE division, which forms part of the Strategy & Sustainability division, whose President is a member of the Executive Committee.

In line with the various businesses of the Company, the HSE division coordinates the promotion and implementation of TotalEnergies' policies to enable the HSE divisions of the subsidiaries to prevent or mitigate risks. Indicators are monitored so that the Company's actions in relation to health and safety can be continuously adapted.

TotalEnergies conducts its operations on the basis of its Safety Health Environment Quality Charter (available on its website).

It forms the common foundation for the Company's management frameworks, and sets out the basic principles applicable to safety, security, health, the environment, quality and societal commitment. Company directives and rules define the minimum requirements expected. General specifications, guides and manuals are used to implement these directives and rules. TotalEnergies' subsidiaries implement these requirements by means of their own management systems, which take account of specific local specificities and local regulatory requirements. The Company's reference framework is available to all employees.

The HSE reference framework common to all business segments, called One MAESTRO, has been rolled out since 2018 in order to give greater overall consistency to the Company's operations, while continuing to respect the specific characteristics of the various business segments. This reference framework applies to the subsidiaries as well as to their operated sites as defined in point 5.11 of this chapter (One MAESTRO scope). It is based on 10 fundamental principles: (1) Management Leadership & Commitment, (2) Compliance with Laws, Regulations and Company requirements, (3) Risk Management, (4) Operational Accountability, (5) Contractors and Suppliers, (6) Competencies & Training, (7) Emergency Preparedness, (8) Learning From Events, (9) Monitoring, Audit & inspection, and (10) Performance Improvement.

Key principles of the One MAESTRO reference framework

In order to evaluate the implementation of this framework, TotalEnergies' subsidiaries operating sites are audited every three to five years. The periodicity of HSE audits is defined according to a risk-based approach, which takes into account, among other things, the results of previous HSE audits and the status of the corresponding action plans. In 2023, 39 HSE audits were conducted. These subsidiaries also undertake self-assessments at least every two years. The Company's HSE audit protocol is based on the One MAESTRO framework, and includes inter alia the requirements of ISO 14001:2015 and ISO 45001:2018. The audit protocol is applied fully during self-assessments and according to a risk-based approach during audits.

Furthermore, the One MAESTRO framework provides that subsidiaries of TotalEnergies holding an interest in assets operated by third parties must promote the Company's HSE requirements and best practices and use their best efforts to enable that similar requirements are adopted by the operator. It also provides that the HSE risks relating to these assets must be assessed at least every five years and that the TotalEnergies' employees in charge of managing non-operated assets must be trained in HSE management. Assessing the risks relating to these assets provides the basis for promoting the Company's HSE rules implemented by the asset manager, particularly during board meetings. This can also take place during technical assistance missions or through HSE audits or reviews, when these are provided for by a shareholders' agreement. In 2023, the Company participated in 23 HSE audits of non-operated assets.

Furthermore, before any final decision to invest in a construction project or acquire or sell a subsidiary, the proposals presented to the Company's Risk Committee are assessed with regard to health and safety risks.

Our health and safety targets	Facts
– zero fatal accidents	– 2 fatalities in 2023
– continuously decrease the TRIR[1] and achieve a TRIR of 0.62 in 2024. The target in 2023 was 0.65	– a TRIR of 0.63 in 2023, below the target
– maintain the health of employees at work	– 100% of employees with specific occupational risks received regular medical monitoring in 2023[2]
– preventing the occurrence of major industrial accidents	– no major industrial accident in 2023

(1) TRIR (Total Recordable Injury Rate): number of recorded incidents per million hours worked.
(2) Data from the WHRS (refer to point 5.11).

5.3.1 Preventing the occurrence of major industrial accidents

To prevent the occurrence of a major industrial accident such as an explosion, fire, leakage of hazardous products or mass leakage that might cause death, physical injury, large-scale pollution or pollution at an environmentally sensitive site, or important damage to property, TotalEnergies implements suitable risk management policies and measures which apply to the operated activities. The Major Risks division of the HSE division provides support in the application of this policy.

At year-end 2023, in addition to its drilling and pipeline transportation operations, TotalEnergies had 177 operated sites and zones exposed to these risks. These correspond to all activities relating to hydrocarbon production, whether offshore or onshore, as well as Seveso-classified industrial sites (upper and lower threshold) and their equivalents outside the European Union (185 sites at the end of 2022 and 181 at the end of 2021).

The Company's policy for the management of major industrial accident risks applies from the facilities design stage, and throughout their lifespan, in order to minimize the potential impacts associated with its activities. The policy is described in the One MAESTRO reference framework. It provides for the analysis of the risks related to the Company's industrial operations at each operated site subject to these risks, based on incident scenarios for which the probability of occurrence and the severity of the consequences are assessed. Based on these parameters, a prioritization matrix is used to determine whether further measures are needed. These mainly concern measures to prevent accidents but also include mitigation measures. They are technical and organizational. These analyses are updated periodically, at least every five years, or when facilities are modified. Training on major accident risks is organized at head office and at subsidiary sites for operating staff.

The Company is actively represented in international associations in the field of major accident risk management (EPSC -European Process Safety Centre, CCPS-Chemical Center for Process Safety, FABIG-Fire and Blast Information Group, IOGP - International Oil & Gas Producers...) to exchange good practices in controlling major accident risks.

With regard to the design and construction of facilities, technical standards include applicable regulatory requirements and refer to industry best practices. The construction of the Company's facilities is entrusted to qualified contractors who undergo a demanding internal selection process and who are monitored. In the event of a modification to a facility, the Company's rules define the management process to be adopted.

With regard to the management of operations and integrity of facilities operated by the Company, formal rules have been set out to prevent specific risks that have been identified either by means of risk analyses or from internal and industry feedback. For specific works, the preliminary risk analysis may lead to the establishment of a permit to work, the process of which, from preparation through to closure, is defined. The Company's reference framework also provides a process to manage the integrity of facilities, which includes, for example, preventive maintenance, facility inspections, identification of safety critical equipment for special monitoring, management of anomalies and downgraded situations, and regular audits. All these rules are part of the One MAESTRO reference framework. Operations teams receive regular training in the management of operations in the form of companionship or in-person trainings.

For example, in order to control the integrity of **pipelines** operated by the Company, they are subject to periodic surveys such as cathodic protection checks, ground or aerial surveillance or in line inspections. These actions are planned as part of the pipeline monitoring and maintenance programs. These controls and their frequency are reinforced in areas with high human or environmental risks identified by the risk analysis.

In terms of indicators, TotalEnergies monitors the number of Tier 1 and Tier 2 losses of containment as defined by the American Petroleum Institute (API) and the International Association of Oil & Gas Producers (IOGP). After reaching its target in 2022, the Company has strengthened its demands and has set itself a new target of a number of Tier 1 and Tier 2 events below 50 in 2023. This objective was achieved in 2023. In addition to the 48 Tier 1 and Tier 2 events linked to operations indicated in the table below, the Company experienced 6 Tier 1 or Tier 2 events due to acts of sabotage or theft in 2023.

Losses of primary containment[(a)]	2023	2022	2021
Losses of primary containment (Tier 1)	19	11	29
Losses of primary containment (Tier 2)	29	37	48
Losses of primary containment (Tier 1 and Tier 2)	48	48	77

(a) Tier 1 and Tier 2: indicator of the number of losses of primary containment with more or less significant consequences (fires, explosions, injuries, etc.), as defined by API 754 (for downstream) and IOGP 456 (for upstream). Excluding acts of sabotage and theft.

Tier 1 and 2 events had moderate consequences in terms of safety (lost time injuries, fires or pollutions). The Company did not have any major industrial accidents in 2023.

In order to deal effectively with the consequences of a major industrial accident, TotalEnergies has for several years implemented a **global crisis management system** that is based on the following elements: an on-call system available 24/7 in all the Company's entities (subsidiaries, branches and head office), a process for rating incidents and triggering alerts, an emergency management system deployed in each subsidiary which includes regular training (individual courses and annual training sessions), dedicated equipment or equipment that can be quickly mobilized. At head office, a dedicated crisis management area can handle two major crises simultaneously, if necessary. Teams are trained to intervene in each function of the crisis unit. The standards clearly stipulate that subsidiaries must have response plans and procedures in place in the event of accidents such as leaks, fires, explosions, or transport accidents. Large-scale exercises are organized by subsidiaries to train and test their crisis management systems.

The context of the COVID-19 pandemic demonstrated the capacity for resilience of the Company, which used, in various formats, its procedures and methodologies to organize crisis management exercises in person, remotely or in a hybrid format. This was made possible in particular through the continuous deployment of digital crisis units for the head office, segments and subsidiaries, and the deployment of the associated training. The intervention teams at subsidiaries and at head office practice their crisis management activities regularly on the basis of scenarios identified by the risk analyses. These personnel may follow dedicated training depending on their specific functions. In 2023, around 650 individuals were thus trained in crisis management in subsidiaries and at head office.

TotalEnergies also continued to roll out its *Incident Management System* (IMS) in subsidiaries operating liquid hydrocarbon or natural gas exploration or production sites in the Exploration & Production, Integrated LNG and Integrated Power segments. The IMS is a harmonized system for the management of emergency situations described by a good practices guide of the International Petroleum Industry Environmental Conservation Association (IPIECA) and increasingly being adopted by the major operators. In 2023, 275 employees were trained in the IMS and 7 Exploration & Production subsidiaries carried out a large-scale application exercise, bringing the total number of trained employees to 1,055 and the number of subsidiaries where the IMS is deployed to 23.

Lastly, in 2023, TotalEnergies continued to strengthen its business continuity system which includes a Company reference framework, on-site and remote training and a network of correspondents in all entities.

5.3.2 Preventing occupational accidents

The Company has a **policy for the prevention of occupational accidents** which applies to all employees of subsidiaries and of contractors working on a site operated by one of these subsidiaries. The safety results are monitored with the same attention for all. This policy is described in the One MAESTRO reference framework.

The indicators monitored by TotalEnergies include work-related accidents whether they occur at workplace, during transportation within the framework of long-term contracts, or during an industrial accident. In addition to its aim of zero fatalities in the exercise of its activities, TotalEnergies has set itself the target of continuously reducing the TRIR indicator and, for 2024, of reducing it below 0.62 for all personnel of the Company and its contractors. The 2023 target was 0.65.

Occupational Safety indicators	2023	2022	2021
Millions of hours worked – All Personnel	400	392	389
Company Personnel	212	217	215
Contractors' employees[(a)]	188	175	174
Number of occupational fatalities – All Personnel	2	3	1
Company Personnel	0	0	1
Contractors' employees[(a)]	2	3	0
Number of occupational fatalities per hundred millions hours worked – All Personnel	0.50	0.77	0.26
TRIR[(b)]: number of recorded injuries per million hours worked – All Personnel	0.63	0.67	0.73
Company Personnel	0.51	0.60	0.59
Contractors' employees[(a)]	0.77	0.76	0.91
LTIR[(c)]: number of lost time injuries per million hours worked – All Personnel	0.40	0.45	0.48
Company Personnel	0.42	0.51	0.47
Contractors' employees[(a)]	0.38	0.39	0.48
SR[(d)]: number of days lost due to accidents at work per million hours worked - All Personnel	12	15	15

(a) As defined in point 5.11.4 of this chapter.
(b) TRIR: Total Recordable Injury Rate.
(c) LTIR: Lost Time Injury Rate.
(d) SR: Severity rate.

In 2023, out of the 252 occupational accidents reported, 248 concerned accidents at the workplace. 72% of these occurred, in decreasing order of the number of accidents, when walking, handling loads or objects, using portable tools or working with powered systems.

The Company's efforts on safety have allowed it to reduce the TRIR by more than 60% between 2013 and 2023.

This improvement is due to constant efforts in the field of safety and, in particular:

- the prevention of the risks of serious and fatal accidents by campaigns aimed at road transport and high-risk work;
- the implementation of the HSE rules and guides, which are regularly updated and audited;
- training and general awareness raising with safety issues for all levels of management (special training for managers, World Safety Day);
- HSE communication efforts targeting all Company personnel;
- the maintaining of HSE objectives into the compensation policy for Company employees (refer to point 5.6.1.2 of this chapter).

Despite the measures implemented and detailed below, there were regrettably two accidental fatalities among the personnel of contractors in 2023. In February, in the Netherlands, a worker lost his life in a reactor during a catalyst unloading operation in an inert atmosphere. In May, during excavation work at a service station in France a worker was struck by a metal beam he was guiding while handling it with a mechanical shovel. For each of these accidents, specific prevention measures have been taken at the Company level beyond the overall programs already in place, including the ban of any entry into confined spaces under an inert atmosphere during catalyst unloading operations. For each new catalyst unloading operation, alternative solutions have been developed and implemented at all TotalEnergies sites, and communicated to the industry's safety networks. Work supervision measures at service stations were furthermore reinforced.

As part of the policy for preventing workplace accidents, TotalEnergies has defined rules and guidelines for HSE training, personal protective equipment and high-risk operations for Company employees and contractors working on sites operated by the Company. In order to continually move its practices forward, TotalEnergies also implements a **process for analyzing accidents**, irrespective of their nature, with the method used and the level of detail involved depending on the actual or potential level of severity of the event. By way of example, a near miss with a high severity potential is treated as a severe accident, and its analysis is considered an essential factor of progress. Depending on its relevance to other Company entities, it will trigger a safety alert and, depending on the circumstances, the circulation of lessons learned and updating of the reference framework. The reporting of anomalies and near misses (nearly 1,150,000 in 2023, up 53% compared to 2022) is strongly encouraged and is monitored. The involvement of each employee in identifying anomalies and dangerous situations is an indicator of employees' vigilance in accident prevention and reflects the safety culture within the Company.

The Company's HSE division includes a department of specialists in high-risk operations (work at height, lifting, electricity, confined spaces, etc.), whose purpose is to consolidate in-house knowledge and relations with contractors, and to issue the relevant One MAESTRO rules. The HSE division also includes a division aimed at providing support for subsidiaries in their own voluntary approach to **strengthen their safety culture**. This division also develops and disseminates tools to improve human performance by identifying the Organizational and Human Factors (OHF) of a work situation and defining appropriate measures. Since 2020, a digital platform has hosted these different tools, as well as examples of how to apply them, fact sheets and information about the fundamental concepts of OHF. This platform includes the principles covered by two guides of the One MAESTRO standard, dealing respectively with OHF and Integrated Safety Culture approaches. The implementation of these principles is promoted within the Company through dedicated modules integrated into the training programs for different populations, or through specific training programs at the request of subsidiaries.

In addition to its One MAESTRO reference framework, the Company has applied 12 Golden Rules for safety at work since 2010. These simple Golden Rules, which can be memorized by everyone and are representative of a high number of accidents in the workplace, must be strictly obeyed by all personnel, both employees and contractors, in all countries and in all the Company's activities. The purpose of the Golden Rules is to protect day-to-day safety in operations and on sites with a common objective: "Zero fatal accidents".

In 2022, TotalEnergies reviewed the drafting of its Golden Rules to make them more readily understandable by player on site and to facilitate their appropriation. These Golden Rules were widely distributed to both employees and contactors accompanied by a wide range of communication support to anchor these Golden Rules, enable them to be discussed and adopted by the teams in the subsidiaries. In addition, the *Stop Card* system that is in place enables any employee of the Company or of a contractor to intervene if, for example, any of the Golden Rules is not complied with. Starting in 2019, the Company also rolled out the *Our lives first* program, which introduced joint safety tours with contractors (10,000 carried out in 2023 on the Company's sites), the establishment, in the work permit process, of a pre-work routine on all operated sites concerned (Safety *Green Light*); and a tool (*Life Saving Checks*) to intensify checks in the field and measure compliance with safety rules for the five high-risk activities: work at height, lifting operations, work on energy-powered systems, work in confined spaces, hot work (Life Saving *Checks* - more than 182,000 compliance checks were carried out in this context in 2023 on the Company's sites).

The correct implementation of the One MAESTRO reference framework, and more generally, of all the Company's occupational safety programs, is verified with site visits and **audits**. Verification of the HSE commitment of contractors involves a **rigorous qualification** process. The reference framework states that for a contractor to be authorized to carry out high-risk work on a site operated by a Company subsidiary, its HSE management system needs to be certified by a recognized third-party body or be inspected for compliance. Finally, the contract award process is also based on a **selection** phase allowing verification that specific HSE criteria are fully respected. As indicated previously, a program of **controls** is also put in place to verify the proper execution of contracts from a HSE point of view. For contractors with a high number of hours worked, a Safety Contract Owner can be appointed from among the senior executives of Company segments or members of executive committees of Company subsidiaries to initiate high-level dialogue with the contractor's management and increase the level of commitment and visibility on HSE issues.

Whatever the nature of the health, safety and environmental risks, preventive actions require all employees to adhere to the Company's HSE policy. To this end, TotalEnergies provides **training intended for the various groups** (new arrivals, managers, senior executives and directors) in order to establish a broad-based, consistent body of knowledge that is shared by everyone:

- *Safety Pass:* these safety induction courses were started on January 1, 2018, for new arrivals. Various courses exist depending on the position and cover the Company's main HSE risks, the risks linked to the site activities as well as those linked to the workplace. The theoretical content is supplemented by practical life-saving actions training sessions;
- *HSE for Managers* is aimed at current or future operational or functional managers within one of the Company's entities. This training was delivered in virtual classroom mode as well as face-to-face in 10 sessions in 2023, in which about 230 managers took part;
- *Safety Leadership for Executives* is intended for the Company's senior executives. Its objective is to give senior executives the tools allowing them to communicate and develop a safety culture within their organization. Four sessions were held in 2023 to train approximately 40 Company's senior executives.

In order to provide and reinforce knowledge of the reference framework, a knowledge evaluation tool containing over 3,000 multiple-choice questions was developed in 2018 for use by the HSE managers of subsidiaries, operated sites and their teams. This tool can also be used to determine a suitable training plan, if necessary. Around twenty evaluations were carried out in 2023.

In addition to training measures, the HSE division hosts regular events on HSE-related topics, with experts and specialists communicating a set of rules and good practices, internal and external, each month. The annual World Day for Safety is another key event. Its theme in 2023 was "Technological risks: Everyone's involved, Everyone has a role!". In addition, TotalEnergies encourages and promotes its subsidiaries' safety initiatives. Each year, the Company recognizes and awards a trophy to the best HSE initiative carried out in a subsidiary.

Finally, safety, as a value of TotalEnergies, is taken into account in the **employee compensation policy** (refer to point 5.6.1.2 of this chapter).

In terms of **security**, the Company's policy aims that the Company's people and property are protected from malicious intent or acts. To achieve this, TotalEnergies relies on its Security department, which develops the Company's reference framework and oversees the security situation in the countries in which it operates in order to determine general security measures to be adopted (such as authorization to travel). It also provides support to subsidiaries, particularly in the event of a crisis. The Company's security reference framework applies to all subsidiaries controlled by TotalEnergies. It provides that the security management system for subsidiaries must include the following stages: analysis of the threat, risk assessment, choice of a security posture, implementation of preventive or protective measures, control and reporting and then regular reviews. It must also comply with the requirements of local regulations. The framework requires each subsidiary to develop a security plan, operating procedures and an action plan. Within the framework of developing new activities, the Company's Security department recommends the organization and resources to be deployed in connection with the business segments.

In each country in which TotalEnergies operates, the Country Chair is responsible for the security of operations in the country. The Country Chair ensures the deployment of measures and resources, with the support of a Country Security Officer. Subsidiaries' management systems and security plans are checked on a regular basis by the Company's Security department or the Country Chair. Awareness raising and training programs and a centralized system for reporting security events are organized by the Company's Security department.

5.3.3 Preventing transport accidents

In the field of **road transportation**, the Company has for many years adopted a policy intended to reduce the number of accidents by applying standards that are, in some cases, more stringent than certain local regulations. This policy, defined in the One MAESTRO reference framework, applies to all the Company's personnel and Company entities' contractors. For example, it includes a ban on telephoning while driving, even with a hands-free set, a ban on using motorized two-wheeled vehicles for business travel, mandatory training for drivers, and the definition of strict technical specifications for Company vehicles (in particular, light vehicles must pass NCAP 5* tests).

Additional requirements are defined depending on the level of road traffic risks in the country in question and the nature of the activity.

Since 2012, a large-scale inspection program of transportation contractors has also been rolled out by Marketing & Services, the segment with the most road transportation within the Company, with the delivery of products to service stations and consumers. This program has been extended to the product transportation activities of the Polymers division of the Refining & Chemicals segment, to the liquid sulfur transportation activities of the Integrated LNG segment and is being progressively extended to the Exploration & Production segment.

It calls on independent transportation experts who inspect the practices and processes adopted by transportation contractors with regard to the recruitment and training of drivers, vehicle inspections and maintenance, route management, and the HSE management system. After inspection, an action plan is adopted. If there is a serious shortcoming or repeated poor results, the transportation contractor may be excluded from the list of approved transportation contractors. Furthermore, there has been a training center since 2015 in Radès in Tunisia. It welcomes employees of subsidiaries and road transportation contractors working for the Company that are interested in transportation trainings proposed by Marketing & Services.

To measure the results of its policy, TotalEnergies has, for many years, been monitoring the number of severe road accidents involving its employees and those of contractors. Over the past five years (2018-2023), the 63% reduction in the number of serious accidents testifies to the efforts made, particularly thanks to prevention campaigns for heavy goods truck drivers.

Based on the use of new technologies to prevent road accidents, TotalEnergies internal rules ask for all new heavy vehicles in the Marketing & Services segment to be equipped with certain driver assistance systems[1] wherever these technologies are offered by manufacturers. The decision was also made to generalize, at Company's perimeter, the use of fatigue and distraction detection systems, after conclusive tests carried out over several months on heavy vehicles in the Africa Marketing & Services zone. Deployment is underway globally with the aim of having these devices, as well as lane departure warning and frontal collision warning systems, on all heavy vehicles by the end of 2024. The Company's Rules require all the Company's light vehicles, as well as the contractors' dedicated light vehicles, to be also equipped with the same devices during fleet renewals.

Furthermore, for 2023-2024 the third part of the *SafeDriver* video campaign was launched with the theme "All SafeDrivers". The topics covered are: "I control my vehicle in all circumstances", "I don't drive if I'm tired and I avoid any distraction while driving" and "I'm attentive to others while driving".

Number of severe road accidents[a]	2023	2022	2021
Light vehicles and public transportation[b]	4	3	1
Heavy goods vehicles (trucks)[b]	7	12	20

(a) Overturned vehicle or other accident resulting in the injury of a crew member or a passenger (recordable accident).
(b) TotalEnergies' vehicles or vehicles under long-term contract (over 6 months) with TotalEnergies.

In **maritime** and **inland waterways** transportation, the process and criteria for selecting ships and barges are defined by the teams in charge of vetting. These criteria take into account not only the ship or barge but also the crew, ensuring that the crew has the qualifications and training required under the STCW (Standards of Training, Certification and Watchkeeping for Seafarers) convention. These same teams also verify the application of the safety management system defined for ships by the ISM (International Safety Management) Code of the IMO (International Maritime Organization) as well as industry recommendations such as OCIMF (Oil Companies International Marine Forum) and SIGTTO (Society of International Gas Tanker and Terminal Operators), including those that take account of the human and organizational factors, in particular to prevent accidents to people on board ships or barges. In addition, TotalEnergies' chartering contracts require that the crew belong to a recognized trade union affiliated to the ITF (International Transport Workers' Federation). The ITF represents the interests of transportation workers' unions in bodies that make decisions about jobs, conditions of employment or safety in the transportation sector, such as the International Labor Organization (ILO) or the IMO.

With regard to **air transportation**, a carrier selection process exists to limit the risks relating to travel by Company and contractors' employees, if their journey is organized by TotalEnergies. This process is based on data from recognized international organizations: ICAO (International Civil Aviation Organization), IOSA (IATA Operational Safety Audit), IOGP (International Association of Oil and Gas Producers), and civil aviation authorities' recommendations. Airlines that do not have a rating from an international body are assessed by an independent body commissioned by the Company.

5.3.4 Preventing occupational health risks

With regard to the prevention of occupational health risks, the One MAESTRO framework provides that subsidiaries of the Company identify and assess risks at the workplace in the short, medium and long term. To do this, the framework provides application guides for implementation. The analysis of these health risks relates to chemical, physical, biological, ergonomic and psychosocial risks. This results in the roll-out of an action plan. An Industrial Health correspondent in subsidiaries is identified and tasked with implementing the policy for identifying and assessing work-related health risks. The actions are integrated into the entities' HSE action plans and can be audited as part of the One MAESTRO audits.

In general, **potential exposure to chemical or hazardous products** at a site operated by a Company entity or nearby is one of the most closely monitored risks in view of the potential consequences. New facility construction projects comply with international technical standards from the design stage in order to limit exposure. For production sites operated by a Company entity and subject to this risk, the One MAESTRO reference framework sets out the prevention process in several stages.

- First, hazardous products such as carcinogenic, mutagenic and reprotoxic products (CMR) are listed and their risks identified.
- Then, potential exposure to levels that may present a risk to the health of personnel, contractors or local residents at the site or nearby are identified and assessed, and prevention or mitigation measures are implemented in order to control the risk.
- Lastly, the approach is checked (atmospheric checks, specific medical monitoring, audits etc.) in order to verify its effectiveness and implement improvement measures if necessary. This is also set out formally in a risk assessment file, which is revised regularly by the subsidiary.

(1) Such as AEB (advanced emergency braking), LDW (lane departure warning) and EBS (electronic braking system) for motor vehicles and RSS (roll stability support) for semi-trailers.

An annual Industrial Hygiene survey is sent to the Company's subsidiaries in order to evaluate the rate of implementation of risk analyses in the workplace, to verify that potential exposures have been identified, and that action plans are in place.

	2023	2022	2021
Entities having carried out workplace Health risk analysis	92%	91%	88%

In addition to the One MAESTRO reference framework, the Company has a health reference framework, which was comprehensively reviewed and approved by the President, People & Social Engagement in 2022.

The health policy is part of the Company's approach to sustainable development and includes occupational health requirements that apply to the Company's employees as part of their professional activity, as well as to the employees of contractors working on its sites.

The aim of occupational health protection is to protect the mental and physical health of the Company's employees by implementing an appropriate risk analysis and prevention policy. It also aims to guarantee their fitness for work and to avoid accidents at work and occupational diseases.

In 2018, the Company structured its organization by appointing a medical coordinator in charge of the health policy. The medical coordinator organizes active monitoring and promotes health issues by regularly participating in discussions between peers, particularly as part of the *Association of medical coordinators* in major international groups. In addition, the medical coordinator can call on a Medical Advisory Committee that meets regularly to discuss key health issues relating to the Company's activities. This Committee decides whether there is a need for additional health protection strategies to be implemented. It consists of external scientific experts and the Company's senior executives and stakeholders concerned by these issues. The medical coordinator also leads the Health Steering Committee, a health governance body, which brings together the health officers of the Company's various business segments on a quarterly basis. The Company has set itself the objective that 100% of sites within the WHRS scope have a health representative (mental and physical health). This objective was achieved in 2023.

Furthermore, in view of its activities and exposure, TotalEnergies has an international medical department that designs, coordinates and supervises operational medical logistics abroad. It is the decision-making level in terms of medical safety of expatriate and national employees. For foreign subsidiaries, it coordinates the organization of health services, employee aptitude assessments, medical monitoring and support for employees and expatriates' families, and medical evacuations. It also conducts audits of medical facilities in countries where TotalEnergies is present and issues recommendations.

As part of its health policy, the Company has implemented a **Mental Health Risks** (MHR) prevention policy aimed at protecting the mental health of employees and has introduced a global program to enable all exposed employees to receive support, wherever they are in the world. The incorporation of mental health by the Company is part of a broader framework linked to well-being and quality of life at work, which includes social protection, working methods and environment, taking family life into account, and listening and caring at all levels of management. This program is managed by the People & Social Engagement division, the Company's coordinating doctor and the health-MHR representatives appointed in each TotalEnergies business segment, and relies on local MHR prevention committees bringing together representatives of employees and the employer. Any volunteer collaborator can also participate in these committees and thus contribute to the definition and development of local initiatives on this subject. This enables mental health programs to be adapted to local contexts. The Company has set itself the objective that 100% of subsidiaries within the WHRS scope will have a MHR Prevention Committee by the end of 2024. At the end of 2023, 65% of subsidiaries had set up a Committee of this type. The program is based on three levels:

- Primary prevention consists of systematically assessing the mental health risks in the workplace and the impacts of reorganizations on mental health, using a methodology based on the One MAESTRO reference framework, to take action at the source, or reduce or eliminate any potential risk;
- Secondary prevention consists of raising awareness among all employees with an MHR prevention kit.

  This kit, the primary supporting material for all training, has been translated into 11 languages and validated by international experts. It consists of a methodological guide for site managers and two practical guides for managers and employees. After a definition of the MHRs and risk factors for mental health, it presents the impacts, human and societal issues of MHRs and a methodology to prevent them in the workplace. Finally, it contains practical fact sheets for use in the event of difficulties, high-risk situations or crises.

  Aware of the key role played by managers in the psychological equilibrium and mental health of their employees, the Company is making them aware of their role in preventing these risks on a daily basis and of the impact of the working environment on the well-being of their employees. The MHR prevention training (e-learning and educational videos) was fully reviewed in 2022 and is accessible to everyone on the training platform. It particularly addresses the themes of stress, harassment both moral and sexual and burn-out. Monitoring of the deployment of this training has been put in place. At the end of 2023, 49% of managers had followed it, which represents progress of 2 points compared to 2022. In addition, in 2023, the Company launched "First Aid in Mental Health" training to improve understanding of psychological difficulties and enable colleagues to succeed in providing initial support and to redirect cases to the appropriate contacts. Following a pilot scheme intended for health-MHR representatives, doctors, nurses, social workers and staff representatives, this training is now open to all employees.

  In pursuit of openness and dialogue on mental health, the Company makes questionnaires established and scientifically validated by recognized organizations available to employees on the intranet for individual measurements of stress, anxiety and depression, and for collective assessment of the factors of MHR in the working environment.

  As a consequence, health officers can manage the prevention of MHRs in order to reduce their impacts on mental health independently and as closely as possible to employees.

– Tertiary prevention, provided by international experts, offers help and support to all employees, in more than 60 languages and cultures, on a free 24/7 hotline (also accessible to employees of contractors) and up to three video-consultations paid for by the Company.

	2023	2022	2021
Percentage of subsidiaries that have deployed a help system	87%	85%	85%
Percentage of subsidiaries that have measured stress over the last two years	55%	58%	57%

Data provided by the WHRS.

This system guarantees anonymity, confidentiality and the security of personal data during the entire period of support. It is easily accessible on the Company's intranet. The Health Steering Committee monitors the progress of the roll-out of this system on a quarterly basis within each business segment.

	2023	2022	2021
Percentage of subsidiaries that have appointed an MHR officer	100%	97%	96%

Data from the Health Steering Committee.

In terms of **medical monitoring**, the "Internal Control Essentials" Directive provides that each subsidiary offers its employees a medical checkup at least every two years (unless there are different regulations or specific local context) and sets out a formal medical monitoring procedure taking into account the requirements under local law (frequency, type of examination, etc.) and the level of exposure of its personnel to the various risks. Medical monitoring of employees is conducted at a health department, which may be internal (occupational health departments in France, clinics in five countries in Africa) or external. At the end of 2023, 69% of subsidiaries offered a health check every two years.

On a broader level, TotalEnergies also supports the **promotion of individual and collective health programs** in the countries where it operates, including vaccination campaigns and screening programs for certain diseases (COVID-19, AIDS, cancer, malaria, etc.) for employees, their families and local communities. It is also developing social protection schemes (see section 5.6.1.2 of this chapter). Actions to raise awareness of health-related risks (participation in the Pink October campaign to raise awareness of breast cancer, prevention actions on cardiovascular risk as part of World Heart Day, etc.) are also implemented regularly.

Regarding health, TotalEnergies monitors the following indicators:

Health indicators (WHRS scope)	2023	2022	2021
Percentage of employees with specific occupational risks benefiting from regular medical monitoring	100%	99%	97%
Number of occupational illnesses recorded in the year (in accordance with local regulations)	107	129	158

Musculoskeletal disorders (MSDs) represent 69% of all recorded occupational illnesses in 2023, compared to 70% in 2022 and 55% in 2021 in the WHRS scope. The number of MSDs recognized as occupational illnesses is currently falling (74 recognized illnesses in 2023 versus 90 in 2022). The Company provides subsidiaries with a guide to best practices for assessing the risk of MSDs, assists subsidiaries' HSE departments in implementing ergonomic risk management measures and offers employees training in the prevention of musculoskeletal disorders. In addition, the health check-up offered at least every two years allows for the prevention or early detection of musculoskeletal pathologies. The next most common declared occupational diseases are diseases related to benzene exposure (7%) and previous exposure to asbestos (6%).

Concerning the COVID-19 pandemic, TotalEnergies closed its crisis management unit in February 2023. The Company maintains a monitoring system through a scientific and legal monitoring unit.

5.3.5 Limiting risks for the health and safety of consumers

Unless certain precautions are taken, some of the petroleum or chemical products marketed by TotalEnergies pose potential consumer health and safety risks. Respecting regulatory requirements is the main measure to limit risk throughout the life cycle of these products.

TotalEnergies has also defined the minimum requirements to be observed in order to market its petroleum or chemical products worldwide with the goal of reducing potential risks to consumer health and the environment. These include the identification and assessment of the risks inherent to these products and their use, as well as providing information to consumers. The material safety data sheets that accompany the petroleum or chemical products marketed by the Company, including those not classified as dangerous, available in at least one of the languages used in the relevant country, as well as product labels, are two key sources of information.

The implementation of these requirements is monitored by teams of regulatory experts, toxicologists and ecotoxicologists within the Refining & Chemicals and Marketing & Services segments of the Company. These teams' assignment is the preparation of safety documentation for the marketed petroleum and chemical products so that they correspond to the applications for which they are intended and to the applicable regulations. These teams therefore draw up the material safety data sheets and compliance certificates (contact with food, toys, pharmaceutical packaging, etc.) and carry out REACH[1] registration (or equivalent in other geographical regions) if necessary. Thanks to their scientific and regulatory monitoring, they support the development of future commercial products and monitor updates of safety data sheets, certificates and registrations so that they remain compliant with regulations in force.

Governance of the process is rounded off within the Company's business units or subsidiaries of the Refining & Chemicals and Marketing & Services segments with the designation of a Product Safety Manager, who ensures compliance during the market release of his or her entity's petroleum or chemical products. The networks of product managers are coordinated by the Company's specialist teams either directly or via an intermediate regional level in the case of the Marketing & Services segment.

The safety data sheets for oil and gas produced by subsidiaries of the Exploration & Production segment are produced by the Marketing & Services expertise center. The compliance of the go-to-market process of these products is under the subsidiary's responsibility.

(1) European Parliament regulation Registration, Evaluation, Authorization and restriction of CHemicals (REACH).

5.4 Climate change-related challenges (as per TCFD recommendations)

TotalEnergies supports the objectives of the Paris Agreement, which calls for reducing greenhouse gas (GHG) emissions in the context of sustainable development and eradicating poverty, and which aims to hold the increase in the planet's average temperature to well below 2 °C above pre-industrial levels. To achieve these targets, the world's energy systems need to be transformed. This dual challenge consisting of providing more energy to as many people as possible with less GHG emissions concerns society as a whole, with governments, investors, companies and consumers all playing an important role.

At the heart of the climate stakes, TotalEnergies' aim is to provide as many people as possible with energy that is more reliable, more affordable and more sustainable. In this context, the Company's ambition is to reach carbon neutrality (net zero emissions) by 2050 together with society.

5.4.1 Governance

TCFD correspondence table[1]

THEME	Recommended TCFD disclosures
Governance	
Disclose the organization's governance around climate-related risks and opportunities.	a) Describe the Board's overseeing of climate-related risks and opportunities. b) Describe management's role in assessing and managing climate-related risks and opportunities.

In order to contribute concrete responses to the issue of climate change, TotalEnergies relies on a structured organization and governance.

Climate issues are addressed at the highest level of the organization by the Board of Directors and the Executive Committee, which have fully committed to transforming TotalEnergies into an integrated energy company and a major player in the energy transition. The Chairman and Chief Executive Officer with the members of his Executive Committee as well as the Lead Independent Director participate all year long to a nourished dialogue with shareholders and different stakeholders on the Company's climate issues. As an illustration, on April 4 and 5, 2023, the Lead Independent Director exchanged with diverse shareholders representing close to 20% of the share capital of TotalEnergies SE. These meetings have been the opportunity of a dialogue about the transition strategy of TotalEnergies, its progress and the update of its climate ambition.

The Board of Directors also reports annually to the shareholders on the progress made. As in 2022 and 2021, the Board of Directors submitted at the Annual Shareholders' Meeting on May 26, 2023 to the shareholders of TotalEnergies SE for their opinion the Sustainability & Climate Progress Report 2023, reporting on the progress made in the implementation of the Corporation's ambition in terms of sustainable development and energy transition towards carbon neutrality and its related targets by 2030, and complementing this ambition. This resolution was approved by close to 89% of the votes cast.

In support of the Company's governance bodies, the Sustainability and Climate division shapes the approach to climate and accompanies the strategic and operational divisions of the Company's business segments. By defining and monitoring indicators, progress can be measured and the Company's actions can be adjusted (details of the indicators used are provided in point 5.4.4 of this chapter).

5.4.1.1 Oversight by the Board of Directors

TotalEnergies' Board of Directors endeavors to promote value creation by the business in the long term by taking into consideration the social and environmental challenges of its business activities. It determines the Company's strategic orientation and regularly reviews, in connection with this strategic orientation, the opportunities and risks such as financial, legal, operating, social and environmental risks, and the measures taken as a result. It thus ensures that climate-related issues are incorporated into the Company's strategy and the investment projects that are submitted to it. It examines climate change risks and opportunities during the annual strategic outlook review of the Company's business segments. It reviews performance each year.

The skills of the directors in the area of climate are presented in section 4.1.1.5 of chapter 4. A continuing training program relating to the climate for directors has been approved in 2021 and it includes different modules about the following themes: Energy, Climate Change and Environmental Risks; Energy and Climate; Climate Change and Financial Risks and Opportunities; Causes and challenges of global warming. In 2022, as part of this training program, directors participated in the Climate Fresco (a scientific, collaborative and creative workshop designed to raise awareness of climate change and in particular its causes and consequences). In 2023, several Directors attended individual climate-related trainings, either in-person or via digital courses.

Directors are invited to Company's site visits. The visits contribute in a very concrete way to the training of Directors and allow them to deepen their knowledge of the specificities of the Company, its challenges, its businesses - including new businesses - and its teams. They are often the occasion for thematic presentations.

In this context, site visits were organized in 2023, by groups of directors accompanied by a member of the Executive Committee, in Congo (Exploration & Production, Marketing & Services, Nature Based Solution), in Qatar (LNG, Renewable, Exploration & Production), in Texas (Refining, Renewables, Trading) and, in France, at Pau (Technical Center, Biogas, Methane R&D) and at La Mède (biofuels, renewables, local development).

(1) Task Force on Climate-related Financial Disclosures.

To carry out its work, the Board of Directors relies on its Strategy & CSR Committee, whose Rules of procedure were amended first in September 2017, and again in July 2018 in order to broaden its missions in the realm of CSR and in questions relating to the inclusion of climate-related issues in the Company's strategy. In this regard, the Strategy & CSR Committee held on September 20 and 21, 2023 a strategy seminar to review the following topics: energy demand analysis scenarios, hydrogen activity and a presentation dedicated to the Integrated Power activity. At this occasion, Directors exchanged views with Dan Yergin, Vice President of S&P Global, on the challenges of energy transition in the United States and worldwide. The strategy seminar also provided an opportunity to examine the levers of Integrated Power's profitability, as well as the state of technology and the evaluation of the costs of hydrogen.

The Audit Committee, which is already reviewing the extra-financial performance declaration, has taken steps to take on the new tasks arising from the regulations on the reporting of sustainability information. In particular, it will monitor the process of drawing up the sustainability report that will succeed the extra-financial performance declaration, and which will be published for the first time in 2025 in relation to the 2024 financial year. It also monitors the certification of sustainability information.

The Board of Directors has also been integrating climate issues into the compensation structures for several years. The criteria for determining the variable part of the compensation of the Chairman and Chief Executive Officer include quantitative criteria related to the evolution of greenhouse gas emissions on the operated facilities (Scope 1+2), and since 2024, related to the Integrated Power cash flow (CFFO) generation. The evaluation of the personal contribution of the Chairman and Chief Executive Officer provide qualitative criteria that also include climate issues, through criteria related to (i) steering the transformation strategy towards carbon neutrality, in line with the 2020/2030 targets announced to investors, in particular the increase of gas and power production, as well as the evolution of its sales mix, (ii) profitable growth in renewables and electricity, as well as (iii) CSR performance assessed notably through the integration of climate issues in the Company's Strategy, the Company's commitment and ratings regarding CSR, as well as the policy of diversity.

The variable compensation of the Company's senior executives (approximately 300 people at the end of 2023) includes a criterion linked to the achievement of the GHG emissions reduction target.

Since 2020, the criteria for awarding performance shares to the Chairman and Chief Executive Officer and to all the Company's employees also include performance conditions related to climate-targets (refer to point 4.3.2 in chapter 4).

5.4.1.2 Role of management

The Executive Committee chaired by the Chairman & Chief Executive Officer ensures that climate-related issues are taken into account and built into operational roadmaps. The Executive Committee is responsible for identifying and analyzing risks that could affect the achievement of TotalEnergies' objectives.

The TotalEnergies Risk Management Committee (TRMC) assists the Executive Committee. The TRMC's primary duties are to ensure that the Company's risk mapping is updated on a regular basis and that its existing risk management processes, procedures and systems are effective.

The Strategy & Sustainability Division coordinates the Company's activities through the entities in charge of strategy and markets analysis, sustainability and climate, and also safety, health and environment, legal affairs, relations with public authorities and internal audit. Its President also chairs the Risk Committee (CoRisk) which is in charge of the Company's investments.

The Finance Division ensures an ongoing dialogue with investors, analysts and extra-financial rating agencies on climate challenges and on extra-financial issues more broadly. In all, more than 450 meetings were held in France and worldwide in 2023.

5.4.2 Strategy

TCFD correspondence table

THEME	Recommended TCFD disclosures
Strategy	
Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	a) Describe the climate-related risks and opportunities that the organization has identified over the short, medium, and long terms. b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning. c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a scenario of 2 °C or less.

5.4.2.1 Identification of climate-related risks and opportunities

The risks and opportunities related to climate change are analyzed according to different timescales: short term (two years), medium term (until 2030) and long term (beyond 2030).

The identification and the impact of climate-related risks form an integral part of TotalEnergies's global risk management processes. In particular, they cover the risks related to transition including those due to regulatory changes, such as the introduction of carbon taxes, as well as the physical risks due to the effects of climate change. The impact of these risks is analyzed for the Company's assets and for investment projects (refer to point 3.1.1 of chapter 3).

To achieve carbon neutrality, the energy mix will need to change and in view of this, climate change also provides TotalEnergies with opportunities. In the coming decades, demand for electricity will grow faster than the global demand for energy[1], and the contribution of renewables and gas to the production of electricity will therefore play an essential role in the fight against climate change. Electricity alone will not be sufficient to meet all needs, particularly those connected to transportation.

Gas and sustainable biofuels will be attractive and credible alternatives to conventional fuels and the Company intends to develop them. The development of gas production is accompanied by measures to control methane and CO_2 emissions (Scope 1+2). This development could be accompanied by an increasing share of biogas. The development of hydrogen could also contribute to meeting energy demand.

(1) IEA, World Energy Outlook 2023.

Helping customers improve their energy efficiency also offers opportunities and forms part of a trend that will be accelerated by digital technology. TotalEnergies wants to be innovative and bring them new product and service offerings. The Company aims to develop this approach for industrial and mobility applications.

In addition, ecosystems, and forests in particular, store carbon naturally. Consequently, their conservation and the restoration of their role as carbon sinks are crucially important in the fight against global warming. TotalEnergies therefore intends to maintain its investment in the development of natural carbon sinks.

Finally, certain sectors, such as cement and steel, could struggle to reduce their GHG emissions. They will therefore require carbon capture, utilization and storage (CCUS) technology. Consequently, the Company intends to step up the development of CCUS.

5.4.2.2 Impact of climate-related risks and opportunities

A. OUR AMBITION AND OUR PROGRESS

1. Global challenges: more energy, less emissions

Energy is an essential resource, everywhere indispensable for living: for food, lighting, heating and cooling, transport, healthcare, construction and trade.

Historically, energy demand has grown in line with demographic growth and rising living standards, as illustrated hereafter since 2000.

The world's population is set to grow by almost 2 billion additional inhabitants by 2050. This prospect will have significant implications for achieving the UN's Sustainable Development Goals (SDGs) to improve prosperity and social well-being while protecting the environment and biodiversity.

In the **countries of the Global South,** where access to energy is already one of the limiting factors in human development, populations aspire to improve their quality of life.

In **OECD countries,** energy has enabled socio-economic development that no country is prepared to forego.

The IPCC reiterated in 2021[(1)] that global warming is the consequence of greenhouse gases (GHG) emissions linked to human activities, and warned of the environmental and socio-economic impacts of this already tangible climate change.

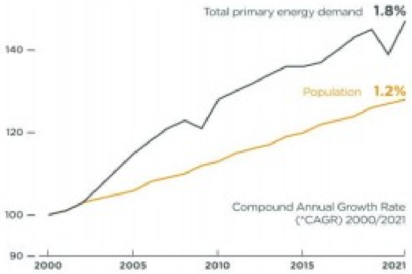
"TotalEnergies supports the Paris Agreement."

Since the Paris Agreement in 2015, States have jointly pledged *"to strengthen the global response to the threat of climate change, in the context of sustainable development and the fight to eradicate poverty, in particular by holding the increase in global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels"*.

The energy system must therefore be transformed, because energy is at the heart of this global climate challenge: GHG emissions linked to the production or use of energy account for over 60% of global emissions in 2021 (ref. IPCC & IEA), as the global energy system is still 80% relying on fossil fuels.

There is an urgent need to accelerate the development of a decarbonized energy system, while maintaining the current energy system at a level sufficient to meet global demand and organize a just, orderly and equitable transition of energy systems.

Evolution of total primary energy demand (TPED) and world population growth[(2)] *(Base 2000 = 100)*



(1) Climate Change 2021: The Physical Science Basis and other assessment reports 6.
(2) Oxford Economics, TPED-Enerdata.

2. Global challenges: COP28 and actions to be taken

TotalEnergies welcomes the agreement reached in Dubai that calls for *"transitioning away from fossil fuels"* in a *"just, orderly and equitable manner."* Within this framework, TotalEnergies notes with interest the agreement's reference to transitional fuels such as gas.

TotalEnergies supports the objectives of tripling the amount of renewable energy and doubling energy efficiency by 2030, as well as slashing methane emissions within that time frame. These objectives are at the heart of TotalEnergies' roadmap for 2030.

This agreement reinforces TotalEnergies' transition strategy, which aims, on the one hand, to contribute to the development of a new decarbonized energy system based on electricity and renewables, in which gas plays a useful role as a flexible transitional energy; and, on the other hand, to support a just, orderly and equitable transition away from fossil fuels, notably in emerging countries that legitimately aspire to economic and social development for their populations.

Given the energy-related emissions as shown in the chart hereafter, **reducing the associated emissions implies in the short term:**

- Minimising the share of coal in the electricity mix, starting from OECD countries,
- Decarbonizing the road transport sector (currently 90% powered by petroleum products),
- Aiming for the elimination of methane emissions from fossil fuel production processes.

To achieve this, massive investments are needed, not only in renewable energy, but also in electricity networks and systems enabling to ensure the availability of the new electricity system.

Another challenge is to **reduce fossil fuel consumption at the right pace.** In the Global South, fossil fuels remain an affordable solution for providing growing populations with access to energy, and therefore greater prosperity.

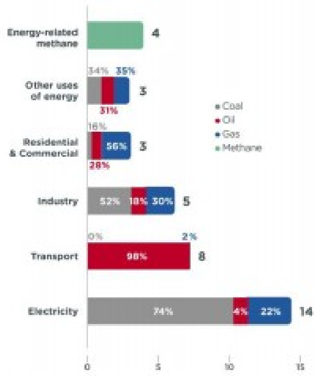
In OECD countries, an accelerated transition means retiring existing assets at country, industry and household levels, and investing in new low-carbon assets.

The transition will not take place without **social acceptability** (both between North and South and within OECD countries) and without genuine efforts in terms of **climate justice.**

Accelerating the pace of investment in low-carbon energies requires **strong cooperation between the private and public sectors:**

- In OECD countries, simplify and speed up the permitting process to accelerate the deployment of grids and renewable energies.
- Actively support the transition of the Global South through (i) the development of multilateral financial guarantees essential to project financing and (ii) the deployment of training programs to support the local implementation of new technological solutions.

Global GHG emissions from fossil fuel combustion in 2021 - 37 Gt CO_2e[1]



3. A two-pillar multi-energy strategy

a. TotalEnergies stays the course of its balanced integrated multi-energy strategy...

TotalEnergies reaffirms the relevance of its balanced integrated multi-energy strategy considering the developments in the oil, gas and electricity markets. Anchored on two pillars, Oil & Gas, notably LNG, and electricity, the energy at the heart of the energy transition, the Company is in a very favorable position to take advantage of energy prices evolution. Thanks to the refocusing of the Oil & Gas portfolio on assets and projects with low breakeven and low GHG emissions, and to the diversification into electricity, notably renewable, through an integrated strategy from production to customer, the Company is implementing its transition strategy while ensuring an attractive shareholder return policy.

b. ...responsibly producing low cost, low emission Oil & Gas

While drastically lowering the emissions from its operations, TotalEnergies plans to grow its Oil & Gas production by 2-3% per year over the next five years, predominantly from LNG, thanks to its rich low cost low emission Upstream portfolio.

The Company plans notably to develop a top-tier pipeline of LNG projects (Qatar North Field Expansion, Papua LNG, Energía Costa Azul LNG and Rio Grande in the US, Mozambique LNG) while leveraging its leading position in Europe in regasification and its leading LNG exporter position in the United States.

TotalEnergies plans to launch the production of its portfolio of high-return oil projects (Brazil, Gulf of Mexico, Iraq, Uganda) recently enriched with exploration successes in Suriname and Namibia.

The key indicator of our progress on this pillar is the reduction in Scope 1+2 emissions because our first duty as a producer of hydrocarbons is to reduce the GHG emissions linked to their production.

c. ...and developing a profitable and differentiated Integrated Power model to create a future cash engine of the Company

TotalEnergies is replicating its integrated Oil & Gas business model into the electricity value chain to achieve a profitability (ROACE[2]) of ~12% for the Integrated Power segment, equivalent to Upstream Oil & Gas ROACE at 60 $/b, above the returns of the traditional Utilities model.

The Company is building a world class cost-competitive portfolio combining renewable (solar, onshore wind, offshore wind) and flexible assets (CCGT, storage) to deliver low-carbon electricity available 24/7. In particular, TotalEnergies is leveraging its scale effect in equipment purchase to optimize its investment costs and industrialize its renewable assets through digital to lower operating costs. TotalEnergies also uses the strength of its balance sheet to keep market exposure, allowing it to capture additional margins in a market exposure.

The Company aims to grow its power generation to more than 100 TWh by 2030, investing around $4 billion per year; the generated cash flow of this segment was $2.2 billion in 2023 and will be more than $4 billion in 2028, becoming net cash-flow positive at that time.

Additionally, TotalEnergies invests in low-carbon molecules (biofuels and biogas, as well as hydrogen and its derivatives: e-fuels and SAF).

The key indicator of our progress to measure our transition towards low-carbon energy products is the lifecycle carbon intensity[3] of the products used by the Company's customers. It divides the lifecycle emissions (from production to final use) of our energy products sold (Scope 1+2+3) by the quantity of energy supplied (g CO_2e/MJ). The reduction in carbon intensity[4] reflects the lower carbon content of the energy sold to our customers and the Company's progress in implementing its transition strategy.

4. A Net Zero Company by 2050 together with society

TotalEnergies reaffirms its ambition to be a major player in the energy transition and shares a vision of what its activities could be to achieve carbon neutrality by 2050, together with society.

By 2050, TotalEnergies would produce:

- about 50% of its energy in the form of electricity, including the corresponding storage capacity, totaling around 500 TWh/year, on the premise that TotalEnergies would develop about 400 GW of gross renewable capacity;

(1) IEA, CO_2 Emissions in 2022, Greenhouse Gas Emissions from Energy Data Explorer (update 2023).
(2) Refer to the glossary for definitions and additional information on alternative performance measures (APM, Non-GAAP measures) and to point 1.9 of chapter 1 for reconciliation tables.
(3) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(4) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).

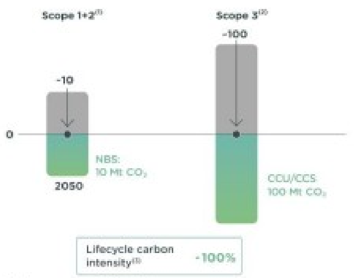
- about 25% of its energy, equivalent to 50 Mt/year of low-carbon energy molecules in the form of biogas, hydrogen, or synthetic liquid fuels from the circular reaction: $H_2 + CO_2 \rightarrow$ e-fuels;
- around 1 Mboe/d of Oil & Gas (about a quarter of the production in 2030, consistent with the decline envisaged by the IEA's Net Zero scenario), primarily liquefied natural gas (about 0.7 Mboe/d, or 25-30 Mt/year) with very low-cost oil accounting for the rest. Most of that oil would be used in the petrochemicals industry to produce about 10 Mt/year of polymers, of which two thirds would come from the circular economy.

That Oil and Gas would represent:

- about 10 Mt CO_2e/year of Scope 1 residual emissions, with methane emissions aiming towards zero (below 0.1 Mt CO_2e/year); those emissions would be offset in full by projects using nature-based solutions (natural carbon sinks).
- Scope 3[1] emissions totaling about 100 Mt CO_2e/year. To get to net zero together with society, TotalEnergies would contribute to "eliminate" the equivalent of 100 Mt/year of CO_2 generated by its customers by developing carbon utilization (CCU) and carbon capture and storage (CCS) solutions of approximately 100 Mt CO_2e/year.

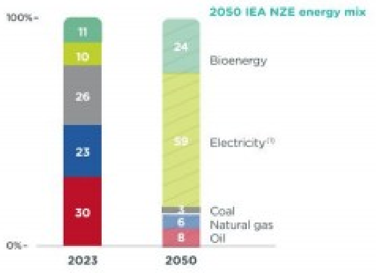
In 2050, our trading portfolio would be aligned with our productions and sales portfolio.

TotalEnergies net zero vision 2050 *(Mt CO_2e)*



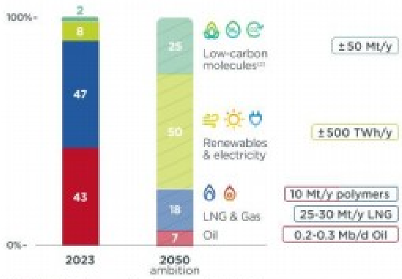
(1) From operated facilities.
(2) GHG Protocol - Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(3) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).

Global energy system according to the IEA in 2050
Total primary energy demand mix, Worldwide



(1) Hydro, solar, wind and nuclear.

Vision of TotalEnergies sales in 2050
TotalEnergies energy sales mix



(2) Biofuels, biogas, hydrogen and e-fuels/e-gas.

5. 2030: Our objectives for more energy and less emissions

Over the decade 2020-2030, TotalEnergies' energy transition strategy based on two pillars is reflected in the production and sales targets shown below.

Production

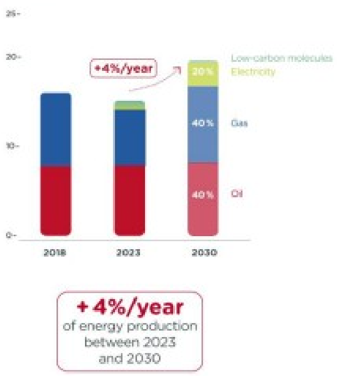
We plan to increase our energy production (oil, gas and electricity) by 4% per year between 2023 and 2030, while reducing emissions (Scope 1+2 and methane) from our operated facilities.

Sales

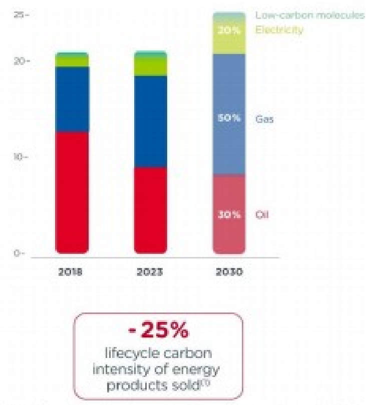
We are aiming to reduce the carbon intensity[2] of our sales by 25% by 2030 compared to 2015.

Taking these factors into account, we are developing our sales mix to reach 20% electricity by 2030, with a higher proportion of gas sales than oil sales.

Energy production *(in PJ/d)*



Energy sales *(in PJ/d)*



(1) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).

(1) GHG Protocol - Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(2) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).

6. How TotalEnergies' 2030 objectives compare to the IEA scenarios

Reducing GHG emissions at our operated facilities (Scope 1+2) is key to our ambition to supply more energy while curbing GHG emissions. Our objective of cutting net Scope 1+2 emissions from our operated activities by 40% is consistent with the reduction targets of the European Union's "Fit-for-55" program (a 37% decrease between 2015 and 2030) and the IEA's 2023 Net Zero Emissions (NZE) scenario (a 31% decrease between 2015 and 2030).

Our targets for lowering the lifecycle carbon intensity[1] of energy products sold (a 15% reduction by 2025 and a 25% reduction by 2030) put the Company on a trajectory close to the Announced Pledges Scenario (APS) in the IEA's World Energy Outlook 2023, which assumes that the States parties to the Paris Agreement fulfill all their net zero objectives.

An independent third party (Wood Mackenzie) has audited the calculations made and the trajectories presented.

7. A strategy to reduce our client's emissions

By 2030, we intend to reduce the emissions linked to the energy we supply to our customers by 25% compared to 2015. In other words, we intend to decrease by 25% the carbon intensity[2] of energy products sold, which accounts for the lifecycle emissions (Scope 1+2+3) of our energy products per unit of energy sold (g CO_2e/MJ).

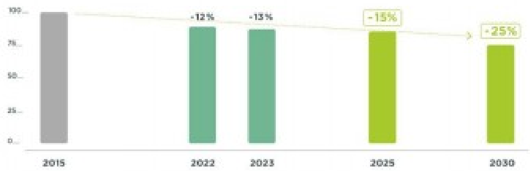
Indeed, by offering to our clients an increasingly **decarbonized** portfolio, we contribute to the energy transition and help our clients **reduce their emissions.**

In 2023 we maintained our progress thanks to sales growth of renewable energy by notching a 13% reduction in the lifecycle carbon intensity[3] of our products compared to 2015.

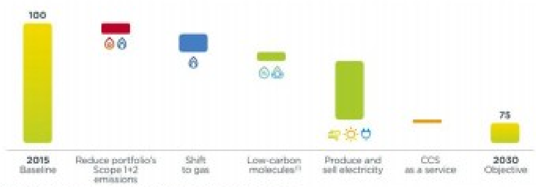
Growth in electricity will drive more than half the reduction in its lifecycle carbon intensity[4] between 2015 and 2030. The other factors will be the reduction in sales of petroleum products **coupled with an increase in gas production** (particularly LNG) and sales of products derived from biomass. Lastly, lower emissions from our facilities will contribute to 10% of the intensity[5] reduction.

Lifecycle carbon intensity[6] of energy products sold

(basis 100 in 2015)



Levers for reducing the lifecycle carbon intensity[7] of energy products sold (2015-2030)



(1) Biofuels, biogas, hydrogen and e-fuels/e-gas.

8. Supporting our customers in their decarbonization journey

As a producer of renewable power, biogas and biofuels, a supplier of natural gas and electricity and a leader in electric mobility, we are also helping our customers reduce their emissions with our customized solutions and developing CO_2 storage solutions for industrial customers.

Established in 2022, TotalEnergies OneB2B Solutions boasts more than thirty experts who assist our largest customers across nearly a dozen industries in fulfilling their ambitions for the energy transition, thanks to solutions tailored to their needs. Over the past 2 years, we engaged 334 large B2B clients on their Scope 1+2.

B. OUR ORDERLY ENERGY TRANSITION

1. Oil: Today's energy

a. Producing oil differently: focus on low cost and low-carbon intensity oil assets

In 2023, global demand for petroleum products reached 101.8 Mb/d, i.e. +2.3 Mb/d compared to 2022, and should continue to grow over the decade according to the IEA (105.7 Mb/d by 2028)[8]. These demand forecasts remain dependent in particular on population and economic growth, market penetration pace of low-carbon technology innovations such as electric vehicles and changes in behavior.

In addition, it will evolve in a differentiated way according to the specific energy transition roadmaps of the various countries.

Thus, demand for oil could start to decline around 2030, but at a slower rate than the current natural decline rate of existing fields (around 4% per year).

TotalEnergies therefore believes that new oil projects are still needed to meet this demand and to keep prices at an acceptable level in order to create the conditions for a just transition that allows people time to adapt their energy use. In 2023, TotalEnergies produced 1.4 Mb/d of oil, equivalent to its 2019 level, representing around 1.5% of world production.

The first responsibility of TotalEnergies as an oil producer is to produce differently, meaning while minimizing emissions.

To that end, we approve hydrocarbon projects on the basis of performance criteria, notably technical costs and carbon intensity (Scope 1+2). We operate our fields in accordance with strict requirements concerning safety, emissions reduction and environmental impact. The cash flow generated by these Oil & Gas activities contributes to accelerating our investments in renewable energy.

(1) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(2) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(3) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(4) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(5) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(6) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(7) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(8) Source IEA Oil June 2023.

b. Relentlessly reducing our Scope 1+2 emissions, Oil & Gas

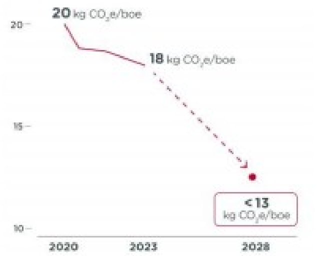
Our primary responsibility as a producer of fossil fuels is to substantially reduce emissions on our facilities. We are resolutely continuing to reduce emissions from our operated sites. Across the 2015 scope of our Oil & Gas activities, emissions from our operated assets fell by more than 34% from 2015 levels, dropping from 46 to 30 Mt CO_2e in 2023 (a decrease by 36% for Oil & Gas operated upstream and a decrease by 32% in Refining & Chemicals).

In 2023, with more than 140 GHG emissions reduction projects coming to fruition, we reduced our emissions by 1.5 Mt CO_2e across our operated assets.

These ongoing reduction efforts have made it possible to reduce the Scope 1+2 equity intensity of our Upstream Oil & Gas assets, from 20 kg CO_2e/boe in 2020 to 18 kg CO_2e/boe in 2023[1]. These results put us among the players with the best intensities in the industry.

Scope 1+2 from operated Oil & Gas facilities *(Mt CO_2e)*

Scope 1+2 Upstream intensity, equity basis *(kg CO_2e/boe)*



c. Scope 1+2 emissions reduction by 2030

Scope 1+2 emissions reduction objectives

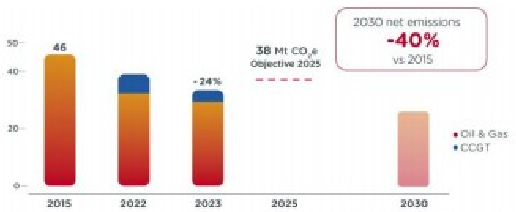
TotalEnergies reaffirms its decarbonization objective, which aims to reduce its Scope 1+2 net emissions by -40% to 2030 compared to 2015, net of 5-10 Mt of natural carbon sinks.

Our objectives include emissions generated by the growth strategy in electricity we have pursued since 2015, which has prompted us to create a flexible power generation portfolio of plants (CCGT).

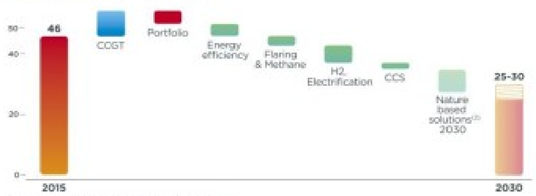
In 2023, GHG emissions from our operated assets were 24% lower than in 2015, standing at close to 35 million tons of CO_2e. Between 2022 and 2023, the reduction in these emissions is 13%. It is mainly due to lower utilization rate of CCGTs, emissions reduction projects, such as for example the reduction of burning in Angola, and Nigeria, and the improvement of energy efficiency.

To achieve our 2030 target, we are mobilizing every tool at our disposal to avoid and reduce emissions from our operations. Compensation from natural carbon sinks will only begin from 2030 onwards, to offset residual emissions in pursuit of our objective, on the basis of a consumption of about 10% of our stock of carbon credit units per year.

Scope 1+2 emissions from operated facilities *(Mt CO_2e)*



Scope 1+2 from operated facilities: levers to reach our -40% target in 2030[2] *(Mt CO_2e)*



(1) Net of nature-based carbon sinks.
(2) NBS credits will be used from 2030, from 5 to 10 Mt/y.

d. Our energy efficiency plan: $1 Billion over 2 years

Energy efficiency plan – 2023 Progress

Generating energy savings in our operations is beneficial in several ways: we contribute to the collective campaign for energy efficiency, we help to reduce our carbon emissions and we lower our costs.

In September 2022, TotalEnergies launched a plan to accelerate energy efficiency gains at its operated sites worldwide. We are investing $1 billion in efforts to further reduce our energy use.

This plan, centered on four key levers, will support the measures adopted over the past several years within the Company's business segments. Each business segment has developed a plan to accelerate its energy savings, with more than 150 initiatives logged at Exploration & Production, over 200 projects at Refining & Chemicals and more than 40 initiatives at Marketing & Services and Gas, Renewables & Power.

To keep up with these efforts, a growing number of sites are ISO 50001 certified. The projects already identified which will be launched in 2024 should make it possible to achieve the reduction objective of 2 Mt CO_2e.

Enhancing energy efficiency at our operated facilities

(1) Exploration & Production.

(1) Equity Oil & Gas Upstream intensity is calculated excluding integrated LNG assets.

2. Gas: a transition fuel

a. Liquified Natural Gas: a key fuel for the energy transition

In the gas markets, TotalEnergies focuses on Liquefied Natural Gas (LNG), which can be shipped everywhere in the world and thus contributes to energy security, as it has been the case in Europe since 2022 with the strong reduction of Russian pipeline gas deliveries.

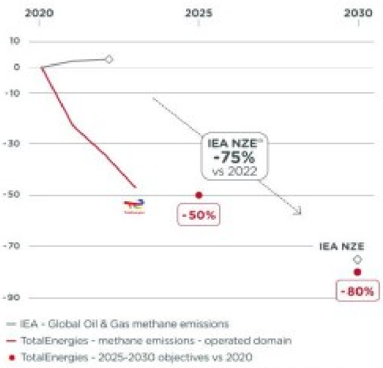
The growth of renewable electricity, intermittent and seasonal by nature, will require an increase in flexible power generation resources. The flexible production of gas-fired power plants, which emit half as much GHG as coal-fired power plants for the same amount of electricity produced[1], enables to secure electricity generation which does not depends on weather conditions contrary to renewable energy, and to face demand fluctuations.

In addition, natural gas plays an essential role in reducing emissions from power generation as a replacement of coal, particularly in Asia where this one still accounts for a very large part of the electricity mix of many countries (e.g. 63% in China, 72% in India)[2].

With diversified positions, and in particular its leading position of exporter in the United States - over 10 Mt in 2023 - TotalEnergies is the 3rd world's largest LNG player, with 44 Mt sold in 2023. The Company intends to consolidate its position as an integrated player by developing a first-class portfolio that will enable it to achieve 50% growth in volumes between 2023 and 2030.

b. Aiming for zero Methane emissions

Methane emissions on operated facilities *(in % vs 2020)*



(1) 2023 Update, *"Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach"* report.

Methane is a greenhouse gas with a global warming potential 30 times higher than that of CO_2 and a much shorter atmospheric lifetime[3]. This makes reducing methane emissions a priority in efforts to mitigate global warming. To date, more than 150 countries have signed the Global Methane Pledge launched in Glasgow in 2021, which aims to reduce methane emissions by 30% from 2020 levels by 2030. Anthropogenic methane emissions come mostly from energy, waste and agriculture. Around 25%[4] come from the Oil & Gas industry. TotalEnergies believes that it is the industry's responsibility to aim for zero methane emissions by 2030 and wants to set an example for the industry. Our plan is based on three actions: eliminating routine flaring, eliminating vents and repairing leaks as soon as they are detected.

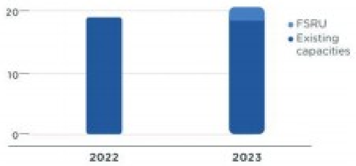
Reducing the carbon footprint of the LNG portfolio

TotalEnergies aims to gradually reduce GHG emissions of the value chain, from the production of the gas to end use.

In addition to efforts to reduce methane emissions, initiatives are being implemented throughout the whole chain. The electrification of liquefaction plant processes is helping to reduce LNG's carbon footprint today, and tomorrow this reduction will be reinforced by CO_2 capture and storage projects.

We are also working to reduce shipping emissions by renewing our fleet of chartered LNG carriers with modern, high-performance vessels.

Growing LNG regasification capacity in Europe
(in Mt)



Continuous excellence in our operations

TotalEnergies has already reduced its operated methane emissions by more than 60% since 2015, date of the Paris Agreement, even though the Oil & Gas industry as a whole has maintained an almost constant level of emissions over this period, according to IEA estimates. In early 2022, TotalEnergies set very ambitious, specific targets for the decade ahead that call for a 50% reduction from 2020 levels by 2025 and 80% by 2030[5]. These targets cover all of the Company's operated assets and go beyond the 75% reduction in methane emissions from Oil & Gas by 2030 (vs 2020) as recommended by the IEA when creating the NZE scenario. TotalEnergies is making rapid progress towards this objective: in 2023, our operated methane emissions were 34 kt, down 47% vs 2020. TotalEnergies now aims to reach its 2025 target of -50%, one year ahead of schedule, in 2024.

TotalEnergies is a signatory of the Oil & Gas Decarbonization Charter launched at COP28, which includes the ambition "Aiming for near-zero Upstream methane emissions by 2030". In line with this collective ambition, TotalEnergies is strengthening its methane intensity[6] target of less than 0.1% by 2030 on its gas facilities, by extending it to all its operated Upstream Oil and Gas facilities.

At the same time, TotalEnergies is fully assuming its leadership role in the fight to collectively reduce methane emissions.

Our drone-based methane detection and quantification technology made available to several national oil companies

TotalEnergies works alongside its partners to implement best practices on its non-operated assets.

The Company is a pioneer in the detection and quantification of emissions in real-life conditions. After deploying its AUSEA (Airborn Ultralight Spectrometer for Environmental Application) drones at all its upstream operated sites worldwide, TotalEnergies has performed in 2023 the first AUSEA flights on non-operated assets during four campaigns in: Qatar, Brazil, Azerbaijan and the United Arab Emirates.

(1) IEA 2023, Life Cycle Upstream Emission Factors (Pilot Edition).
(2) Source: Enerdata.
(3) Around 12 years compared with centuries for CO_2. Global Warming Potential of 80 over 20 years and 30 over 100 years (Source: IPCC 6th Assessment Report).
(4) IEA Global Methane Tracker 2023, License CC BY 4.0.
(5) Excluding biogenic methane.
(6) Methane emissions intensity in relation to commercial gas produced.

TotalEnergies has also announced in recent months the signing of five cooperation agreements with national oil companies to make its AUSEA methane emissions detection and quantification technology available: Petrobras in Brazil, SOCAR in Azerbaijan, Sonangol in Angola, NNPC[1] in Nigeria and ONGC[2] in India.

Highlights

- OGMP 2.0 Gold standard

In its "An Eye on Methane" report for 2023, the United Nations Environment Programme (UNEP)[3] confirmed TotalEnergies' Gold Standard status for the 3rd year in a row, and rated our strategy for engaging partners in our non-operated assets as "all-stars"[4]. Each year, this report reviews the deployment by Oil & Gas companies of the Oil & Gas Methane Partnership's OGMP 2.0 framework, which was created in 2020 to guide reporting on methane in the Oil & Gas industry. The framework encourages companies to continue improving their reporting of operated and non-operated emissions and focuses on performing on-site measurements to verify that estimates are exhaustive and accurate.

- Support for the World Bank's new methane trust fund

TotalEnergies was the first company to announce a contribution of $25 million over the period 2024-2030 to the Global Flaring and Methane Reduction (GFMR) trust fund launched by the World Bank at COP28. The GFMR will target, finance and support strategic projects to eliminate routine flaring and reduce methane emissions in countries with the greatest emissions reduction potential.

c. Expanding geological carbon storage to reduce our emissions and those of our customers

The IEA's NZE scenario[5] includes the use of CCS[6] up to of 6 Gt CO_2 per year in 2050, to reduce part of the emissions from residual Oil & Gas consumption, as well as those from industrial processes (cement, lime, steel, etc.). This capacity is more than 100 times greater than the 45 Mt CO_2 per year currently captured worldwide.

Our CCS strategy gives priority to decarbonizing our activities in order to reduce Scope 1+2 emissions from our Upstream Oil & Gas assets, refining and LNG plants. For example, at the Snøhvit liquefaction plant, where we are a partner alongside Equinor, around 8 Mt of native CO_2 have been stored since 2008. Similarly, the native CO_2 separated in the new NFE and NFS LNG liquefaction trains currently under development will be stored by QatarEnergy. The same will be true for the native CO_2 separated on Cameron LNG to be stored in the Hackberry CCS storage facility in the context of a new train project by Cameron LNG. Finally, for our Ichthys LNG asset in Australia, we are studying a native CO_2 storage solution for start-up before 2030.The study of CCS solutions on our assets therefore complements the efforts already mentioned to reduce emissions (electrification, energy efficiency, flaring reduction, etc.).

The Company also invests in CO_2 storage projects for third parties ("Storage as a Service"), offering CO_2 storage solutions to large industrial customers who can thus reduce their Scope 1 emissions and secure the future of their activities. By 2023, we have already invested around $100 million in this business. We will continue to invest heavily in storage projects, both for our own assets and for third parties, to achieve our objective of developing more than 10 Mt CO_2 of storage capacity by 2030.

Europe is at the heart of this CCS strategy. Our Company is one of the incumbent operators in the North Sea and has recognized operational and geological expertise in the area. The United Kingdom, Norway and Europe have set themselves objectives, regulations and provided significant financial support to promote the cross-border deployment of CCUS[7]. We are currently developing five projects in the North Sea that will provide decarbonization solutions for our assets and those of our customers. Our ambition is to continue to acquire new exploration permits to increase our CO_2 storage capacity after 2030.

We are also investigating the use of carbon in various forms (CCU[8]).

Carbon storage projects in Europe

d. Offsetting residual emissions with natural carbon sinks

Natural areas preservation and restoration can be a lever for achieving net zero emissions worldwide by 2050.

Only in 2030 will TotalEnergies begin voluntary offsetting of its residual emissions via NBS (Nature Based Solutions) carbon credits, and will offset only Company's Scope 1+2 residual emissions.

We are working to build a high-quality portfolio and are paying close attention to the integrity and permanence of the emissions reductions and sequestration achieved by the activities financed in this way.

We are in favor of strengthening a global framework of trust to further reinforce robust and recognized voluntary crediting mechanisms.

We are investing in forestry, regenerative agriculture and wetlands protection projects. Our strategy aims to combine and balance the value of people's financial revenue from agriculture and forestry and the value of the benefits to soil, biodiversity, the water cycle and the production of carbon credits. When that approach is successful, the local standard of living improves and degradation of the land diminishes – as do emissions. This search for balance among different practices makes a just transition possible.

(1) Nigerian National Petroleum Company Limited.
(2) Oil and Natural Gas Corporation.
(3) 3rd International Methane Emissions Observatory report.
(4) « *All-stars of non-operated joint venture engagement: TotalEnergies has submitted one of the most comprehensive strategies for engaging its non-operated joint ventures. The company has provided detailed information on how it is supporting, progressing and collaborating with each non-operated joint venture. It has also provided detailed observations on its reconciliation attempts and a gap analysis process. In addition, TotalEnergies is providing technology access and support to its non-operated joint venture operators.* » (Source IMEO report 2023).
(5) IEA 2023; Net Zero Roadmap, 2023 update, License CC BY 4.0.
(6) Carbon Capture & Storage.
(7) Carbon Capture Utilization & Storage.
(8) Carbon Capture & Utilization.

At 2023 year end, our stock of credits stood at just under 11 million out of which the very large majority is certified by VERRA VCS standard (> 99%; the remaining < 1% being certified by the Australian Carbon Credit Units Scheme of the Australian Government). We have allocated $100 million annually for these projects, and the cumulative budget pledged for all of these campaigns amounts to nearly $725 million over their cumulated lifespan, with the accumulated credits expected to total 44 million in 2030 and 71 million in 2050.

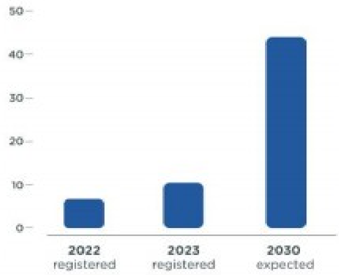
The final tally of credits obtained will be determined once the projects have been completed. If such a stock of 44 million credits is built up in 2030 and on the basis of a consumption of 10% of the stock per year from 2030, then TotalEnergies would use around 5 million credits per year from 2030 onwards.

Highlight: Invest in a fund

In 2023, the Company has made the decision to invest $100 million over 15 years in the projects of the Nature Based Carbon fund managed by Climate Asset Management, which focuses on preserving or restoring three types of ecosystems: degraded natural forests, grasslands impacted by human activity and wetlands.

Cumulated credits generated from the 11 sanctioned projects by the end of 2023

(million credits)



e. Actively working with our Partners on non-operated assets

Our Scope 1+2 emissions based on equity share amounted to 49 Mt CO_2e in 2023. Half of those emissions are attributable to our interests in sites we operate; the remaining being from our interests in sites operated by our partners. We are actively mobilizing our partners to reduce emissions from assets they operate.

At Exploration & Production, a dedicated team is tasked with sharing best practices with our partners at non-operated assets, such as deploying a decarbonization roadmap that includes an energy assessment, reduction of methane venting and routine flaring, and improving energy efficiency, particularly for gas turbines and compressors. We use the projects conducted at our operated sites to illustrate ways our partners can reduce their Scope 1+2 emissions and encourage uptake.

Upstream emissions can also be reduced by reinjecting the CO_2 extracted with the gas produced. This reinjected volume currently represents almost 2 Mt per year, in Company's equity share, particularly in Brazil, and is set to grow significantly as associated gas production increases.

Scope 1+2 based on equity share - 2023

COP28: signing of the Oil & Gas Decarbonization Charter

At COP28, a major initiative between national and international oil companies was launched to reduce the industry's GHG emissions: the Oil & Gas Decarbonization Charter (OGDC). This initiative brings together more than 50 companies, two-thirds of which we are partner with, representing over 40% of the world's oil production. This is an historic step forward, as it brings together for the first time international oil companies (IOCs) & national oil companies (NOCs) from this sector around concrete objectives not only to act on their emissions (net-zero operations by 2050 or earlier, elimination of routine flaring by 2030 and aiming for near zero Upstream methane by 2030) but also to report on their actions. TotalEnergies was one of the first companies to sign the Charter, and its CEO Patrick Pouyanné was chosen to represent the IOCs on the OGDC's three-person co-chairmanship, formed by the CEOs of ADNOC, Aramco and TotalEnergies.

f. What are the relevant indicators for reducing GHG emissions worldwide?

We are ambitious in our targets for direct emissions (Scope 1+2), which are controlled in our operated facilities. We have defined medium and long-term targets and action plans aimed at Net Zero by 2050.

We are also ambitious in helping our customers reduce their emissions - through our multi-energy strategy, which makes a wider range of energies available to our customers, including low-carbon energies. We track progress through the decarbonization index of our sales (life cycle carbon intensity[1] of energy products sold). We have been leading among our peers in terms of actually achieving decarbonization of our energy products sales mix since 2015.

As part of its contribution to the energy transition of its clients, we are thus developing activities in the production and sales of low-carbon electricity. We also produce and sell liquified natural gas, which is a necessary transition fuel for building a reliable, low-carbon power system, complementing renewable energies that are intermittent by nature. Moreover, gas helps to decarbonize power generation in many countries, since burning gas rather than coal to produce electricity emits half as much CO_2 for the same amount of energy produced (refer to point 5.4.2.2-B-2-i).

(1) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).

In this respect, setting objectives to drastically reduce TotalEnergies's global indirect emissions (Scope 3)[1] in absolute value, without an evolution of the overall structure of energy demand, is in reality not relevant to reduce global GHG emissions.

Most of the emissions reported under Scope 3 by TotalEnergies correspond to the direct emissions (Scope 1) of the consumers of these products: the use of these products depends on their decisions and needs.

In this context, an absolute reduction target for Scope 3 for a company like TotalEnergies, without any change in energy systems and therefore without the reduction of the corresponding Scope 1 of energy users, would lead to a shift of this demand towards other suppliers, notably the national oil companies of producing countries which account for more than 70% of the world market (compared with around 1.5% for TotalEnergies).

This strategy would have no effect on lowering global greenhouse gas emissions, and therefore no positive impact on climate, and would be contrary to the interests of our Company and its shareholders.

This strategy could be counter-productive for TotalEnergies' customers, as the Company has set as a goal to ensure their energy supply security while supporting them in their own decarbonization journey.

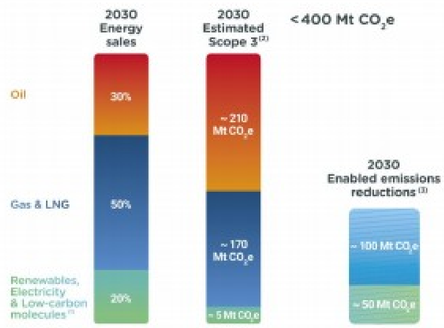
Reminder: under Scope 3, since 2016 TotalEnergies has reported Category 11 emissions related to the end use by its customers of products sold, i.e. linked to their combustion to obtain energy. Since 2023, TotalEnergies has published an estimate of indirect emissions related to the other Scope 3 categories, in accordance with the classification used by the GHG Protocol and Ipieca. We are also implementing action plans to reduce the emissions of the other categories.

g. Helping our customers reduce their own emissions

By 2030, the Company's two-pillars balanced transition strategy aims to result in a sales mix of energy products with the view to final use whose lifecycle carbon intensity[2] of energy products sold would be reduced by 25%, which means:

- for an equivalent quantity of energy, the carbon content of energy products would be reduced by 25% ("less emissions for same energy")
- for an equivalent quantity of emissions (Scope 1+2+3), the Company would supply 33% more energy to its customers ("more energy for same emissions").

Furthermore, by 2030, energy products sold such as LNG and low-carbon electricity might contribute to enabled emissions reductions [3] of around 150 Mt CO_2e (around 100 Mt CO_2e coming from Gas & LNG sales and around 50 Mt CO_2e coming from Renewables). These reductions, which will result from our customers decisions to substitute more carbon-intensive energy products with less carbon-intensive ones, and therefore reduce their own Scope 1+2 (use of gas or renewables to generate electricity instead of fossil fuels), will definitely contribute to lower global GHG emissions.



(1) Biofuels, biogas, hydrogen and e-fuels/e-gas.
(2) GHG Protocol – Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(3) Calculation methodology described in point 5.11.4 of chapter 5.

h. Anticipating changes in demand by adapting our sales of petroleum products

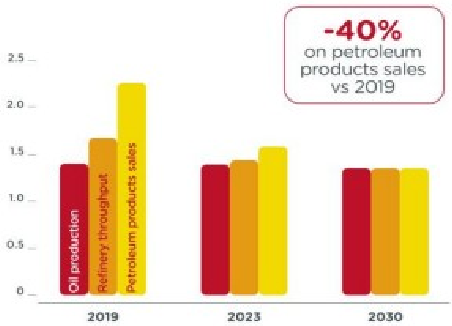
A significant part of TotalEnergies' Downstream refining and marketing activities are located in Europe.

The European Union with its Green Deal and its "Fit for 55" regulatory package, has the ambition to be the first carbon-neutral continent by 2050.

These major trends are leading us to accelerate the transition of our Downstream activities in Europe to reduce our exposure to petroleum products and to develop in new mobilities. Thus, at a global level, we expect to reduce our sales of petroleum products by 40% by 2030, so that we do not sell or refine more fuel than our oil production. This means, in particular, that our service-station networks have to adapt to lower demand for fuels, notably through disposals in Europe.

Conversely, this strategy is leading us to develop actively in new mobilities: in low-carbon molecules, we have initiated the conversion of its refineries into biorefineries in Europe; in electric mobility, the Company is accelerating our growth with a plan to deploy charging points on major corridors and motorways and in large cities in Europe. In hydrogen, we are notably developing a European network of hydrogen stations for trucks, in partnership with Air Liquide.

Oil production, refinery throughput and petroleum products sales *(Mboe/d)*



(1) GHG Protocol – Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(2) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(3) Calculation methodology described in point 5.11.4 of chapter 5.

i. Reduction of emissions enabled by our sales of gas

Gas-fired power plants are a flexible resource for power generation and can be mobilized quickly; as a result, they offer a secure backup for grids designed to be powered increasingly by intermittent renewable sources. CCGTs discharge half the greenhouse gases of the coal or fuel oil-powered plants[1] that still, in some countries, account for the majority of power generation capacity. The use of coal accounts for 36% of power generation and 74% of GHG emissions associated with electricity, while natural gas accounts for 23% of generation and 22% of emissions[2].

LNG, which can be shipped by sea, can flexibly supply many gas-fired power plants. A large percentage of the natural gas we sell goes to the electricity industry.

Given the positive role played by natural gas, TotalEnergies is aiming to increase its share of the sales mix by 2030, and has made the decision not to set a gas Scope 3[3] reduction target. When fuel-oil or coal-fired power generation is replaced by gas-fired power generation, GHG emissions fall, whereas TotalEnergies' gas Scope 3[4] increases.

We have estimated the reductions of emissions enabled to which our 2023 sales of LNG may have contributed. To do that, we identified the likely competing source of flexible power generation for each LNG-receiving country. The calculation is based on generation mix and emission factors issued by Enerdata and IEA[5], for each country[6] and generation mean.

We estimate that our customers' use of LNG has enabled emissions reduction by about 70 Mt CO_2e in 2023.

Estimated enabled emissions reductions by renewable electricity sales by 2030

Similar approach as the one described above-mentioned has been taken to estimate enabled emissions reductions for our sales of renewable electricity: the methodology compares emissions from the country's alternative non-renewable mix (following the methodology applied by IRENA) and the ones from solar and wind generation. The applied emission factors (published by IEA) cover the entire life cycle of power generation[7]. Non-renewable production mixes are based on IEA[8] projections by country[9] or, if unavailable, by region[10]. Thus, by 2030, the emissions reductions enabled by a portfolio of 100 GW of gross capacity have been estimated at around 50 Mt CO_2e.

3. Electricity: the energy of decarbonation

a. Our major development in electricity: an integrated approach

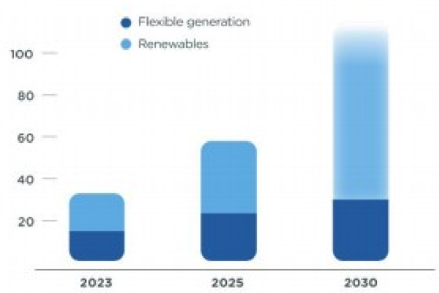
Electricity demand, which is vital to the success of the energy transition, is expected to grow sharply, as decarbonization is at the heart of the roadmaps of countries committed to carbon neutrality by 2050.

In response, Integrated Power, a new pillar of the Company's strategy, is developing an integrated model encompassing the entire value chain, from power generation to sales and trading activities, with a profitability target of ~12% ROACE[11].

TotalEnergies net electricity production target is to produce more than 100 TWh by 2030, thanks to a 4 to 5-fold increase in renewable production (19 TWh in 2023) and a 2-fold increase in flexible assets production (15 TWh in 2023). As part of its ambition to achieve carbon neutrality by 2050, TotalEnergies is building a competitive portfolio of renewable (solar, onshore and offshore wind) and flexible (CCGT, storage) assets to provide its customers with less and less carbon-intensive electricity available 24/7.

The Company's levers to grow with a return on average capital employed of ~12% are selectivity in its choices of projects; integration across the entire electricity value chain; cost control using our project management and offshore development skills; mobilizing external financing at competitive rates and making partial divestments to accelerate cash flow generation and diversify our portfolio's exposure.

Development of a differentiated profitable integrated model
Electricity generation - Company share *(TWh)*



(1) IEA 2023; Life Cycle Upstream Emission Factors (Pilot Edition).
(2) The rest of power generation is generated by hydro (15%), solar and wind (10%), nuclear (10%) and fuel-oil and other renewables. Data for 2021 provided in WEO 2023 from IEA and confirmed for 2022 by Enerdata.
(3) GHG Protocol – Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(4) GHG Protocol – Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(5) Generation mix for 2022 issued by Enerdata and emission factors for 2021 issued by IEA (data published in September 2023).
(6) For this calculation, Germany, France, Belgium Luxemburg and the Netherlands are considered as a single power and gas system. For France, emission factors published by RTE have been considered.
(7) Combustion and upstream emission factors published in September 2023 by IEA for the year 2021.
(8) STEPS scenario of the World Energy Outlook 2023.
(9) For Brazil, India and the United States.
(10) For Subsaharian Africa, rest of America, Asia-Pacific (excluding China), Europe and Middle-East North Africa.
(11) Refer to the glossary for definitions and additional information on alternative performance measures (APM, Non-GAAP measures) and to point 1.9 of chapter 1 for reconciliation tables.

b. Our renewable electricity capacity build-up

We are executing our roadmap in renewable electricity.

At year-end 2023, TotalEnergies reached a gross installed production capacity of 22 GW of renewable electricity and intends to continue developing these activities to reach 35 GW by 2025 and 100 GW by 2030, a level that would bring us among the world's top five producers of renewable electricity (wind and solar) excluding China.

Gross installed capacity of renewable electricity generation
(GW)

c. Developing electric mobility

TotalEnergies plans to invest more than $1 billion in electric mobility between 2024 and 2028, developing a network of high-power electric charging stations along motorways, major roads and in urban hubs in Europe.

By 2028, the Company's ambition is to have 1,000 high power charging sites in Europe.

In addition to this network adapted to road roaming, TotalEnergies supports its B2B customers in their transition to electric mobility by offering services for the deployment and supervision of charging stations at the workplace, as well as at employees' homes. For heavy duty trucks in particular, the Company is developing a tailor-made offer for road haulers, with smart charging and green electricity supply solutions in addition to in-depot charging. To meet their charging needs outside their depots, TotalEnergies plans to install high power charging points suited to this type of vehicles along European corridor from 2024 onwards.

The Company is also developing its recharging network in a number of cities around the world, with a portfolio of over 30,000 charging points in operation or under deployment in Paris, London, Brussels and Singapore.

Finally, TotalEnergies supports its individual customers at home, with home charging solutions that include an energy supply contract or on the road with subscription offers allowing access to a very large network of charging stations.

From the production of renewable electricity to the operation of charging services, the Company is present across the entire electric mobility value chain.

4. New low-carbon energy and innovations to achieve Net Zero by 2050

a. New low-carbon energy

The energy transition also requires the development of low-carbon energy based on the conversion of biomass and waste or the production of e-fuels combining hydrogen with CO_2 used as a raw material.

TotalEnergies is thus developing these new energy: biofuels, biogas, hydrogen and e-fuels.

Transforming our industrial sites to produce new low-carbon energy

Biofuels

Today, biofuels emit 50% less CO_2 than their fossil fuel equivalents[1], making them a decarbonization pathway for liquid fuels. Because demand is strong, this is a high-margin market, but access to feedstocks (plants, residues, sugar, etc.) remains a barrier to growth. Among these biofuels, TotalEnergies favors the production of Sustainable Aviation Fuel (SAF) to decarbonize the aviation industry. To avoid land use conflicts, TotalEnergies is developing solutions based on primarily food industry waste and residues (used oils, animal fats). Our aim is to increase the share of circular feedstocks to more than 75% as from 2024 in its production of biofuels.

Biogas

Biogas, produced from the decomposition of organic waste, is a renewable gas. Injected into gas networks in the form of biomethane, it contributes to the decarbonization of natural gas uses.

TotalEnergies' gross production capacity of 1.1 TWh/year eq. biomethane has almost doubled compared with 2022. The Company now intends to pursue its development through growth, mainly in Europe and the United States, with a 2030 target of 10 TWh of net production.

Hydrogen and e-fuels

Hydrogen

The production of green hydrogen will require the massive deployment of renewable electricity production capacities, to which TotalEnergies is contributing through its investments and the development of the Integrated Power segment. For our operations, our priority is to decarbonize the hydrogen consumed in our European refineries by 2030. TotalEnergies aims to replace carbon based or grey hydrogen by green hydrogen, produced by electrolysis of water using electricity from renewable energy sources.

Synthetic fuels, e-fuels

CO_2 can be combined, in reaction with renewable hydrogen, to produce synthetic fuels or gas. In 2023, TotalEnergies is setting milestones in its synthetic fuels roadmap.

b. Focus Sustainable Aviation Fuel (SAF)

TotalEnergies intends to become a major player in the production of SAF (Sustainable Aviation Fuel), with a target of 1.5 Mt/year by 2030.

This production is currently being developed on our existing platforms in Europe, the Middle East and Asia, notably Grandpuits, Normandie, La Mède and SATORP.

- **Grandpuits:** The biorefinery is scheduled to come on stream in 2025. It plans to process 420 kt/year of feedstock, mainly waste and residues, to produce up to 285 kt/year of SAF by 2028. In 2022, TotalEnergies has joined forces with SARIA (European leader in the collection and valorization of organic materials into sustainable products) to guarantee the supply of lipidic feedstock.
- **Normandy:** TotalEnergies plans to increase SAF production from 130 kt/year in 2025 to 160 kt/year by 2027.
- **La Mède:** Since 2022, biodiesel produced at La Mède has already been used to produce SAF at the TotalEnergies plant in Oudalle, near Le Havre. In 2024, TotalEnergies plans to continue to invest in the site, so as to be able to process up to 100% waste from the circular economy (used oils and animal fats) and will produce locally 14 kt/year of SAF by 2025.
- **SATORP:** For the first time in the Middle East, SATORP has succeeded in co-processing used cooking oil to produce a fuel that meets all the quality criteria of the SAF ISCC+ certified specifications.
- **Partnerships**
  - In Japan, TotalEnergies has partnered with ENEOS Corporation to study the feasibility of a SAF production unit at the ENEOS refinery in Wakayama. The planned unit, which would have a production capacity of 335 kt/year of SAF, would process waste or residues from the circular economy.
  - In China, TotalEnergies is studying with its partner Sinopec the development of SAF production of around 230kt/year. This unit would mainly process local residues and waste.

Beyond the SAF currently produced from used cooking oil, our mission is to prepare the next generation of aviation fuels, such as e-SAF.

Together with Masdar, the UAE Civil Aviation Authority, Airbus, Falcon Aviation Services and Axens, TotalEnergies has demonstrated the potential for converting methanol into SAF. Based on the use of renewable electricity, it could enable the production of e-SAF from CO_2 converted into methanol.

SUSTAINABLE AVIATION FUELS PRODUCED FROM USED COOKING OIL MAKE IT POSSIBLE TO

-80%[1]

OF CO_2 EMISSIONS OVER THE ENTIRE LIFE CYCLE, COMPARED TO THEIR FOSSIL FUEL EQUIVALENT

AMBITION TO PRODUCE

1.5Mt of SAF

IN 2030, WORLDWIDE

(1) Panorama 2020 - Biofuels incorporated into fuels in France, published by the Ministry of Ecological Transition and Territorial Cohesion.

c. Innovating to accelerate the energy transition

Each year, TotalEnergies devotes around \$1 billion[2] to R&D and innovation and mobilizes more than 3,500 employees.

R&D at TotalEnergies

In 2023, 65% of our R&D focused on new energies (renewable electricity, low-carbon molecules), batteries and reducing our environmental footprint (methane, CCUS, water, biodiversity, etc.). This evolution of our research and innovation towards new low-carbon energy points to the Company's future.

One of the missions of our new OneTech branch, created in 2021 to meet the Company's new challenges and mobilize the teams, is to provide solutions for reducing CO_2 emissions and improving the energy efficiency of our projects from the design phase, as well as to accelerate innovation in all our assets. To that end, OneTech mobilizes integrated teams working on the design, construction and operation of our energy facilities, right including R&D, reinforced by the development, testing and deployment of innovative external solutions for our assets to cope with identified issues in our operations.

Leveraging digital technology to reduce our emissions

TotalEnergies' Digital Factory brings together around 300 developers, data scientists and other digital specialists with the objective to develop digital solutions to optimize our industrial assets (environmental impact, availability, costs) or to offer new services to our customers.

(1) According to the European Directive 2018/2001 named RED II.
(2) R&D budget excluding Hutchinson.

C. ADVOCACY AND SECTOR INITIATIVES IN SUPPORT OF THE ENERGY TRANSITION

A successful energy transition requires closer collaboration between all the players involved.

Support for government action and climate sectorial initiatives and disclosures

TotalEnergies supports the pledges made by nations worldwide to combat global warming as part of the Paris Agreement and publishes its positions on its corporate website (heading sustainability/stakeholder-relationships-advocacy/advocacy-principles).

At COP28, we supported the goal of tripling renewable energy capacity and doubling energy efficiency measures by 2030. We also joined the Oil and Gas Decarbonization Charter (OGDC).

In Europe, TotalEnergies supports the "Fit-for-55" package and specifically some of its key components, such as the broader use of carbon pricing, the largescale expansion of renewable energies, deployment of infrastructure and the development of fuels and renewables for the transportation industry. Our responses to the European Commission's public consultations on climate are public and may be viewed online.

In France, TotalEnergies, along with 60 other major companies, signed the Entreprises Pour l'Environnement (EpE) association's statement calling for an acceleration of the ecological transition, ahead of COP28.

For further details on the collective initiatives supported by TotalEnergies, refer to point 1.4 of Chapter 1.

Review of Affiliations

TotalEnergies has published a list of its industry affiliations on its website since 2016.

The Company typically cooperates with these organizations on technical subjects, but some take public stances on other issues, such as climate. Since 2019, TotalEnergies has conducted a biannual assessment of the public positions on climate and other issues of the main industry organizations of which it is a member. The Company examines whether those positions are aligned with its own, based on the six principles from its Advocacy Directive. A new review was carried out in 2023.

In 2023, most of new associations in the energy field joined by our entities is related to renewable energies and low-carbon technologies.

Review of affiliations - 6 key principles

Scientific position

TotalEnergies recognizes the link established by science between human activities, in particular the use of fossil fuels, and climate change.

The Paris Agreement

TotalEnergies recognizes the Paris Agreement as a major step forward in the fight against global warming and supports the initiatives of the implementing States to fulfill its aims.

Carbon pricing

TotalEnergies supports the implementation of carbon pricing.

The development of renewable energies

TotalEnergies supports policies, initiatives and technologies aimed at promoting the development of renewable energies and sustainable bioenergies (biofuels, biogas) as well as energies and technologies aimed at decarbonizing industrial processes transportation, such as hydrogen, carbon capture and electric vehicles.

The role of natural gas

TotalEnergies promotes the role of natural gas as a transition fuel, in particular as a replacement for coal. TotalEnergies supports policies aimed at measuring and reducing methane emissions, aiming for zero methane emissions. TotalEnergies promotes a policy of reducing greenhouse gas emissions: avoid; reduce by using the best available technologies; offset the minimized residual emissions.

Carbon offsetting

TotalEnergies supports the carbon offset mechanisms necessary to achieve carbon neutrality, through organized and certified markets ensuring the quality and sustainability of carbon credits.

5.4.2.3 Resilience of the organization's strategy

TotalEnergies has strengthened the resilience of its portfolio through very active portfolio management in recent years: the Upstream portfolio has seen a 50% portfolio change since 2015, ensuring an oil reserves replacement ratio above 100% over 2015-2023.

Our portfolio has a low breakeven point, in line with the Company's objective of keeping it below \$30/b (the Company's organic cash breakeven point before dividends is \$22.2/b in 2023), which ensures the competitiveness of its resources. For its Upstream Oil & Gas activities in 2023, TotalEnergies has the lowest production cost per barrel of around \$5.5/boe among its peers[1] and its GHG emissions intensity (Scope 1+2) is falling to 18 kg CO_2e/boe in 2023 (compared with 19 in 2022)[2].

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

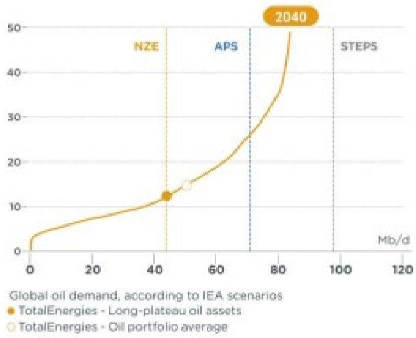
Risks of stranded assets

In June 2020, TotalEnergies determined that among its Upstream assets, only the Fort Hills and Surmont oil sands projects in Canada could be classified as stranded assets, meaning assets with reserves beyond 20 years and high production costs, whose overall reserves might therefore not be produced by 2050. TotalEnergies has sold these assets in 2023. This portfolio management approach allows TotalEnergies to mitigate the risk of stranded assets in the future if the risks of a structural decline in demand for Oil & Gas materialize faster than estimated as a result of stricter global environmental regulations and constraints and the resulting changes in consumer preferences.

As shown in the cost merit order curve of production costs for 2040, compared to the demand expected under various IEA scenarios, TotalEnergies' portfolio of Upstream Oil & Gas projects has an average technical cost that places it among the 50 Mb/d lowest-cost for these horizons, thanks in particular to long plateau oil assets with low production costs.

Merit curve of global oil production costs[3]

Technical cost *(\$/b)*



(1) Peers: BP, Chevron, ExxonMobil, Shell.
(2) Equity Oil & Gas Upstream intensity is calculated excluding integrated LNG assets.
(3) Source: Rystad, IEA WEO 2023 scenarios.

TotalEnergies

Sensitivity to CO_2, Oil & Gas prices

TotalEnergies assesses the robustness of its portfolio, including new material investments, based on relevant scenarios and sensitivity tests.

Each material investment, including in the exploration, acquisition or development of Oil & Gas resources, as well as in other energies and technologies, is reviewed in relation to the objectives set out in the Paris Agreement, so that every new investment enhances the resilience of the Company's portfolio.

Even though CO_2 pricing does not currently apply in all the countries where the Company operates, TotalEnergies includes, as a base case, a minimum CO_2 price of $100/ton in its investment criteria (or the prevailing price in a given country, if higher); beyond 2029, the CO_2 price is increased by 2%/year.

- Assuming a CO_2 price of $200/ton from 2024 and an annual increase of 2% beyond 2029, i.e. an increase of $100/ton compared to the base case scenario from that date onwards, TotalEnergies estimates a negative impact of around 15% on the discounted present value of all its assets (Upstream and Downstream).
- Compared with the reference scenario used to evaluate investments (Brent at $50/b), the use of the IEA's[1] NZE price scenario would lead to a present value of all the Company's assets (Upstream and Downstream) that is around 10% lower.

Impairment of Upstream assets

In addition, to ensure robust accounting of its assets in the balance sheet, the Company calculates the impairment of its Upstream assets on the basis of an oil price trajectory that stabilises until 2030, then decreases linearly to reach 50 $\$_{2023}$/b in 2040, and then decreases from 2040 onwards to the price adopted in 2050 by the IEA's NZE scenario, i.e. 25.5 $\$_{2023}$/b. Gas prices in Europe and Asia decline and stabilize from 2027 until 2040 at levels lower than current prices, with the Henry Hub remaining at $3 $\$_{2023}$/MMBtu over this period. They then all converge towards the prices in the IEA's NZE scenario in 2050.

Unconventional Oil & Gas

Unconventional Oil & Gas are defined by the EIA[2] as hydrocarbons that are "*produced by means that do not meet the criteria for conventional production*" ie "*by a well drilled into a geologic formation in which the reservoir and fluid characteristics permit the oil and natural gas to readily flow to the wellbore.*" According to UNFC[3], "*examples include CBM, low permeability deposits such as tight gas (including shale gas) and tight oil (including shale oil), gas hydrates and natural bitumen*".

In 2023, these non-conventional hydrocarbons accounted for 9.7% of our production and less than 5% of our consolidated turnover. In addition, TotalEnergies no longer produces oil from tar sands since the divestment of its Surmont and Fort Hills Canadian assets at the end of 2023. The Company also exited its extra-heavy oil development projects in Venezuela's Orinoco Belt in 2021.

Ultra-deep offshore, defined as water depths in excess of 1,500 m, which in the 2000s represented the technical limit for drilling and production facilities (since then largely exceeded), does not fall into the category of non-conventional hydrocarbons: in fact, reservoirs located in these areas are developed using facilities that employ a continuum of conventional technologies. It is the combination of very high-pressure reservoirs and very deep-water depths that can present increased risks. TotalEnergies does not intend to develop this type of asset.

Similarly, the mere fact that an oil or a gas field is located in an Arctic zone is not sufficient to qualify it as unconventional, if it is operated using conventional technologies. However, the Company recognizes the particular environmental sensitivity of certain Arctic zones. For this reason, in 2012 we undertook not to explore any oil fields in Arctic sea ice; a list of our licenses in Arctic zones is available on the Company's website.

5.4.3 Risk management

TCFD correspondence table

THEME	Recommended TCFD disclosures
Risk management	
Disclose how the organization identifies, assesses, and manages climate-related risks	a) Describe the organization's processes for identifying and assessing climate-related risks. b) Describe the organization's processes for managing climate-related risks. c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.

5.4.3.1 Processes to identify and assess risks related to climate change

Operational risks related to the effects of climate change and extreme events are among the risks analyzed by the TotalEnergies Risk Management Committee. This committee relies on risk-mapping work. In addition, the Risk Committee (Corisk) assesses investment projects, risks and corresponding climate-related issues before they are presented to the Executive Committee.

Continuing to invest with discipline

In a global economic context marked by inflation, it is essential to maintain the Company's investment criteria to ensure the profitability and resilience of its portfolio. Each material investment project is assessed taking into consideration the aims of the Paris Agreement and on the basis of the following criteria:

- project profitability is analyzed in a hydrocarbon price scenario compatible with the Paris Agreement objectives of limiting temperature rise to "well below 2°C" and with a carbon price of $100 per ton (or the prevailing price if higher in a given country);

(1) World Energy Outlook 2023, Table 2.2 Fossil fuel prices by scenario (p. 96).
(2) See definition by the Energy Information Administration, a federal agency within the U.S. Department of Energy.
(3) See United Nations Framework Classification for Resources to Petroleum, "Supplementary Specifications for the application of the United Nations Framework Classification for Resources to Petroleum" pages 8 and 22, points 9, 102, 103, 104.

– for new Oil & Gas projects (greenfield projects and acquisitions), the intensity of Scope 1+2 greenhouse gas emissions is compared, depending on their nature, to the intensity of the average greenhouse gas emissions of Upstream production assets or that of various Downstream units (LNG plants, refineries) of the Company.

  As of 2024, the threshold has been lowered to 18 kg CO_2e/boe, versus 19 kg CO_2e/boe previously – evidence of the effectiveness of these criteria. For additional investments in existing assets (brownfield projects), the investment will have to lower the Scope 1+2 emissions intensity of the asset in question. The goal is for each new investment to contribute to lowering the average intensity of the Company's Scope 1+2 greenhouse gas emissions in its category.

– for projects involving other energy and technologies (biofuels, biogas...), GHG emission reductions are assessed based on the amount by which they will reduce the carbon content of our sales.

In 2023, after evaluation according to these criteria, 43 investments have been validated. The most significant by category are:

- **Upstream Oil & Gas Division**

Development of Phase 1 of the AGUP project in Iraq, as part of the GGIP project, launch of the Mabruk restart project in Libya, extension of the Dalia and Kaombo fields in Angola.

- **Liquefied natural gas**

In June 2023, TotalEnergies signed a framework agreement with U.S.-based NextDecade to participate in the development of the Rio Grande LNG (RGLNG) project, a liquefaction plant, whose construction has started in July 2023 in southern Texas.

- **Integrated Power**

Various renewable electricity projects (PV, wind, hydro and BESS) resulting from the acquisition of stakes in Casa Dos Ventos (Brazil) and Ronensans Enerji (Turkey) and TotalEren; 3GW marine concession in Germany and 2.7GW in the USA (New York and New Jersey), BESS installations in Feluy & Antwerp (Belgium) and CottonWood (USA), PV power plants in Clinton (OH), Brazoria (TX), and Guillena in Spain.

- **Low-carbon molecules**

Hydrogen: acquisition contracts for the needs of the Normandy platform and the Leuna refinery; Biogas: final investment decision taken for the BioNorrois unit (153 GWh/year); SAF: doubling to 285 kt of production capacity at Grandpuits, France (Galaxie extension).

- **CCS**

Permit application in Norway for the Luna project.

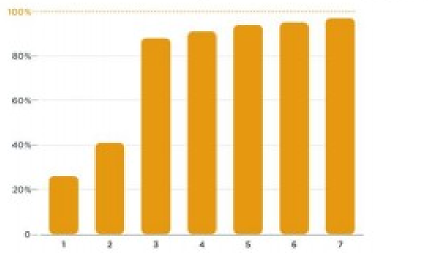
- **Disposals**

In Canada, TotalEnergies no longer holds any oil sands interests as of November 2023 following (i) the sale to ConocoPhillips of its 50% interest in Surmont, as well as (ii) the sale to Suncor of all of the shares of its subsidiary TotalEnergies EP Canada, including its interest in the Fort Hills oil sands asset.

In Germany and the Netherlands, sale to Couche-Tard of all 1,580 TotalEnergies service stations. In Belgium and Luxembourg, set up of a joint venture (TotalEnergies 40% and Couche-Tard 60%) to operate more than 600 service stations in these countries.

Approved oil & gas projects

GHG emissions intensity *vs reference of its category (%)*



Technical costs

Technical costs include operating costs and investment costs.

5.4.3.2 Processes to manage risks related to climate change

The risks posed by climate change are included among the risks analyzed by the TotalEnergies Risk Management Committee (TRMC). TotalEnergies ranks its risks by type and gravity.

In 2022, the TRMC updated its risk mapping and submitted the results to the Board of Directors in early 2023. In the table below, TotalEnergies' risks are positioned in relation to identified generic risks, in accordance with the recommendation of the Taskforce on Climate-related Financial Disclosure (TCFD). The TRMC also verifies the use of appropriate risk management systems. Additional action plans can be defined when necessary.

Audits are conducted to ensure that existing risk reduction and control measures are effective. Personnel from multiple disciplines, segments and businesses may collaborate in carrying out these action plans and audits. The Audit Committee of the Board of Directors monitors the effectiveness of the internal control and risk management systems established by senior management, in light of identified risks and with a view to fulfilling TotalEnergies' objectives.

Adaptation to physical risks

The Company takes climate risk into account in the design of its facilities and in the evaluation of its sites in operation. Climate change potentially has multiple consequences, including rising sea levels and increased extreme weather events, that can negatively impact its operations.

TotalEnergies has issued recommendations for addressing the anticipated changes in the climate system and its components in its facility design bases (metocean criteria). Similarly, TotalEnergies evaluates the vulnerability of its sites in operation to weather events so that their consequences do not affect the installations' integrity or people's safety. Internal studies have not identified any existing facilities that are vulnerable to the consequences of climate change known to date.

Extract from TotalEnergies Risk Mapping

Following the recommendation of the task force on Climate-related Financial Disclosures

	Transition risks				Physical risks	
	Policy and legal risks	Technology risks	Market risks	Reputation risks	Acute risks	Chronic risks
Pace of the energy transition deployment, evolution of the demand	✓	✓	✓			
Financing of Oil & Gas reserves	✓		✓			
Operational risks related to the effects of climate change and extreme events	✓	✓			✓	✓
Risk of legal action	✓					
Reputation risk				✓		
Risks related to skills management and changes in jobs		✓	✓			

5.4.3.3 Integration of climate-related risks into global risk management

The risks related to climate issues are fully integrated in TotalEnergies' global risk management processes.

The Audit Committee annually reviews the Statement of Extra-Financial Performance, which includes the performance as per the Company's climate and environmental reporting. In addition, these results are audited by an independent third party.

5.4.4 Targets and metrics to measure climate-related risks and opportunities

TCFD correspondence table

THEME	Recommended TCFD disclosures
Metrics & targets	
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process. b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks. c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

In order to support its ambition of carbon neutrality (net zero emission) at a global scale (Scope 1+2+3), together with society, TotalEnergies has set targets and introduced a number of indicators to steer its performance.

Company Climate Targets	In facts
2030 worldwide targets (Scope 1+2)	
– Reduce GHG emissions (**Scope 1+2**) from operated facilities from 46 Mt CO_2e in 2015 to less than 38 Mt CO_2e by 2025. By 2030, the target is a reduction of at least 40% of net emissions[1] compared to 2015 for its operated activities, thus bringing them to between 25 Mt and 30 Mt CO_2e	– A reduction in GHG emissions (Scope 1+2) from operated facilities from 46 Mt CO_2e in 2015 to **35 Mt CO_2e** in 2023
– Reduce **methane emissions**[2] from operated facilities by 50% between 2020 and 2025, and by 80% between 2020 and 2030	– Methane emissions already reduced by **50%** between 2010 and 2020 and by **47%** between 2020 and 2023
– Reduce **methane emissions intensity** below 0.1% of commercial gas produced at Upstream operated Oil & Gas facilities	– Methane intensity of **0.11%** for operated commercial gas produced at Upstream operated Oil & Gas facilities (less than 0,1% for Upstream operated Gas facilities)
– Reduce **routine flaring**[3] to less than 0.1 Mm^3/d by 2025, with the goal of eliminating it by 2030	– More than **96%** reduction in routine flaring between 2010 and 2023

(1) The calculation of net emissions takes into account negative emissions from natural sinks like forests, regenerative agriculture and wetlands.
(2) Excluding biogenic methane.
(3) Routine flaring, as defined by the working group of the Global Gas Flaring Reduction program within the framework of the World Bank's Zero Routine Flaring initiative.

Company Climate Targets

2030 worldwide targets (Scope 3)

- Maintain **Scope 3**[1] GHG emissions related to its customers' use of energy products to less than 400 Mt CO_2e by 2025 and 2030
- Reduce **Scope 3**[3] GHG emissions related to its customers' use of **petroleum products** sold worldwide by more than 40% by 2030

2030 worldwide target (carbon intensity)

- Reduce the **lifecycle carbon intensity**[5] of the energy products sold and used by customers by more than 25% compared to 2015. By 2025, the target reduction is at least 15%

In facts

- Scope 3[2] GHG emissions limited to **355 Mt CO_2e** in 2023, below the level of 2015
- A decrease of the Scope 3[4] GHG emissions from the petroleum products sold of **35%** in 2023 compared to 2015
- A decrease of the carbon intensity[6] of energy product sold of **13%** between 2015 and 2023

Indicators related to climate change[7]

		Operated domain				Equity interest domain			
GHG emissions - Scope 1+2		2023	2022	2021	2015	2023	2022	2021	2015
Scope 1 **Direct GHG emissions**	**Mt CO_2e**	**32**	**37**	**34* (33)**	**42**	**45**	**51**	**49**	**50**
Breakdown by segment									
Upstream oil & gas activities	Mt CO_2e	12	14	14	19	19	22	23	22
Integrated LNG, excluding upstream gas operations	Mt CO_2e	<1	<1	<1	–	1	1	1	–
Integrated Power	Mt CO_2e	6	9	5	–	6	9	5	–
Refining & Chemicals	Mt CO_2e	14	15	15* (14)	22	18	20	19	27
Marketing & Services	Mt CO_2e	<1	<1	<1	<1	<1	<1	<1	1
Breakdown by geography									
Europe: EU 27 + Norway + UK + Switzerland	Mt CO_2e	19	23	20* (19)	22	18	21	18	22
Eurasia (incl. Russia)/ Oceania	Mt CO_2e	<1	<1	1	5	12	15	17	13
Africa	Mt CO_2e	8	9	9	12	7	7	7	9
Americas	Mt CO_2e	5	5	5	4	7	8	7	5
Breakdown by type of gas									
CO_2	Mt CO_2e	31	36	32	39	43	50	47	
CH_4	Mt CO_2e	1	1	1	2	1	1	1	
N_2O	Mt CO_2e	<1	<1	<1	<1	<1	<1	<1	
Scope 2 **Indirect emissions from energy use**	**Mt CO_2e**	**2**	**2**	2* (2)	**4**	**4**	**5**	**5**	
of which Europe: EU 27 + Norway + UK + Switzerland	*Mt CO_2e*	*1*	*1*	*1* (1)*	*2*	*2*	*2*	*2*	
Scope 1+2	**Mt CO_2e**	**35**	**40**	37* (36)	**46**	**49**	**56**	**54**	
of which oil & gas facilities	*Mt CO_2e*	*30*	*33*	*33* (32)*	*46*	*44*	*48*	*49*	
of which CCGT	*Mt CO_2e*	*4*	*7*	*4*	–	*5*	*8*	*5*	
Direct emissions of biogenic CO_2[a]	Mt CO_2e	0.1	0.1			0.1	0.1		

* Excluding the COVID-19.
(a) Biogenic CO_2 emissions from the Company's biogas assets. In accordance with the GHG Protocol these emissions are not included in Scope 1.

(1) GHG Protocol – Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(2) GHG Protocol – Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(3) GHG Protocol – Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(4) GHG Protocol – Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(5) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(6) Lifecycle carbon intensity of energy products sold.(refer to the glossary or to point 5.11.4 of chapter 5 for further details)
(7) Refer to point 5.11 of this chapter for the reporting perimeter.

GHG emissions - methane		Operated domain 2023	2022	2021	2015	Equity interest domain 2023	2022	2021
Methane emissions[a]	kt CH_4	34	42	49	94	40	47	51
Breakdown by segment								
Upstream oil & gas activities	kt CH_4	33	41	48	92	36	43	48
Integrated LNG, excluding upstream gas operations	kt CH_4	<1	0	<1	0	2	3	2
Integrated Power	kt CH_4	<1	1	<1	0	<1	1	<1
Refining & Chemicals	kt CH_4	1	1	1	1	1	1	1
Marketing & Services	kt CH_4	0	0	0	0	0	0	0
Breakdown by geography								
Europe: EU 27 + Norway + UK + Switzerland	kt CH_4	5	7	7	9	4	5	5
Eurasia (incl. Russia)/ Oceania	kt CH_4	1	1	1	33	11	15	16
Africa	kt CH_4	18	23	23	49	19	17	18
Americas	kt CH_4	9	12	18	3	7	10	12

(a) Excluding biogenic methane emissions, equal to less than 1 kt CH_4 in 2023. Biogenic methane is nevertheless included in the calculation of Scope 1.

Other indirect GHG emissions		2023	2022	2021	2015
Scope 3[a] Indirect GHG emissions	**Mt CO_2e**	**355**	**389* (381)**	**400* (370)**	**410**
of which Europe: EU 27+ Norway + UK + Switzerland	*Mt CO_2e*	*216*	*191* (187)*	*220* (202)*	*256*
Breakdown by products					
Petroleum products	Mt CO_2e	227	254* (246)	285* (255)	350
Biofuels	Mt CO_2e	4	4	–	–
Gas	Mt CO_2e	124	130	115	60

* Excluding the COVID-19 effect for emissions data from first half 2020 through first half 2022.
(a) Scope 3 category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details). Petroleum products including bulk refining sales and biofuels; biofuels; Natural Gas excluding minority stakes in public companies.

Intensity indicators		2023	2022	2021	2015
Lifecycle carbon intensity[a] of energy products sold (73 g CO_2e/MJ in 2015)	**Base 100 in 2015**	**87**	**88**	**90* (89)**	**100[b]**
Intensity of GHG emissions (Scope 1+2) of operated Upstream oil & gas activities[c]	kg CO_2e/boe	17	17	17	21
Intensity of GHG emissions (Scope 1+2) of Upstream oil & gas activities[c] on equity basis	kg CO_2e/boe	18	19	19	–
Intensity of methane emissions from operated oil & gas facilities (Upstream)	%	0.11	0.11	0.13	0.23
Intensity of methane emissions from operated gas facilities (Upstream)	%	<0.1	<0.1	<0.1	<0.1

* Valuation of these indicators excluding the COVID-19 effect.
(a) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(a) Indicator developed in 2018, with 2015 as the baseline year.
(b) This indicator doesn't include integrated LNG assets in its perimeter.

Other indicators		2023	2022	2021	2015
Net primary energy consumption (operated scope)	TWh	157	166	148	153
Renewable energy consumption (operated scope)	TWh	2	1	–	–
Global energy efficiency indicator (GEEI)	Base 100 in 2010	86.4	85.1	87.0	90.8
Flared gas[a] (Upstream oil & gas activities operated scope)	Mm^3/d	2.5	3.3	3.6	7.2
of which routine flaring	*Mm^3/d*	*0.3*	*0.5*	*0.7*	*2.3[b]*

(a) This indicator includes safety flaring, routine flaring and non-routine flaring.
(b) Volumes estimated upon historical data.

These data as well as the related risks are also reported to the CDP[1] once a year, and TotalEnergies's response to the CDP Climate Change questionnaire is posted on the TotalEnergies website. For its 2023 reporting on 2022 activities, the Company received an A-.

(1) The CDP is a non-profit organization that offers environmental reporting services for investors, enterprises, city authorities, States and regional authorities.

Accounting for Scope 3* emissions

Considering the largest volume in the oil, biofuels and gas value chains:

* GHG Protocol - Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details)
(1) Includes bulk refining sales.

5.4.5 Participation in dialogue with TCFD

In June 2017, the TCFD[1] of the G20's Financial Stability Board published its final recommendations on information pertaining to climate to be released by companies. These recommendations include additional details for certain sectors, such as energy. TotalEnergies publicly announced its support for the TCFD and its recommendations and has implemented them since its 2017 annual report.

TotalEnergies continued discussions by taking part in the Oil & Gas Preparer Forum, which published, in July 2018, the best practices on the disclosure of climate-related information and on the implementation of TCFD recommendations by the four companies that are members of the Forum[2].

In 2019, TotalEnergies also took part in the first Task Force set up by the EFRAG (European Financial Reporting Advisory Group) Reporting Lab on Climate-related disclosures, which aims to identify the best practices in this area. This Task Force published the results of its work in February 2020.

From 2024 on, TCFD recommendations are under the control of ISSB[3].

5.4.6 European Taxonomy

The Taxonomy regulation (EU) 2020/852 ("the Regulation") establishes a classification system common to the European Union, the objective of which is to identify the economic activities considered as sustainable, with reference to six environmental objectives.

These six environmental objectives defined at article 9 of the Regulation are as follows:

- climate change mitigation,
- climate change adaptation,
- the sustainable use and protection of water and marine resources,
- the transition to a circular economy,
- pollution prevention and control,
- the protection and restoration of biodiversity and ecosystems.

Within the meaning of article 3 of the Regulation, an economic activity shall qualify as environmentally sustainable where that economic activity:

- contributes substantially to one or more of the environmental objectives set out in Article 9,
- does not significantly harm any of the environmental objectives set out in Article 9,
- is carried out in compliance with the minimum safeguards laid down in Article 18 of the Regulation, and
- complies with technical screening criteria that have been established by the Commission.

The delegated regulation (EU) 2021/2139 of 4 June 2021 supplementing regulation (EU) 2020/852 of the European Parliament and of the Council, and amended by delegated regulation (EU) 2023/2485 of 27 June 2023, establishes the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation. It also determines, for each of the environmental objectives listed in article 9 of the Regulation, the technical screening criteria for assessing whether that economic activity causes no significant harm to one or several of those environmental objectives.

The delegated regulation (EU) 2023/2486 of 27 June 2023 supplementing regulation (EU) 2020/852 of the European Parliament and of the Council establishes the technical screening criteria relating to the four other environmental objectives (the sustainable use and protection of water and marine resources; the transition to a circular economy; the pollution prevention and control; the protection and restoration of biodiversity and ecosystems).

The minimum safeguards of article 3 of the Regulation are procedures implemented by an undertaking to ensure the alignment with the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work and the International Bill of Human Rights.

In order to acknowledge "the role of natural gas as an important technology in reducing greenhouse gas emissions"[4], the delegated regulation (EU) 2021/2139 of 4 June 2021 has been supplemented with a supplementing delegated the regulation (EU) 2022/1214 of 9 March 2022 on the activities related to natural gas and nuclear energy.

(1) Task Force on Climate-related Financial Disclosures.
(2) Eni, Equinor, Shell and TotalEnergies, with the support of the WBCSD (World Business Council for Sustainable Development).
(3) International Sustainability Standards Board.
(4) Refer to (28) of delegated regulation (EU) 2021/2139 of 4 June 2021.

REPORTING FRAMEWORK

Article 8 of the Regulation requires undertakings[1] to include in their *"consolidated non-financial statement information on how and to what extent the undertaking's activities are associated with economic activities that qualify as environmentally sustainable under Articles 3 and 9 of this Regulation"*.

In particular, the undertakings concerned shall disclose the following:

- the proportion of their Turnover derived from products or services associated with economic activities that qualify as environmentally sustainable,
- the proportion of their capital expenditure ("CapEx") and the proportion of their operating expenditure ("OpEx") related to assets or processes associated with economic activities that qualify as environmentally sustainable.

The delegated regulation (EU) 2021/2178 of 6 July 2021, amended by delegated regulation (EU) 2023/2486 of 27 June 2023, supplementing the Regulation specifies the content and presentation of information to be disclosed by undertakings concerning environmentally sustainable economic activities and specifying the methodology to comply with that disclosure obligation.

The delegated regulation specifies the following definitions:

- a taxonomy-eligible economic activity ("Eligible Activity") is an economic activity that is described in the delegated regulations (EU) 2021/2139 of 4 June 2021 (amended by the delegated regulation (EU) 2023/2485 of 27 June 2023), and (UE) 2023/2486 of 27 June 2023, irrespective of whether that economic activity meets any or all of the technical screening criteria laid down in this delegated act,
- a taxonomy-non-eligible economic activity is any economic activity that is not described in the delegated regulations (EU) 2021/2139 of 4 June 2021 (amended by the delegated regulation (EU) 2023/2485 of 27 June 2023), and (UE) 2023/2486 of 27 June 2023,
- a taxonomy-aligned economic activity ("Aligned Activity") is an economic activity that complies with the requirements laid down in Article 3 of the Regulation.

The indicators (Turnover, CapEx, OpEx) are disclosed in the section 5.4.6.3.

5.4.6.1 Eligibility Of TotalEnergies' activities

TotalEnergies has calculated the proportion of its eligible and non-eligible economic activities under the Regulation on the basis of the provisions of the delegated regulation (EU) 2021/2139 of 4 June 2021, the delegated regulation (EU) 2021/2178 of 6 July 2021 and the delegated (EU) 2023/ 2486 of 27 June 2023.

The table below thus presents the proportion of its eligible economic activities of TotalEnergies on three financial indicators: turnover ("Turnover"), capital expenditure ("CapEx") and operating expenditure ("OpEx"), within the meaning of the Taxonomy regulation, on the scope of entities exclusively controlled and consolidated by TotalEnergies SE.

The table also presents, in a voluntary approach, proposed by the delegated regulation of 6 July 2021, a proportional view of the indicators Turnover and CapEx, including the contribution of joint ventures and associates in which TotalEnergies SE has significant influence, accounted for by the equity method up to the amount of the interest held by TotalEnergies.

Given the size of the Company and the adopted development model using partnership to develop its strategy in the electricity and renewables sector, the proportional view is more relevant for TotalEnergies than the consolidated view.

Summary of the ratios of Eligible Activities

	Controlled scope			Proportional view	
Eligible Activities (Financial year 2023)	Turnover	CapEx	OpEx	Turnover	CapEx
Electricity and renewables	2.1%	23.5%	6.7%	3.1%	29.5%
including electricity generation from natural gas	*0.9%*	*0.3%*	*0.3%*	*0.8%*	0.2%
Biofuels and chemicals	4.2%	3.8%	7.3%	5.3%	3.5%
Other eligible activities	0.2%	0.8%	1.5%	0.2%	0.9%
Total 2023	**6.5%**	**28.1%**	**15.5%**	**8.6%**	**33.9%**
Total 2022	***7.5%***	***17.4%***	***15.8%***	***8.9%***	***34.0%***
Total 2021	***9.9%***	***13.4%***	***14.7%***	***11.2%***	***27.4%***

(1) Undertakings which are subject to the obligation to publish an extra-financial statement or a consolidated extra-financial statement pursuant to Article 19a or Article 29a of Directive 2013/34/EU.

ELIGIBLE ACTIVITIES OF TotalEnergies

TotalEnergies' Eligible Activities focus solely on the climate change mitigation objective.

- For the Integrated Power segment, main Eligible Activities are as follows:
  - renewable energy activities include the electricity generation from renewable sources (wind, solar, bioenergy and hydroelectricity), the manufacture, installation, maintenance and repair of renewable energy technologies, as well as the manufacture of rechargeable batteries, battery packs and accumulators (refer to sections 2.4.2 and 2.4.4 in chapter 2),
  - electricity generation from natural gas, corresponding to the portfolio of combined cycle gas turbine (CCGT) power plants (refer to section 2.4.3 of chapter 2).
- For the Integrated LNG segment, main Eligible Activities are as follows:
  - activities related to the production of biogas by anaerobic digestion of bio-waste (refer to section 2.3.6 in chapter 2),
  - hydrogen manufacturing activities (refer to section 2.3.7 of chapter 2).
- For the Refining & Chemicals segment, main Eligible Activities are as follows:
  - activities related the production of biofuel for transportation (refer to section 2.5.1.1 in chapter 2),
  - activities related to the manufacture of basic organic chemicals and the manufacture of basic plastic materials cover a significant portion of the Company's petrochemical activities. Some of these activities may constitute "transitional activities" within the meaning of the European taxonomy regulation, as long as they meet the technical screening criteria of the delegated regulation (EU) 2021/2139 of 4 June 2021, in particular in the fields of biopolymer production and mechanical or chemical recycling of plastics (refer to section 2.5.1.1 of chapter 2).
- For the Exploration & Production segment, main eligible activities are those related to carbon sinks: CO_2 capture and storage and the development of natural carbon sinks (refer to sections 2.2.2.2 and 2.2.2.3 in chapter 2).
- For the Marketing & Service segment, main Eligible Activities are those related to new energy mobility infrastructures: construction and operation of infrastructure enabling low-carbon road transport and public transport, such as electric charging stations and hydrogen fueling stations (refer to section 2.6.1 in chapter 2).

The Eligible Activities reported under the line Electricity and renewables include renewable energy activities and electricity generation from natural gas of the Integrated Power segment, as well as construction and operation of electric charging stations of the Marketing & Service segment.

The Eligible Activities reported under the line Biofuels and chemicals include the production of biofuel for transportation, the manufacture of basic organic chemicals and the manufacture of basic plastic materials of the Refining & Chemicals segment.

The analysis of the texts has led TotalEnergies to consider that, among its activities, are notably not eligible under the taxonomy regulation:

- electricity marketing activities, if the electricity is not produced by the Company (refer to section 2.4.5 of chapter 2),
- the construction and operation of infrastructures for the distribution of energy from natural gas, such as NGV stations and marine natural gas supply infrastructures (refer to section 2.6.1 of chapter 2),
- activities related to the use of means of transportation (road, sea) if the vessels or vehicles are dedicated to the transport of fossil fuels (refer to section 2.5.2.2 in chapter 2).

DEFINITION OF FINANCIAL INDICATORS AND METHODOLOGY

The proportion of Eligible Activities and the proportion of Aligned Activities in the Turnover, the CapEx and the OpEx (the "Ratios") are calculated by dividing respectively the Turnover, the CapEx and the OpEx associated with the Eligible Activities and Aligned Activities of the Company (the numerator) by the total Turnover, CapEx and OpEx of TotalEnergies (the denominator).

The financial indicators, on which the Ratios of the controlled scope are founded, are determined from the financial data used for the preparation of the consolidated financial statements of TotalEnergies SE, established in compliance with the IFRS international accounting standards.

- Turnover corresponds to Revenues from sales as presented in the consolidated statement of income (refer to section 8.2 of chapter 8), i.e. consolidated external sales excluding excise taxes.
- CapEx corresponds to the additions to tangible and intangible assets, *i.e.* to the cost of construction or acquisition of new properties, plants and equipments and intangible assets recognized in the consolidated balance sheet (refer to section 8.4 of chapter 8), including in connection with a business combination. These additions are considered before depreciation, amortisation and any re-measurements, including those resulting from revaluations and impairments, and excluding fair value changes. It includes rights of use under new lease agreements and it excludes acquisitions of shares in equity affiliates and non-consolidated companies, as well as loans granted to these companies. The reconciliation of CapEx with cash flow used in investing activities as presented in the consolidated statement of cash flow (refer to section 8.5 of chapter 8) is available in section 5.4.6.3.
- OpEx corresponds only to direct non-capitalized costs that relate to research and development, short-term lease, building renovation measures and maintenance and repair. These costs are included in the Other operating expenses in the consolidated statement of income (refer to section 8.2 of chapter 8).

The Ratios calculated using the proportional view are based on the Turnover and CapEx financial indicators but extend the scope of the contributing entities, for the numerator like the denominator, to the joint ventures and associates in which TotalEnergies SE has significant influence, accounted for by the equity method up to the amount of the interest held by TotalEnergies. The scope of consolidation as of December 31, 2023, including the list of companies accounted for by the equity method, is available in note 18 of the appendix to the consolidated financial statements in chapter 8.

An internal procedure documents the methodology for determining Eligible Activities and Aligned Activities, the precise definition of financial indicators and all the criteria and assumptions used. Methodology and definitions may evolve depending on future changes in regulations and interpretations.

5.4.6.2 Alignment of TotalEnergies' activities

The tables below present the proportion of the Eligible Activities and the proportion of the Aligned Activities on the Turnover and CapEx indicators, on the scope of the entities controlled by TotalEnergies, as well as a proportional view, proposed by the delegated regulation of 6 July 2021, including the contribution of joint ventures and associates in which TotalEnergies SE has significant influence, accounted for by the equity method.

These data have been assessed on the basis of year 2023 with a reminder of the data published for the years 2022 and 2021.

Summary of the ratios of Eligible Activities and Aligned Activities

	Eligible activities		Aligned activities	
Controlled scope - 2023	**Turnover**	**CapEx**	**Turnover**	**CapEx**
Electricity and renewables	2.1%	23.5%	1.1%	22.9%
including electricity generation from natural gas	*0.9%*	*0.3%*	*0.0%*	*0.0%*
Biofuels and chemicals	4.2%	3.8%	0.2%	2.3%
Other eligible activities	0.2%	0.8%	0.1%	0.5%
Total 2023	**6.5%**	**28.1%**	**1.4%**	**25.7%**
Total 2022	***7.5%***	***17.4%***	***1.3%***	***14.5%***
Total 2021	***9.9%***	***13.4%***	***1.5%***	***10.1%***

	Eligible activities		Aligned activities	
Proportional view - 2023	**Turnover**	**CapEx**	**Turnover**	**CapEx**
Electricity and renewables	3.1%	29.5%	2.0%	29.0%
including electricity generation from natural gas	*0.8%*	*0.2%*	*0.0%*	*0.0%*
Biofuels and chemicals	5.3%	3.5%	0.3%	2.1%
Other eligible activities	0.2%	0.9%	0.2%	0.6%
Total 2023	**8.6%**	**33.9%**	**2.5%**	**31.7%**
Total 2022	***8.9%***	***34.0%***	***1.7%***	***30.8%***
Total 2021	***11.2%***	***27.4%***	***1.9%***	***23.2%***

According to this classification, defined by the Taxonomy, eligible or aligned CapEx represent over 30% of investments on proportional view in 2023, confirming the growth dynamic initiated since 2020. On the controlled scope, the increase in the proportion of eligible or aligned CapEx is explained by TotalEnergies' increased investment efforts in low-carbon.

"SUBSTANTIAL CONTRIBUTION" CRITERION

With regard to the assessment of the regulatory criterion named "Substantial Contribution":

- the Eligible Activities related to renewables have a substantial contribution to the objective of climate change mitigation as soon as they qualify as eligible, except of the manufacture of rechargeable batteries, battery packs and accumulators, which complies with this criterion if they result in substantial greenhouse gases (GHG) emission reductions in transport, stationary and off-grid energy storage and other industrial applications,
- the electricity generation from natural gas complies with this criterion for plants, the GHG emissions of which are lower than 100 g CO_2e/kWh or in transient configurations, for plants whose permit is granted before 31 December 2030, if:
  - the GHG emissions of the activity are lower than 270 g CO_2e/kWh or the average annual GHG emissions over 20 years are lower than 550 kg CO_2e/kW,
  - a duly documented management commitment is taken for a switch to 100% renewable and/or low-carbon gas before end 2035,
  - the activity in question replaces a preexisting coal or liquid fuel activity, and
  - a comparative assessment will have demonstrated that no 100% renewable alternative was possible.
- the manufacture of biofuels for use in transports complies with that criterion if the process uses a biomass that is not food-and feed crops that complies with the sustainability criteria of the Renewable Energies Directive (RED) and that allows savings in GHG emissions due to the manufacturing of these biofuels of at least 65% compared to fossil fuels,
- the manufacture of basic organic chemicals complies with that criterion if (i) the GHG emissions (manufacture) by product are lower than a threshold, or (ii) those products are manufactured from renewable feedstock and the lifecycle GHG emissions, verified by a third party, are lower than the equivalent chemical manufactured from fossil fuel feedstock,
- the manufacture of plastic in primary form complies with that criterion if it is (i) fully manufactured by mechanical recycling of plastic waste or (ii) where mechanical recycling is not technically feasible or economically viable, fully manufactured by chemical recycling and the lifecycle GHG emissions of the manufactured plastic, verified by a third party, are lower than the lifecycle GHG emissions of the equivalent plastic in primary form manufactured from fossil fuel feedstock or (iii) derived wholly or partially from renewable feedstock if its lifecycle GHG emissions, verified by a third party, are lower than the lifecycle GHG emissions of the equivalent plastics in primary form manufactured from fossil fuel feedstock,
- the manufacture of biogas by anaerobic digestion of bio-waste complies with that criterion if the methane leakage and the traceability of the feedstock and digestates are under control and if the share of food-and feed crops is lower than 10%.

"DO NO SIGNIFICANT HARM" CRITERION

With regard to the regulatory criterion named "Do no significant harm" any of the environmental objectives, TotalEnergies relies on the HSE division and the HSE departments within the Company's entities which seek to ensure that applicable local regulations, internal requirements of One MAESTRO reference framework and the Company's additional commitments are respected (refer to section 5.5.1) to analyze if its Eligible Activities comply with this criterion.

- For activities located in the European Union, compliance with European and national laws helps document compliance with technical screening criteria.
- For activities located outside the European Union, the analysis of compliance with the technical screening criteria of delegated regulation (EU) 2021/2139 of 4 June 2021 is based in particular on the following elements:
  - sustainable use and protection of water and marine resources: risks related to water quality and the avoidance of water stress are identified and covered through a water use and protection management plan,
  - pollution prevention and control regarding use and presence of chemicals: the activities do not lead to the manufacture, placing on the market or use of substances, on their own, in mixtures or in articles, listed or defined in European Regulations 2019/1021, 2017/852, 1005/2009, 2011/65 and 1907/2006,
  - protection and restoration of biodiversity and ecosystems: an environmental impact assessment or an appropriate screening is completed for each activity,
  - analysis of technical screening criteria specific to certain Eligible Activities.

More specifically concerning the analysis of the criteria related to the environmental objective "Climate change adaptation", TotalEnergies relies on its process of analyzing the physical risks associated with climate change (refer to section 5.4.3).

"MINIMUM SAFEGUARDS" CRITERION

With regard to the regulatory criterion named "Minimum Safeguards", various TotalEnergies policies cover these issues, through the adoption of a set of norms, principles, guidelines and best practices applicable to its operations, the establishment of specialized teams and networks of correspondents responsible for particular attention to these subjects, as well as procedures, reports and audits aimed at ensuring their daily application. Thus, the TotalEnergies Code of Conduct includes respect for the Universal Declaration of Human Rights, the Fundamental Conventions of the International Labour Organization (ILO), the U.N. Guiding Principles on Business and Human Rights, the OECD guidelines for multinational enterprises and the Voluntary Principles on Security and Human Rights (VPSHR).

The Company refers to those standards in the analysis of the compliance of its Eligible Activities. For a more detailed presentation of TotalEnergies' policies and procedures in terms of respect for human rights, refer to sections 3.3.3 and 3.6 of chapter 3 and section 5.7, respect for competition law, refer to sections 3.3.3 and 3.6 of chapter 3, fighting corruption refer to sections 3.3.3 and 3.6 of chapter 3 and section 5.8.1 and fighting tax evasion refer to section 5.8.2.

In the context of activities carried out by joint ventures and associates in which TotalEnergies has significant influence, accounted for by the equity method, the Company uses its leverage with its business partners to apply similar standards, as explained in these same points.

CONTEXTUAL INFORMATION

In 2023, the Turnover associated with Aligned Activities on the scope of entities controlled by TotalEnergies amount to $3,170 million ($3,466 million in 2022). The decrease in Turnover is mainly due to the removal of SunPower from this scope, following the transaction with Global Infrastructure Partners (GIP) in September 2022.

In 2023, CapEx associated with Aligned Activities on the scope of the entities controlled by TotalEnergies amount to $5,998 million ($2,652 million in 2022). They include:

- $4,849 million related to additions to tangible assets, $835 million related to additions to intangible assets and $314 related to new leases (respectively $1,315 million, $1,188 million and $149 million in 2022),
- $2,791 million related to organic investments and $3,207 million related to assets additions in connection with a business combination (respectively $2,353 million and $299 million in 2022). In 2023, CapEx associated with Aligned Activities relating to assets additions in connection with a business combination are mainly issued from acquisition by TotalEnergies of the entire share capital of Total Eren on 24 July 2023.

CapEx associated with Aligned Activities are either related to assets or processes that are associated with Aligned Activities, or related to *CapEx Plans*, within the meaning of the regulation, or related to purchases of products from Aligned Activities or to individual measures, also among the Aligned Activities, enabling the target activities to become low-carbon or to lead to greenhouse gas emissions reductions.

CapEx related to *CapEx Plans* are part of a plan to expand Aligned Activities or allow Taxonomy Eligible Activities to align with it. CapEx related to purchases of products from Aligned Activities or to individual measures correspond, mainly to the solarization of TotalEnergies' sites.

TotalEnergies plans net investments between $16 and $18 billion per year over the next 5 years with downward flexibility of $2 billion per year in case of low cycle ($17 to $18 billion for 2024). Investments in low-carbon energies are expected to represent around 33% of net investments. They include investments in the Integrated Power, low-carbon products (including biofuels, biogas, recycled plastic, biopolymers, synthetic fuels, hydrogen and CCS) as well as the reduction of the Company's carbon footprint (refer to section 1.5 of chapter 1).

5.4.6.3 Key performance indicators within the taxonomy

Proportion of Turnover from products or services associated with Taxonomy-aligned economic activities

Fiscal year 2023

				Substantial contribution						Does not significantly harm									
				Climate Change						Climate Change									
Activity	Code	Turnover (M$)	Turnover %	Mitigation	Adaptation	Water protect.	Circular eco.	Pollution	Biodiversity	Mitigation	Adaptation	Water protect.	Circular eco.	Pollution	Biodiversity	Minimum Safeguards	Proportion of Taxonomy-aligned (A.1) or -eligible (A.2) Turnover, year N -1 %	Enabling (E) activity	Transitional (T) activity
A. Taxonomy-eligible activities																			
A.1. Environmentally sustainable activities (taxonomy-aligned)																			
Manufacture of low carbon technologies for transport	CCM 3.3	0	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.1%	E	
Manufacture of batteries	CCM 3.4	1,017	0.5%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.3%	E	
Manufacture of energy efficiency equipment for buildings	CCM 3.5	31	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%	E	
Manufacture of plastics in primary form	CCM 3.17	55	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%		T
Manufacture of automotive and mobility components	CCM 3.18	569	0.3%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%	E	
Manufacture of rail constituents	CCM 3.19	68	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%	E	
Electricity generation using solar photovoltaic technology	CCM 4.1	241	0.1%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%		
Electricity generation from wind power	CCM 4.3	104	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%		
Electricity generation from hydropower	CCM 4.5	1	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%		
Storage of electricity	CCM 4.10	10	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%	E	
Manufacture of biogas/biofuels for use in transport and of bioliquids	CCM 4.13	430	0.2%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.1%		
District heating/cooling distribution	CCM 4.20	26	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%		
Production of heat/cool using waste heat	CCM 4.25	1	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%		
Anaerobic digestion of bio-waste	CCM 5.7	36	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%		
Landfill gas capture and utilization	CCM 5.10	8	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%		
Infrast. enabling low-carbon road transport and public transport	CCM 6.15	109	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%	E	
Installation, maintenance and repair of charging stations for electric vehicles in buildings	CCM 7.4	48	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%	E	
Installation, maintenance and repair of renewable energy tech.	CCM 7.6	92	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.5%	E	
Professional services related to energy performance of buildings	CCM 9.3	324	0.1%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.1%	E	
Turnover of environmentally sustainable activities (Taxonomy-aligned) (A.1.)		**3,170**	**1.4%**	**1.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**1.3%**		
including enabling			***1.0%***	***1.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***Y***	***Y***	***Y***	***Y***	***Y***	***Y***	***Y***	***1.2%***		
including transitioning			***0.0%***							***Y***	***Y***	***Y***	***Y***	***Y***	***Y***	***Y***	***0.0%***		
A.2. Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned)																			
Manufacture of batteries	CCM 3.4	273	0.1%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.1%		
Manufacture of organic basic chemicals	CCM 3.14	3,257	1.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								1.5%		
Manufacture of plastics in primary form	CCM 3.17	5,183	2.4%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								2.8%		
Manufacture of automotive and mobility components	CCM 3.18	3	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
Electricity generation using solar photovoltaic technology	CCM 4.1	5	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
Transmission and distribution of electricity	CCM 4.9	1	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
Manufacture of biogas/biofuels for use in transport and of bioliquids	CCM 4.13	147	0.1%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.1%		
District heating/cooling distribution	CCM 4.15	66	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
Cogeneration of heat/cool and power from bioenergy	CCM 4.20	4	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
Electricity generation from fossil gaseous fuels	CCM 4.29	1,993	0.9%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								1.8%		
High-efficiency co- generation of heat/cool and power from fossil gaseous fuels	CCM 4.30	30	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
Construction, extension and operation of water collection, treatment and supply systems	CCM 5.1	4	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
Construction, extension and operation of waste water collection and treatment	CCM 5.3	4	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
Infrastructure for rail transport	CCM 6.14	2	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
Tunover of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2.)		**10,972**	**5.0%**	**5.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**								**6.2%**		
A. Total activities Taxonomy-eligible (A.1.+A.2.)		**14,142**	**6.5%**	**6.5%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**										
B. Taxonomy-Non-Eligible activities																			
Turnover of Taxonomy-non-eligible activities (B)		204,803	93.5%																
Total activities (A+B)		**218,945**	**100%**																

Proportion of CapEx from products or services associated with Taxonomy-aligned economic activities

Fiscal year 2023

Activity	Code	CapEx (M$)	CapEx %	Substantial contribution: Climate Change Mitigation	Substantial contribution: Climate Change Adaptation	Substantial contribution: Water protect.	Substantial contribution: Circular eco.	Substantial contribution: Pollution	Substantial contribution: Biodiversity	Does not significantly harm: Climate Change Mitigation	Does not significantly harm: Climate Change Adaptation	Does not significantly harm: Water protect.	Does not significantly harm: Circular eco.	Does not significantly harm: Pollution	Does not significantly harm: Biodiversity	Minimum Safeguards	Proportion of Taxonomy-aligned (A.1) or -eligible (A.2) CapEx, year N -1 %	Enabling (E) activity	Transitional (T) activity
A. Taxonomy-eligible activities																			
A.1. Environmentally sustainable activities (taxonomy-aligned)																			
Afforestation	CCM 1.1	4	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%		
Manufacture of low carbon technologies for transport	CCM 3.3	0	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.1%	E	
Manufacture of batteries	CCM 3.4	49	0.2%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.2%	E	
Manufacture of energy efficiency equipment for buildings	CCM 3.5	1	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%	E	
Manufacture of hydrogen	CCM 3.10	4	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%	E	
Manufacture of organic basic chemicals	CCM 3.14	349	1.5%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.2%		T
Manufacture of plastics in primary form	CCM 3.17	53	0.2%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.1%		T
Manufacture of automotive and mobility components	CCM 3.18	24	0.1%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%	E	
Electricity generation using solar photovoltaic technology	CCM 4.1	3,500	15.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	5.8%		
Electricity generation from wind power	CCM 4.3	845	3.6%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	5.1%		
Electricity generation from hydropower	CCM 4.5	2	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%		
Storage of electricity	CCM 4.10	458	2.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.5%	E	
Manufacture of biogas/biofuels for use in transport and of bioliquids	CCM 4.13	132	0.6%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.3%		
Cogeneration of heat/cool and power from bioenergy	CCM 4.20	95	0.4%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%		
Production of heat/cool using waste heat	CCM 4.25	6	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%		
Anaerobic digestion of bio-waste	CCM 5.7	16	0.1%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.1%		
Underground permanent geological storage of CO_2	CCM 5.12	59	0.3%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.1%		
Infrast. enabling low-carbon road transport and public transport	CCM 6.15	252	1.1%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.9%	E	
Installation, maintenance and repair of renewable energy tech.	CCM 7.6	116	0.5%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.7%	E	
Acquisition and ownership of buildings	CCM 7.7	0	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.1%		
Professional services related to energy performance of buildings	CCM 9.3	33	0.1%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%	E	
CapEx of environmentally sustainable activities (Taxonomy-aligned) (A.1.)		**5,998**	**25.7%**	**25.7%**	**0%**	**0%**	**0%**	**0%**	**0%**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**14.5%**		
Including enabling			***4.0%***	***4.0%***	***0%***	***0%***	***0%***	***0%***	***0%***	***Y***	***Y***	***Y***	***Y***	***Y***	***Y***	***Y***	***2.4%***		
Including transitioning			***1.7%***							***Y***	***Y***	***Y***	***Y***	***Y***	***Y***	***Y***	***0.3%***		
A.2. Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned)																			
Manufacture of batteries	CCM 3.4	17	0.1%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.1%		
Manufacture of organic basic chemicals	CCM 3.14	251	1.1%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								1.8%		
Manufacture of plastics in primary form	CCM 3.17	97	0.4%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.7%		
Electricity generation using solar photovoltaic technology	CCM 4.1	45	0.2%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
Transmission and distribution of electricity	CCM 4.9	1	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
District heating/cooling distribution	CCM 4.15	1	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
Cogeneration of heat/cool and power from bioenergy	CCM 4.20	5	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
Electricity generation from fossil gaseous fuels	CCM 4.29	69	0.3%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.3%		
Construction, extension and operation of water collection, treatment and supply systems	CCM 5.1	2	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
Construction of new buildings	CCM 7.1	39	0.2%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
Acquisition and ownership of buildings	CCM 7.7	35	0.2%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
Data processing, hosting and related activities	CCM 8.1	5	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
CapEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2.)		**567**	**2.4%**	**2.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**								**2.8%**		
A. Total activities Taxonomy-eligible (A.1.+A.2.)		**6,565**	**28.1%**	**28.1%**	**0.0%**	**0.0%**	**0.0%**	**0%**	**0.0%**										
B. Taxonomy-Non-Eligible activities																			
CapEx of Taxonomy-non-eligible activities (B)		16,759	71.9%																
Total activities (A+B)		**23,324**	**100%**																

Proportion of OpEx from products or services associated with Taxonomy-aligned economic activities

Fiscal year 2023

Activity	Code	OpEx (M$)	OpEx %	Substantial contribution – Climate Change – Mitigation	Substantial contribution – Climate Change – Adaptation	Substantial contribution – Water protect.	Substantial contribution – Circular eco.	Substantial contribution – Pollution	Substantial contribution – Biodiversity	Does not significantly harm – Climate Change – Mitigation	Does not significantly harm – Climate Change – Adaptation	Does not significantly harm – Water protect.	Does not significantly harm – Circular eco.	Does not significantly harm – Pollution	Does not significantly harm – Biodiversity	Minimum Safeguards	Proportion of Taxonomy-aligned (A.1.) or -eligible (A.2.) OpEx, year N-1 %	Enabling (E) activity	Transitional (T) activity
A. Taxonomy-eligible activities																			
A.1. Environmentally sustainable activities (taxonomy-aligned)																			
Manufacture of low carbon technologies for transport	CCM 3.3	0	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.6%	E	
Manufacture of batteries	CCM 3.4	80	1.8%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	1.9%	E	
Manufacture of energy efficiency equipment for buildings	CCM 3.5	1	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%	E	
Manufacture of hydrogen	CCM 3.10	12	0.3%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.2%	E	
Manufacture of plastics in primary form	CCM 3.17	28	0.6%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.9%		T
Manufacture of automotive and mobility components	CCM 3.18	49	1.1%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%	E	
Electricity generation using solar photovoltaic technology	CCM 4.1	45	1.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.4%		
Electricity generation from wind power	CCM 4.3	39	0.9%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.7%		
Storage of electricity	CCM 4.10	34	0.8%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.9%	E	
Manufacture of biogas/biofuels for use in transport and of bioliquids	CCM 4.13	37	0.8%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.8%		
Production of heat/cool using waste heat	CCM 4.25	1	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.0%		
Anaerobic digestion of bio-waste	CCM 5.7	3	0.1%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.1%		
Landfill gas capture and utilization	CCM 5.10	3	0.1%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.1%		
Underground permanent geological storage of CO_2	CCM 5.12	41	0.9%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.9%		
Infrast. enabling low-carbon road transport and public transport	CCM 6.15	9	0.2%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.1%	E	
Installation, maintenance and repair of renewable energy tech.	CCM 7.6	1	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.6%	E	
Professional services related to energy performance of buildings	CCM 9.3	0	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0.3%	E	
OpEx of environmentally sustainable activities (Taxonomy-aligned) (A.1.)		**383**	**8.6%**	**8.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**8.6%**		
Including enabling			***4.2%***	***4.2%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***Y***	***Y***	***Y***	***Y***	***Y***	***Y***	***Y***	***4.7%***		
Including transitioning			***0.6%***							***Y***	***Y***	***Y***	***Y***	***Y***	***Y***	***Y***	***0.9%***		
A.2. Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned)																			
Manufacture of batteries	CCM 3.4	24	0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.5%		
Manufacture of organic basic chemicals	CCM 3.14	142	3.2%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								2.8%		
Manufacture of plastics in primary form	CCM 3.17	118	2.7%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								3.0%		
District heating/cooling distribution	CCM 4.15	1	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
Electricity generation from fossil gaseous fuels	CCM 4.29	13	0.3%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.7%		
High-efficiency co- generation of heat/cool and power from fossil gaseous fuels	CCM 4.30	2	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.1%		
Construction, extension and operation of water collection, treatment and supply systems	CCM 5.1	2	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
Construction, extension and operation of waste water collection and treatment	CCM 5.3	0	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.1%		
Infrastructure for rail transport	CCM 6.14	1	0.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0%		
Opex of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2.)		**303**	**6.8%**	**6.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**								**7.2%**		
A. Total activities Taxonomy-eligible (A.1.+A.2.)		**686**	**15.4%**	**15.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**										
B. Taxonomy-Non-Eligible activities																			
OpEx of Taxonomy-non-eligible activities (B)		3,759	84.6%																
Total activities (A+B)		**4,445**	**100%**																

Key performance indicators by environmental objective

The tables below are required by the delegated regulation (EU) 2023/2486 of 27 June 27 2023. They make it possible to declare the degree of eligibility and alignment by environmental objective, including alignment with each of the environmental objectives for activities contributing substantially to several objectives including: climate change mitigation (CCM), climate change adaptation (CCA), sustainable use and protection of water and marine resources (WTR), transition to a circular economy (CE), pollution prevention and control (PPC) and protection and restoration of biodiversity and ecosystems (BIO).

Proportion of eligible Turnover and proportion of aligned Turnover by environmental objective

	Proposition of turnover/Total turnover	
	Taxonomy-aligned per objective	Taxonomy-eligible per objective
CCM	1.4%	6.5%
CCA	0.0%	0.0%
WTR	0.0%	0.0%
CE	0.0%	0.0%
PPC	0.0%	0.0%
BIO	0.0%	0.0%

Proportion of eligible CapEx and proportion of aligned CapEx by environmental objective

	Proposition of CapEx/Total CapEx	
	Taxonomy-aligned per objective	Taxonomy-eligible per objective
CCM	25.7%	28.1%
CCA	0.0%	0.0%
WTR	0.0%	0.0%
CE	0.0%	0.0%
PPC	0.0%	0.0%
BIO	0.0%	0.0%

Proportion of eligible OpEx and proportion of aligned OpEx by environmental objective

	Proportion of OpEx/Total OpEx	
	Taxonomy-aligned per objective	Taxonomy-eligible per objective
CCM	8.6%	15.4%
CCA	0.0%	0.0%
WTR	0.0%	0.0%
CE	0.0%	0.0%
PPC	0.0%	0.0%
BIO	0.0%	0.0%

Key performance indicators on the activities related to natural gas and nuclear energy

The tables below are required by supplementing delegated regulation (EU) 2022/1214 of 9 March 2022 on the activities related to natural gas and nuclear energy. The scope of Eligible Activities related to natural gas is limited and therefore does not acknowledge the role of natural gas as an important technology in reducing greenhouse gas emissions. For information and in addition to European regulations, the share of Eligible Activities and non-eligible activities related to natural gas, on the scope of the entities controlled by TotalEnergies, stands in 2023 at 12% of Turnover, 14% of CapEx and 26% of OpEx. In 2022, it standed at 15% of Turnover, 14% of CapEx and 20% of OpEx.

Fiscal year 2023

Line	Nuclear energy related activities	
1.	The undertaking carries out, funds or has exposures to research, development, demonstration and deployment of innovative electricity generation facilities that produce energy from nuclear processes with minimal waste from the fuel cycle.	No
2.	The undertaking carries out, funds or has exposures to construction and safe operation of new nuclear installations to produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production, as well as their safety upgrades, using best available technologies	No
3.	The undertaking carries out, funds or has exposures to safe operation of existing nuclear installations that produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production from nuclear energy, as well as their safety upgrades.	No
	Fossil gas related activities	
4.	The undertaking carries out, funds or has exposures to construction or operation of electricity generation facilities that produce electricity using fossil gaseous fuels.	Yes
5.	The undertaking carries out, funds or has exposures to construction, refurbishment, and operation of combined heat/cool and power generation facilities using fossil gaseous fuels.	Yes
6.	The undertaking carries out, funds or has exposures to construction, refurbishment and operation of heat generation facilities that produce heat/cool using fossil gaseous fuels.	No

Taxonomy-aligned economic activities (denominator)

Financial year 2023		Proportion - Turnover					
		CCM + CCA		Climate change mitigation		Climate change adaptation	
Line	Economic activities	Amount M$	%	Amount M$	%	Amount M$	%
1	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of Turnover	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of Turnover	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of Turnover	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of Turnover	0	0%	0	0%	0	0%
5	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of Turnover	0	0%	0	0%	0	0%
6	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of Turnover	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	**Amount and proportion of other taxonomy-aligned economic activities not referred to in rows 1 to 6 above on the denominator of Turnover**	**3,170**	**1.4%**	**3,170**	**1.4%**	**0**	**0%**
8	**Total Turnover**	**218,945**	**100%**	**218,945**	**100%**	**218,945**	**100%**

Taxonomy-aligned economic activities (denominator)

Financial year 2023		Proportion - CapEx					
		CCM + CCA		Climate change mitigation		Climate change adaptation	
Line	Economic activities	Amount M$	%	Amount M$	%	Amount M$	%
1	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of CapEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of CapEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of CapEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of CapEx	0	0%	0	0%	0	0%
5	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of CapEx	0	0%	0	0%	0	0%
6	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of CapEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	**Amount and proportion of other taxonomy-aligned economic activities not referred to in rows 1 to 6 above on the denominator of CapEx**	**5,998**	**25.7%**	**5,998**	**25.7%**	**0**	**0%**
8	**Total CapEx**	**23,324**	**100%**	**23,324**	**100%**	**23,324**	**100%**

Taxonomy-aligned economic activities (numerator)

Financial year 2023		Proportion - OpEx					
		CCM + CCA		Climate change mitigation		Climate change adaptation	
Line	Economic activities	Amount M$	%	Amount M$	%	Amount M$	%
1	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of OpEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of OpEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of OpEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of OpEx	0	0%	0	0%	0	0%
5	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of OpEx	0	0%	0	0%	0	0%
6	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of OpEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	**Amount and proportion of other taxonomy-aligned economic activities not referred to in rows 1 to 6 above on the denominator of OpEx**	**383**	**8.6%**	**383**	**8.6%**	**0**	**0%**
8	**Total OpEx**	**4,445**	**100%**	**4,445**	**100%**	**4,445**	**100%**

Taxonomy-aligned economic activities (numerator)

Financial year 2023		Proportion - Turnover					
		CCM + CCA		Climate change mitigation		Climate change adaptation	
Line	Economic activities	Amount M$	%	Amount M$	%	Amount M$	%
1	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of Turnover	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of Turnover	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of Turnover	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of Turnover	0	0%	0	0%	0	0%
5	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of Turnover	0	0%	0	0%	0	0%
6	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of Turnover	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	**Amount and proportion of other taxonomy-aligned economic activities not referred to in rows 1 to 6 above in the numerator of Turnover**	**3,170**	**100%**	**3,170**	**100%**	**0**	**0%**
8	**Total amount and proportion of taxonomy-aligned economic activities in the numerator of Turnover**	**3,170**	**100%**	**3,170**	**100%**	**0**	**0%**

Taxonomy-aligned economic activities (numerator)

Financial year 2023		Proportion - CapEx					
		CCM + CCA		Climate change mitigation		Climate change adaptation	
Line	Economic activities	Amount M$	%	Amount M$	%	Amount M$	%
1	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of CapEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of CapEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of CapEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of CapEx	0	0%	0	0%	0	0%
5	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of CapEx	0	0%	0	0%	0	0%
6	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of CapEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	**Amount and proportion of other taxonomy-aligned economic activities not referred to in rows 1 to 6 above in the numerator of CapEx**	**5,998**	**100%**	**5,998**	**100%**	**0**	**0%**
8	**Total amount and proportion of taxonomy-aligned economic activities in the numerator of CapEx**	**5,998**	**100%**	**5,998**	**100%**	**0**	**0%**

Taxonomy-aligned economic activities (numerator)

Financial year 2023		Proportion - Opex					
		CCM + CCA		Climate change mitigation		Climate change adaptation	
Line	Economic activities	Amount M$	%	Amount M$	%	Amount M$	%
1	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of OpEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of OpEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of OpEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of OpEx	0	0%	0	0%	0	0%
5	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of OpEx	0	0%	0	0%	0	0%
6	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of OpEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	**Amount and proportion of other taxonomy-aligned economic activities not referred to in rows 1 to 6 above in the numerator of OpEx**	**383**	**100%**	**383**	**100%**	**0**	**0%**
8	**Total amount and proportion of taxonomy-aligned economic activities in the numerator of OpEx**	**383**	**100%**	**383**	**100%**	**0**	**0%**

Taxonomy-eligible but not taxonomy-aligned economic activities

Financial year 2023		Proportion - Turnover					
		CCM + CCA		Climate change mitigation		Climate change adaptation	
Line	Economic activities	Amount M$	%	Amount M$	%	Amount M$	%
1	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover	1,993	0.9%	1,993	0.9%	0	0%
5	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover	30	0.0%	30	0.0%	0	0%
6	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	**Amount and proportion of other taxonomy-eligible but not taxonomy-aligned economic activities not referred to in rows 1 to 6 above in the denominator of Turnover**	**8,949**	**4.1%**	**8,949**	**4.1%**	**0**	**0%**
8	**Total amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activities in the denominator of Turnover**	**10,972**	**5.0%**	**10,972**	**5.0%**	**0**	**0%**

Taxonomy-eligible but not taxonomy-aligned economic activities

Financial year 2023		Proportion - CapEx					
		CCM + CCA		Climate change mitigation		Climate change adaptation	
Line	Economic activities	Amount M$	%	Amount M$	%	Amount M$	%
1	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx	69	0.3%	69	0.3%	0	0%
5	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx	0	0%	0	0%	0	0%
6	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	**Amount and proportion of other taxonomy-eligible but not taxonomy-aligned economic activities not referred to in rows 1 to 6 above in the denominator of CapEx**	**498**	**2.1%**	**498**	**2.1%**	**0**	**0%**
8	**Total amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activities in the denominator of CapEx**	**567**	**2.4%**	**567**	**2.4%**	**0**	**0%**

Taxonomy-eligible but not taxonomy-aligned economic activities

Financial year 2023		Proportion - Opex					
		CCM + CCA		Climate change mitigation		Climate change adaptation	
Line	Economic activities	Amount M$	%	Amount M$	%	Amount M$	%
1	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx	13	0.3%	13	0.3%	0	0%
5	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx	2	0.0%	2	0.0%	0	0%
6	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	**Amount and proportion of other taxonomy-eligible but not taxonomy-aligned economic activities not referred to in rows 1 to 6 above in the denominator of OpEx**	**288**	**6.5%**	**288**	**6.5%**	**0**	**0%**
8	**Total amount and proportion of taxonomy eligible but not taxonomy-aligned economic activities in the denominator of OpEx**	**303**	**6.8%**	**303**	**6.8%**	**0**	**0%**

Taxonomy non-eligible economic activities

Financial year 2023		Turnover	
Line	Economic activities	Amount M$	%
1	Amount and proportion of economic activity referred to in row 1 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover	n.a.	n.a.
2	Amount and proportion of economic activity referred to in row 2 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover	n.a.	n.a.
3	Amount and proportion of economic activity referred to in row 3 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover	n.a.	n.a.
4	Amount and proportion of economic activity referred to in row 4 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover	0	0%
5	Amount and proportion of economic activity referred to in row 5 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover	0	0%
6	Amount and proportion of economic activity referred to in row 6 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover	n.a.	n.a.
7	**Amount and proportion of other taxonomy-non-eligible economic activities not referred to in rows 1 to 6 above in the denominator of Turnover**	**204,803**	**93.5%**
8	**Total amount and proportion of taxonomy-non-eligible economic activities in the denominator of Turnover**	**204,803**	**93.5%**

Taxonomy non-eligible economic activities

Financial year 2023		CapEx	
Line	Economic activities	Amount M$	%
1	Amount and proportion of economic activity referred to in row 1 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx	n.a.	n.a.
2	Amount and proportion of economic activity referred to in row 2 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx	n.a.	n.a.
3	Amount and proportion of economic activity referred to in row 3 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx	n.a.	n.a.
4	Amount and proportion of economic activity referred to in row 4 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx	0	0%
5	Amount and proportion of economic activity referred to in row 5 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx	0	0%
6	Amount and proportion of economic activity referred to in row 6 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx	n.a.	n.a.
7	**Amount and proportion of other taxonomy-non-eligible economic activities not referred to in rows 1 to 6 above in the denominator of CapEx**	**16,759**	**71.9%**
8	**Total amount and proportion of taxonomy-non-eligible economic activities in the denominator of CapEx**	**16,759**	**71.9%**

Taxonomy non-eligible economic activities

Financial year 2023		OpEx	
Line	Economic activities	Amount M$	%
1	Amount and proportion of economic activity referred to in row 1 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx	n.a.	n.a.
2	Amount and proportion of economic activity referred to in row 2 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx	n.a.	n.a.
3	Amount and proportion of economic activity referred to in row 3 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx	n.a.	n.a.
4	Amount and proportion of economic activity referred to in row 4 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx	0	0%
5	Amount and proportion of economic activity referred to in row 5 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx	0	0%
6	Amount and proportion of economic activity referred to in row 6 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx	n.a.	n.a.
7	**Amount and proportion of other taxonomy-non-eligible economic activities not referred to in rows 1 to 6 above in the denominator of OpEx**	**3,759**	**84.6%**
8	**Total amount and proportion of taxonomy-non-eligible economic activities in the denominator of OpEx**	**3,759**	**84.6%**

Statement of CapEx reconciliation

In millions of dollars	2023
	TotalEnergies
Cash flow used in investing activities (a)	**16,454**
Divestments (b)	8,406
Investments in equity affiliates and other securities (c)	(3,477)
Increase in non-current loans (d)	(1,889)
New leasing contracts (e)	2,524
Adjustment of controlled entities acquisition (f)	1,496
Other adjustments* (g)	(190)
CapEx as per Taxonomy - Controlled perimeter (a+b+c+d+e+f+g)	**23,324**
Share of equity affiliates CapEx	7,028
CapEx as per Taxonomy - Proportional view	**30,352**

* Other adjustments include investment grants and capitalized financial expenses.

5.5 Challenges related to the environment and nature

The Company's activities entail risks for the environment and nature, for which TotalEnergies has developed a structured management policy.

In this context, the Company has identified its main environmental risks:

- risk of accidental pollution;
- environmental risks that would arise in the event of a liquid, gas or solid discharge or unsustainable use of natural resources;
- risk of damage being caused to biodiversity and nature by projects and operations, especially those located in sensitive natural environments;
- environmental risks associated with the production of final waste.

The risks and challenges relating to the environment and nature are identified as part of a dynamic process that draws on the Company's expertise and lessons learned, which are incorporated in the HSE reference framework known as One MAESTRO (Management and Expectations Standards Toward Robust Operations).

To address these risks, TotalEnergies relies on the HSE division, which forms part of the Strategy & Sustainability division, whose President is a member of the Executive Committee.

5.5.1 General policy and environmental targets

In accordance with its Health, Safety, Environment & Quality charter, TotalEnergies considers respect for the environment and nature as one of its priorities. All employees, at every level, must do their utmost to protect the environment as they go about their work. TotalEnergies strives to control its energy consumption, its emissions in natural environments (water, air, soil), its residual waste production, its use of natural resources and its impact on biodiversity. In line with its principle of actions, TotalEnergies adopts an approach based on transparency and dialogue when communicating with its stakeholders and third parties on this topic.

With this aim, the HSE division manages in an integrated manner the environmental, safety, health and societal challenges related to the Company's operations. It coordinates the implementation of the Company's Health, Safety, Environment and Quality Charter by defining and monitoring the implementation of the One MAESTRO internal reference framework. This reference framework and the corresponding audits are described in point 5.3 of this chapter. The HSE division and the HSE departments within the Company's entities seek that both applicable local regulations and internal requirements of One MAESTRO and the Company's additional commitments are respected. The Company's steering bodies, led by the HSE division, are tasked with:

- monitoring TotalEnergies' environmental performances, which are reviewed annually by the Company, for which multi-annual improvement targets are set;
- handling, in conjunction with the business segments, the various environment-related subjects of which they are in charge,
- promoting the internal standards to be applied by the Company's operational entities.

As a general requirement, under the One MAESTRO reference framework, environmental management systems of sites operated by the Company that are important for the environment[1] must be ISO14001 certified within two years of start-up of operations or acquisition: 100% of these 79 sites were compliant in 2023. In addition to this requirement, at year-end 2023, a total of 281 sites operated by the Company were ISO14001 certified, 14 of them newly so. Internal requirements also stipulate that all projects submitted to the Company's Risk Committee must be assessed and reviewed for risk and potential impact, particularly environmental, before the final investment decision is made.

The One MAESTRO reference framework also includes specific requirements covering the Company's various environmental risks (refer to points 5.5.2 to 5.5.5). In January 2022, the Company set itself higher environmental progress targets for 2030.

TotalEnergies has also initiated the mapping of its Nature-related Dependencies, Impacts, Risks and Opportunities (DIRO) following the recommendations of the Taskforce on Nature-related Financial Disclosure (TNFD). These works are part of the preparation for the implementation of the CSRD (Corporate Sustainability Reporting Directive[2]) and of the European sustainability reporting standards.

The first elements of this analysis, shared with the Company's main Business Units, highlight the following points in particular:

- the dependence of its installations on water resources (refineries, petrochemical sites, CCGT), on the availability of land (direct for solar farms and indirect for its feedstock of agricultural origin), and on weather conditions (renewable farms);
- the impacts linked to its greenhouse gas emissions, potential pollution, its physical footprint, for example for the establishment of wind farms;
- the risks associated with extreme climatic events, water stress and rising land prices;
- opportunities for reducing greenhouse gas emissions, CO_2 capture and sequestration, reduction of plastic pollution, improvement of biodiversity, reduction in the use of chemical fertilizers (biogas digestate).

(1) Production sites of the Exploration & Production segment subsidiaries, sites producing more than 250 kt/y in the Refining & Chemicals and Marketing & Services segments, and gas-fired power plants operated by the Company in the Integrated Power segment.
(2) Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting.

Our environmental targets[a]	Facts
Environment Management Systems	
– have the environment management systems of the sites important for the environment certified according to the ISO14001 standard	– 100% of the 79 sites important for the environment certified according to the ISO14001 standard in 2023
Air	
– reduce emissions of sulfur dioxide (SO_2) into the air by 75% between 2015 and 2030, which means not emitting more than 15 kt in 2030	– a 80% reduction in atmospheric sulfur dioxide (SO_2) emissions between 2015 and 2023
Water	
– reduce freshwater withdrawal in water stress areas by 20% between 2021 and 2030	– a 7.4% reduction in freshwater withdrawals in water stress areas in 2023 (base WRI Aqueduct 2030 V4.0)
– limit the hydrocarbon content of continuous aqueous discharges to less than 30 mg/l for offshore sites	– 92% of the Company's oil sites met the quality target for offshore discharges in 2023
– limit the hydrocarbon content of continuous aqueous discharges to less than 1 mg/l for land and onshore sites by 2030	– 86% of the Company's oil sites met the new quality target for onshore discharges in 2023
Waste	
– reuse more than 70% of the waste produced by sites operated by the Company's subsidiaries (excluding digestate from biogas units)	– 61% of waste from sites operated by the Company's subsidiaries recovered in 2023
Biodiversity	
– implement a zero net deforestation policy in new projects located in new sites starting in 2022 onward	– in 2023, 22 ha net deforestation (81 ha gross deforestation and 59 ha compensated). Projects to compensate for the balance are currently being put in place.
– implement the biodiversity ambition in the 4 areas presented in point 5.5.4 of this chapter	– no oil and gas exploration or production activity in the area of natural sites listed on the UNESCO World Heritage List – no exploration activity in oil fields under sea ice in the Arctic – 8 biodiversity action plans[1] carried out or in preparation in 2023 for projects located in protected areas[2] or aligned with the International Finance Corporation PS6 standard – 70 biodiversity action plans initiated on sites important for the environment[3] at the end of 2023 (2025 objective reached at 90%). – 119 citations cumulated since 2020 in scientific publications of biodiversity data sets produced by the Company and shared in the database of the Global Biodiversity Information Facility (GBIF).

(a) For targets relating to the climate, refer to point 5.4 of this chapter.

TotalEnergies seeks to share with all employees its environmental care and nature protection requirements. Employees receive training in the required skills (refer to point 5.3.2 of this chapter).

TotalEnergies also raises employee awareness through internal communication campaigns (e.g., in-house magazines, intranet, posters).

5.5.2 Preventing risks of accidental pollution

To prevent accidental risks and, in particular, major spills that could reach the environment, TotalEnergies implements appropriate risk management policies. Point 5.3.1 of this chapter describes the management measures covering the design and construction of facilities and any changes to existing facilities, as how the operations were conducted. It also describes the measures taken to control the integrity of facilities over time.

For the transport of oil and gas by sea and river, TotalEnergies maintains a rigorous safety policy rooted primarily in the strict selection of chartered vessels that meet the highest international standards. The vetting of vessels and barges is based in particular on the regulations, best practices and recommendations of the OCIMF[4] and, in Europe, on those of the European Barge Inspection Scheme (EBIS). Tankers and barges are vetted by a single centralized Company entity. The average age of the TotalEnergies time-chartered oil tanker fleet in 2023 is seven years.

(1) Following the method of IPIECA's Guide to Developing Biodiversity Action Plans for the Oil and Gas Sector.
(2) IUCN (International Union for Conservation of Nature) Protected areas I to IV and Ramsar areas.
(3) Production sites of the Exploration & Production segment subsidiaries, sites producing more than 250 kt/y in the Refining & Chemicals and Marketing & Services segments, and gas-fired power plants operated by the Company in the Integrated Power segment.
(4) Oil Companies International Marine Forum (OCIMF): An industry forum including the leading international oil companies. This organization manages the Ship Inspection Report (SIRE) Program, which holds and provides access to tanker and river barge inspection reports (Barge Inspection Questionnaire – BIQ).

The Company's operated marine terminals have completed the consolidation of their physical characteristics in the global database that forms part of the OCIMF's Marine Terminal Information System (MTIS), which will make it easier to assess ships' compatibility with ports of call. Additionally, TotalEnergies encourages all operated terminals to use the Marine Terminal Management and Self-Assessment (MTMSA), the framework recommended by the industry to terminal operators to continuously improve the safety of their operations. Training on SSSCL (Ship Shore Safety Check List) and cargo transfer operations for operating terminals staff is available and is one of the requirements of the One MAESTRO reference framework.

In order to manage a major accidental spill efficiently, TotalEnergies has implemented a global crisis management system that is described in point 5.3.1 of this chapter.

For the sites operated by the Company exposed to the risk of accidental spills that reach the surface water, this system is supplemented by requirements of the One MAESTRO reference framework. These requirements demand that the oil spill contingency plans be regularly reviewed and tested in exercises. These plans are specific to each site and are adapted to their structure, activities and environment while complying with Company recommendations. The TotalEnergies companies can call on in-house human and material resources (Fast Oil Spill Team, FOST) and benefit from assistance agreements with the main third-party organizations specialized in the management of hydrocarbon spills. Thus, in 2022, TotalEnergies contributed to a large-scale European exercise "DOMINO", organized by the French authorities and involving various civil security organizations from several countries as well as different industrial sites (35,000 people mobilized). The La Mède site simulated a vegetable oil leak scenario.

TotalEnergies mobilized the various levels of response for this:

- on site with the Crisis Management Unit and the support of the FOST (Fast Oil Spill Team) backed up by the Marseille Naval Fire Battalion,
- at the Company's headquarters with the Refining & Chemicals segment Crisis Support Unit and the support of the in-house pollution expertise unit.

For the oil and gas exploration and production activities, since 2014, subsea capping and subsea containment equipment that can be transported by air or sea has been positioned at various points of the world (South Africa, Brazil, Norway and Singapore). This equipment provides access to solutions that are more readily available in the event of oil or gas blowout in deep offshore drilling operations. From these locations, the equipment can benefit TotalEnergies' operations worldwide. This equipment was developed by a group of nine oil companies, including TotalEnergies, and is managed by Oil Spill Response Ltd (OSRL), a cooperative dedicated to the response to marine pollution by hydrocarbons. Since 2018, equipment to facilitate shallow water capping operations, Offset Installation Equipment (OIE), has been positioned in Trieste, Italy. Managed by OSRL, it can be transported by air or boat to anywhere in the world as necessary. In 2022, a preparation and pre-mobilization exercise to the quay (ready to be loaded on a ship) was carried out by TotalEnergies with the aim of continuous improvement of the procedures for mobilizing the means of response in the event of a well incident.

TotalEnergies has also designed and developed its own capping system ("Subsea Emergency Response System") to stop potential blow-out in drilling or production operations as quickly as possible. Since 2015, equipment has been installed in Angola and the Republic of the Congo, covering the entire Gulf of Guinea region.

In 2023, training and a specific exercise were organized for TotalEnergies' Sea Transport activities, based in Singapore, Geneva and Paris, with the involvement of the Singapore center of Oil Spill Response Ltd.

Oil spill preparedness	2023	2022	2021
Number of sites whose risk analysis identified at least one risk of major accidental pollution to surface water	122	113	119
Proportion of those sites with an operational oil spill contingency plan	100%	100%	100%
Proportion of those sites that have performed an oil spill response exercise or whose exercise was prevented following a decision by the authorities	99%	92%	97%

In accordance with industry standard practice, TotalEnergies monitors accidental liquid hydrocarbon spills of more than one barrel. Spills that exceed a predetermined severity threshold are reviewed on a monthly basis and annual statistics are sent to the Company's Performance Committee. All spills are followed by corrective actions aimed at returning the environment to an acceptable state as quickly as possible.

Accidental liquid hydrocarbon spills of a volume of more than one barrel that affected the environment, excluding theft or sabotage	2023	2022	2021
Number of spills	27	49	65
Total volume of spills *(thousands of m^3)*	1.7	0.1	2.0
Total volume recovered *(thousands of m^3)*	~0.0[a]	0.1	1.7

(a) Precisely 40 m^3.

The reduction in the accidental events continued in 2023. A significant offshore spill was treated by dispersion in Nigeria.

5.5.3 Limiting the environmental footprint of the Company activities

TotalEnergies implements a policy of avoiding, reducing and, where necessary, offsetting the environmental footprint and effects on nature in general of its operations.

ENVIRONMENTAL PROTECTION

Air and water protection

The Company's operations generate emissions into the atmosphere from combustion plants and the various conversion processes and discharges into wastewater. In addition to complying with applicable legislation, TotalEnergies has drawn up rules and guidelines that the Company's subsidiaries can use to limit the quantities discharged. TotalEnergies has set itself targets for reducing sulfur dioxide (SO_2) emissions and is committed to limiting its hydrocarbon discharges into water. After analysis, the exposed sites are equipped with reduction systems that include organizational measures (managing sulfur content of fuels, improving the management of combustion processes, etc.) and specific technical measures depending on the sites (wastewater treatment plants, use of low-NO_X burners and electrostatic scrubbers, etc.). To date, all refineries wholly owned by the Company have this type of system.

For new facilities developed by the Company, the internal rules require impact assessments to be carried out and, if necessary, actions must be taken to limit the impact of the emissions.

In 2015, SO_2 emissions reached 59 kt. TotalEnergies has set itself the target of reducing its emissions by 75% in 2030 (compared to 2015), which entails not exceeding 15 kt.

Atmospheric chronic emissions	2023	2022	2021
SO_2 emissions *(in kt)*	12	13	16
NO_X emissions *(in kt)*	60	60	59
NMVOC emissions[(a)] *(in kt)*	43	48	58

(a) Non-methane volatile organic compounds.

SO_2 emissions that are likely to cause acid rain are regularly checked and reduced. In 2023, SO_2 emissions decreased due to an investment implementation in Belgium and to the supply of low sulphur content crude oils.

NO_X emissions mainly concern the hydrocarbon exploration and production activities. They are mostly located offshore, far from the coast.

In January 2022, TotalEnergies set a new target for the quality of onshore discharge water to be achieved by 2030. Compared to the previous objective, it divides by 15 the maximum hydrocarbon content expected for these discharges. At year-end 2023, 100% of onshore sites comply with the previous objective of 15 mg/l and 86% with the reinforced objective of 1 mg/l introduced in 2022. Studies have been launched to improve the discharges from sites that are still not in compliance.

Discharged water quality	2023	2022	2021
Hydrocarbon content of offshore continuous water discharges *(in mg/l)*	11.6	12.9	13.7
% of sites that meet the target for the quality of offshore discharges *(30 mg/l)*	92%	93%	92%
Hydrocarbon content of onshore continuous water discharges *(in mg/l)*	1.9	1.8	2.6
% of sites that meet the target for the quality of onshore discharges of:			
– goal 2030: 1 mg/l	86%	73%	80%

Soil protection

The risks of soil contamination related to TotalEnergies' operations come mainly from accidental spills (refer to point 5.5.2) and waste storage (refer to point 5.5.5). TotalEnergies has drawn up a guide that the subsidiaries can use to prevent and contain this pollution. The recommended approach is based on four pillars:

- preventing leaks, by implementing, in the majority of sites, industry best practices in engineering, operations and transport;
- carrying out maintenance at appropriate frequency to minimize the risk of leaks;
- overall monitoring of the environment to identify any soil and groundwater pollution; and
- managing any pollution from previous activities by means of containment and reduction or elimination operations.

In addition, a Company rule defines the following minimum requirements

- systematic identification of each site's environmental and health impacts related to possible soil and groundwater contamination;
- assessment of soil and groundwater contamination based on various factors (extent of pollution inside or outside the site's boundaries, nature and concentrations of pollutants, presence of a vector that could allow the pollution to migrate, use of the land and groundwater in and around the site); and
- management of health or environmental impacts identified based on the use of the site.

Lastly, decommissioned facilities operated by the Company (chemical plants, service stations, mud pits or lagoons resulting from hydrocarbon extraction operations, wasteland on the site of decommissioned refinery units, etc.) impact the landscape and may, despite all the precautions taken, be sources of chronic or accidental pollution. In addition to the appropriate management of waste produced by the dismantling and securing of sites, TotalEnergies has created a soil and groundwater depollution policy based on the assessment and management of the risks that such pollution may incur. For the sites at the end of their activity, the management of pollution is determined in accordance with regulatory obligations with an objective of continuing to control the use of the sites while favoring the possibility of redeveloping Company activities (solar, reforestation, etc.) and favoring biodiversity (priority 3 of the biodiversity ambition presented in point 5.5.4). Specialized entities of the Company supervise the sites' remediation operations. At year-end 2023, 157 industrial sites that were no longer in operation (excluding service stations) were in the process of remediation or under monitoring.

The Company's provisions for the protection of the environment and site remediation are detailed in Note 12 to the Consolidated Financial Statements (refer to point 8.7 of chapter 8).

SUSTAINABLE USE OF RESOURCES

Sustainable use of fresh water

By their nature, the Company's activities, mainly those of Refining & Chemicals, and to a lesser extent those of the Integrated Power and Exploration & Production segments, may potentially have an impact on water resources, as well as being dependent on them, particularly when the activity concerned is located in a water resource sensitive environment.

Fully aware of these challenges, TotalEnergies implements the following water risk management actions:

- monitor water withdrawals to identify priority sensitive sites and then carry out a risk assessment;
- improve water resources management depending on identified needs, by adapting the priority sites' environmental management system.

In order to identify its facilities exposed to the risk of water stress, TotalEnergies records the withdrawal of water on all of its operated sites significant for this indicator and assesses these volumes on the basis of the current and future water stress indicators of the WRI[1] Aqueduct tool. In 2023, the Company's sites withdrew 102 Mcm of fresh water, with net consumption of 76 Mcm. The decrease in freshwater withdrawal in 2023 is essentially linked to a decrease in the activity of gas-fired power plants. 49% of this volume was withdrawn in areas of water stress according to the WRI definition, i.e. areas where human demand for water exceeds 40% of resources available. These are mainly highly populated urban areas, such as urban areas in Northern Europe. These withdrawals represent 4% of the Company's overall water withdrawals (including brackish water and open loop seawater use). For priority sites, defined as those located in water stress areas and withdrawing more than 500,000 m^3 per year (notably in the drainage basins of the Maas and the Scheldt in Belgium, the Seine and the West and South Coasts of France, the Elbe in Germany, the Ebro in Spain and the U.S. Gulf Coast), TotalEnergies assesses water resource risk levels using, in particular, the Global Environmental Management Initiative (GEMI's) Local Water Tool (LWT) for Oil & Gas. This tool also helps guide the actions taken to mitigate the risks and to make optimal use of water resources on the sites when necessary.

This risk assessment establishes that the activities of the sites operated by the Company only expose the other users of the water to a relatively low risk of water shortage. The risk mainly concerns TotalEnergies sites for which the water supply could be cut in order to maintain access to water for priority users.

In January 2022, TotalEnergies has set a new target for the freshwater resource protection for 2030. The ambition of the Company is now to reduce its freshwater withdrawal in water stress areas by 20% between 2021 and 2030. In 2023, based on the WRI Aqueduct V4.0 published in August 2023, the Company identified 10 sites located in water stress areas and withdrawing more than 500,000 m^3 of water per year.

Water-related indicator *(Mcm)*	2023	2022	2021
Fresh water withdrawals excluding open loop cooling water	102	107	101
Fresh water consumption	76	80	75
Fresh water withdrawal in water stress area[a]	50	55	54

(a) The freshwater withdrawal values in water stress areas are re-evaluated, for year 2023 from the Projected Basic Water Stress 2030 V4.0 from August 2023. The watershed of Carling - St Avold sites in France is excluded from these calculations since the withdrawal of groundwater is administratively imposed there for environmental reasons.

Sustainable land use

TotalEnergies limits its dependence on land to the areas it needs to safely carry out its operations on its facilities.

All the biofuels incorporated by the Company comply with the sustainability, traceability and certification criteria (ISCC, RSPO, etc.) set by the various national regulations (carbon balance, non-deforestation, good land use). These criteria apply to the entire production and distribution chain of biofuels and biopolymers. In addition, TotalEnergies ceased its purchases of palm oil and derivatives at the end of 2022.

Furthermore, to limit the use of inputs from agricultural production and its dependence on arable land, TotalEnergies aims to process more than 75% of raw materials from waste and residues (such as waste cooking oils, animal fats) by end 2024 in its La Mède biorefinery and is studying a new investment in order to have the technical capacity to treat 100% of waste and residues from the circular economy by the same date to produce biofuels and SAF by coprocessing.

Similarly, as part of the transformation of its Grandpuits refinery into a zero-crude platform by 2024, the biofuel production plant is expected to be supplied mainly by waste and residues supplemented by vegetable oils such as rapeseed, favoring local sourcing.

5.5.4 Managing impacts of projects and operations on biodiversity and nature

Aware of the need to preserve biodiversity and protect nature, TotalEnergies ensures that this is taken into account in all its activities by applying the Avoid, Minimize/Restore, Offset mitigation hierarchy. In 2016, the Company pledged to contribute to the achievement of the United Nations' Sustainable Development Goals (SDGs), including those relating to biodiversity. In 2018, TotalEnergies joined to the Act4Nature initiative, now the Act4Nature International, promoted by the French Association of Enterprises for the Environment.

This biodiversity ambition of TotalEnergies constitutes a contribution to the Global Biodiversity Framework (GBF) adopted at COP 15 in 2022, whose mission is "to halt and reverse biodiversity loss and put nature on the path to recovery for the benefit of people and the planet." The Company thus intends to contribute to this ambitious framework and its national versions, such as the French National Strategy for Biodiversity (SNB) adopted in 2023, in a concrete manner through conservation and restoration measures for nature on its sites and in the regions where it is established.

This ambition is based on four core principles: (1) voluntary exclusion zones, (2) biodiversity management in projects, (3) biodiversity management at existing and abandoned sites and (4) promoting biodiversity. This ambition has been incorporated into the Company's One MAESTRO framework.

An annual communication plan has been developed and deployed in the Company's various segments and in R&D. A series of webinars are open to all of the Company's HSE personnel to raise awareness of this ambition. A number of specific meetings were held to present this ambition to the Company's partners and allow their viewpoints and recommendations to be heard.

(1) World Resources Institute.

As part of its Sustainab'All program launched in 2022 and its objective 9 aimed at mobilizing employees for biodiversity, the Company has extended axe 3 of its biodiversity ambition to all of its operated entities, which must now all have at least a biodiversity action plan. Thus during the Sustainab'All Day more than 2,700 employees were made aware of biodiversity through nearly 30 workshops organized in 20 countries. By the end of 2023, more than 320 achievements associated with the program had been shared by the sites with the aim of mobilizing all employees. These elements contribute to employees' awareness of biodiversity, as does the launch of the interactive platform "One Biodiversity" which brings together biodiversity content allowing all these employees to contribute to the Company's ambition in terms of preserving biodiversity and nature.

An overview of the steps already taken under the four main areas of the biodiversity ambition is provided in the following paragraphs.

BIODIVERSITY AMBITION

1. Voluntary exclusion zones

The Company recognizes the universal value of UNESCO natural world heritage areas by not conducting any oil and gas exploration or production activity in these areas. This commitment is fulfilled (based on UNESCO sites listed at the end of 2023 which represents 531 million ha).

TotalEnergies has also made a commitment not to conduct any exploration activity in oil fields under the Arctic sea ice. As in previous years, in 2023 the Company did not conduct any exploration activity in oil fields under the Arctic sea ice. The list of its licenses in the Arctic zone is available on the Company's website.

2. New projects

The Company has made a commitment to develop a biodiversity action plan (BAP) for any new site located in an area of interest for biodiversity, that is IUCN (International Union for Conservation of Nature) Protected areas I to IV or Ramsar areas. In addition, for each new project located in an IUCN Protected area I or II or a Ramsar area, the Company commits to implementing measures to produce a net positive impact (gain) in biodiversity.

A biodiversity action plan has been put in place for all operated production projects and sites located in the most sensitive protected areas, corresponding to the IUCN I to IV and Ramsar areas, some of which have a target of a net gain. In 2023, eight sites or projects are concerned, five of which have a net biodiversity gain objective. These are:

- The BAP for the Djeno oil terminal in Djeno (Republic of Congo), located in a Ramsar area, was developed in 2015 and updated in 2023. It provides for actions on site (mapping of priority areas) and at landscape level (help with structuring and financial and technical support for the implementation of Ramsar zone management plans). Its deployment continues in particular by contributing to the monitoring of the marine turtle nesting zone adjoining the site with a partner NGO.
- The BAP for the Tempa Rossa onshore petroleum production site in Italy, the concession for which partly overlaps an IUCN II area, was developed in 2019 and updated in 2023. Targeted restoration actions through re-vegetation with species native to areas impacted by the project are underway, as well as measures to protect species such as the emblematic black stork.
- The net gain BAP of the Tilenga oil project (Uganda), partly located in an IUCN II area, has 100% completed its design phase and its implementation is engaged with the launch of the five programs of the net gain plan. By way of illustration, the conservation support program for the Murchison Falls National Park in collaboration with the UWA (Uganda Wildlife Authority) and the international NGO WCS (Wildlife Conservation Society) allowed strengthening the fight against poaching (removal of snares and traps, arrests of poachers) with targeted actions in the park territory and awareness actions with communities of Pakwach and Nebbi. The program should continue in 2024 with the training of additional eco-guards and the increase of the area of the park covered by the conservation program. This BAP is designed to be aligned with the International Finance Corporation (IFC) performance standards.
- The EACOP pipeline project (Tanzania), which runs along an IUCN III area, includes a net gain BAPs with a land component and a marine component. In 2023, EACOP initiated and directly contributed to the creation of the Tanzania Environmental Sensitivities Trust fund (subject to a final stage of formal validation by the competent Tanzanian authorities). This fund constitutes a biodiversity compensation financing instrument for residual impacts on natural and critical habitats, according to the IFC definition. It operates independently of EACOP and can also facilitate other conservation projects in Tanzania by attracting funding from different donors. Memoranda of understanding have been concluded with the relevant government entities for the selection and deployment of restoration and compensation measures for sensitive areas affected along the pipeline. For example, EACOP borders a chimpanzee habitat area and committed, in collaboration with the Tilenga project, to implement a specific action plan to contribute to the conservation of this species. This BAP is designed to be aligned with the IFC performance standards.
- The BAP with net gain of the Mozambique LNG Project has been completed for the design phase. The implementation of measures related to construction is suspended due to force majeure. However, measures in favor of biodiversity were carried out in 2023, notably the planting of more than 700 hectares of mangrove for a total of 1,200 ha at the end of 2023 and the creation of 370 jobs for workers from local communities with the support of a partner NGO. This BAP is designed to be aligned with the IFC performance standards.
- The design of the net gain BAP of the Papua LNG project (Papua New Guinea) is continuing and Avoid, Minimize/Restore, Offset mitigation hierarchy measures related to the pre-construction activities were deployed in 2023. They include carrying out additional biodiversity surveys in clearing areas as well as the construction of a forest restoration program nursery. Several meetings of the independent biodiversity and societal committee took place (panel made up of international NGOs including WCS, the Missouri Botanical Garden (MBG) and national and international academics) and made it possible to advise the project on the progress of its biodiversity program. The update of the biodiversity and nature strategy was finalized in 2023. The project does not cross any IUCN or Ramsar protected areas. This BAP is designed to be aligned with the IFC performance standards.
- The BAP of the existing mixed onshore wind/solar site Eole/Helio La Perrière (La Réunion Island, France) continues as part of the redevelopment of the site including activities of translocation of the Gecko of Bourbon (Highland green lizard endemic to La Réunion) towards natural refuge habitats and monitoring the reintroduction of individuals for three years after the work. The BAP also includes a collaboration with the SEOR (Société d'Etudes Ornithologique de La Réunion) for the National Action Plan (PNA) of Papangue (Busard of Maillard endemic to La Réunion).

- The design of the net gain BAP of the Ratawi gas-photovoltaic hybrid project (Iraq) is completed. The project's Biodiversity policy has been finalized. The project partially encroaches on a Ramsar wetland. Options for compensation actions are being studied, such as measures to restore, enrich and improve the ecological connectivity of partially degraded wetlands (East Hammar Marsh, West Hammar Marsh, Central Marsh and Hawizeh Marsh) in the project area. Actions to protect terrestrial and aquatic fauna threatened by over-exploitation (fishing and hunting) are also being studied.

3. Existing sites

It is the Company's intention that a biodiversity action plan be defined by 2025 at the latest and deployed by 2030 at the latest on every existing environmentally significant ISO14001 certified operated site (E&P production sites, refineries, petrochemicals sites, gas-fired power stations). TotalEnergies will report on implementation to the various stakeholders.

In 2023, biodiversity assessments were carried out on 26 sites that are important for the environment. Since 2021, 70 of the 77 sites important to the environment have been diagnosed, i.e. 90% of the 2025 target. The remaining seven diagnostics are scheduled to take place by the end of 2024. The BAPs resulting from these diagnostics are currently being prepared or deployed. The BAPs consist of the implementation of Avoid, Minimize, Restore, Offset mitigation hierarchy measures which include the protection of natural habitats (pasture area of interest, Pont-sur-Sambre CCGT), taking into account seasonality (ground nesting of the Little Ringed Plover, Zeeland refinery), differentiated management of green spaces, solutions based on nature (reedbeds for rainwater treatment), rescue of sensitive species (Bourbon Gecko, La Réunion), the elimination of ecological traps (fences, collisions), the management of invasive species (Japanese knotweed), the restoration of ecological connectivity at the landscape/territorial scale (forest corridors in Feluy), the enrichment of existing habitats, the creation of natural habitat (amphibians), etc. These measures are supplemented by Additional Conservation Actions (ACA) such as the sharing of biodiversity data on the Global Biodiversity Information Facility (GBIF) platform by the Donges refinery, and the scientific publication of new species discovered in Argentina (lizard) and Papua New Guinea (frog) by teams from the Exploration & Production segment, and internal awareness actions such as the promotion of biodiversity among employees with a biodiversity course at the Bougival training center (France). The distribution of mitigation actions is established as follows: 4% of the actions are Avoidance actions (as these actions concern existing sites it is logical that their number is reduced), 33% of the actions concern Reduction practices, 16% are Restoration actions, 17% of the actions lead to Compensation and the remaining 30% are dedicated to ACA. In the ranking of the 10 action levers most used by its sites we note: 1) the reduction of noise and light pollution, 2) the implementation of monitoring indicators and the acquisition of new biodiversity data, 3) The implementation of internal awareness actions, 4) The implementation of measures to combat invasive species, 5) The development of partnerships or sponsorship in connection with key local stakeholders for biodiversity, 6) measures to eliminate ecological traps, 7) The establishment of differentiated management of green spaces, 8) The creation of nest boxes for avifauna, 9) The establishment of measures to promote ecological connectivity to the landscape/territorial scale and 10) The restoration of meadow areas.

Finally, RETIA, the company in charge of the rehabilitation of the Company's industrial sites, is continuing its biodiversity diagnostics on 12 candidate industrial sites and deploying biodiversity action plans on two sites: Jarry in Guadeloupe, with a public biodiversity trail and Villers-St-Paul in France with the development of a wetland in addition to partial solarization of the area.

4. Promotion of biodiversity

As part of the Climate, Coastlines and Oceans component of its Foundation's program, TotalEnergies wishes to support awareness-raising and educational actions for young persons on biodiversity and research actions. In 2023, 10 projects were supported by the TotalEnergies Corporate Foundation on the theme of Climate, coastlines and oceans linked to Biodiversity, including five awareness projects, one Research project (in progress since 2022, which should be completed in 2024), and four projects supported by the ONF (National Forestry Office) *Agir pour la Forêt* ("Acting for the Forest") Endowment Fund: 1/ renovation of the decking of the Sylvathèque de Gourbeyre to maintain its awareness-raising activities and preservation of Guadeloupe's biodiversity; 2/ raising awareness among middle school students about the preservation of the mangroves and swamp forests of Guadeloupe, through activity days; 3/ improvement of knowledge about dune beetles in the national forest of Olonne (France) and raising awareness of young people by involving them in field missions, 4/ experimental site to reconstitute a dune cordon at the level of forest areas burned in the national forest near La Teste de Buch (France).

TotalEnergies also commits to sharing biodiversity data collected as part of environmental studies on Company projects with the scientific community and the general public.

In order to continue sharing its biodiversity data and tools with the scientific community, the Company has joined the international Global Biodiversity Information Facility (GBIF). In 2023, the data loaded concerns the Company's projects in Namibia, Brazil and Papua New Guinea. The data published by TotalEnergies now constitutes 36,475 occurrences in the database and have been the subject of 119 citations in scientific publications.

Furthermore, the marine LEFT (Local Ecological Footprint Tool), designed with the Long-Term Ecology Laboratory of the University of Oxford, UK and Equinor to develop a large-scale mapping tool for the sensitivities of marine biodiversity, was finalized in 2020 and is available online for manufacturers, the public sector and NGOs.

In 2023, TotalEnergies continued work on developing a biodiversity footprint measurement methodology called BFIS (Biodiversity Footprint Indicator for Sites) which will allow local measurement at the level of a site and consolidation at the Company level. A Marine STAR GIS database was developed in this context to enable footprint measurements in the marine environment. An independent critical review committee composed of representatives of international institutions and NGOs (IUCN, UNEP-WCMC, WCS) supports the Company in carrying out its work. It is planned to make this tool public when it is finalized; advances have been presented publicly to other companies and at international events such as the UNEP-WCMC PROTEUS Program Annual Meeting. Finally, in 2023, TotalEnergies R&D continued the development of its environmental DNA program on the Manas site, which provides input to the Company's initial state impact and biodiversity monitoring studies.

5.5.5 Promoting the circular economy

With regard to food waste and food poverty, TotalEnergies' activities pertaining to food distribution are minor and are therefore not directly affected by these issues.

PROMOTING CIRCULAR RESOURCE MANAGEMENT

In March 2022, TotalEnergies joined the Platform for Accelerating the Circular Economy (PACE). This initiative, launched by the World Economic Forum and currently hosted by the World Resources Institute (WRI), aims to accelerate the transition to a more circular economy, in particular by developing tools to facilitate this acceleration. In 2023, the Company continued to actively participate in the Circular Economy Indicators Coalition initiative, which allowed a set of common circularity indicators to be developed for industry. These indicators were presented at COP 27 and were published in the form of a methodological guide during the World Economic Forum in January 2023. TotalEnergies pledges to double the circularity of its businesses within the next ten years. It contributes to the circular economy at different points in the value chain: through purchasing, sales and production, as well as through the management of its own waste.

Biofuels and Sustainable Aviation Fuels (SAF)

Over their life cycle biofuels emit half as much CO_2e as their fossil equivalents (in accordance with European standards[1]) and therefore represent an element of the decarbonization of liquid fuels. TotalEnergies currently has a biofuel production capacity of 500 kt/year, primarily at the La Mède refinery in France.

Today, more than 90% of biofuels on the market are first generation, i.e., produced from virgin vegetable oils or sugar. TotalEnergies invests in biofuel projects based on animal fats or used oils, thus limiting the conflict of use and the impact on arable land. These biofuels from the circular economy will complete the range of first-generation biofuels.

To meet its ambition to be a leader in the biofuels market, TotalEnergies has transformed its La Mède refinery in France into a world-class biorefinery. Started in July 2019, it has a technology that makes it possible to use all types of crude vegetable oils and a growing share of used or residual animal, food fats, and to transform them into biofuels.

The site now produces HVO for biodiesel and SAF, bionaphtha for polymers of renewable origin and bioLPG (liquefied gas of renewable origin), for mobility or heating uses. The agricultural raw materials used meet sustainability and traceability requirements (ISCC, RSPO): carbon footprint, non-deforestation and good land use. TotalEnergies stopped sourcing palm oil and derivatives in 2022 and aims to increase the share of used cooking oil and animal fat to 75% by the end of 2024. The Grandpuits platform is the second site being transformed into a zero-crude platform, including a biorefinery in partnership with Saria with startup foreseen in 2025, and a plastics recycling plant. The biorefinery will process feedstock from the circular economy, mainly animal fats and used cooking oils, and will produce 210 kt/year of aviation biofuels from 2025. A new investment is expected to produce an additional 75 kt/year from 2027. The biorefinery will thus contribute to the objective of producing 1.5 Mt of SAF by 2030 worldwide.

Finally, in 2023, TotalEnergies also started the production of SAF by co-processing in its Gonfreville refinery. The Company plans to increase this production on this site to 40 kt/y from 2025. In addition, following the technical work carried out by its aviation partners, TotalEnergies should produce an additional 150 kt/y of SAF by co-processing HVO biodiesel produced in La Mède as soon as this production route is approved by ASTM.

Biogas

TotalEnergies is engaged in the development and operation of units that produce biogas from organic and agro-industrial waste, and in the marketing of biomethane as a renewable supplement for natural gas. The Company aims to be a major player in the sector, in France and internationally. Its objective is to achieve, in 2030, a production of 20 TWh equivalent of biomethane, or 10 TWh of production as the TotalEnergies' share.

Consisting of the same methane molecule as natural gas, biomethane[2] is renewable due to the way it is produced and it produces very low-carbon emissions over its entire life cycle. When it is injected into the natural gas transmission and distribution network, it allows for the same uses: fuel for industry in particular, and fuel for land and sea transportation. At the same time, the anaerobic digestion process generates a co-product, digestate, a natural fertilizer with high agronomic value. This digestate is supplied to farmers to replace synthetic fertilizers, according to a circular economy plan.

– In France

In January 2023, the 8th production unit of TotalEnergies Biogaz France was commissioned. Located in Mourenx, in the Pyrénées Atlantiques, BioBéarn has an ultimate capacity of 160 GWh.

The Company's biomethane and biogas production capacity in France now stands at 700 GWh/year, i.e., equivalent to the annual gas consumption of more than 140,000 inhabitants[3]. This represents, on an annual basis, the treatment of more than 730 kt of waste and a reduction of 140 kt of CO_2e and 18 kt of synthetic fertilizer.

In March, TotalEnergies made the decision to invest in a new biomethane production unit, BioNorrois, located in Fontaine-le-Dun, in Seine-Maritime, of a size comparable to that of BioBéarn. Construction of this facility began in May.

The same month, BioBéarn became the first TotalEnergies Biogaz France installation, and one of the first in France, to obtain ISCC EU certification. This attests to compliance with the most demanding sustainability and greenhouse gas emissions reduction criteria, as defined by the European REDII Directive. In the fourth quarter, five of the seven production sites were certified according to these standards.

In June, TotalEnergies signed its first Biomethane Purchase Agreement (BPA) with the Saint-Gobain group, an agreement to sell 100 GWh of biomethane over a three-year period from 2024.

The biomethane will be produced by TotalEnergies at its BioBéarn site. By acquiring the guarantees of origin linked to this production, and due to their sustainable certification, Saint-Gobain will thus be able to attest, within the framework of the European Union's emissions trading scheme, to the decarbonization of its energy consumption in France. This contract also constitutes an example of the sale of biomethane not supported by subsidies and therefore on a purely commercial basis.

(1) Directive (EU) 2018/2001 of the European Parliament and of the Council of December 2018 on the promotion of the use, of energy from renewable sources.
(2) Biogas is used to produce electricity and heat, in co-generation. Biogas, once purified, in particular of carbon dioxide, becomes biomethane, which has the same characteristics as natural gas.
(3) According to the first quarter 2021 report from the Energy Regulatory Commission on retail gas markets and key figures from ADEME for methanization.

– In the rest of Europe

TotalEnergies confirmed its growth dynamic in the sector by acquiring Polska Grupa Biogazowa (PGB), the main Polish biogas producer, in March 2023. PGB is a company employing around 150 people, whose main field of activity is the production of renewable electricity and heat from biogas from organic waste. With the commissioning of Gołoszyce in July, PGB owns and operates 18 units in production, representing an installed electrical capacity of 19 MW. Its annual electricity production capacity is 166 GWh, or approximately 0.4 TWh in biomethane equivalent. The same month, TotalEnergies made the decision to invest in two new units, Bagdad and Półwieś, which will be commissioned at the end of 2024.

The acquisition of PGB gives the Company a leading position in the promising Polish market, which has the fourth largest potential in Europe for the production of biogas and biomethane, estimated at nearly 100 TWh.

Furthermore, in May, TotalEnergies took a 20% stake in the capital of Ductor, a Finnish start-up having developed an innovative technology to treat organic waste with a high nitrogen content, such as poultry manure, which is usually difficult to valorize to biomethane. By enabling the processing of new types of inputs, this technology directly contributes to accelerating the development of the biogas value chain, and therefore to the energy transition.

TotalEnergies also formed a partnership with Ductor to develop and invest in several biomethane production projects, mainly in the United States and Europe. The partners particularly aim to develop a first unit in Ohio, in the United States. Under the terms of this joint venture, TotalEnergies will market the production of biomethane, and Ductor the production of sustainable biofertilizers.

– In the United States

TotalEnergies develops biomethane production as part of its joint venture with Clean Energy Fuels Corp, leader in the American market for the distribution of renewable gas for vehicles, in which it holds 19.09%. The Del Rio anaerobic digestion unit in Texas, with a capacity of 40 GWh, was commissioned in March.

– In India

The joint venture Adani Total Gas Limited (TotalEnergies 37.4%) is implementing a first biomethane plant project in Barsana with a capacity of 220 GWh, under construction, in the state of Uttar Pradesh.

In 2023, TotalEnergies' total production capacity increased to 1.1 TWh eq. biomethane. This represents the treatment of approximately 1.25 Mt/year of organic waste in order to provide renewable gas to the equivalent of 220,000 inhabitants[(1)], making it possible to avoid, from 2023, the emission of around 220 kt CO_2e/y. With the digestate from anaerobic digestion, nearly 30 kt/y of chemical fertilizers are replaced by a natural fertilizer.

Circular polymers

Through numerous projects, TotalEnergies is accelerating in the circular economy of plastics. TotalEnergies' ambition is to produce 30% of recycled or biopolymers by 2030, i.e., 1 Mt/year.

There are three axes to the Company's investments:

– **Axis 1 - Mechanical recycling,** which is the most mature technology on the market. It deals with raw materials from collective sorting and collection centers and is adapted to the needs of markets such as automotive or construction. TotalEnergies' Synova subsidiary, French leader in the production of high-performance recycled polypropylene, is part of this axis with its 45 kt of production capacity. In November 2022, we announced the investment in a new production line for high performance recycled polypropylene for automobiles at our polymer plant in Carling. With commissioning scheduled for 2024, the flexible line is intended to produce 15 kt/year of polypropylene compounds containing up to 100% recycled plastic materials. In May 2023, our mechanical recycling activities in Europe were expanded with the acquisition of Iber Resinas. With two factories near Valencia (Spain), Iber Resinas recycles plastics (polypropylene, polyethylene and polystyrene) from household and industrial waste. In September 2023, the construction of a new mechanical plastics recycling unit was announced at our Grandpuits site (Seine-et-Marne). This unit, scheduled to be commissioned in 2026, will produce 30 kt/y of high value-added compounds containing on average 50% recycled plastic materials. This new investment is part of the Company's ambition to develop low-carbon energies and the circular economy.
– **Axis 2 - Chemical recycling** makes it possible to process waste that cannot be mechanically recycled and to address other markets, such as plastics for food use. TotalEnergies today produces chemically recycled polymers on its platform in Antwerp (Belgium), from the TACoil produced by its partner Plastic Energy, with which it joined forces in September 2020 to build a recycling unit in Grandpuits (France). TotalEnergies also partnered with Freepoint Eco-Systems and Plastic Energy in October 2021, Honeywell in February 2022, New Hope Energy in May 2022 and Indaver in October 2022 to promote chemical recycling of plastics in the United States and Europe. TotalEnergies is a founding member of the Alliance to End Plastic Waste, which brings together more than 90 companies, project partners and supporters committed to implementing solutions to eliminate plastic waste in the environment.
– **Axis 3 - Bioplastics.** TotalEnergies offers its customers biopolymers from the processing of biosourced feedstocks (vegetable oils, used cooking oils) processed today at the La Mède biorefinery (France), and tomorrow also at that of Grandpuits. The TotalEnergies Corbion joint venture produces PLA (polylactic acid), a biosourced, recyclable and biocompostable bioplastic, at its factory in Rayong (Thailand) with a capacity of 75 kt/year.

WASTE PREVENTION AND MANAGEMENT

A Company rule lays down a number of minimum waste management requirements. Waste management is carried out in four basic stages: waste identification (technical and regulatory); waste storage (soil protection and discharge management); waste traceability, from production through to disposal (e.g., notes, logs, statements); and waste treatment, with technical and regulatory knowledge of the relevant processes, under the site's responsibility.

TotalEnergies asks its subsidiaries to control the processing of the waste produced by all operated sites, at every stage of their operations. This approach is based on the following four principles, listed in decreasing order of priority:

– reducing waste at source by designing products and processes that generate as little waste as possible, as well as minimizing the quantity of waste produced by the Company's operations;
– reusing products for a similar purpose in order to prevent them from becoming waste;
– recycling residual waste;
– reusing non-recycled products wherever possible.

In 2023, the active sites operated by the TotalEnergies subsidiaries generated 521 kt of waste, including 202 kt of hazardous waste. Since 2022, TotalEnergies has a new objective of 70% in terms of waste recycling.

(1) According to the first quarter 2021 report from the Energy Regulatory Commission on retail gas markets and key figures from ADEME for anaerobic digestion.

The Company's waste balance[(a)]	2023[(c)]	2022	2021
Non-hazardous waste *(in kt)*	319	322	335
Reused non-hazardous waste[(b)] *(in kt)*	221	204	206
Hazardous waste *(in kt)*	202	176	165
Reused hazardous waste[(b)] *(in kt)*	98	98	98
Total waste *(in kt)*	521	498	500

(a) Excluding digestate from Biogas units.
(b) Reuse includes recycling, material recovery and energy recovery.
(c) Excluding rain water of the Italian EP subsidiary (29 kt in 2022 and 30 kt in 2021).

Waste treatment processes[(a)]	2023[(c)]	2022	2021
Reuse[(b)]	61%	61%	61%
Landfill	14%	12%	16%
Other (incineration without reuse, biotreatment without reuse etc.)	25%	27%	23%

(a) Excluding digestate from Biogas units,
(b) Reuse includes recycling, material recovery and energy recovery.
(c) Excluding rain water of the Italian EP subsidiary (29 kt in 2022 and 30 kt in 2021).

Since 2015, all the Refining & Chemicals segment's plastic production sites worldwide have taken part in the Operation CleanSweep® program. Operation CleanSweep® is an international program that aims to avoid losses of plastic pellets during handling operations by the players in the plastics industry, to prevent their reaching the aquatic environment (zero pellet loss). Since 2015, the program has been deployed at all polymer sites in the Refining & Chemicals segment.

5.6 A Company committed to its employees

Being a responsible player in the world of energy also means contributing to the well-being of people by being a benchmark as a responsible employer. This ambition primarily concerns employees, whose commitment and skills are the main drivers of the Company's long-term performance.

TotalEnergies has identified its main risks and challenges concerning human resources development:

- attracting and retaining talents throughout their diversity based on the key skills sought by the Company, while abiding by the principle of non-discrimination and equal opportunity;
- supporting talents in the context of changes in business lines and technologies and maintaining the employability of employees in the long term with a view to a just transition;
- ensuring a high level of commitment based on respect for each other, an inclusive corporate culture and improved quality of life at work.

TotalEnergies is engaged in a transition strategy and has an ambition to achieve carbon neutrality by 2050 together with society, which it intends to carry out with its employees, in line with the spirit of the SDGs: leave no-one behind. The Company has thus adopted a people ambition, *Better Together*, which it is deploying through various programs as part of its just transition plan. The Company supports its employees by offering them opportunities to develop, realize their professional fulfillment, participate in a common ambition for responsible energy and take on technological challenges within diverse teams.

In 2019, the Company's Executive Committee launched *Better Together*, a key component of the corporate plan that spearheads TotalEnergies' people ambition, designed to ensure that each employee's development reflects the Company's business goals and lives up to the employee's expectations. This project is built on three main ambitions that involve all of the Company's subsidiaries[(1)]: attracting and developing talent all over the world, promoting a management style that can make the most of knowledge and expertise of the Company and pass on its values, and making the Company a good place to work together.

The *Transforming with our people* program was launched in 2022 to support TotalEnergies employees in the Company's transition. This program includes not only the implementation of listening, informing and training measures, but also an upskilling and reskilling initiative, as well as the implementation of a skills map in order to build bridges between historical jobs and renewables and electricity jobs, and to target key skills.

TotalEnergies launched in 2024 *Care Together by TotalEnergies*. This program foresees social standards for all employees worldwide, regardless of local legislation, and is part of the Company's drive to develop a culture that fosters well-being, helping each and every one of its employees to maintain their balance in a safe working environment.

TotalEnergies thus aims to be a benchmark as a responsible employer, by adopting a socially inclusive approach that is open to social dialogue. The Company promotes decent employment and social protection in a working environment that combines performance and conviviality.

To meet its social challenges, TotalEnergies relies on the People & Social Engagement division, whose mission is, in particular, to define and present the Company's human resources strategy and policies for approval by the Executive Committee, in line with the business challenges and the Company's transition strategy. Guided by the multitude of realities encountered on the ground, it coordinates the promotion and deployment of new policies to support the Human resources functions in the Company's business segments. It also manages TotalEnergies' global commitments in terms of Human Resources and monitors their deployment through an annual barometer, based on social and health reporting indicators (refer to point 5.11.2). This monitoring tool, which has been implemented in the subsidiaries for each business segment, makes it possible to measure the status of the local deployment of the commitments and to identify action plans.

(1) Excluding Hutchinson.

5.6.1 Attracting and retaining talents throughout their diversity

Attracting and retaining the diverse talents that the Company needs is one of the key factors driving TotalEnergies' transition strategy to an integrated energy company. Facing those challenges, TotalEnergies carefully manages its hires and departures, provides individualized support for its employees, maintains a responsible employee compensation policy and works to expand employee shareholding.

5.6.1.1 Responsible management of the Company's workforce

COMPANY WORKFORCE

At December 31, 2023, the Company had 102 579 employees belonging to 348 employing companies located in 93 countries.

Headcount as of December 31	2023	2022	2021
Total number of employees	**102,579**	**101,279**	**101,309**
Breakdown by business segment			
Exploration & Production segment	8.4%	8.6%	11.8%
Integrated LNG segment	1.7%	–[(a)]	–[(a)]
Integrated Power segment	7.8%	–[(a)]	–[(a)]
Refining & Chemicals segment	50.4%	50.6%	49.5%
Refining & Petrochemicals	*10.6%*	*10.8%*	*11.6%*
Trading &Shipping	*0.9%*	*0.8%*	*0.8%*
Hutchinson	*38.9%*	*39.0%*	*37.2%*
Marketing & Services segment	24.3%	24.9%	24.9%
Corporate	3.9%	3.9%	2.8%
OneTech[(b)]	3.5%	3.5%	–
Breakdown by region			
Europe	63.2%	63.3%	63.2%
including France	*34.6%*	*34.5%*	*34.7%*
Africa	10.2%	10.4%	9.8%
North America	6.0%	6.0%	7.5%
Latin America	13.4%	13.1%	11.6%
Asia-Pacific	6.4%	6.5%	7.2%
Middle East	0.8%	0.7%	0.7%
Breakdown by type of employment contract[(1)]			
Permanent (CDI)	92.1%	92.1%	92.8%
Fixed-term (CDD)	7.9%	7.9%	7.2%
Breakdown by age group			
< 30 years	17.3%	17.2%	16.9%
30 to 49 years	55.2%	55.9%	56.2%
> 49 years	27.5%	26.9%	26.9%

(a) Since the first quarter of 2023, TotalEnergies has separated in its published results the Integrated LNG segment and the Integrated Power segment. In 2022 and 2021, headcount of Integrated Gas, Renewables & Power represented respectively 8.5% and 11.0% of the Company's headcount.
(b) The OneTech branch gathers within a same entity technical and scientific teams from various business segments.

Managers or the equivalent as of December 31	2023	2022	2021
Total number of managers	**34,145**	**32,313**	**31,249**

The overall increase in the Company's headcount is mainly due to an increase in the Integrated Power and Integrated LNG segments by almost 1,000 people. This increase is due to the integration of employees from companies acquired by TotalEnergies in renewables in 2023, as well as continued recruitment in these segments. This trend reflects the development of the Integrated Power and Integrated LNG segments, in line with the Company's transition strategy.

The tables below present the data by distinguishing between the "Company excluding Hutchinson" scope and the "Hutchinson" scope in order to better reflect the specific characteristics of each scope in terms of workforce changes. Details of the data, as well as other breakdowns, are available with a five-year history on the TotalEnergies website, in the Indicators section of the Sustainability page.

Company workforce, excluding Hutchinson

Headcount as of December 31	2023	2022	2021
Number of employees, excluding Hutchinson	**62,662**	**61,847**	**63,630**
Breakdown by region			
Europe	67.5%	67.7%	65.1%
including France	*44.0%*	*43.8%*	*42.7%*
Africa	13.8%	14.1%	14.0%
North America	5.2%	5.2%	7.7%
Latin America	5.7%	5.5%	4.4%
Asia-Pacific	6.5%	6.2%	7.7%
Middle East	1.3%	1.3%	1.1%

Excluding Hutchinson, the Company has 62,662 employees, with France, Belgium, the United States, the Netherlands, the Dominican Republic and Germany being the most represented countries in terms of workforce.

The increase in the Company's headcount excluding Hutchinson between 2022 and 2023 is mainly due to an increase of almost 1,000 people in the headcount of the Integrated Power and Integrated LNG segments (see above). This increase more than offset headcount outflows, mainly in Marketing & Services, due in particular to the deconsolidation of the Russian and Egyptian subsidiaries of this segment.

Managers or the equivalent as of December 31	2023	2022	2021
Number of managers, excluding Hutchinson	**30,339**	**29,051**	**28,417**

Hutchinson workforce

Headcount as of December 31	2023	2022	2021
Number of Hutchinson employees	**39,917**	**39,432**	**37,679**
Breakdown by region			
Europe	56.4%	56.4%	59.8%
including France	*20.0%*	*19.9%*	*21.1%*
Africa	4.7%	4.5%	2.8%
North America	7.2%	7.2%	7.1%
Latin America	25.4%	25.0%	23.9%
Asia-Pacific	6.3%	6.9%	6.4%

(1) Types of contract, as defined in point 5.11.4 of this chapter.

The countries where Hutchinson's workforce is most represented after France are Mexico, Poland, Brazil, the United States and China.

The increase in headcount is due in particular to the development of business in Serbia, China, Brazil and Mexico, in line with the fluctuations of the automotive market.

Managers or the equivalent as of December 31	2023	2022	2021
Number of Hutchinson managers	**3,806**	**3,262**	**2,832**

RECRUITMENT BY THE COMPANY

As of December 31	2023	2022	2021
Total number of hires on permanent contracts (*CDI*)	**15,220**	**14,206**	**12,928**
Managers (JL ≥ 10)[1]	19.0%	18.6%	13.2%
Non-managers (JL < 10)	81.0%	81.4%	86.8%
Breakdown by region			
Europe	26.3%	30.6%	19.3%
including France	*15.9%*	*17.9%*	*10.8%*
Africa	6.1%	3.2%	4.3%
North America	14.9%	16.7%	22.2%
Latin America	47.7%	42.8%	43.4%
Asia-Pacific	4.5%	6.0%	10.2%
Middle East	0.5%	0.7%	0.6%
Breakdown by age group			
< 30 years	46.8%	46.4%	49.6%
30 to 49 years	45.3%	46.0%	43.8%
> 49 years	7.9%	7.6%	6.7%

In 2023, of the 15,220 employees recruited on permanent contracts, 46.8% were young people aged under 30. These recruitments also include people with experienced profiles for positions requiring key skills, offering them long-term career prospects within the Company.

Recruitment by the Company, excluding Hutchinson

As of December 31	2023	2022	2021
Number of hires by the Company, excluding Hutchinson, on permanent contracts (CDI)	**5,389**	**5,328**	**5,273**
Breakdown by region			
Europe	52.7%	60.4%	37.3%
including France	*33.5%*	*38.1%*	*21.6%*
Africa	10.4%	7.1%	7.4%
North America	10.6%	10.6%	27.5%
Latin America	14.3%	9.4%	8.0%
Asia-Pacific	10.5%	10.5%	18.4%
Middle East	1.5%	2.0%	1.4%

As of December 31	2023	2022	2021
Breakdown by business segment			
Exploration & Production segment	7.7%	5.1%	4.1%
Integrated LNG	5.1%	–[a]	–[a]
Integrated Power	18.5%	–[a]	–[a]
Refining & Chemicals segment	10.7%	11.8%	7.5%
Marketing & Services segment	50.0%	48.6%	38.4%
Corporate	4.9%	7.4%	2.7%
OneTech	3.1%	2.9%	–

(a) Since the first quarter of 2023, TotalEnergies has separated in its published results the Integrated LNG segment and the Integrated Power segment. In 2022 and 2021, recruitment of Integrated Gas, Renewables & Power segment represented respectively 24.2% and 47.3% of the Company's recruitment.

In 2023, 5,389 employees were recruited on permanent contracts within the scope of consolidation, excluding Hutchinson. Recruitment has targeted the business lines that are driving the Company's transition strategy, in particular in France, but also within the various business segments, with a local presence located close to the sites.

In 2023, TotalEnergies companies, excluding Hutchinson, hired 3,668 employees on fixed-term contracts, mainly in France, in line with its proactive policy of recruiting work-study students.

Recruitment by Hutchinson

As of December 31	2023	2022	2021
Number of hires by Hutchinson on permanent contracts (CDI)	**9,831**	**8,878**	**7,655**
Breakdown by region			
Europe	11.8%	12.7%	6.9%
including France	*6.3%*	*5.7%*	*3.4%*
Africa	3.8%	0.9%	2.2%
North America	17.2%	20.3%	18.5%
Latin America	66.0%	62.9%	67.8%
Asia-Pacific	1.2%	3.2%	4.6%

In 2023, 9,831 employees were hired on permanent contracts by Hutchinson, mainly in Mexico, the United States and Brazil. In addition, 2,541 employees were hired on fixed-term contracts, compared with 3,760 in 2022, in view of the fluctuations in the automotive market.

DEPARTURES FROM THE COMPANY

As of December 31	2023			2022			2021		
Scope	Company	Excluding Hutchinson	Hutchinson	Company	Excluding Hutchinson	Hutchinson	Company	Excluding Hutchinson	Hutchinson
Number of departures[a]	**13,636**	**3,748**	**9,888**	**12,607**	**4,049**	**8,558**	**13,132**	**3,942**	**9,190**
Deaths	112	74	38	96	73	23	106	77	29
Dismissals	2,427	790	1,637	1,775	637	1,138	1,982	866	1,116
Resignations	10,217	2,424	7,793	9,241	2,640	6,601	6,223	2,386	3,837
Contract termination by mutual agreement[b]	880	460	420	1,495	699	796	4,821	613	4,208
Voluntary departures	**11,097**	**2,884**	**8,213**	**10,736**	**3,339**	**7,397**	**11,044**	**2,999**	**8,045**

(a) Departures from permanent contracts (CDI), excluding retirements and transfers.
(b) Including "ruptures conventionnelles" in France.

(1) Level of the position according to the Hay evaluation method. JL10 corresponds to the first level of junior manager (cadre débutant) (≥ 300 Hay points).

As of December 31 Scope	2023 Company	2023 Excluding Hutchinson	2023 Hutchinson	2022 Company	2022 Excluding Hutchinson	2022 Hutchinson	2021 Company	2021 Excluding Hutchinson	2021 Hutchinson
Resignation rate	**10.1%**	**3.9%**	**19.8%**	**9.1%**	**4.1%**	**17.5%**	**5.9%**	**3.6%**	**9.6%**
Average length of service in the Company[(a)]	11.4	13.3	8.7	11.3	12.6	9.3	–	–	–
Turnover rate[(b)]	**13.5%**	**6.1%**	**25.1%**	**12.4%**	**6.4%**	**22.7%**	**12.5[(c)]**	**6.0%[(c)]**	**23.1%[(c)]**
Women	40.0%	35.4%	41.8%	42.7%	40.9%	43.5%	41.7%	33.9%	45.1%
Men	60.0%	64.6%	58.2%	57.3%	59.1%	56.5%	58.3%	66.1%	54.9%
Breakdown by region									
Europe	24.3%	47.6%	15.5%	31.5%	52.3%	21.7%	27.8%	45.0%	20.4%
including France	10.5%	28.4%	3.7%	*13.5%*	*31.8%*	*4.9%*	*11.0%*	*26.2%*	*4.5%*
Africa	4.1%	9.4%	2.1%	3.2%	8.2%	0.8%	2.5%	6.6%	0.8%
North America	16.1%	12.0%	17.6%	15.8%	9.5%	18.8%	17.9%	21.4%	16.5%
Latin America	49.2%	15.2%	62.0%	41.4%	10.3%	56.1%	43.8%	9.2%	58.6%
Asia-Pacific	5.8%	13.7%	2.8%	7.4%	17.6%	2.6%	7.0%	14.6%	3.7%
Middle East	0.6%	2.0%	–	0.7%	2.1%	–	1.0%	3.2%	–

(a) By year. Data available from 2022.
(b) The 2023 turnover rate is calculated as follows: Total departures from permanent contracts (deaths, dismissals, resignations, Contract termination by mutual agreement) / total headcount at December 31 of the previous year.
(c) Data restated according to the new calculation method. The rate of departures, considering total departures/total workforce as of December 31 of the current year, was 14.7% for the Company in 2021 (7.0% excluding Hutchinson and 27.7% Hutchinson).

The Company's turnover rate is 13.5%. It reflects the significant disparity between the Hutchinson scope, which has a high turnover rate of 25.1%, due to the activity of the automotive market, particularly in Mexico and the United States, and the scope of the Company excluding Hutchinson, where it stood at 6.1% at the end of 2023, a decrease of 0.3 point compared with 2022.

5.6.1.2 A responsible compensation policy

The Company's compensation policy applies to all companies in which TotalEnergies SE holds the majority of voting rights. That policy has several aims: to ensure external competitiveness and internal fairness, reinforce the link to individual performance, increase employee share ownership and implement the Company's corporate social responsibility commitments.

It consists of providing levels of compensation that are higher than the minimum level observed locally, through regular benchmarks in countries where legislation guaranteeing a minimum wage is lacking.

The Company's compensation policy is designed to offer competitive, fair, transparent and responsible compensation. In particular, it stipulates that compensation levels must be equivalent internally for positions with the same level of responsibility in a given environment (activity, country). Fair treatment is ensured within the Company through the widespread use of weighting for management positions (JL ≥ 10) via the Hay method. Performance reviews for Company employees, covering actual versus targeted results, skills assessment and overall job performance, are conducted during an annual individual review and formally issued in accordance with the same principles and guidelines across the entire Company.

The compensation structure for the Company's employees is based on the following components, depending on the country:

- **a base salary**, which is subject to individual and/or general salary-raise campaigns each year. The salary-raise campaigns are intended to reflect market adjustment, employee's proficiency in the position and individual potential;
- **an individual variable compensation** starting at a certain level of responsibility. This is intended to compensate individual performance (quantitative and qualitative attainment of previously set targets), managerial practices, if applicable, and the employee's contribution to collective performance evaluated on the basis of HSE targets set for each business segment, representing up to 10% of the variable portion. In 2023, 84% of the Company's entities included HSE criteria in the variable compensation. In particular, HSE criteria include greenhouse gas reduction targets.

Supplemental collective variable compensation programs are implemented in some countries, such as France, via incentives and profit sharing. In France, under the agreement signed for 2021-2023, applicable to the companies that signed the agreement[(1)] (encompassing approximately 17,500 employees in 2023), the amount available for employee profit-sharing is based in particular on environmental and social criteria, and is determined on the basis of:

- financial parameters (the Company's return on equity as an absolute value and compared to four peers[(2)]);
- the attainment of safety targets (injury rate and accidental deaths in the establishments in France of the companies party to the agreement);
- the attainment of energy transition targets (reduction of greenhouse gas emissions from the establishments in France of the companies party to the agreement);
- criteria assessed for the entity to which the employees belong, relating to employee commitment to priority areas identified by the *Action!* program, which is mainly led by the TotalEnergies Corporate Foundation (Fondation d'entreprise) in France;
- criteria relating to the performance of the entity in question (production, sales volumes, gross margins, operating costs, etc.).

(1) "Socle social commun" as defined in point 5.11 of this chapter and TotalEnergies EP France.
(2) ExxonMobil, Shell, BP and Chevron.

The Company provides **pension and employee benefit programs** (health and death) that meet the needs of the subsidiaries, as well as the Company's standards, designed to ensure that each employee can:

- in case of illness, receive coverage that is at least equal to the median amount for the national industrial market;
- participate in a savings or supplementary retirement plan;
- organize the protection of the family in the event of the death of the employee.

To this end, TotalEnergies is deploying a number of commitments and mechanisms worldwide. Each entity is requested to:

- where appropriate, set up a pension and health insurance plan in addition to the legal plans in force;
- propose to employees a health check at least every two years, excepting specific local regulations or contexts (refer to point 5.3.4),
- set up a death benefit plan, whatever the cause, at least equivalent to two years' gross reference salary. At the end of 2023, nearly 90% of the Company's permanent employees were covered worldwide.

TotalEnergies has also set up a global mental health prevention program to take care of employees, wherever they are in the world.

These programs, which are regularly reviewed and, if necessary, adjusted, are administered by the subsidiaries and supplement any programs provided under local law.

Since 2021, TotalEnergies assesses any discrepancies between direct remuneration and the **living wage**[1] in all its subsidiaries[2]. The result of the studies carried out show that, since the end of 2022, the Company had reached its target, as 100% of employees received direct remuneration at least equal to the living wage in the country or region in which they work.

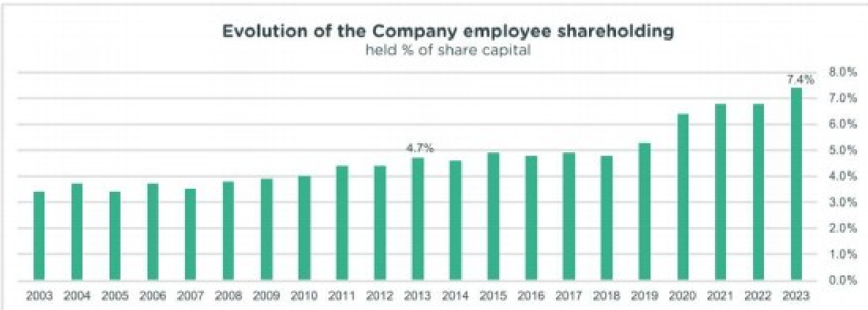
A living wage is defined as an income that allows employees:

- to provide a decent life for their family;
- for standard working hours;
- to cover their essential expenses (food, water, electricity, housing, education, health, clothing, etc.);
- the ability to cope with some of life's uncertainties.

5.6.1.3 A proactive policy to increase employee shareholding and employee savings

Employee shareholding, one of the cornerstones of the Company's human resources policy, is offered through three main programs: the grant of performance shares, share capital increases reserved for employees, and employee savings. In this way, TotalEnergies hopes to encourage employee shareholding, strengthen employees' sense of belonging to the Company and give them a stake in the Company's performance by allowing them to reap benefits from their commitment.

As a result, more than 65% of the Company's employees are TotalEnergies shareholders and employee[3] shareholding represents 7.4% of the Corporation's share capital as of December 31, 2023, increasing by more than 50% over the last 10 years (refer to point 6.4.1 of chapter 6).

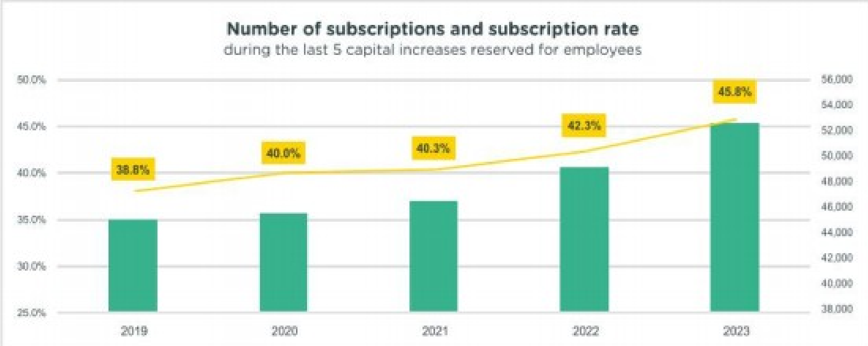


Each year since 2005, TotalEnergies has granted performance shares to many of its employees (more than 10,000 each year since 2009). Those shares are granted definitively only upon the fulfillment of performance conditions assessed at the end of a vesting period of three years. Two of the performance conditions include GHG emissions reduction targets (refer to section 4.3.4 of chapter 4). Under the 2023 plan approved by the Board of Directors in March 2023, the total volume of performance shares granted was up by 8% compared with the 2022 plan. More than 50% of 2023 plan beneficiaries had not received performance shares the previous year. More than 11,200 employees participated in this plan, over 97% of whom are non executives.

TotalEnergies also invites employees of companies in which it holds more than 50% of voting rights, and that subscribe to the Shareholder Group Savings Plan (PEG-A) created in 1999 for this purpose, to subscribe to share capital increases reserved for employees. Share capital increases reserved for employees take place annually. Depending on the employees' location, these campaigns are completed either through Employee Mutual Funds[4] (FCPE) or by subscribing TotalEnergies shares or American Depositary Receipts (ADRs) in the United States.

(1) TotalEnergies relies on the global database provided by the Fairwage Network, which assesses the living wage for a given country or region, based on the typical family size (number of children) and the average number of workers (between one and two per household).
(2) It applies to the so called "périmètre de gestion" i.e. all subsidiaries controlled at more than 50.00%.
(3) As defined in Article L. 225-102 of the French Commercial Code and Article 11 paragraph 6 of the Articles of Incorporation of the Corporation.
(4) TotalEnergies Actionnariat France, TotalEnergies France Capital+, TotalEnergies Actionnariat International Capitalisation and TotalEnergies Intl Capital.

Pursuant to the authorization given by the Annual Shareholders' Meeting on May 26, 2023, the Board of Directors decided, at its meeting on September 21, 2023, to proceed with a capital increase reserved for employees to be carried out in 2024 with a 30% discount. This operation is expected to involve about 100 countries. Employees will benefit from a matching contribution of one free share for each share subscribed, up to a limit of ten. The shares subscribed will give holders current dividend rights. The previous share capital increase reserved for employees was carried out in June 2023. Over 52,600 current and former employees in 94 countries took part in this share capital increase, which resulted in the subscription of 7,760,062 shares at a price of €45.60 per share. Since 2023, employees of the French companies can finance their subscription to the capital increase by investing their profit-sharing bonuses. Excluding subscriptions by former employees, the total amount subscribed internationally represent 57% of the total amount, exceeding those of France in the last three operations.



Employee savings are also developed through the TotalEnergies Group Savings Plan (PEGT), open to employees of the Company's French subsidiaries participating in the 2002 agreement and its amendments. This plan allows investments in a wide range of mutual funds, including the TotalEnergies Actionnariat France fund that is invested in TotalEnergies shares.

In France, a new agreement on **retirement savings**, within the limits of the "socle social commun"[(1)], came into force on January 1, 2022. This agreement had introduced an optional Collective Retirement Savings Plan (PERCOL), which is the successor of the PERCO, previously introduced by the 2004 Group agreement on retirement savings schemes. Other saving plans are open in some Company subsidiaries in France covered by specific agreements. Company employees can make discretionary contributions as part of those various plans, which their employer may supplement under certain conditions through a matching contribution. The Company's subsidiaries in France made gross matching contributions totaling €72.2 million in 2023.

5.6.2 Supporting and maintaining long-term employability of employees

Maintaining employees' long-term employability is one of the key social challenges of the Company, and one of the key factors in ensuring the success of the corporate project. In order to manage this risk, the Company has decided to invest in the development of skills using a robust learning model and individual support adapted to the transition and the changes in business lines and technologies, in line with its just transition plan.

5.6.2.1 A robust learning model

With those challenges in mind, in 2019, TotalEnergies launched *Better Together*, the Company's people ambition, with the aim of developing each employee's talents and helping employees to actively manage their career by supporting them in their choices and development. Managers are responsible for the development of their team and the attention paid to the workplace and to the well-being of their employees on a daily basis, in addition to the management of the activity. A training program allows them to develop their skills from the moment they take up a management position and throughout their subsequent career. This course is made up of a common core that includes awareness of mental health risks in particular. It strengthens managers in their role as manager-coaches. In 2023, 350 co-development workshops, attended by more than 1,300 people, were held with a view to encouraging managers to collectively find solutions while at the same time strengthening their proximity with their teams. This system helps managers to support their teams and allows them to discuss managerial issues.

Better Together ensures that all employees are supported by their managers in their professional development on a daily basis and during the individual interviews when they start the job, when returning from an extended period of absence or as part of the annual campaign. These professional interviews, which take place every year, are an opportunity to review the past year and discuss the employee's career plan and skills. These interviews are also the ideal opportunity to discuss the quality of life at work and, in particular, workload and work-life balance, as well as to address questions relating to the principles of action and individual behavior set out in the Code of Conduct.

(1) "Socle social commun", as defined in point 5.11 of this chapter.

% of employees who had an AIR during the year	2023 WHRS	2022 WHRS	2021 WHRS
All employees	91.6%	92.4%[(a)]	92.3%
Managers (JL ≥ 10)[(b)]	95.2%	97.5%	96.6%
Non-managers (JL < 10)[(b)]	89.8%	90.0%[(a)]	90.4%
Women	90.7%	–[(c)]	–[(c)]
Men	93.1%	–[(c)]	–[(c)]

(a) Restated 2022 data following the rectification of a clerical error.
(b) Job level of the position according to the Hay method. JL10 corresponds to the first level of junior manager (cadre débutant) (≥ 300 Hay points).
(c) Data not collected in 2022 and 2021.

In addition, more than 400 talent developers have been mobilized to support employees individually in their professional development and to provide them with dedicated support. Since their introduction, more than 8,500 individual career reviews have been carried out to help employees make informed decision in planning their careers effectively.

The technical and business know-how of employees and their ability to manage large projects underpin the Company's operational excellence and are essential strengths for the Company's development. TotalEnergies is convinced that relying on its employees and their commitment is a key factor in the achievement of its ambition to become a major player in the energy transition. TotalEnergies is developing the skills of its employees through three levers:

- on-the-job training, reinforced by an internal mobility policy that allows each employee to change jobs regularly and to acquire new skills in their work on a daily basis;
- the pooling of know-how within different communities of professions or expertises, which allows for the development of skills in a collaborative spirit between peers;
- training, by offering adapted further education programs aimed at developing the skills and employability of employees.

This robust learning model allows TotalEnergies to adapt to technical changes and unforeseeable environmental factors, while preserving the employability of employees.

The results of the latest TotalEnergies Survey[(1)] indicate that 76% of employees consider that their manager's feedback helps them progress, and 73% feel that they are involved in their career. Professional mobility is now an internal recruitment process that allows employees to become involved in their career development and to apply for vacancies[(2)] with complete transparency. 72% of positions are staffed by internal mobility. Nearly 10,000 vacancies were published on the internal mobility platform in 2023. 79% of employees stated that they have access to information about the vacancies. The average time spent in the same job was overall 6.6 years, and 5 years for managers. In addition, 94.2% of subsidiaries carry out information and experience-sharing actions with their employees to promote the development of their skills.

The Company's **training** policy is structured around five major areas:

- sharing TotalEnergies' basic corporate values, particularly with respect to HSE, the climate, ethics, compliance, leadership, innovation and digital technology;
- supporting the development of existing activities and creating new ones in order to achieve the Company's ambitions;
- strengthening key skills in all the Company's business areas to maintain a high level of operating performance in the workforce;
- promoting employees' integration and career development through training designed to teach employees about the Company, management skills and personal development;
- supporting the policy of mobility, diversity and inclusion within TotalEnergies through language and intercultural training.

At the end of 2022, the Executive Committee decided to make all employees active players in their professional training strategy, consistent with the Better Together people ambition. The objective is for every employee to devote at least 5 days a year to professional training. This objective is deployed and monitored worldwide. Among those 5 days, in addition to the mandatory training programs required for the job, since January 1, 2023, every employee has the option of enrolling for up to 3 days of training of their choice each year, in fields that they consider to be important for their development, among the training programs offered by the Company. The number of training days per employee per year is also one of the 10 Sustainab'ALL indicators that TotalEnergies has adopted as part of its transition strategy (refer to point 5.1). In 2023, nearly 250 of the Company's most important sites, business units, divisions and subsidiaries[(3)], representing 94.4% of employees, defined a local action plan built around 10 sustainable development indicators with objectives to be achieved within their own scope by 2025, in particular the increase in the number of training days.

The Company's training catalog offers nearly 5,000 training contents (on-site and remote) covering all technical, business and cross-functional fields, including behavioral soft skills. After each training session, participants, and their managers where applicable, receive a satisfaction survey designed to assess the impact of the training and its results in the light of the stated objectives. In 2023, the satisfaction rate was 83.2%[(4)]. The results of the latest TotalEnergies Survey[(5)] indicate that 78% of employees felt they had gained skills over the last 12 months.

97.7% of employees followed at least one training course during the year. The average number of training days per employee stood at 5 including on-the-job training, one of the skills development levers. Excluding on-the-job training, the average number of training days per employee stood at 3.7 in 2023, representing an increase relative to 2022. This was reflected in the increase in training expenses, which were around €200 million in 2023, compared with €163 million in 2022.

Average training cost per employee	2023 WHRS	2022 WHRS	2021 WHRS
In € thousands	2.2	1.8	1.4

(1) Results, excluding Hutchinson, of the latest bi-annual internal opinion survey, TotalEnergies Survey, conducted in 2022 (refer to point 5.6.3.3).
(2) Publication of all vacancies representing 90% of positions, except for senior management positions, mobility for which is driven by succession plans.
(3) Excluding Hutchinson.
(4) Within the scope of TotalEnergies Learning Solution representing nearly half of the training days.
(5) Results, excluding Hutchinson, of the latest bi-annual internal opinion survey, TotalEnergies Survey, conducted in 2022 (refer to point 5.6.3.3).

Average number of training days per year and per employee[(a)]

Average number of training days/ year per employee[(a)] *(onsite and remote training, excluding on-the-job training)*	2023 WHRS	2022 WHRS	2021 WHRS
Women	3.5	3.0	2.8
Men	3.7	3.4	3.1
By segment			
Exploration & Production segment	6.8	6.3	4.5
Integrated LNG	2.2	–[(a)]	–[(a)]
Integrated Power	2.9	–[(a)]	–[(a)]
Refining & Chemicals segment	3.1	2.7	2.9
Refining & Chemicals	*3.1*	*2.7*	*2.9*
Trading & Shipping	*3.3*	*2.9*	*2.3*
Marketing & Services segment	3.9	3.4	2.8
Corporate	4.5	4.1	5.0
OneTech	5.1	6.0	–
By region			
Europe	2.9	2.7	2.4
including France	*3.1*	*2.9*	*2.7*
Africa	6.1	4.7	4.5
North America	4.2	3.7	3.3
Latin America	5.4	4.6	5.1
Asia-Pacific	3.2	3.2	2.5
Middle East	2.7	1.8	1.1

(a) Since the first quarter of 2023, TotalEnergies has separated in its published results the Integrated LNG segment and the Integrated Power segment. In 2022 and 2021, Average number of training days/year per employee of Integrated Gas, Renewables & Power segment represented respectively 2.3 days/year per employee and 1.5 day/year per employee.

Breakdown by type of training *(onsite and remote training, excluding on-the-job training)*	2023 WHRS	2022 WHRS	2021 WHRS
Technical	27%	23%	31%
Health, Safety, Environment, Quality (HSEQ)	25%	23%	25%
Language	7%	8%	8%
Support function technical training	12%	15%	16%
Management	5%	6%	6%
Personal development	4%	4%	4%
Sales	3%	3%	2%
Cross-functional training	18%	18%	8%

(a) This number is calculated using the number of training hours, where 7.6 hours equal one day.

The year 2023 was marked by the global deployment of season 2 of "Visa for TotalEnergies", a cross-functional training program aimed at preparing all employees for the Company's new challenges and supporting the development of their skills (refer to point 5.6.2.2).

TotalEnergies maintains a technological training center, Oléum, that combines technological expertise with more than 30 specialized, certified instructors and technical complexes for instructional purposes. The center, located on two sites in France (Dunkirk and La Mède), offers trainees a full-scale Seveso environment and provides technical career training in operations, maintenance, inspection, safety and other fields. Certified as a corporate Apprentice Training Center (CFA) via TotalEnergies Learning Solutions, Oléum trains apprentices both for inside and outside the Company. Internationally recognized qualifications are also offered, such as the Basic Offshore Safety Induction and Emergency Training program, approved by the Offshore Petroleum Industry Training Organization, and training programs on wind power certified by the Global Wind Organization. Oléum welcomes trainees from all the Company's segments worldwide as well as from its partners and external customers.

5.6.2.2 Support adapted to the transition strategy

The Company has embarked on a strategy of transition that is possible only with the women and men of the Company. To promote a just transition and support TotalEnergies' employees in this transition, the *Transforming with our people* program was launched at the end of 2022, focused on three actions: listening, informing and training.

– **Listening**: Tools have been deployed to measure knowledge, understanding and support for TotalEnergies' ambition, as well as the feelings and state of mind of the Company's teams in the field. The latest TotalEnergies Survey[(1)] showed that 86% of employees are aware of the Company's ambition and 87% are confident in TotalEnergies' ability to meet its targets. Furthermore, TotalEnergies is developing exchange formats between members of the Executive Committee and employees, in order to listen to their proposals on key issues for the Company. Following the bringing together of young employees in 2022, nearly 300 employees aged 35 to 45 were invited in 2023 to speak in the presence of Executive Committee members on key subjects such as climate change, the impact of the Company's activities on biodiversity, performance-related compensation, employee well-being and the pace of the transition and its impact on employees.

(1) Results, excluding Hutchinson, of the latest bi-annual internal TotalEnergies Survey conducted in 2022 (refer to point 5.6.3.3).

- **Informing**: The *Live Round Tables* program was deployed to present the emblematic projects of the Company's transition and make heard the voices of the Company's men and women who are leading them. This 18-month program, which took place from January 2022 to July 2023, highlighted 32 projects. In 2023, episodes focused on biodiversity, waste-to-energy (biogas), responsible purchasing and energy storage systems.
- **Training**: As part of its just transition plan, TotalEnergies has designed the "Visa for TotalEnergies" program as a global "upskilling" program aimed at preparing all employees for the new challenges facing the Company and society in general, and supporting the development of their skills. This multi-year training program is deployed in several seasons, each one devoted to a key aspect of TotalEnergies' transition. After a first season focusing on the climate challenges and the answers provided by the Company's ambition, season 2 has enabled to train more than 27,000 employees in 118 countries in the fundamentals of electricity, the main lever for decarbonizing the energy mix (production, uses, value chains, markets and business models). This program supports the Company's ambition to be one of the top five global producers of renewable electricity in 2030. In addition, as part of a partnership with the NGO "Electriciens sans Frontière", by following this training, each employee contributed to a Company kitty, which helped to finance electrification projects for local communities access to energy in several countries (Benin, Madagascar, Togo and Haiti). Continuing this approach of supporting and maintaining the employability of all its employees, TotalEnergies plans to launch season 3 in 2024 on the theme of digital technologies and generative Artificial Intelligence, to allow each employee to embrace these technologies which are a development opportunity for everyone.

The Company's transition strategy is also being supported by developing certain internal skills. To this end, the Company can rely on its robust skills development model, which is a mix of on-the-job learning, peer-to-peer learning and training. This model provides solid support for the development of the future skills that the Company needs to lead the energy transition.

In addition, the creation in 2021 of the OneTech branch, which brings together more than 3,000 engineers, technicians and researchers, has created a hub of technological excellence serving all the Company's multi-energy activities. The concentration of technical skills makes it possible to build multidisciplinary teams to carry out new industrial projects, regardless of the sector of activity. This decompartmentalization of skills thus strengthens the operational excellence of the Company. In 2023, the engineers of the Technologies entity worked on average on more than 11 different assets, divided between the exploration and production of hydrocarbons, refining, electricity, renewables or low-carbon molecules, thus increasing opportunities to develop their skills and allowing different assets to benefit from their expertise.

The organization by technical field (projects, processes, electricity, operation, etc.) in OneTech also enables the teams to develop their expertise in all the industrial processes, including in unfamiliar areas of activity (production, refining, solar, wind, etc.) through concrete exposure to them. The development of this versatility is important to support the development of the Company's projects across the entire energy mix and business segments. Since the creation of OneTech, 55 technical conference sessions have been organized, 20 of them in 2023. They constitute a core of technical documentary resources organized by energy, which provide input for the training programs. Sessions are planned in 2024 on the new projects under study, offshore wind and the integrated LNG chain, for example.

This long-term initiative, which anticipates the changes to the Company's activities, is based on a mapping process: since the creation of the branch, 100% of the technical professions existing within the Company and those required for its transition have been mapped out into "job families" and transposable skills, to support employees wishing to move into other fields through bridges and skills development paths. Bridges are courses that require a few weeks of training to acquire the skills needed to do a job in one's technical discipline, but in a new scope of application. They aim, for example, to support transfers between Exploration & Production projects and solar projects. The skills development paths are 'upskilling' courses that include training, coaching, role playing and mentoring over a longer period of time to move into other technical disciplines. In 2022, 12 courses were specifically developed, particularly for solar application engineering positions and wind resource assessment. In 2023, 11 additional courses were developed, for positions in various fields, such as solar and wind business development, process engineer, and research engineer on the end-of-life of photovoltaic systems.

Within the OneTech branch, in 2023, around 10% of technical staff mobility resulted in the establishment of either "upskilling" accompanied by appropriate training or specific support when taking up the position.

In Marketing & Services, training for service station staff has been developed on the specific features of charging infrastructures for electric vehicles. In 2023, more than 250 operators, station managers and sales teams were trained on the subject. These training courses continue in 2024 in support of the deployment of new charging stations operated by the Company. More generally, Marketing & Services is training its sales teams in the fundamentals of electric mobility in order to give them the necessary operational skills to support the Company's customers in sustainable mobility solutions.

To support its ambition to become carbon neutral (net zero emissions) by 2050, together with society, TotalEnergies is also implementing projects to convert industrial sites while paying close attention to potential social impacts. The transformation of the Grandpuits refinery into a zero-oil platform continued in 2023, drawing on the know-how and skills of the local teams. The implementation of individual and personalized support for transfers or a suitable training plan, determined following in-depth career interviews, allows this industrial redeployment to be carried out without any lay-offs.

The flexibility provided by these programs makes it possible to adapt at the pace and in line with the schedule of the Company's multi-energy strategy and to find the balance that enables teams to be shared and new types of specialists to be developed. Support for employees is offered during the major stages of the transition, based on responsible Human Resources policies, particularly in terms of social dialogue, diversity and inclusion, decent work, social protection and well-being, in order to achieve a just transition.

5.6.3 Ensuring a high level of engagement based on respect for each other and enhancements to workplace quality of life

To ensure a high level of engagement from its employees, the Company promotes human resource development based on respect for each other and enhancements to quality of life on the job. TotalEnergies takes action in a variety of ways to fulfill that goal. Beyond its efforts in the realm of the workplace and employee relations, TotalEnergies intends on promoting diversity, equal opportunity and an inclusive corporate culture.

5.6.3.1 Promoting equal treatment of employees and an inclusive culture

Throughout its activities, diversity is integral to TotalEnergies' identity and key to its success. The Company has long been committed to promoting equal opportunity and diversity and strives to promote an inclusive corporate culture and an environment that allows every employee to express and develop his or her potential.

The diversity of its employees and management is crucial to the Company's competitiveness, appeal, acceptability and capacity for innovation. TotalEnergies aims to develop its employees' skills and careers by implementing an inclusive Human Resources policy, while excluding any discrimination related to national, ethnic or social origins, gender, sexual orientation or gender identity, marital or parental status, disability, state of health, age or affiliation with a political, labor or religious organization, or membership in a minority group.

This policy is supported at the highest levels and promoted by the Diversity and Inclusion Council, which is chaired by a member of the Company's Executive Committee. The Diversity and Inclusion Council is also charged with making specific recommendations on issues identified each year by the Executive Committee.

Recruitment teams are trained in non-discrimination and unconscious bias. An internal guide entitled *Eliminating Discrimination from the Recruitment Process* has also been put in place and widely distributed. Diversity and inclusion awareness actions are regularly organized with employees and managers. In 2023, an internal guide on neurodiversity was developed for use by talent developers to support them in taking cognitive particularities into account and thus promote the inclusion of neurodivergent employees.

Each entity is responsible for creating an inclusive working environment to offer all employees the same career opportunities and to allow them to benefit from all the skills and diversity of approaches. The 2023 *Diversity & Inclusion Days* were organized globally in the Company on the theme of cognitive bias. These events raised the issues of diversity, inter-generational and inter-cultural relations, disability, sexual orientation or gender identity.

Promoting equal opportunities, diversity and inclusion is a long-standing policy and practice for the Company. TotalEnergies was a corporate forerunner in the matter of diversity. The Diversity roadmap, which sets out the targets on gender balance and internationalizing management bodies and senior management, was rolled out by business segment to continue the existing momentum. Diversity is one of the 10 Sustainab'ALL indicators that TotalEnergies has adopted as part of its transition strategy (refer to point 5.1). In 2023, nearly 250 of the Company's most important sites, business units divisions and subsidiaries[(1)], representing 94.4% of employees defined a local action plan with diversity targets to be achieved within their own scope by 2025.

In addition to gender and international diversity, disability forms an integral part of the Company's diversity and inclusion policy. Initially deployed and coordinated in France, the disability policy was introduced worldwide in October 2018 through the signing of the International Labour Organization (ILO) Global Business and Disability Network Charter.

In line with its commitment to diversity, equal opportunities and economic and social performance, in November 2023 TotalEnergies took part in the Economic Inclusion Summit in France.

GENDER EQUALITY IN THE WORKPLACE

TotalEnergies is committed to upholding and promoting the principle of gender equality in the workplace, and ensuring and monitoring its proper application. Gender equality is fostered Company-wide through a global policy of gender diversity, quantitative targets set by the Company's executive management, human resources procedures that take gender concerns into consideration, agreements aimed at promoting a better work-life balance and actions to raise awareness and train the workforce.

TotalEnergies' commitment to gender equality in the workplace begins at the recruitment stage and continues throughout the employee's career, particularly in the processes to identify high-potential employees and to appoint managers.

To ensure a better gender balance in its senior management, the Company has set itself the following targets for improvement in its highest managerial positions to be achieved by 2025, in which women comprise:

- 30% of the members of the Executive Committee (women represented 25% in 2023);
- 30% of the G70[(2)] (women represented 33.8% in 2023).

The Company has set the same target for its other governing bodies and leadership positions, with women comprising:

- 30% of female senior executives (they accounted for 28.3% in 2023);
- 30% of female senior managers (they accounted for 25.1% in 2023).

TotalEnergies builds talent pools and regularly organizes campaigns in order to identify high-potential employees within the Company and offer them a specific development program. At year-end 2023, women accounted for 39.6% of the pool of high-potential employees. In addition, particular attention is paid to attracting more women to the technical and business functions (at the end of 2023, 24.9% of managers on permanent contracts in technical or sales positions were women[(3)]).

The Company's commitment has been materialized by the entry of two women to the Executive Committee (eight persons at the end of 2023) since 2016. In terms of gender equality in the 10% of the highest management positions of the Company, the proportion of women equals 26.1%[(4)].

(1) Excluding Hutchinson.
(2) Senior executives with the most important responsibilities. Together with the Executive Committee, they form part of the Company's management bodies within the meaning of point 8.1 of the AFEP-MEDEF Code.
(3) Technical and sales functions, excluding support functions (e.g., human resources, legal affairs, purchasing, etc.).
(4) Percentage calculated on the basis of 97,337 employees.

TotalEnergies aims to recruit women in proportions that reflect, at a minimum, the percentage of women graduates at schools and universities in its business sectors and to come closer to parity in all its external recruitments of managerial staff. The Company strives to promote at least the same proportion of men and women within the overall group of people eligible for the promotion under consideration. The mobility process implemented as part of *Better Together*, ensures greater transparency and offers new prospects for career growth for both men and women in the Company's various professions.

To encourage young women to opt for careers in technical fields, TotalEnergies has partnered with France's *Elles Bougent* organization since 2011. Some 200 female engineers regularly meet with high-school girls to talk about careers in science. Throughout the Company, female engineers and technicians from all backgrounds are encouraged to serve as role models for female high school and university students to illustrate women's contributions to the fields of science and technology.

Promoting an inclusive culture also involves changing mentalities: awareness-raising, training and communication actions, such as the *Diversity & Inclusion Days* are regularly carried out for managers and employees. Internal training courses for women such as *Young Female Talents and How to Market Yourself* or *How extraordinary women communicate* are offered.

Through its mentoring activities and development workshops, the TWICE (*TotalEnergies Women's Initiative for Communication and Exchange*) network also helps to expand the gender diversity policy. Its goal is to promote the development of women within the Company, particularly towards management roles, and assist them in their career development. Established in 2006, it is now present in France and abroad (with 70 local networks) and has nearly 5,000 members. A mentoring program operates in France and internationally to help women gain insight into key phases of their career. In 2023, senior executives represented 8% of mentors. More than 2,800 women have taken part in the program since 2010. In 2018, TWICE launched the TWICE@Digital initiative to encourage networking among women working in digital technology in the Company and, more broadly, help women become more digital-savvy, so they can learn about the changes underway and the impact of those changes on their work.

The Company has signed international charters and agreements and joined initiatives about diversity and inclusion to demonstrate its commitment at the highest levels of decision-making.

In 2010, for example, TotalEnergies signed the *Women's Empowerment Principles – Equality Means* Business as set out in the United Nations Global Compact, and the Company regularly shows its commitment to equal opportunity and gender equality in the workplace by signing agreements that address diversity and other topics.

TotalEnergies pledged within the World Economic Forum by signing *Closing the gender gap – a call to action* in 2016. This joint declaration is based on seven guiding principles (leadership; aspiration and goal setting; the Science, Technology, Engineering and Mathematics (STEM) pipeline; clear responsibilities; recruitment, retention and promotion policies; inclusive corporate culture; and work environment and work-life balance) and two decisive objectives: more diverse recruitment and greater access among women to technical and management roles.

% of women	2023	2022	2021
Among permanent contract hires	41.2%	42.1%	40.3%
Among managers hires (JL ≥ 10)[a]	39.8%	40.8%	35.1%
Among all employees	36.9%	36.3%	35.8%
Among managers (JL ≥ 10)[a]	32.5%	31.5%	30.2%
Among first level of management[b]	34.9%	33.6%	31.8%
Among middle management	29.7%	28.0%	27.0%[c]
Among senior management	25.1%	23.8%	22.6%[d]
Among senior executives	28.3%	27.5%	26.5%

(a) Job level of the position according to the Hay method. JL 10 corresponds to the first level of junior manager (cadre débutant) (≥ 300 Hay points).
(b) Defined on the basis of job level.
(c) Restated 2021 data. The percentage of women was 26.1% in 2021 based on the previous calculation method which included JL 14.
(d) Restated 2021 data. The percentage of women was 19.9% in 2021 based on the previous calculation method, which did not include JL14 and senior executives.

% of men	2023	2022	2021
Among permanent contract hires	58.8%	57.9%	59.7%
Among all employees	63.1%	63.7%	64.2%

Breakdown of workforce by gender and age group as of December 31, 2023	< 30 years	30 to 49 years	> 49 years
Women	19.6%	56.7%	23.7%
Men	15.9%	54.4%	29.7%

The French Rixain Law aimed at accelerating economic and professional equality

In France, the law of December 24, 2021 introduced a minimum representation of each gender (30% in 2026, 40% in 2029) within two distinct groups made up of senior executives on the one hand, members of governing bodies on the other, for companies with more than 1,000 employees.

The percentage of women among the Company's senior executives was 28.3% at the end of 2023. Senior executives of the Company are a category of senior managers capable of directing and managing activities at the level of the Company as a whole. This population is managed by a specific department independently of standard Human Resources processes and under the direct supervision of the General Management of the Company.

The table below presents the percentage of women among senior executives and the governing body identified at the end of 2023 for the main French subsidiary concerned.

French subsidiary	Headcount[a]	% of women among senior executives	% of women among the governing body[b]	Governing body identified
TotalEnergies SE	3 555	33.0%	25.0%	Executive Committee
TotalEnergies Marketing Services	1 081	30.3%	28.6%	Marketing & Services Management Committee
TotalEnergies Raffinage Chimie	467	23.8%	62.5%	Refining & Chemicals Management Committee
TotalEnergies Marketing France	1 205	n/a[c]	22.2%	Subsidiary Management Committee
TotalEnergies Raffinage France	4 082	n/a[c]	62.5%	Refining & Chemicals Management Committee[d]

(a) Headcount as of December 31, 2023, including permanent and fixed-term contracts (CDI and CDD).
(b) Calculated for all members of the body regardless of their employment contract.
(c) No Company "senior executives".
(d) No management committee within the subsidiary. TotalEnergies Raffinage France is a legal entity supporting refinery personnel without a "governing body", within the meaning of the law of December 24, 2021, other than its legal representative. The activity of TotalEnergies Raffinage is supervised by TotalEnergies Raffinage Chimie.

In terms of compensation, TotalEnergies has been adopting specific measures to prevent and compensate for discriminatory wage differentials in several countries. Regular checks are carried out during salary-raise campaigns to ensure equal pay among men and women holding positions with the same level of responsibility.

Since 2019, consistent with French Act 2018-771 of September 5, 2018, on the freedom to choose one's professional future, the Company has published an index in France for its three units of economic and employee interest (UESs) on wage differentials and the steps taken to eliminate them. That index, based on a score of 100, reflects five indicators: wage differentials, pay raise differentials excluding promotions, promotion rate differentials, percentage of female employees who received a pay raise in the year they returned from maternity leave, number of employees of the under-represented gender among the ten employees who received the highest compensation.

Index[(a)]	2022-2023	2021-2022	2020-2021
Upstream/Global Services/Holding UES (AGSH)	93/100	92/100	91/100
Refining-Petrochemicals (RP) UES	99/100	100/100	94/100
Marketing & Services (MS) UES	92/100	92/100	88/100

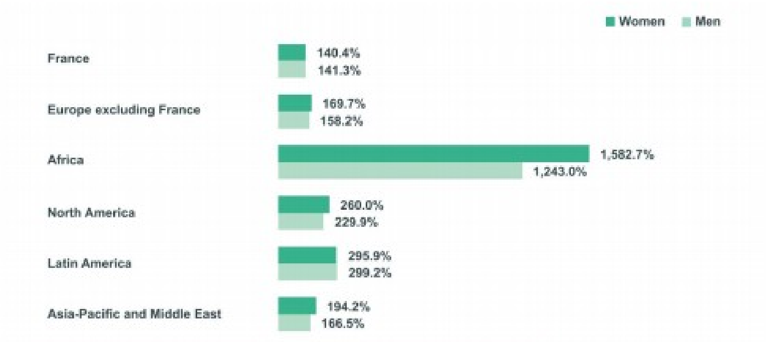
(a) Reference period N-1/N: from September 30, N-1 to September 30, N.

Details of the 2021-2022 index	UES AGSH	UES RP	UES MS
Wage differential	38/40	39/40	37/40
Difference in the distribution of individual increases	20/20	20/20	20/20
Difference in the distribution of promotions	15/15	15/15	15/15
% of employees with a raise after returning from maternity leave	15/15	15/15	15/15
Number of women in the 10 highest earners	5/10	10/10	5/10

At the global level, a verification of compliance with the minimum wage guaranteed by local legislation is also carried out on the base salary. In order to ensure equal pay for men and women, the Company plans to implement an annual review in all countries and a corrective action plan if necessary.

In November 2023, the Company and all the representative trade union organizations within the scope of the *Socle Social Commun* in France unanimously signed a new agreement relating to professional equality. Through this agreement, the parties reaffirm their commitment to respecting the principle of equal treatment between women and men. This agreement is part of the movement initiated by the Company to move globally towards a neutral concept of the family (refer to point 5.6.3.2).

Ratio of the lowest base salary by gender to the minimum salary guaranteed by local legislation, aggregated by geographical area[(a)]



(a) Unweighted average, within the scope of the Compensation survey (refer to point 5.11).

MAKING MANAGEMENT MORE INTERNATIONAL

With nearly 170 nationalities in its workforce, TotalEnergies benefits from a great cultural diversity and considers it important to promote that diversity at all levels of the Company. In 2023, 85.6% of the Company's hires and 67.1% of manager hires concerned people of a nationality other than French.

The Company has set targets for progress in which:

- non-French nationals account for 45% of senior executives (they represented 37.7% in 2023);
- non-French nationals comprise 40% of senior managers (36.3% were non-French nationals in 2023).

In addition, non-French employees account for 52.7% of high-potential employees.

Several measures have been adopted to create a more international management pool, including career paths designed to create more international careers, expatriate assignments for employees of all nationalities (nearly 3,000 employees representing more than 100 nationalities are posted in about 100 countries), and orientation and personal development training organized by large regional hubs such as Houston, Johannesburg and Singapore.

% of employees of non-French nationality	2023	2022	2021
Among permanent contract hires	85.6%	83.4%	89.9%
Among manager hires (JL ≥ 10)[(1)]	67.1%	62.7%	65.3%
Among all employees	67.0%	66.8%	66.5%
Among managers (JL ≥ 10)	58.5%	57.6%	56.7%
Among senior managers	36.3%	34.2%	34.0%
Among senior executives	37.7%	37.4%	36.6%

% of employees of French nationality	2023	2022	2021
Among permanent contract hires	14.4%	16.6%	10.1%
Among all employees	33.0%	33.2%	33.5%

(1) Level of the position according to the Hay method. JL10 corresponds to the first level of junior manager (cadre débutant) (≥ 300 Hay points).

MEASURES TO PROMOTE HIRING AND ACCOMODATING OF PEOPLE WITH DISABILITIES

The Company's diversity and inclusion policy includes specific measures to promote the integration and retention of people with disabilities. TotalEnergies' Mission Handicap structure, housed within the Diversity & Inclusion department of the Company's People & Social Engagement division, is responsible for leading the disability policy with help from disability coordinators within the business segments and a network of liaisons in each entity. The Mission Handicap supports employees with disabilities. It also applies to people with sensitive medical conditions (diabetes, cancer, hypertension, asthma, HIV, etc.), to whom specific attention is paid by a working group dedicated to invisible diseases, which is led in cooperation with internal medical officers.

In **France**, TotalEnergies has given concrete proof of its commitment to hiring people with disabilities for more than 20 years by signing agreements with employee representatives.

TotalEnergies promotes employment for people with disabilities both directly, through its own hires, and indirectly through its purchases from the sheltered employment sector as part of its responsible procurement policy. The Company acts on various fronts simultaneously:

- internally: insertion, professional training, support and job adaptations to enable persons with disabilities to be retained, communication, awareness-raising actions and sessions organized for managers and the entire workforce as well as mandatory training for human resources personnel. In addition, Management Committee members are required to attend awareness-raising sessions. In 2022, a training program initially designed for future managers from France's leading universities was deployed internally. Since its launch, 140 of the Company's managers have received the *handimanager* label, by participating in this experience to change their perspective, to understand the fundamentals of a management attentive to all and to value all talents.
- externally: information and communication campaigns aimed at students, collaboration with recruitment agencies, participation in specialized forums. For instance, the "Duo Café" initiative, launched in 2020 to organize meetings between students from the Company's target schools and alumni employees, so that they can learn about TotalEnergies' businesses, continued in 2023.

In 2022, a new disability agreement was signed within the scope of the *Socle social commun*, excluding expatriates (more than 13,000 people) and approved by DRIEETS[1] for the period 2023-2025. This agreement strengthens and improves the system in force and for the first time introduces end-of-career support measures for people with disabilities (possibility of buying back quarter-years for their pensions, additional payment for part-time work, etc.). It is based on three major priorities:

- recruitment, integration and professional support throughout the employee's career;
- job retention, the adaptation of workstations and measures to compensate for the employee's disability;
- the development of agreements and partnerships with the sheltered and supported employment sector (ESAT and EA).

Since 2019, 42 permanent contract hires have been made. Since 2022, TotalEnergies has reached the rate of 6% of disabled workers within the scope of the *Socle social commun*: 6.03% in 2022 and 6.23% in 2023. In the new agreement, the Company reaffirmed its ambition to continue to progress beyond the legal threshold in this same scope and to continue its action in favor of the indirect employment of disabled people. The use of the adapted and protected employment sector for supplies and services is now included in the sustainable procurement road map. In 2023, in the context of the *Collectif d'entreprises pour une économie plus inclusive* (*Collective Businesses for a more inclusive economy*), the Company committed to developing its share of inclusive purchasing by 30% by 2025.

The four jobs for Disability coordinators in the various sectors of activity, as well as the dedicated recruitment officer, provided for in the agreement signed in 2019, are now the driving force behind the Company's disability policy in the field, with the coordination of the network of Disability officers on the sites. In 2023, workstation adaptations continued at the homes of disabled employees working from home to facilitate their continued employment, in particular within the framework of the ergonomic services contract signed with the adapted company Ergosanté.

In 2023, under the previous agreement, a specific budget of €450,000 was allocated to the study of some 50 projects promoted by disability support organizations.

Since 2022, the Company has made new commitments to digital accessibility by signing the "*J'agis*" ("I act") charter for the inclusion of people with disabilities through employment in the digital profession. A digital accessibility representative raises awareness of the subject throughout the Company.

In addition, TotalEnergies supports the *Association TotalEnergies Solidarité Handicap (ATSH)*, an organization formed in 1975 by employees who have children with disabilities. ATSH provides psychological and financial support to current and retired employees of the Company and their dependents in France who are affected by disability. It currently has about 300 members.

Internationally, the Company aims to support employees with disabilities whatever the legal obligations in each country. This ambition is reflected in the signing of the International Labour Organization's (ILO) *Global Business and Disability Network Charter* in October 2018. At the end of 2023, 41 subsidiaries had voluntarily signed up to the policy and set themselves goals based on the five principles identified as priorities by the Company: respect and promotion of rights, non-discriminatory policies and practices, accessibility, job retention and confidentiality. This new dynamic is reflected in the regular exchange of best practices and the supply of awareness-raising tools.

All the best practices of TotalEnergies' subsidiaries with regard to disability have been detailed in a guide entitled 'World Tour of Disability', which has been distributed to the entire disability network of the international subsidiaries and is available on the Company's intranet site. For example, the UK, the US and Australia have taken preventive actions regarding mental health, with a close focus on psychic health, dedicated training and easier access to specialists. Actions are also being taken in Cameroon and Gabon to combat discrimination against people with albinism, as well as in Cambodia to improve the accessibility of service stations.

On December 5, 2023, on the occasion of the International Day of Persons with Disabilities, the Company organized awareness-raising actions open to all employees, through workshops on digital accessibility and a disabled sports event (Handisport). With a view to the 2024 Paralympic Games, a series of 8 conferences around disabled sports champions is also organized throughout 2023 and 2024.

In addition, as part of the Manifesto for the Inclusion of Persons with Disabilities in economic life, which was signed in 2018, since 2022 TotalEnergies has co-hosted a working group on the internationalization of the disability policies of companies and organized events that bring together the companies that have signed the Manifesto and are committed to proceeding with these deployments in their subsidiaries abroad.

(1) Interdepartmental Regional Directorate for the Economy, Employment, Labor and Inclusion.

A COMMITMENT TO HELP YOUNG PEOPLE ENTER THE WORKFORCE

TotalEnergies is committed to the employment of young people, thus contributing concretely to their professional integration and strengthening their employability. Considering it essential to address this issue as early as possible in the educational process to maximize its impact, targeted actions are put in place and adapted to the specificity of the country contexts where they are deployed.

Since 2018 in France, the Company has dedicated 50% of its last-year middle-school internships to young people from priority neighborhoods. Over the 2022-2023 school year, TotalEnergies enabled more than 500 young people from different social backgrounds to discover the business world, over two thirds of whom were middle-school students from priority neighborhoods.

In addition, every year since 2016, the Company has reaffirmed its proactive policy of recruiting, training and supporting young work-study students in France. The policy is implemented in compliance with its commitments in terms of diversity and equal opportunities. In 2023, in the context of the *Collectif d'entreprises pour une économie plus inclusive* (*Collective Businesses for a more inclusive economy)*, TotalEnergies renewed its commitment to welcoming 2,000 work-study students per year into its teams, including 10% work-study students from priority neighborhoods by 2025. At the end of 2023, more than 2,400 work-study students were working within the Company throughout France, including 6.4% from priority neighborhoods. TotalEnergies is also committed to mentoring within the framework of this same *Collectif d'entreprises pour une économie plus inclusive* (*Collective Businesses for a more inclusive economy)* with a goal (achieved) of 250 young people via the *Action!* program in 2023.

Every year since 2017, the Company has obtained the *HappyTrainees* label which measures the points of view and the degree of satisfaction of its trainees and work-study students. Six themes are addressed in the questionnaire submitted to them: professional progression, work organization, relationship with the tutor, recognition, purpose, and social and environmental responsibility. In 2023, the Company achieved an overall rating of 4.05 out of 5 and a recommendation rate of 89.8%. It is once again in the top 10 of the *HappyIndex Trainee* ranking of companies with more than 1,000 interns and work-study students. For this label, more than 1,850 young people in TotalEnergies were invited to respond.

In 2023, the Company maintained its actions aimed at achieving greater equality of opportunity. TotalEnergies regularly publishes internship and work-study offers on the *MozaïkTalents* platform of the Mozaïk Foundation, a major player in the economic inclusion of talented people from diverse backgrounds, as well as on the *1Jeune1Solution* platform put in place by the French government. With regard to the recruitment of young people with disabilities, in 2023, TotalEnergies has hired 46 young people on work-study programs and 9 interns within the scope of the *Socle social commun*, in line with the commitments made in the previous disability agreement.

In the Africa Marketing & Services Department, the *Young graduate* program has been in existence since 2014 and offers about 80 young African graduates aged up to 26 an 18-month professional placement each year. The program is divided into two phases: a 6-month work experience at the subsidiary in the participant's home country, followed by a 12-month assignment abroad. Since 2014, more than 600 young people have taken this opportunity to improve their employability.

In October 2022, OneTech welcomed the first class of the *OneTech Graduate Program*. This integration-accelerating program offered 60 young engineers of 23 nationalities, the majority of whom were women, the opportunity to gain initial experience in all areas of energy - oil and gas, but also electricity (solar, wind, batteries, gas power plants) and decarbonated molecules (hydrogen and biogas). This two-year program is structured around three successive 8-month missions, including at least one in a Research and Development entity, to create a group of young multi-energy talents. Building on the success and attractiveness of the program, a new class of 30 graduates is expected in October 2024, for a new *OneTech Graduate Program* of two years.

"Volontariat International en Entreprise" (VIE) is a system that promotes the export of the know-how of French companies abroad. This program completes the curriculum for young French people and nationals of the European Economic Area, aged 18 to 28, by allowing them to acquire international experience for a maximum of 24 months. The system, in force in the Company since 2002, has enabled more than 2,360 young graduates to benefit from this program.

The Exploration & Production segment's international scholarship programs contribute both to the promotion of French higher education around the world and to the development of the skills of students from host countries. The beneficiaries of international scholarships, selected in their country of origin by the TotalEnergies subsidiary concerned, join multi-year academic programs in France, from bachelor level to PhD in highly diverse fields of study. In 2023, TotalEnergies financed and supported 189 scholarship students from 13 different countries (Angola, Azerbaijan, Brazil, Mozambique, Oman, Rwanda, Uganda, etc.).

OTHER MEASURES TO PROMOTE INCLUSION

The Company promotes an inclusive corporate culture that allows everyone to develop their potential. It excludes all forms of discrimination related to national, ethic or social origins, gender, sexual orientation or identity, marital or parental status, disability, state of health, age or affiliation with a political, labor or religious organization, or membership in a minority group. The theme of Business Ethics Day 2023 was the management of ethical alerts and complaints, linked to the "speak up" culture that the Company promotes, encouraging employees to report any situation that seems to them to be contrary to the Code of Conduct, particularly in matters of discrimination and harassment.

In France, TotalEnergies has been a signatory to the LGBT+ (lesbian, gay, bisexual and transgender) commitment charter since 2014. Created by an organization called *l'Autre Cercle*, the charter provides a framework for combating workplace discrimination in France based on an individual's sexual orientation or gender identity. To reaffirm its commitment to inclusion, TotalEnergies re-signed this Charter in 2023. Awareness-raising actions on the topics of sexual orientation and gender identity were taken with employees. An e-learning called "LGBTQIA+: inclusion at work" is made available to all employees on the training platform. In 2023, a conference was organized on this theme at the global level.

TotalEnergies strives to promote an inclusive corporate culture and an environment conducive to the expression and development of the potential of all. To this end, Human Resources policies have been reviewed to ensure that the inclusive approach is taken into account. The Company's parenting policy has been amended to adopt a neutral family concept that takes into account the diversity of existing family structures (see point 5.6.3.2). In 2023, an agreement in favor of employee caregivers was unanimously signed with the representative trade union organizations within the scope of the *Socle social commun* in France, in an approach of accompaniment and support (refer to point 5.6.3.2).

To provide clear answers to questions employees may have about matters relating to religion at work, and to encourage tolerance for the beliefs of others within a framework of respect for differences, TotalEnergies has developed The Practical Guide to Dealing with Religious Questions in the Company. The guide, which has been available on the Company's intranet site since March 2017, offers keys to understanding different beliefs so that employees can more readily acknowledge those beliefs in their day-to-day activities. Initially published in French and in English, the guide has since been translated into eight other languages. It is routinely provided to participants at training sessions on human rights conducted within the Company. It is also distributed on Business Ethics Day, which is marked each year in all the Company's entities.

In 2023, to continue promoting a culture of inclusion within the Company, TotalEnergies also launched Inclusion Talks, a bimonthly meeting offered to all employees on inclusion themes, such as inclusive management and the business role on the issue of domestic violence.

5.6.3.2 Contributing to the improvement of the quality of life at work and to the well-being of employees

The Company is committed to the well-being of its employees. In line with its ambition to build a good place to work together, TotalEnergies launched in 2024 *Care Together by TotalEnergies*. Beyond the commitments specific to each subsidiary, this program foresees social standards for all employees worldwide, regardless of local legislation. *Care Together by TotalEnergies* sets out TotalEnergies' social responsibility commitments, consistent with its intention to create a culture that fosters well-being, helping each of its employees to maintain a healthy balance in a safe working environment. This program is based on four key pillars: physical and mental health, social protection, working environment and ways of working, and family sphere.

Health Preserve the physical and mental health of all employees worldwide	Provide medical follow-up to all employees exposed to an occupational risk that may have harmful effects on their physical and mental health	Refer to point 5.3.4
	Propose to employees a health check at least every two years unless specific local regulations or contexts require otherwise	
	Deploy a global policy for the prevention of psychosocial risks to protect the mental health of employees	
Social protection Ensure a living wage and quality social protection for all employees, regardless of their location	Ensure all employees direct remuneration at least equal to the living wage of the country or region in which they work	Refer to point 5.6.1.2
	Where appropriate, set up a health insurance plan, in addition to the legal plans in force	
	Set up a death benefit plan, whatever the cause, at least equivalent to two years' gross reference salary	
Working environment and ways of working Promote a flexible, modern and attractive work organization for employees while preserving collective efficiency in a safe working environment	Generalize the use of flexible working hours by establishing clear rules and trust employees to take responsibility for the way they manage remote working as part of their day to day activities.	Refer to point 5.6.3.2
	Conduct information campaigns and awareness-raising initiatives on employee well-being and work-life balance	
Family sphere Give employees the opportunity to take care of their families	Guarantee a minimum of 14 weeks of childcare leave for the first parent and 2 weeks for the second parent with 100% retention of their basic salary (subject to more protective local measures)	Refer to point 5.6.3.2
	Neutralize absences for childcare leave by granting the first parent to return from leave an increase equal to the average of individual increases received over the last three years	

The challenges of work organization are manifold, depending on the regions of the world where the Company operates, and according to the local legislation in force. The TotalEnergies entities set up programs designed to meet the specific needs of work organization and ensure, as far as possible, that a work-life balance is promoted. Depending on the segment, specific work arrangements are implemented, such as shift schedules(1) and rotating schedules(2). Most shift workers are employed in Refining & Chemicals, Marketing & Services, Integrated LNG and Integrated Power, while rotating workers are mainly in Exploration & Production. The average work week is determined in accordance with applicable local laws and limits set by International Labour Organization (ILO) conventions.

With the aim of building a good place to work, TotalEnergies promotes a modern and attractive work organization, while preserving collective efficiency, by generalizing the use of flexible working hours through establishing clear rules, by trusting employees to take responsibility for the way they manage remote working as part of their day to day activities, and by conducting information campaigns and awareness-raising initiatives on the well-being of employees and their work-life balance.

	2023 WHRS	2022 WHRS	2021 WHRS
% of companies offering the option of regular remote working	63.5%	61.4%	49.3%
% of employees choosing remote working when given the option	18.8%	19.7%	17.3%
% of companies that have implemented flextime	82.5%	81.8%	80.6%

Over the past few years, regular remote working has been gradually introduced within the Company. Moreover, in 2023, 82.5% of companies offered occasional remote working.

Among other programs designed to foster a better work-life balance, employees are also choosing voluntary part-time work. 51.1% of companies have part-time employees. 2.6% of employees work part-time, i.e. 1.8% of men and 3.9% of women.

France, Belgium and the Netherlands have the largest number of voluntary part-time workers.

In 2023, 37 subsidiaries signed an agreement relating to working time, working time arrangements and part-time work.

(1) In which employees maintain continuous operations, with relays between teams to keep production going (in two or three 8-hour shifts), e.g., in plants or refineries.
(2) In which employees conduct their work at a location (town or worksite) far from their place of residence and alternate between extended periods of work (at their assigned worksite) and rest periods at home.

In 2023, the Company continued to evolve towards a more modern and attractive working environment for employees. For example, a proposal was made to the Company's subsidiaries to introduce a "green Friday". This innovation liberates from any collective meetings scheduled by management every other Friday, and allows employees to organize their work.

As part of the Better Together ambition, TotalEnergies has taken various measures for the development of a safe, modern and pleasant working environment, with ergonomic workstations. Welcoming areas have been created and *"Bonjour"* stores, based on the stores in the network of service stations, are gradually being opened on TotalEnergies sites with more than 100 employees. With its new headquarters project, *The Link*, project ambassadors have been appointed and are tasked with reflecting on future needs and new ways of working. Learning expeditions are being organized as part of this project to discover the layout of the premises on other sites and then identifying future needs.

Tools are made available to managers and employees to support them in their approach to these new ways of working. They now have digital tools to facilitate remote working, as well as a range of training courses on the Company's training platform that are specifically adapted to the management of these new ways of working, both in office automation tools, personal development and working time management.

In 2023, 77% of employees said they managed to find a good balance between their work and their private life and 80% believe that their team is attentive to the physical and psychological health of everyone[(1)].

Among the initiatives launched in 2023, a week dedicated to the quality of life at work was organized around the theme "Let's take care of ourselves" and three axes: improving nutrition, living in good health and promoting well-being at every age, improving their quality of life. Nearly 18,300 employees in several countries were invited to participate on a platform dedicated to workshops, conferences and sports sessions accessible both in person and remotely. In 2023, 92.7% of subsidiaries conducted information campaigns or organized events relating to the well-being of employees and 82.5% carried out actions to raise awareness of the balance between professional and private life.

Since 2022, the Company's parental policy has adopted a neutral concept of families that takes into account the diversity of family structures. The concepts of a "first parent" and a "second parent" now enable all parents, regardless of the composition of their families, to benefit from leave for the birth or the arrival of a child. TotalEnergies guarantees paid childcare leave of at least 14 weeks for the first parent and at least 2 weeks for the second parent, with 100% retention of their basic salary. In addition, TotalEnergies guarantees to the first parent returning from this leave an increase equal to the average of the individual increases he or she has received over the past three years. This policy is currently being rolled out in accordance with applicable legal provisions and taking into account possible cultural particularities. By the end of 2023, 67.3% of subsidiaries had deployed it. 91.2% of subsidiaries offered paid maternity leave of 14 weeks or more, and 83.2% guaranteed the payment of 100% of the basic salary. In 2023, 742 employees benefited from these conditions as part of their child leave, and among those who returned during the year, 77.1% benefited from an increase equal to the average of individual increases awarded over the past three years. Specific conditions are offered during the breastfeeding period in 58.4% of subsidiaries. The systematisation of these conditions is planned in the deployment of the new policy. In addition, childcare solutions are offered by certain subsidiaries around the world.

In addition to parental leave, and to help employees manage their work-life balance, the Company offers personal leave at each important stage of life for family events (marriage, death, sick child, etc.) or personal assistance that is available in 70.1% of the subsidiaries. Other types of unpaid leave are also offered to support employees in new career paths (international voluntary missions, following spouses, setting up a company, etc.). In 2023, an agreement in favor of employee caregivers was unanimously signed with the representative trade union organizations within the scope of the *Socle social commun* in France, in an approach of accompaniment and support. The agreement provides in particular for the establishment of a "care manager" to advise and support employee caregivers in their efforts and the implementation of solutions adapted for their relatives, facilities in the organization of work and improvement covering certain legal leave entitlements to assist a relative requiring assistance or at the end of life.

In addition, as part of its Health policy, the Company has implemented a policy to prevent mental health risks (MHR), the aim of which is to protect the mental health of employees and has developed a global program to enable all exposed employees to receive support, wherever they are in the world (see point 5.3.4). Each entity must guarantee the implementation of a mental health protection system, using the system proposed by the Company or an equivalent local system. A specific deployment adapted to the various populations is being implemented to facilitate the adoption and appropriation of the system by all. Trade unions and workers' representatives are informed of this policy and have been involved in the development of the prevention system.

In this context, the Company offers a listening and support service that is available to all employees with psychologists trained to advise them precisely about their concerns. Managers are made aware of their role in preventing these risks on a daily basis and the impact of the working environment on the well-being of their employees. The MHR prevention training (e-learning and educational videos), was fully reviewed in 2022 and is accessible to everyone on the training platform. It particularly addresses the themes of stress, harassment (both moral and sexual) and burn-out. The deployment of this training is monitored. At the end of 2023, 49.3% managers had followed it, which represents progress of 2.7 points compared to 2022. In addition, in 2023, the Company launched "First Aid in Mental Health" training to improve understanding of psychological difficulties and enable colleagues to succeed in providing initial support and to redirect cases to the appropriate contacts. Following a pilot scheme intended for health and MHR officers, medical officers, nurses, social workers and staff representatives, this training is now open to all employees.

TotalEnergies thus aims to develop a culture promoting well-being at work which encourages openness and dialogue on subjects related to mental health. In collaboration with IPSOS, the Company has defined an annual measure of its employees' level of well-being, using a Care index based on 7 criteria: safety, respect, autonomy at work, listening capacity of manager, conviviality, work-life balance and controlling pressure at work. In 2023, the score is 81.5% (up nearly 3 points on 2022), while the benchmark[(2)] is 70.2%.

Finally, as part of a global initiative to prevent and manage employee absenteeism, the medical absenteeism rate is an indicator monitored as part of the WHRS:

	2023 WHRS	2022 WHRS	2021 WHRS
Absenteeism rate for medical reasons	4.0%	4.6%	4.3%

The reduction in the rate of medical absenteeism is mainly due to the decrease in Covid19-related absences.

(1) Results from the internal TotalEnergies Pulse Survey conducted in 2023 (excluding Hutchinson), in addition to the bi-annual TotalEnergies Survey (refer to point 5.6.3.3).
(2) Benchmark established by IPSOS of companies with over 10,000 employees worldwide

TotalEnergies' success as a responsible company is played out all along its value chain, and the Company is convinced of the importance of working with suppliers that respect human rights and take care of their employees. In keeping with the Fundamental Principles of Purchasing, based on its Code of Conduct, TotalEnergies also expects its suppliers to respect, and to ensure that their own suppliers and subcontractors respect, a maximum number of working hours, rest time and suitable parental leave.

5.6.3.3 Promoting social dialogue

Social dialogue is a key component of the Company. It includes all types of negotiations, consultations or exchanges of information among the management of the TotalEnergies entities, employees and their representatives about economic and workplace issues and concerns relating to company life. The topics addressed in this social dialogue may vary according to each subsidiary, but some are shared concerns across the Company such as health and safety, work hours, compensation, training and equal opportunity.

The Company is careful to conduct this dialogue at both the local level and at headquarters or centrally, through its participation in company bodies and its negotiation of agreements.

Among the numerous stakeholders with which TotalEnergies maintains a regular dialogue, the Company's employees and their representatives have a special position and role, particularly in discussions with management teams. In countries where employee representation is not required by law, the TotalEnergies companies strive to establish such representation. As a result, majority elected employee representatives are present in most TotalEnergies companies.

	2023 WHRS	2022 WHRS	2021 WHRS
Percentage of employees with labor union representation and/or employee representation	91.5%	91.8%	90.8%
Percentage of companies with labor union representation	75.9%	77.3%	73.1%
Percentage of companies with employee representation	85.4%	84.1%	81.3%
Percentage of employees covered by a collective bargaining agreement	73.0%	73.6%	72.6%
Number of active agreements signed with employee representatives worldwide	404	330	347
including in France[(a)]	222	*189*	*202*

(a) Some agreements cover several companies (e.g., the agreements in the units of economic and employee interest (UESs) and agreements for groups of companies).

In 2023, 282 wage agreements were signed within the Company.

Moreover, where local laws provide few protections for freedom of organization and the right to collective bargaining, the subsidiary's management is reminded that it must provide alternatives. These may include allowing employees to designate representatives, organizing regular meetings between those representatives and management, providing meeting rooms where employees can gather and altering work schedules accordingly. Those best practices are reviewed in an e-learning course on human rights in the workplace, offered within the Company since 2019.

Freedom of association and collective bargaining are two of the subjects studied in its analysis of the risks of human rights abuses, and in particular human rights in the workplace.

In line with the global agreement signed in 2015 with IndustriALL Global Union[(1)] described below and through the Fundamental Principles of Purchasing, TotalEnergies also asks its suppliers to respect freedom of expression, association and collective bargaining and, in countries where this right is restricted, to ensure that employees have the right to participate in a dialogue concerning their collective work situation. As part of the evaluation of its service providers and suppliers, compliance with these commitments is monitored.

At the global level, in 2015 TotalEnergies signed a four-year global agreement with IndustriALL Global Union to promote human rights at work, diversity, health, safety at work and the participation of employees and their representatives in social dialogue. This founding agreement of global social commitments continues to be applied.

In December 2017, TotalEnergies also joined the worldwide Global Deal initiative, a multiparty partnership that aims to encourage governments, businesses, unions and other organizations to make concrete commitments to promoting employee relations on all levels and to proposing concrete solutions that reconcile economic performance and social progress. The Global Deal promotes the idea that effective social dialogue can contribute to decent work and quality jobs and, as a consequence, greater equality and inclusive growth, from which workers, companies and civil society benefit. In 2023, TotalEnergies continued to share its best practices with member companies of the Global Deal, notably on the subject of the just transition.

The TotalEnergies European Works Council serves, on a European scale, as a forum for providing information and regular exchanging views about the Company's strategy, its workplace, economic and financial situation, as well as on matters relating to sustainable development, environmental and social responsibility and, obviously, safety. It is consulted for significant proposed organizational changes concerning at least two companies in two European countries, to express its opinion, in addition to the procedures initiated before the national representative bodies.

In 2023, social dialogue at European level remained sustained. Members had the opportunity to meet 24 times on a variety of key topics.

Members benefited from several discussions relating in particular to TotalEnergies' strategy to position itself as a major player in the energy transition and achieve carbon neutrality in 2050, together with society. Meetings of the Strategy Commissions allowed staff representatives to understand this ambition in a concrete way, through the presentation of the ambitions and strategy of each sector of activity. The European Works Council's Safety seminar was also devoted to issues relating to electricity. Finally, members had the opportunity to participate in several site visits.

As a responsible employer, TotalEnergies manages organizational changes responsibly. Among the commitments in the global agreement, the Company has committed to social support for organizational changes that consists of informing employee representatives in advance of planned changes, as well as making sure that subsidiaries take social measures when organizational changes occur, which must be among the best practices of companies in the business segment of the country concerned.

Social dialogue in Europe and in France saw the continued involvement of employee representatives in major projects that are structuring the transition of the Company:

- on the creation of OneTech, which aims to concentrate skills and technical expertise in support of innovation and new growing energies, in continuation of the information and consultations in 2022, the European Works Council was given an initial report on the setting up of the new organization and the distribution of budgets by major R&D programs;

(1) International federation of trade unions representing more than 50 million employees in the energy, mining, manufacturing and industrial sectors in 140 countries.

- on the *Transforming with our people* project, which aims to achieve a just transition for the Company's employees and on the approach to building the skills map that will define the bridges between the current business lines and the renewable energy and electricity business lines, staff representatives were informed of the results of the mapping and the associated implementation.
- in the context of the adaptation of the organization of the Company to its transition strategy: for example in accordance with the commitments of the redundancy plan, negotiated within the scope of the *Socle social commun* in France, regular monitoring is carried out with the trade unions and employee representatives of the hires and the business segments concerned, in order to contribute to the renewal of the skills needed to meet the challenges of the Company's transition.

  Similarly, on the occasion of the total or partial sale of the fuel distribution network in Germany, the Netherlands, Belgium and Luxembourg to Alimentation-Couche Tard, the information-consultation procedure was carried out with the European Works Council and each of the national bodies of the countries concerned.

  In addition, particular attention continued to be paid to the social issues linked to the conversion of the Grandpuits refinery into a zero-oil platform for biofuels. This industrial redeployment project plans to reduce the workforce from 400 to 250 people, without layoffs or forced mobility. At the end of 2023, just over 155 people have expressed their desire to relocate, and 109 transfers have already been completed. In addition, 82 early retirements are expected between 2021 and 2027. In June 2023, TotalEnergies took note of the decision of its partner Corbion to terminate the bioplastics production project at Grandpuits due to rising costs. Following this decision, discussions resumed between the Company and employee representatives to support the reclassification of the employees concerned. These discussions notably resulted in a concerted mobility agreement signed in November 2023, covering measures to support site developments, end-of-career and mobility arrangements. TotalEnergies confirmed the maintenance of 250 jobs at Grandpuits, in accordance with commitments made in September 2020. Partner companies and their employees are supported by the TotalEnergies Développement Régional subsidiary, with the assistance of the regional Chamber of Commerce and Industry.

In addition to these examples, in 2023, 39 subsidiaries worldwide underwent organizational changes that could have impact on employees, and 37 (94.9%) of them took measures to support employees.

They include:

- 18 subsidiaries that took supporting measures for retirement or early retirement. This represents 46.2% of the subsidiaries concerned.
- 35 subsidiaries that resorted to redeployment or mobility as supporting measures. This represents 89.7% of the subsidiaries concerned.
- 17 subsidiaries that introduced an outplacement program. This represents 43.6% of the subsidiaries concerned.
- 30 subsidiaries that offered assistance for training. This represents 76.9% of the subsidiaries concerned.
- 6 subsidiaries that used a reduction in working hours as support measures. This represents 15.4% of the subsidiaries concerned.
- 15 subsidiaries that offered financial compensation. This represents 38.5% of the subsidiaries concerned.

Furthermore, 2023 was marked by a structuring agreement by which the Company is committed, as part of its transition strategy, to support its 35,000 employees in France in their own ecological transition efforts to make their energy consumption or their mobility in their daily lives more sustainable. To this end, TotalEnergies and the Company trade union representatives in France have unanimously signed a collective agreement to support employees in their energy transition, whether for their mobility or for their residential purposes. This agreement notably provides the 35,000 employees concerned with an individual "energy efficiency and transition" allowance of €2,000 gross enabling 80% of purchases or services relating to housing and mobility to be reimbursed.

As a company that listens to its employees, TotalEnergies regularly involves them in participatory processes. For example, the Company is developing exchange formats between members of the Executive Committee and employees, in order to listen to their proposals on key issues for the Company (refer to point 5.6.2.2). In addition, every two years, TotalEnergies conducts an internal opinion survey (TotalEnergies Survey) in order to gather employees' opinions and expectations regarding their professional situation and their perception of the Company, on a local or Company-wide level, on various topics (values, commitment, the Company's ambition, diversity and inclusion, management, talent development, working conditions, etc.). The latest edition of this survey was conducted in 2022 among 85,640 employees spread across 122 countries. Since 2023, by decision of the Executive Committee, an additional short survey, the TotalEnergies Pulse Survey[(1)], takes place every other year, to make it possible to measure employee engagement and well-being once a year. The results of this survey, to which nearly 45,000 employees responded (a participation rate of 77%), indicate that employees have an engagement rate of 82.4%, (up by 2 points compared to 2022), compared with the benchmark[(2)] of 71.3%. 86% of employees state they are proud to work for TotalEnergies. The results were communicated within all the entities concerned.

(1) Survey conducted on a Company scope excluding Hutchinson
(2) Benchmark established by IPSOS of companies with over 10,000 employees worldwide

5.7 Actions to promote respect for human rights

The main challenges associated with the effects of the Company's activities in terms of respect for human rights have been identified using the methodology set out in the United Nations Guiding Principles on business and human rights (UNGP) Reporting Framework relating to the "salient issues", i.e., the human rights most at risk of severe negative impact through the Company's activities or business relationships.

On this basis, the Company identified six salient risks subdivided across three key areas:

- **human rights in the workplace** of TotalEnergies' employees as well as of the employees of its suppliers and other business partners:
  - forced labor and child labor;
  - discrimination;
  - just and favorable conditions of work and safety.
- **human rights and local communities**:
  - access to land;
  - the right to health and an adequate standard of living.
- respect for **human rights in security-related activities:**
  - the risk of misuse of force.

STRONG COMMITMENTS

TotalEnergies' human rights approach is based on strong and formalized commitments. It is supported by a dedicated organization, and embedded in an awareness-raising and training program, as well as evaluation and follow-up mechanisms aiming at measuring the effectiveness of the Company's actions.

TotalEnergies is committed in particular to respecting internationally recognized human rights and standards, wherever the Company operates, in particular the Universal Declaration of Human Rights, the Fundamental Conventions of the International Labor Organization (ILO), the U.N. Guiding Principles on Business and Human Rights, the OECD guidelines for multinational enterprises and the Voluntary Principles on Security and Human Rights (VPSHR).

In 2016, the Company published a Human Rights Briefing Paper, updated in 2018, in accordance with the recommendations of the United Nations Guiding Principles Reporting Framework, which is available on its website. TotalEnergies was then the first company in the oil and gas industry to do this. The third edition of this Briefing Paper was released in January 2024.

A DEDICATED ORGANIZATION

The organization in charge of human rights is structured into three levels.

First, the Human Rights department in the Sustainability & Climate Division, which in turn reports to the President, Strategy & Sustainability, who sits on the Executive Committee, coordinates the analysis of the Company's human rights risks, supports operational teams and supervises the actions to promote respect for human rights, in close collaboration with the Ethics Committee and in accordance with the Company's Code of Conduct.

The Company's human rights roadmap, developed with the various business segments and divisions concerned, is regularly presented to the Company's senior management in order to support the ongoing efforts to implement the Code of Conduct and to respect human rights.

The Human Rights Steering Committee, chaired by the Human Rights Department, monitors the implementation of this roadmap on the strategic level for the Company and meets several times a year. It is led by the Senior Vice President of Sustainability & Climate. The committee includes representatives of each business segment and of the main functional divisions that have a role related to human rights.

The Ethics Committee, on which representatives of all TotalEnergies' business segments sit, plays a key role of listening and support. Employees, but also people from outside the Company, can contact the committee at the email address ethics@totalenergies.com. The Committee protects the confidentiality of the complaints, which can only be lifted with the agreement of the complainant. The Chairwoman of the Ethics Committee presents an annual Ethics report to the Governance and Ethics Committee of the Board of Directors.

In 2023, the Ethics Committee received more than 170 alerts (internal, external and anonymous) regarding compliance with the Code of Conduct, more than 70% of them concerning matters related to human resources.

All alerts received are addressed and, when necessary, recommendations are made in order to lead to the implementation of corrective actions. Secondly, each business segment, as well as the TotalEnergies Global Procurement Division, which is in charge of the Responsible Procurement program, has appointed a human rights representative who coordinates this subject in its scope and cooperates with the Human Rights Department, with which he or she meets each month in order to address ongoing human rights issues. Monthly reviews also take place between the Human Rights Department and the main head office functional divisions regarding human rights. The Marketing & Services segment has also its own Human Rights committee, which is chaired by the Senior Vice President Africa and composed of representatives from each geographical zone (Africa, America, Asia-Pacific/Middle East and Europe) in which the Marketing & Services segment operates. The main task of this Committee is to monitor the implementation of this segment's human rights roadmap.

Lastly, this dedicated organization is supported by a network of human rights correspondents based in the countries where the Company operates, and in particular the network of ethics officers, as well as the persons in the local subsidiaries in charge of the health, safety and environment and human resources functions, plus certain subsidiaries' managing directors. These human rights correspondents, who are located as close to the operations as possible, are in charge of promoting the values set out in the Code of Conduct among employees working at subsidiaries and ensuring that the Company's commitments are correctly implemented by local stakeholders.

AWARENESS-RAISING AND TRAINING

In order to disseminate the Company's commitments, TotalEnergies raises its employees' awareness via internal communication channels such as intranet sites and events such as the Business Ethics Day, which is held each year at the headquarters and in subsidiaries. In 2023, Business Ethics Day was held on December 7 and dealt with the handling of ethics alerts within the Company. An exchange accessible to employees was organized with the President, Marketing & Services, who is a member of the Executive Committee. A Live Event on this topic was also organized with the Chairwoman of the Ethics Committee, the Chief Compliance Officer and the Vice President Human Rights.

In addition to the Code of Conduct, the Company also publishes a Human Rights Guide that is made available to its employees and the stakeholders. This guide specifies the behaviors to be adopted in the activities and relationships with stakeholders. TotalEnergies also has a practical guide to dealing with religious questions within the Company. These guides are available on the intranet site and are distributed at the various training courses and during the Business Ethics Day.

In addition to the Ethics training, which is mandatory for all Company employees, a Human Rights training plan, developed in 2020, aims to promote the development of a culture of respect for human rights within the Company, to better manage the associated risks, and to upskill all employees, so that they themselves become agents of change in the long term. This plan is targeted at the following priority populations:

- the most influential categories (such as Country Chairs, Project Managers and Asset Managers in high-risk countries and projects);
- the categories most exposed to human rights risks or whose actions may have potentially negative impacts on human rights (such as service station managers in the Marketing & Services segment or Community Liaison Officers (CLOs) in the Exploration & Production segment).

As part of this plan, several training sessions were organized in 2023.

For target groups

More than 3,500 employees belonging to the priority categories were trained in face-to-face training sessions in 2023.

- Within the Marketing & Services segment, 1,750 employees were trained. These employees include members of the Management Committees as well as other priority categories of employees (network directors, segment managers and service station managers) within the subsidiaries, particularly in South Africa and Egypt but also in Côte d'Ivoire, Cameroon, the Dominican Republic, Lebanon, Jordan and Mozambique.
- Within the Exploration & Production segment, nearly 400 employees were trained in respect for human rights, including members of the Management Committees of the subsidiaries in Mozambique, Lebanon and Brazil.
- In the Integrated Power and Integrated LNG segments, more than 800 employees were trained in respect for human rights in France (Saft Groupe and Total Eren sites) and in Brazil (Casa dos Ventos).
- In the Refining & Chemicals segment, more than 450 employees were trained in respect for human rights, including members of the segment's Management Committee and certain priority groups at Hutchinson sites in Vietnam, Brazil and India.

Finally, in France, more than 70 employees from all TotalEnergies business segments participated in two workshops organized in partnership with *Shift*, on crisis communication management regarding human rights. These employees include members of the Company's communications teams and human rights network.

Training on ethics and human rights was followed by around 20 newly appointed executives in 2023.

For all employees

The online module on human rights in the workplace with a focus on respecting the ILO's core conventions, which has been accessible to all employees since 2019 in all countries and mandatory for all management employees, continued to be deployed in the countries where TotalEnergies is present. It is available in five languages and more than 69,000 employees had followed it by the end of 2023.

In addition, representatives of the Human Rights department regularly participate in external events with other companies and institutional players to share experiences and best practices in this area.

ASSESSMENTS

In addition to the audits and assistance missions carried out by the Audit and Internal Control Division, which cover certain human rights-related issues, the ethics and human rights-related practices of TotalEnergies' entities are regularly assessed by independent third parties and qualified experts.

The entities are identified in particular according to the level of the risk of human rights violations in each country, the number of alerts received the previous year and the date of the subsidiary's last assessment. These assessments help identify best practices, share them in the Company and recommend areas for improvement. Knowledge and appropriation of the Code of Conduct are tested and reinforced by ethics and human rights awareness-raising sessions. Employees are encouraged to voice their ethical concerns in a confidential manner and report behaviors potentially contrary to the Code of Conduct. These assessments confirmed that the Code of Conduct is well understood by employees.

The ethics and human rights assessments are followed up by action plans within 12 months.

The British company GoodCorporation has assessed more than 150 entities since 2002 with regard to the principles and values enshrined in the Code of Conduct.

In 2023, four ethics and human rights assessments were conducted. They concerned four subsidiaries totaling around 1,800 employees (in Vietnam, Morocco, South Africa and Republic of the Congo). These assessments confirmed that the Code of Conduct has been duly incorporated by the subsidiaries.

The follow-up of the action plans put in place further to the 2022 assessments in the Mexican, Indian and Argentine subsidiaries was also carried out in 2023. It is planned to follow up on the action plan of the Exploration & Production segment subsidiary in Qatar and of the Saft Groupe subsidiary in India in 2024.

In addition, TotalEnergies Global Procurement (TGP) is rolling out a complete supplier engagement and qualification process (refer to point 5.10 of this chapter), which includes an ethics and human rights dimension. A system for the assessment of suppliers by a third-party expert has also been set up on the basis of criteria that measure respect for human rights.

Specific assessments including human rights aspects within certain entities may also take place. For example, in 2023, a representative of the human rights department participated in an audit carried out by the Vetting teams of the Trading & Shipping activities, at the headquarters of the shipowner Amico Società di Navigazione in Rome, in order to ensure that practices on board their vessels, as well as their standards in terms of respect for human rights, comply with TotalEnergies standards.

Standalone human rights impact assessments may also be conducted in addition to the environmental and societal impact assessments in high-risk areas or conflict zones with the support of independent experts. For example, concerning the Mozambique LNG project (26.5%, operator), at the end of 2022, on behalf of the project partners, TotalEnergies entrusted to Mr. Jean-Christophe Rufin, a recognized expert in the field of humanitarian action and human rights, an independent assignment to assess the humanitarian situation in Cabo Delgado, where the project is located. His report, published on May 23, 2023 on the Company's website, highlights the quality of execution of the actions undertaken by Mozambique LNG and their positive impact on the living conditions of local populations and makes recommendations to improve Mozambique LNG's actions in the field. Concerning the populations affected by the development of the Afungi industrial site, the author of the report recommends several avenues for improvement to finalize the implementation of the resettlement plan in the best possible conditions and ensure compensation for those affected in accordance with best practice. An action plan was put in place following these recommendations.

Likewise, in Uganda and Tanzania, in January 2024, Mr. Lionel Zinsou, a personality recognized for his expertise in the economic development of Africa, was commissioned to evaluate the land acquisition program carried out in these countries within the framework of the Tilenga and EACOP (East African Crude Oil Pipeline) projects, as well as the socio-economic development actions accompanying this program. The report on this evaluation should be delivered by April 2024 and its conclusions will be shared with the partners of the Tilenga and EACOP projects.

5.7.1 Respect for human rights in the workplace

The prohibition of forced and child labor, non-discrimination, just and favorable conditions of work, as well as safety, all form part of the principles set out in the Code of Conduct and are developed in TotalEnergies' Human Rights Guide and in the Human Rights Briefing Paper.

TotalEnergies' commitment to human rights in the workplace was demonstrated, in particular, by the signature of various agreements, such as the one concluded in 2015 with IndustriALL Global Union[(1)] for 4 years, regarding the promotion of human rights in the workplace, diversity, health, safety at work and the participation of employees and their representatives in social dialogue. This founding agreement of worldwide social commitments continues to be applied.

In 2021, TotalEnergies initiated a process to assess any discrepancies between direct compensation and the **living wage**[(2)] in all its subsidiaries[(3)]. The result of the studies carried out show that, since 2022, the Company has attained the objective it had set itself, since 100% of employees received direct remuneration at least equal to the living wage in the country or region where they work.

The "human rights in the workplace" e-learning course also raises employee awareness about upholding these rights and the Company's zero-tolerance policy concerning forced labor and child labor.

IN ITS ACTIVITIES

TotalEnergies pays attention to the working conditions of its employees, which are governed by the Company's Human Resources policy and occupational health and safety standards aimed at promoting fair and safe working conditions (refer to points 5.3 and 5.6 of this chapter).

TotalEnergies promotes an inclusive corporate culture aiming at allowing everyone to develop their potential. It excludes all forms of discrimination related to origin, gender, sexual orientation or identity, disability, age or affiliation with a political, labor or religious organization, or membership of a minority.

For many years, TotalEnergies has developed a non-discrimination policy with regard to people with disabilities that focuses on issues related to integration into working life. This policy has resulted in dedicated hiring practices and the promotion of diversity and the advantages it offers for the Company. These issues are coordinated for the entire Company by "Mission Handicap" in the People & Social Engagement department.

In France, TotalEnergies has been a signatory to the LGBT+ (lesbian, gay, bisexual and transgender) commitment charter since 2014. Created by an organization called *L'Autre Cercle*, the charter provides a framework for combating workplace discrimination in France based on an individual's sexual orientation or gender identity. To reaffirm its commitment to inclusion, TotalEnergies re-signed this Charter in 2023. Awareness-raising actions on the topics of sexual orientation and gender identity were taken with employees. An e-learning unit "LGBTQIA+: inclusion at work" is made available to all employees on the training platform. In 2023, a conference was organized on this theme at the global level.

Commitment to fighting any kind of discrimination based on gender and/or sexual orientation

In order to strengthen the Company's commitment to combating all kinds of discrimination based on gender and sexual orientation in the workplace, the Human Rights department and the Human Resources division organized a conference in May 2023 on the inclusion of LGBTQIA+ people in the workplace. Several senior executives from CAC 40 companies were invited to come and share their experience and best practices on this subject within their companies. The main objective of this conference was to make the subject visible and to give free rein to the expression of views. Several hundred employees attended this event in person at the company's headquarter but also online all over the world.

On May 16, 2023, during the International Day Against Homophobia and Transphobia, the Chairman and CEO of TotalEnergies recalled the Company's attachment to respect for others and the principle of non-discrimination, principles enshrined in and protected in the TotalEnergies's Code of Conduct.

In 2017, TotalEnergies published a Practical guide to dealing with religious questions within the Company in order to provide practical solutions to the questions raised by the Company's employees and managers worldwide. It draws on feedback from the experiences of the business segments in various countries and encourages dialogue, respect and listening as ways to find solutions suited to the local context. Many internal and external experts helped draft this document, including representatives of various religious communities. This guide is available in 10 languages and on the intranet site.

(1) International union federation representing more than 50 million employees in the energy, mining, manufacturing and industrial segments in 140 countries.
(2) TotalEnergies relies on the global database provided by the Fairwage Network, which assesses the living wage for a given country or region, based on the typical family size (number of children) and the average number of workers (between one and two per household).
(3) It applies to the so called "périmètre de gestion" i.e., all subsidiaries controlled at more than 50%.

In addition, the Marketing & Services segment carries out awareness-raising activities and reviews of human rights at work, particularly in the service station network. Between 2022 and 2023, nearly 80 service stations spread across eight subsidiaries (Democratic Republic of Congo, Tanzania, Cambodia, Zimbabwe, Jamaica, Côte d'Ivoire, Cameroon, Dominican Republic) were the subject of stock-taking reports on respect for human rights at work, carried out by a specialized company. Awareness-raising sessions, recommendations and action plans were formulated at the end of each assessment. In addition, online self-assessments were sent to members of the subsidiaries' management committees in 2023 allowing them to better identify human rights issues at work. Lastly, in 2023 Marketing & Services continued to deploy clauses relating to respect for human rights and VPSHR clauses, particularly in contracts with service station managers.

Beyond the Company's reporting and internal control system, each year the working conditions of employees of certain subsidiaries identified on the basis of a multi-criteria analysis, are evaluated by GoodCorporation, an independent third party, as part of the Ethics and human rights evaluations.

In the joint ventures that are not operated by the Company, in accordance with the United Nations Guiding Principles on Business and Human Rights (UNGP), TotalEnergies encourages its partners to respect human rights and conform to the highest international standards in this area, not only by including human rights clauses in contracts, but also by raising awareness among representatives in the joint ventures and key personnel (e.g., asset managers) of the importance of respect of this topic.

IN THE SUPPLY CHAIN

The Fundamental Principles of Purchasing (FPP) set out the commitments expected from suppliers in various domains, including human rights in the workplace and safety. A Company directive reaffirms the obligation to annex the FPP or to transpose them in the selection process as well as in the contracts concluded with suppliers of goods or services.

The prevention of risks relating to working conditions, especially forced and child labor in the supply chain, is a major area of concern and one of the Company's commitments. In this context, TotalEnergies is implementing a program of engagement and assessment of its priority suppliers in these fields.

The Company assesses its suppliers in terms of respect for human rights at work through on-site audits carried out by an independent third party (see point 5.10 of this chapter). The Company's objective is to assess the performance of its 1,300 priority suppliers by the end of 2025 in terms of sustainable development (human rights and working conditions, environment and climate) using assessments covering all these aspects. Of these 1,300 priority suppliers, 500 account for approximately 50% of the TotalEnergies' expenditures on goods and services, and 800 have been identified as representing the highest risk in terms of human rights and/or the environment, in view of their business segments and the countries where they operate.

The Company set itself the objective of evaluating 300 suppliers via these on-site audits in 2023 and this objective was achieved. In total, 740 priority suppliers have been audited since 2016. These audits covered 230,000 workers of suppliers in more than 86 countries. Among the 740 suppliers audited since 2016, 171 resulted in verified improvements positively impacting nearly 60,000 workers concerning the right to a weekly day off, access to drinking water on site and overtime pay.

5.7.2 Respect for human rights of local communities

TotalEnergies' operational activities may have impacts on the human rights of local communities, in particular when TotalEnergies obtains temporary or permanent access to their land for projects that may involve the relocation of places of residence and/or economic activities and the resettlement of these populations. In addition, noise and dust emissions and other potential impacts may also have consequences for the livelihood of neighboring communities. Consequently, the access to land of local communities and their right to health and an adequate standard of living are two salient issues for TotalEnergies.

In accordance with internationally recognized human rights standards, TotalEnergies expects from its entities to have a regular dialogue with their stakeholders and make sure that their activities either have no negative consequences on local communities or, if these cannot be avoided, that they limit, mitigate and remedy them.

The solutions proposed in response to the expectations of local communities are coordinated by the societal teams that work in close collaboration with the Human rights department and the legal, safety and environmental teams.

As part of its activities, TotalEnergies promotes dialogue and discussions with human rights defenders, as defined by the United Nations Declaration on Human Rights Defenders.

In 2023, TotalEnergies also faced several sensitive human rights situations in countries where the Company operates.

Free Prior and Informed Consent (FPIC) of the indigenous peoples of Tanzania

East African Crude Oil Pipeline (EACOP) Ltd is a company incorporated to construct and operate a cross-border pipeline that will transport oil from the Tilenga and Kingfisher fields in Kabaale in the Hoima district of Uganda, to the port of Tanga in Tanzania. TotalEnergies is a shareholder of EACOP. Stakeholder engagement is a key activity for this project and quarterly meetings are organized by the dedicated teams in Uganda and Tanzania. These meetings are held in the districts crossed by the pipeline to collect reactions/questions from communities and local authorities regarding EACOP's activities.

EACOP prioritizes respect for the rights of vulnerable ethnic groups self-identifying as indigenous peoples affected by the project – the Maasai, Akie, Barabaig and Taturu – including the right to free, prior and informed consent where applicable under the IFC (International Finance Corporation) performance standards, and works proactively towards this end. In this context, traditional leaders of these vulnerable ethnic groups and EACOP formalized their agreement for this project by signing the EACOP Plan for Vulnerable Ethnic Groups self-identifying as Indigenous Peoples. EACOP also signed an agreement with Akie community leaders, the first of its kind in Tanzania, in July 2022. Another agreement was signed with the Tarturu community in March 2023., and a last one with Barabaig community in January 2024.

Mozambique LNG: our ongoing commitment to our stakeholders

Since 2022, regarding the promotion of respect for human rights within the framework of the Mozambique LNG project, emphasis has been placed on raising awareness and training of project team staff and on strengthening dialogue with the various stakeholders in the country.

In this context, in 2023, more than 150 people, including civil society representatives as well as TotalEnergies and contractors' employees involved in the project's socio-economic activities, took part in the training sessions held in Maputo and in Cabo Delgado province (in Pemba and on the Afungi site). Workshops to raise awareness and promote dialogue and exchange of good practices with government representatives, civil society organizations (NGOs) and international organizations (UN) were also organized during these sessions.

5.7.3 Respect for human rights in security-related activities

In certain situations, intervention by government security forces or private security companies may be necessary to protect TotalEnergies' staff and assets. In order to prevent any misuse of force, TotalEnergies is committed to implementing the Voluntary Principles on Security and Human Rights (VPSHR) issued by States, NGOs and extractive companies.

TotalEnergies has been a member of this initiative since 2012. Within this framework, the Company publishes an annual report setting out the challenges, lessons learned and good practices in relation to security and human rights and, if applicable, reports any incidents associated with the Company's activities. This report is available on the VPSHR Initiative website and on the TotalEnergies website.

A Company rule came into effect in 2019 to define the Company's requirements for implementing the VPSHR. This rule is accompanied by a VPSHR implementation guide published in late 2020, which aims to provide practical advice for operating entities. The self-assessment and risk analysis tools in this field were revised in 2022 to make them more adaptable to the local situation. In 2023, these tools were rolled out in the subsidiaries in 98 countries.

When government security forces are deployed to ensure the protection of the Company's staff and assets, ongoing dialogue is maintained with the representatives of national or regional authorities in order to raise their awareness of the need to respect the VPSHR and encourage them to sign memoranda of understanding that comply with these principles.

The Company promotes these principles and the VPSHR requirements to the private security companies it hires in connection with its activities. These companies incorporate them, for example, through the training provided to security staff on the VPSHR.

TotalEnergies regularly organizes VPSHR training sessions and awareness-raising initiatives for its employees, in particular to encourage them to report any incidents related to these principles. Specific awareness-raising work on compliance and deployment in the entities considered to be most at risk is carried out annually. The contribution of the subsidiaries to the annual "ADRA Campaign" *(Auto-Diagnostic and Risk-Assessment)* enables the VPSHR teams of the Security division to assist them with improvement actions throughout the year.

In 2022, this awareness-raising work led the VPSHR liaisons to continue the revision the content of the training courses in order to make them more accessible and better adapted to changes and issues related to human rights and security. This improvement was made mainly by developing a new online training module for the Country Security Officers, who support Country Chairs in their role of being responsible for the Company's security at country level and who are the representatives of the Company Security division in charge, among other things, of implementing the VPSHR.

In 2023, several field missions were carried out by the Security department:

– in Kenya, within the Marketing & Services business segment in June 2023. On this occasion, VPSHR training sessions were provided to more than 300 people bringing together members of the management committee, service station managers, territorial managers as well as staff from various private security companies. The sessions included scenarios in order to clearly identify the action to be taken in the event of a VPSHR incident. For optimal understanding of the posters which are produced as part of these actions, the targeted messages are displayed in both English and Swahili. Gender-related issues in the context of security operations were also the subject of a module in the training sessions offered;
– in Uganda, an awareness and training mission on VPSHR risks for more than 300 people was carried out in September 2023 in Entebbe, Kampala, and on several operational sites of the Company. This mission made it possible to strengthen the promotion of VPSHR already carried out by local teams among the staff of various private security companies, in particular a training school, as well as among the various government security forces. The sessions focused mainly on international standards on respect for human rights in security operations, the sensitive approach to gender and vulnerable groups, the use of force and the management and reporting of VPSHR incidents;
– in Nigeria, more than 300 people participated in training sessions organized in October 2023. These were mainly intended for government security forces, private security companies as well as local teams through "Train-the-Trainers" sessions. These sessions also included a module on the sensitive approach to gender and vulnerable populations in the context of security operations.

5.8 Fighting corruption and tax evasion

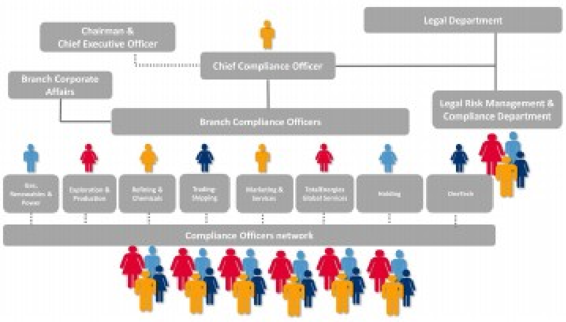
5.8.1 Fighting corruption

TotalEnergies is a major player in the energy sector, where public authorities regularly play a role and where the amounts invested may be very high. In addition, the Company is present in about 120 countries, some of which have a high perceived level of corruption according to the index drawn up by Transparency International. Aware that it is highly exposed to the risk of corruption, TotalEnergies applies a principle of zero tolerance.

To prevent risks of corruption, TotalEnergies has implemented a robust and regularly updated anti-corruption compliance program. The aim of this program is to promote a culture of compliance and transparency, which is key in ensuring the sustainability of the Company's activities. Failure to comply with such legislation such as the U.S. Foreign Corrupt Practices Act and the French law on transparency, the fight against corruption and the modernization of the economy, is likely to expose the Company to a high criminal, financial and reputation risk, as well as the enforcement of measures such as the review and reinforcement of the compliance program under the supervision of an independent third party.

The commitment of the entire Company and the efforts undertaken are unrelenting in order to ensure the sustainability and continuous improvement of the anti-corruption compliance program, which the U.S. authorities deemed to be appropriate in 2016, thus putting an end to the monitorship that was introduced in 2013. In June 2022, the Company received the final report prepared by the French Anti-Corruption Agency (AFA) following the control initiated by the Agency late 2020. This report, which confirmed for the Company the overall quality of the Company's program and its maturity, also made recommendations for its improvement. The Company drew up a dedicated action plan to respond to the recommendations of the AFA, the implementation of which was finalized in 2023.Its implementation is subject to a continuous monitoring and control process.

This compliance program is drawn up by a dedicated organization acting at the Company and business segment levels, namely the Compliance and Legal Risk Management Department, headed by the Chief Compliance Officer, and the Branch Compliance Officers. They coordinate a network of approximately 370 Compliance Officers in charge of rolling out and running the program at the subsidiaries level. This structured organization lies in close proximity to operational activities while having its own dedicated reporting line.



TotalEnergies' anti-corruption compliance program is based primarily on the following seven pillars: management commitment or "tone at the top", risk assessment, adoption of internal standards, awareness raising and training of employees, feedback of information, including the whistle-blowing system, mechanisms for assessing and monitoring implementation of the program, and imposition of disciplinary sanctions in the event of misconduct.

5.8.1.1 Management commitment

The constant high level of commitment by the General Management is reflected by the principle of zero tolerance for corruption that is clearly set out in the Company's Code of Conduct. Managers have a duty to lead by example and are responsible for promoting a culture of integrity and dialogue. This commitment is also expressed in regular statements made by the Chairman and Chief Executive Officer on this subject, as well as through large-scale communication actions, such as the annual Business Ethics Day organized on the occasion of the U.N.'s International Anti-Corruption Day and Human Rights Day. In December 2023, the ninth Ethics Day was devoted to "Speak-up" and the description of the procedure for handling alerts. An online presentation was made by the General Manager of the Marketing & Services segment, and a round-table discussion was organized with the Chairwoman of the Ethics Committee, the Company's Chief Compliance Officer and the Vice President of the Human Rights Department. The Ethics Day was preceded by a poster campaign aimed at reiterating the importance of this whistleblowing system and its use by the employees of the Company.

The commitment of the management bodies is also expressed externally by TotalEnergies' joining anti-corruption initiatives and supporting collaborative and multi-party approaches. TotalEnergies joined the Partnering Against Corruption Initiative (PACI)[1] in 2016, thereby adhering to the PACI Principles for Countering Corruption. The Chairman and Chief Executive Officer of TotalEnergies SE became a member of the PACI Board in 2018 and subsequently Co-Chairman of the initiative at year-end 2019. TotalEnergies is also a member of other initiatives that contribute to the global effort against corruption, such as the U.N. Global Compact since 2002 and the Extractive Industries Transparency Initiative (EITI)[2] since its launch in 2002.

(1) Launched in 2004 within the World Economic Forum, PACI now numbers approximately 90 major corporations and forms a platform for discussion for business leaders and governmental and non-governmental organizations, allowing them to share their experiences and ideas and develop best practices.
(2) The EITI brings together representatives of the governments of the member countries as well as representatives of civil society and business in order to strengthen transparency and governance with regard to income from oil, gas and mineral resources.

5.8.1.2 Risk assessment

To regularly adapt the compliance program to the risks to which TotalEnergies is exposed, these must first be identified and assessed. In addition to the Company's risk mapping, which includes the risk of corruption, specific corruption risk mapping is produced on the basis of a methodology formalized in a rule adopted in early 2020.

This rule provides for two-tier mapping: that of entities coordinated by the Compliance Officer and that of business segments coordinated by the Branch Compliance Officers. At the business segment level, the assessment needs to examine the main types of risk (purchasing, sales, conflicts of interest, gifts and hospitality, human resources, representatives dealing with public officials, mergers and acquisitions, joint ventures, donations and sponsoring, and influence peddling). This two-tier analysis is aimed at establishing action plans that are appropriate to the risks identified and the realities on the ground. In addition, on the occasion of the assessment of the risks of corruption, tools are made available to employees to help them identify these risks more easily, and produce the corresponding mapping, such as the Typology Guide to risks of corruption and the Methodology Guide to the mapping out of the risks of corruption and influence peddling, published for the latter at the end of 2022. To manage the risks identified during the creation of the risk maps, measures are then put in place and specific rules regularly adopted and incorporated into the Company's reference framework.

In accordance with the rules in place, the Chief Compliance Officer presented a summary of the mapping of the various business segments to the TotalEnergies Risk Management Committee (TRMC) for the first time in 2021. The same presentation was provided by the Chief Compliance Officer to the Executive Committee in October 2021. In application of this same rule, all business segments have relaunched this mapping exercise from the end of 2022. In 2023, the current risk mappings for all segments were reviewed. A synthesis of these mappings was presented by the Chief Compliance Officer to the TRMC in December 2023.

5.8.1.3 Internal standards

As an essential element of the Company's reference framework, the Code of Conduct sets out the behavior to be adopted, in particular with regard to the question of integrity. It prohibits corruption, including influence peddling, and advocates zero tolerance in this area. In 2022, it contained even more specific examples of the risks of corruption to which the Company's employees may be exposed.

The Code of Conduct is complemented by a regularly updated set of anti-corruption standards. This set applies to all companies controlled by the Company in accordance with their respective decision-making rules and subject to the legal and regulatory provisions applicable locally. The Anti-Corruption Compliance Directive recaps the main principles and organizes the roll-out of the anti-corruption program. It deals, among others, with commitment, training and awareness raising, accounting and bookkeeping, the assessment system and whistle-blowing mechanisms. This directive is complemented by rules that deal with more specific subjects in order to prevent the various risks identified.

In terms of anti-corruption due diligence, the deployment of the computerized supplier prequalification tool, which includes the due diligence process resulting from the single rule adopted in 2020, is continuing. A complementary tool was introduced in 2023 to strengthen the supplier assessment process. Due diligence involves collecting information, identifying any risks of corruption and taking the appropriate mitigation measures. This process is performed by the relevant business people with support from their Compliance Officer, who may call on the Branch Compliance Officer. Particular attention is paid to representatives (agents or others) dealing with public officials for whom the applicable internal rule specifically provides for mandatory due diligence and monitoring by operational staff of contractual relationship with such third parties, which may include the verification of invoices, the control of activity reports or the organization of audits. In addition, the Company has an internal governance system that allows the various business segments to manage, in a uniform and cross-functional manner, the specific case of third parties that would be rejected after due diligence.

Following the adoption in 2020 of a rule to address the recording and accounting of expenses covered by anti-corruption compliance rules, two guides were published in the summer of 2021 for the accounting and compliance functions.

Other standards deal with high-risk areas, such as gifts and hospitality, which have to be registered and approved by the line manager above given thresholds; conflicts of interest, which must be reported to the line manager and addressed; anti-corruption measures implemented within joint ventures; as well as human resources-related processes such as recruitment which, at the end of 2023, led to a new specific rule formalizing minimum requirements for the implementation of Anti-Corruption Compliance Programs by human resources functions.

In general, internal standards are amended to take the regulatory and legislative changes applicable to TotalEnergies into account.

5.8.1.4 Awareness raising and training

Awareness raising actions are carried out toward all employees. The TotalEnergies intranet contains a section on the fight against corruption which provides employees with various media, e.g. the internal standards and guides such as the booklet entitled "Prevention and fight against corruption". A new poster campaign of the key messages in high-risk areas (such as gifts and invitations, accounting controls and third-party assessments) was organized in 2022.

Following the online training on anti-corruption in 2011 (season 1), then in 2015 (season 2), which enabled more than 82,000 employees to be trained by the end of 2022, the Company launched a new online training course in mid-2022 (season 3). This training course, which is mandatory for the target populations (approximately 37,000 employees), replaced the two previous seasons. This new training course is based on the assignment of a profile specific to each learner (from beginners to experts), which is determined on the basis of their answers to the questions asked in the introduction to the training course. The profile specific to each learner then allows them to follow the modules best suited to their needs.

At the beginning of 2022, the Executive Committee reviewed all of the online training courses available, particularly in the field of anti-corruption and anti-fraud compliance, and determined the functions deemed to be the most exposed (such as Purchasing and Human Resources) to the risk of corruption. For these populations, more targeted training is provided, either by the Compliance teams of the Company or the segments or by the Compliance Officers.

In 2023, trainings via webinars were provided to the populations within the eight business functions identified by the Executive Committee as the most exposed to the risk of corruption. These training courses, concerning around 18,000 identified employees, are scheduled to run until the end of 2024.

Regarding the anti-corruption and anti-fraud Compliance network, several online and on-site training sessions are organized each year for the Compliance Officers. The Branch Compliance Officers also benefit from annual training days on specific topics.

5.8.1.5 Feedback of information

Information is mainly escalated as part of an annual reporting process, for which the Company deployed a new dedicated internal tool in 2022. This is performed by the Compliance Officers, reviewed by their Branch Compliance Officer and sent to the Chief Compliance Officer. This reporting helps monitor the roll-out and implementation of the anti-corruption program, through quantitative indicators on key elements of the program, such as the number of training courses or due diligences performed.

The consolidated data resulting from this reporting, which reflects the results of the implemented policies, is presented once a year to the Executive Committee and the Board of Directors via the Governance and Ethics Committee. This presentation provides an opportunity to report the results of the actions undertaken at the very highest level and to review the road map aligned with the identified areas of improvement.

In addition, TotalEnergies takes actions in order to develop a speak-up culture and asks its employees to report any situations that they consider to be contrary to the Code of Conduct. This culture is encouraged by regular communication on the rule adopted in late 2020, which formalized the procedure for collecting integrity alerts (corruption, fraud and influence peddling). This rule expressly provides that no disciplinary sanction, nor any direct or indirect discriminatory retaliatory measure, may be taken against the whistleblower, as long as it is made in good faith, and this even in the facts subsequently turn out to be inaccurate or unfounded, and/or not to give rise to any proceedings or sanctions. This rule, combined with the one also adopted in 2020 and revised in 2023 by the Ethics Committee concerning the collection and processing of reports, covers all situations or behaviors likely to be contrary to the Company's Code of Conduct and highlights the enhanced protection granted to whistleblowers.

In this respect, echoing this Code, the rule adopted at the end of 2020 by the Anti-Corruption Compliance recalls the various existing alert channels: each employee can therefore contact any manager, Human Resources, the Compliance Officers or Ethics Officers, or the Ethics Committee, depending on what seems most appropriate. The Ethics Committee is responsible for ensuring compliance with the Code of Conduct. Its Chairperson, who reports to the Chairman and Chief Executive Officer of TotalEnergies SE, presents an annual report on Ethics to the Governance and Ethics Committee of the Board of Directors.

Both employees and third parties can refer to this Committee by writing to ethics@totalenergies.com. TotalEnergies does not tolerate any retaliation measures or discrimination toward anyone submitting a report in good faith and undertakes to respect confidentiality.

5.8.1.6 Assessment and monitoring

The anti-corruption program is monitored at the first level by business people, as well as their line managers and the Compliance Officers who are in charge of ensuring the day-to-day implementation of the rules. At the second level, controls are performed by the Compliance function, in particular through assessment missions (referred to as compliance reviews) that are undertaken by a dedicated team within the TotalEnergies Compliance and Legal Risk Management Department. These second-level assessment missions are carried out by an internal team reporting to the Chief Compliance Officer, accompanied by lawyers and external service providers specializing in financial and accounting data analysis. Each year, around twenty of these missions are carried out on the subsidiaries deemed to be most exposed to the risk of corruption on a multi-criteria basis (Transparency International index, date of the last assessment mission, possible incidents in particular). In addition, the Audit and Internal Control Division performs an annual off-site inspection to verify the quality of the reporting performed by the Compliance Officers, as well as missions to check the self-assessment by the entities subject to the Sarbanes-Oxley regulations of their internal control framework. At the third level, this division also helps monitor the anti-corruption program through audits called "assurance audits" performed in particular according to a framework that includes compliance topics. The controls performed in this context by the Audit and Internal Control division are selected on the basis of the results of the risk analysis it carries out prior to each assignment. The controls carried out may relate in particular to the assessment of third parties, the mapping of corruption risks or the disciplinary system. This system is described in full in a guide on control of implementation of the anti-corruption program published in late 2020, which requires the adoption of an "Anti-Corruption Control Plan" (ACCP) within each business segment. This guide was reviewed at the end of 2022 and published at the beginning of 2023, in particular to supplement the examples of tests that may be carried out as part of the ACCP.

5.8.1.7 Disciplinary action

In line with the principle of zero tolerance and in application of the Code of Conduct and the Anti-Corruption Directive, any infringement of the anti-corruption standards must give rise to disciplinary action, up to dismissal. TotalEnergies' resolve in this matter is repeated in communication media intended for employees as well as on the intranet. This resolve, which results from management commitment, contributes, with the other pillars described above, to the robustness of the anti-corruption compliance program. In 2023, the Company recorded around 200 integrity incidents (covering fraud - excluding attempts -, corruption or influence peddling) which led -where established and one or more Company employees were involved- to nearly 130 sanctions, up to and including dismissal.

5.8.2 Fighting tax evasion

With a presence in about 120 countries, the Company carries out its operations in a constantly changing environment and is subject to an increasingly complex set of tax regulations which may raise risks related to their articulation and their interpretation.

In this context, TotalEnergies has developed a responsible tax approach based on clear principles of action and rigorous governance rules as set out in its tax policy statement, which is available to the public on the website of TotalEnergies.

TotalEnergies publishes a tax transparency report on its corporate website which discloses detailed information on the taxes paid in its main countries of operation, in order to provide its stakeholders with a better understanding of the Company's tax position pursuant to the recommendations of the Global Reporting Initiative and the World Economic Forum.

Tax Policy of the Company

Tax payments of TotalEnergies represent a substantial part of its economic contribution to the countries in which it operates.

Mindful of its responsibility, the Company is committed to paying its fair share of taxes to the host countries of its operations, in compliance with applicable laws and conventions and in accordance with its Code of Conduct.

The structuring of our investments worldwide is driven by our business operations and the regulatory framework.

Our tax policy's prime focus is certainty and sustainability in the long term. We thus believe that artificial or aggressive tax planning mostly derives short term tax benefits and is not compatible with a sustainable approach.

We apply the arm's length principle for the determination of our intercompany transfer prices and we pay our income taxes in the countries where we create value, in compliance with applicable laws and regulations.

It is the Company's long-term commitment not to create affiliates in countries generally acknowledged as tax havens and to repatriate or liquidate existing affiliates, where feasible.

Government authorities may offer tax incentives to support business sectors, create employment or foster their economic development. The Company may only claim incentives that are aligned with its business strategy, relate to investments with genuine economic substance and meet the requirements set by host countries.

The Company takes a responsible approach to the management and control of taxation issues, relying on well-documented and controlled processes.

The management of tax risks is fully integrated in the Company's global risk governance process. As part of this process, the VP Tax, under the authority of the Chief Financial Officer, oversees the implementation of the tax policy and reports on a regular basis to the Board's Audit Committee on TotalEnergies' tax position. The tax function is made up of a network of qualified and regularly trained in-house tax experts at the corporate level, in the business segments and in the affiliates.

Transparency is an essential factor in building a trust-based relationship with our stakeholders. As a permanent member of the Extractive Industries Transparency Initiative (EITI) since its formation in 2003, TotalEnergies fully supports initiatives for greater transparency and accountability. We encourage governments to ensure that the tax reporting obligations they will impose upon multinational groups are consistent, coordinated and proportionate.

We engage with a broad range of stakeholders, and especially with tax authorities, in a timely, transparent and professional manner which is the basis of a constructive and long-term relationship. In France, the country of its headquarters, TotalEnergies has been part of the cooperative compliance program upon its inception in 2019, thus pursuing greater transparency, dialogue and trust in its relationship with the French tax administration.

As regards advocacy relating to tax matters, TotalEnergies follows the rules set forth under its Code of Conduct and its Advocacy Directive, both available to the public on the Company's website. The Company is committed to fighting any form of corruption and does not intervene in the functioning or financing of the political life in its host regions. It undertakes to convey messages to the authorities that are consistent with its stated positions and strategies and to be transparent about such messages, whether they are positive or defensive, notably with regard to the Company's support for the objectives of the Paris Agreement relating to the fight against climate change.

The Company publishes in its Universal Registration Document an annual report covering the payments made by its extractive affiliates to governments and the full list of its consolidated entities, together with their countries of incorporation and of operations. The Company also issues a tax transparency report, which provides additional information on the taxes paid in its main countries of operations on a country-by-country basis. This report aims to offer more detailed information on the Company's tax position.

In compliance with its goal to foster a global responsible tax environment and encourage best practices, the Company endorsed the Responsible Tax Principles developed by the B Team, a non-profit organization bringing together business leaders and representatives of civil society with the aim of promoting a sustainable form of economic and social development.

The present tax policy is included in the Company's Universal Registration Document. It is reviewed by the Audit Committee and approved by the Board of Directors.

5.9 Value creation for host regions

Based on the values and principles formally set out in its Code of Conduct and Safety Health Environment Quality Charter, TotalEnergies strives to be an agent of positive change for society, and to contribute to its development through its societal actions. At a national level, the Company's activities generate value for the countries where it operates, and TotalEnergies intends to contribute to the development of economic opportunities for its host regions and communities. At a local level, the Company's activities can be a source of opportunities for the people but may also have an impact on the living conditions of local communities and residents. Furthermore, in order to address society's global challenges, the Company is committed to the public interest.

In this context, the Company has identified its main risks and opportunities with regard to creating and sharing value:

- fostering the economic development of the territories where the Company is present;
- managing societal challenges related to the Company's activities;
- engaging in citizenship initiatives.

5.9.1 Fostering the economic development of host regions

RECRUITING LOCAL PEOPLE AND SUPPORTING THE DEVELOPMENT AND CREATION OF LOCAL BUSINESSES IN HOST COUNTRIES

In addition to contributing directly to job creation in the countries where the Company operates (refer to point 5.6), TotalEnergies is committed to recruiting local people and subcontractors whenever its operational constraints so permit.

For each industrial project presented to the Executive Committee in accordance with the investment thresholds, TotalEnergies sets itself the target of maximizing local employment and value creation for the host country through procurement, manufacturing and the development of local capacity and skills. New renewable energy projects, in particular offshore wind projects, are gradually integrating this methodology in order to contribute to the development of new industrial sectors and local employment.

The methodology involves an **analysis of the local context** in terms of regulations, stakeholder expectations and local economic and industrial capacities. Based on this analysis, depending on the needs of the project and future operations, existing local capacities, those requiring development support and those not available are determined. The analysis is complemented by working sessions with key suppliers to gather their views on how to mobilize and develop local content.

This approach makes it possible to define a strategy for developing local content during the construction phase of the project and in operation. During the construction phase, the strategy incorporates objectives and actions relating to vocational training and support for local businesses. During the construction phase and in operation, key suppliers and their subcontractors are selected if they meet or exceed the local content targets set in the tenders. In order to monitor the achievement of the targets, suppliers and their subcontractors are required to submit a detailed report on their achievements (employment, use of local subcontractors, investments and initiatives in skills development and support to local businesses), which serves as the basis for calculating the impact on employment and local value created.

This approach was notably deployed for the Tilenga projects in Uganda and EACOP in Tanzania.

The following results are expected from this approach on the Tilenga project:

- the creation of approximately 7,800 direct local jobs during the construction phase, of which 60% technicians, 25% workers and 15% managers and engineers, stabilizing at around 3,000 during the operational phase;
- the creation of approximately 14,000 indirect local jobs during the construction phase, then approximately 5,000 during the operational phase. A significant portion of these indirect jobs are expected to be created in the project area (Buliisa);
- the delivery of 1.1 million hours of training by the Company and its contractors;
- spending of approximately $700 million with local suppliers during the construction phase, which is expected to generate up to $1.2 billion in additional national economic wealth. During the operational phase, the site is expected to spend approximately $60 million per year with its suppliers, which is expected to generate approximately $100 million in national economic wealth.

At end 2023, the projects employ more than 1,200 Uganda and 3,200 Tanzania nationals. Since their inception, the cumulated man-hours by nationals (Uganda and Tanzanian) have reached 11.3 millions, or 92% of the total man-hours on these projects.

This approach is being developed, for the Ratawi project in Iraq and the PNG project in Papua New Guinea.

Since the validation of the new Sustainable Procurement program in January 2022, the management of local content and the sharing of value with the host countries in which TotalEnergies' projects are carried out has been at the heart of the Company's Responsible Purchasing approach (refer to point 5.10). In this context, a local content roadmap has been deployed and should make it possible to harmonize and strengthen the local content strategies of TotalEnergies' projects and subsidiaries.

ANCHORING OUR TRANSITION STRATEGY WITH REGIONAL PLAYERS AND WITH A VIEW OF JUST TRANSITION

In **France**, TotalEnergies shares the ambitions of its transition strategy with its local public and private stakeholders, builds links with them, encourages dialogue focused on the territories, forms partnerships with the regions and conurbations, integrates itself into the territories by participating in certain regional bodies as close as possible to regional decision-makers and supporting its transition by involving the Company's segments. The challenge is above all to establish a territorial dialogue on the issues of energy, economic development, heritage and the integration of young people.

In each region, since 2022, think tanks enable dialogue with stakeholders on regional issues linked to energy and the energy transition (acceptability of renewable energies, skills, sobriety, technological issues, energy choices, just transition, etc.). The meetings held in 2022 and 2023 brought together more than 500 participants and produced recommendations and actions which were published by region and shared with stakeholders.

Several declarations of cooperation have been signed with conurbations such as those of Nice Côte d'Azur in 2021, Toulouse in 2022 and with the Grand Est Region in 2023 in order to share the challenges of these territories in their energy transition and their economic development. In 2023, two partnership agreements were also signed with Régions de France, the association representing all French regions, and with ACCD'OM, the Association of Overseas Communes and Communities. TotalEnergies has also entered into a partnership with the FNSEA (umbrella organization representing local agricultural unions and regional federations) to move forward together for the decarbonization of the agricultural world.

Supporting the reconversion of the Company's industrial sites with a view of just transition and support for the energy transition is another aspect of its responsible anchoring in the territories. This reconversion takes into account market developments in order to restore, in the long term, competitiveness to industrial sites and is part of the energy transition. Thus, the subcontractors of these sites are supported in setting up training and repositioning the skills of their employees in particular toward the new specialties of the energy transition. Support can be offered to employees in their personal business creation projects. Projects led by other industrialists can be supported and subsidized in order to facilitate the establishment of new industrial units. A Voluntary Agreement for Economic and Social Development (CVDES) is implemented to support the site and its ecosystem (subcontractors, stakeholders, etc.) during this period of change. In this way, TotalEnergies reaffirms its responsibility toward the employment basins in which the Company operates as well as its commitment to maintaining a strong and lasting industrial presence.

- On the **Carling** industrial platform, the CVDES (Voluntary Agreement for Economic and Social Development) relating to the shutting down of the second steam cracker was ended in 2018 with a final commitment of €12 million in grants from TotalEnergies for four industrial projects representing €125 million of investment and 143 jobs planned.
- The reconversion of the **La Mède** refinery has been completed, with the start-up of an 8-MW solar power plant in 2018 and the biorefinery in July 2019. The La Mède CVDES closed in March 2021 with support for 8 industrial projects and 3 industrial demonstrators representing 300 planned jobs.
- On the **Lacq** platform, a specific unit of TotalEnergies researches and examines third-party industrial projects that could join the platform in partnership with the Nouvelle-Aquitaine region, the Pau-Béarn Chamber of Commerce and Industry (CCI), the Chemparc public interest grouping, the Lacq-Orthez district authority and Sobegi. The green chemistry unit of Alpha Chitin (investment of €14 million and 20 jobs created for the first phase) is operational. At the end of 2021, the Caremag project for the recycling of rare earths from permanent magnets present in electric motors and the separation of heavy rare earths announced its establishment in the Lacq area. Caremag now plans to invest €170 million and create more than 90 jobs. In 2023, Elyse Energy confirmed its decision to implement its e-methanol project in the Lacq area and plans to invest €400 million and create 60 jobs. The coordinated resources of local players, including TotalEnergies, have enabled the creation of new sectors of the future linked to the energy transition on the site.
- On the **Grandpuits** platform, TotalEnergies is supporting the project to convert the site into a "zero-oil" platform as announced in September 2020 and representing a planned investment of €500 million. The Grandpuits platform will have four major activities: SAF, biomethane, the mechanical and chemical recycling of plastic waste and the production of photovoltaic energy and its storage in batteries. The CVDES between the public authorities and TotalEnergies has a budget of nearly €5 million dedicated to supporting the Grandpuits and Gargenville employment areas and, in particular, subcontractors and the creation of new industrial jobs, as well as economic support for regional SMEs with a view to a just transition.

Finally, TotalEnergies supports the creation or maintenance of sustainable jobs in France by granting loans to SMEs, particularly those with projects that contribute to the ecological and energy transition. Between 2021 and 2023, loans were granted to 383 SME projects, amounting to a total of €14.7 million, and over 10,000 jobs were supported.

5.9.2 Managing societal challenges related to the Company's activities

5.9.2.1 A structured operational societal approach

The Company integrates societal issues into the conduct of its operations through its One MAESTRO reference framework (see point 5.3 of this chapter). Guides, manuals, video tutorials and a community of practices, available online to all TotalEnergies' subsidiaries, help them implement their operational societal approach, which is adapted to the specific local requirements of the regions and communities. The main steps in this process are

- dialogue and involvement of local stakeholders;
- the analysis of the challenges and local societal context;
- the development of a societal strategy integrated with operations;
- the implementation and monitoring of societal actions and projects;
- the implementation of a complaints management system.

DIALOGUE AND LOCAL STAKEHOLDER INVOLVEMENT

TotalEnergies promotes dialogue with local stakeholders to develop constructive and transparent relationships with them. To this end, TotalEnergies' One MAESTRO framework requires subsidiaries to engage in a structured, regular dialogue with their stakeholders to inform them, listen to them and take their concerns and expectations into account. It also requires subsidiaries to report on actions to avoid, reduce or offset negative impacts, and to measure stakeholder satisfaction and identify areas for improvement. TotalEnergies acknowledges the specific rights of Indigenous and tribal peoples (International Labor Organization Convention No. 169) and has developed a framework which defines principles to be followed with these communities. It encourages the use of experts in order to identify and understand these peoples' expectations and specificities, to consult them and to contribute to their socio-economic development. This initiative is also consistent with the United Nations Guiding Principles on Business and Human Rights.

In the Refining & Chemicals segment, refineries and petrochemical sites put consultation with stakeholders at the heart of their ongoing improvement strategy and are all ISO 14001 certified. Local structures for dialogue have been set up, such as Community Advisory Panels in the United States and specific local committees for certain European platforms (e.g. Feyzin neighbors' conference, La Mède neighbors' meetings and Donges residential committee).

Marketing & Services has developed stakeholder engagement tools which are adapted to the diversity of its businesses (industrial sites, commercial activities, road transportation and service stations) which can be easily adapted in a wide variety of contexts and regions.

For Exploration & Production projects, dialogue is initiated from the exploration phase, even when TotalEnergies does not have permanent teams on site. Each subsidiary or project develops an engagement plan with stakeholders describing a process for transparent dialogue, as well as the timetable and means of ensuring its implementation. A network of Community Liaison Officers (CLOs) has been rolled out on the ground covering most of the projects to provide information to and consult with neighboring communities, authorities and other local stakeholders, with a particular focus being paid to vulnerable groups. Employed by TotalEnergies, they speak the local languages and understand local customs. Their role is crucial for establishing good relations between TotalEnergies and its stakeholders.

In the Integrated Power segment, a voluntary consultation and agreement process is implemented for new projects. For sites already in operation, educational visits are organized with key stakeholders, such as elected officials, farm owners and students from schools in the regions where the operations are located.

For example, in 2023:

- Integrated Power:
  - in France, TotalEnergies Renouvelables France regularly carried out consultation actions as part of its projects. In November 2023, the Rembercourt wind farm won the Participation and Consultation trophy, an event organized since 2016 by the "Decide Together" organization and the Gazette des Communes. The 36 MW Rembercourt wind farm was created thanks to a process of information and close consultation with elected officials with the production of a docu-drama film and an educational tour retracing the history of the site and the battle;
  - in Angola, where the Quilemba solar energy project (35 MW) is being developed, a public consultation process was carried out as part of the environmental and social impact assessment studies, as well as for the associated action plan.
- Marketing & Services:
  - on the African continent, Marketing & Services deploys the SRM+ (Stakeholder Relationship Management) methodology, adapting it to the specific features of the network of service stations in order to further anchor TotalEnergies in the life of the surrounding community. Based on the recommendations of a panel of managers and the expectations of their stakeholders, initiatives are rolled out at all a country's service stations, promoting the economic development of local residents: for example, support for local SMEs by listing their products in shops, local recruitment and solidarity initiatives;
  - in France, TotalEnergies Marketing France tested the relevance of its sustainable development approach by interacting with around forty key stakeholders to identify their expectations and capture their opinions on the 12 areas of work developed by the subsidiary.
- Exploration & Production:
  - in Argentina, as part of the dialogue plan for the Offshore Fénix project including a wind farm in Tierra del Fuego, 31 meetings were held to explain the project, the impact study and the planning of activities, including site visits, workshops and consultations (online and public) to obtain feedback from stakeholders;
  - in Angola, the societal team of the Exploration & Production subsidiary carried out a mapping of the coastal populations and fishing communities of the North coast, with the help of external experts. The objective of this study was to initiate a dialogue with these communities who may be impacted by its operations to make them aware of the risk of fishing in the areas of our operations. Another aspect was to collect socio-economic data to understand their livelihoods and the impact related to access restrictions to certain maritime areas;
  - in Papua New Guinea, the Exploration & Production subsidiary maintains an intense dialogue, with more than 2,595 meetings held in 2023, mainly with communities and traditional authorities neighboring its operations.
- Refining & Chemicals:
  - in Belgium, the Antwerp platform (Refining & Chemicals segment) deployed the SRM+ methodology. In this context, the Antwerp platform consulted 21 of its main local stakeholders: authorities, suppliers, professional organizations and civil society. The main conclusions of this exercise were shared with the platform's stakeholders and an action plan was identified around three main themes: fluidity of the relationship with stakeholders, information and communication and spirit of initiative;
  - in France, in the context of its transformation into a zero oil platform, the Grandpuits platform (Refining & Chemicals segment) regularly organizes school and university visits. In 2023, 21 events and 45 site visits were organized. In particular, the platform welcomed students from the University of Delft (Netherlands) in January, engineering students from the Ecole Nationale Supérieure de Techniques Avancées (Paris) in April and 3 classes of middle school students in November as part of the carbon neutrality Forum organized by the town of Provins. On the program for these visits: discussions on the transformation of the Company and its multi-energy strategy, and visit to the Grandpuits platform, symbol of this transformation.

ANALYSIS OF CHALLENGES AND SOCIETAL CONTEXT

The assessment of societal risks and issues is a key element in the evaluation of the feasibility of a project. An assessment of the societal risks and challenges is thus one of the criteria for making investment, acquisition and divestment decisions concerning projects presented to the Company's Risk Committee.

When the decision is taken to develop a project, this assessment is complemented by a **detailed baseline study** to identify in advance the stakeholders potentially affected, describe the local context and assess the main socio-economic and cultural stakes (risks and opportunities) in the affected area. A **societal impact assessment** is then conducted to assess and analyze the opportunities and the direct, indirect or cumulative impacts of the project in the short, medium and long term. In 2023, 61 of these studies were initiated or carried out. In the operations phase, the One MAESTRO standard requires that a regular assessment of the societal context and issues be carried out by the subsidiaries and updated at least every five years.

In the development and operational phases of the project, context analysis is based largely on mapping and consultation with stakeholders such as authorities, neighboring communities, economic operators and civil society. The analysis of societal risks takes into account the sensitivity of the socio-economic environment and the severity of societal impacts related to the activities, including on human rights.

DEVELOPMENT OF A SOCIETAL STRATEGY INTEGRATED INTO OPERATIONS

The TotalEnergies' entities strive to build a local societal strategy and an action plan ahead of operations that are validated by management and adapted to the local context and challenges to anticipate and avoid potential conflicts with stakeholders and in particular with local communities.

The strategy is defined according to the requirements of the Company's rules on stakeholder management and local impacts, notably the assessment of societal risk, the establishment of a complaints management system and dialogue with stakeholders.

The societal strategy and action plan are structured around three levers:

- permanent dialogue with stakeholders, which must be adapted to the local cultural context;
- management of negative societal impacts related to the Company's activities (Avoid, Reduce and Offset);
- development of initiatives to generate a positive impact on local communities from development programs tailored to their needs.

IMPLEMENTING AND MONITORING SOCIETAL ACTIONS AND PROJECTS

TotalEnergies' operational subsidiaries are in charge of implementing the societal strategy and monitoring it, with the support of the societal teams reporting to TotalEnergies' HSE division, which provide the operational subsidiaries with their expertise for the implementation of the One MAESTRO reference system. Societal aspects are included within the scope of the One MAESTRO audits that produce recommendations to reinforce control of operations. Subsidiaries are required to conduct a self-assessment of their societal initiative and produce an annual internal report listing the societal actions taken locally.

In terms of training and awareness-raising, several activities intended to raise awareness among the various entities of societal issues and tools are deployed:

- at Company level, modules on societal issues are incorporated into training programs offered by the HSE department, such as the HSE for Managers training program, 10 sessions of which were delivered in 2023 with over 230 participants (refer to point 5.3.2) or the One HSE Campus (four awareness-raising sessions on societal indicators delivered during the 2023 edition of the campus).

  Specific sessions designed to delve deeper into a particular theme are also offered to a targeted audience within the Company, such as the launch of the societal reporting campaign, land acquisition or Management of societal activities in Nature Based Solutions;
- the business sectors also organize dedicated training programs tailored to their specific issues.
  - Marketing & Services includes a societal module in its MS HSE Fundamentals training program for new HSE managers. Nearly 70 employees were trained in 2023.
  - In Integrated Power, four awareness-raising webinar sessions on managing societal impacts reached over 370 participants.
  - In Exploration & Production, four training sessions in 2023 were attended by some 50 people from nine countries (Angola, Bolivia, Brazil, Republic of Congo, Denmark, France, Italy, Norway and Uganda).

MANAGING COMPLAINTS FROM NEIGHBORING COMMUNITIES

The One MAESTRO reference framework provides that the Company's operating subsidiaries(1) are expected to implement complaint management procedures aligned with the United Nations Guiding Principles on Business and Human Rights. These provide residents and local communities with a preferential and easily accessible channel to voice their concerns and grievances and involve them in finding a solution. At every stage of the asset life cycle, from developing a project to cessation of activity and divestment, the Company intends to provide swift and appropriate responses to people or organizations that have been adversely affected. As part of a continuous improvement process, analysis of all complaints received helps improve operations. Complaint management forms part of the Company's societal reporting and is one its performance indicators. The subsidiaries of the One MAESTRO roll-out scope with operational activity in 2023 (refer to point 5.11.4) continued the implementation and improvement of their complaints management system.

Societal indicator	2023	2022	2021
Percentage of subsidiaries in the One MAESTRO roll-out scope with an operational activity which have a grievance mechanism in place	100%	100%	100%
Number of complaints received in the reference year (new indicator)	638	n.a.	n.a.
Percentage of solved complaints (number of complaints received/number of complaints solved in the reference year) (new indicator)	80%	n.a.	n.a.

Complaints received by the Company's subsidiaries in connection with the societal impact of their activities may concern: access to land and habitat, economic losses/loss of livelihood, risks to the environment and health, employment and the value chain, road safety, logistics and transportation, adverse impact on cultural heritage, security and social conduct, the quality of local dialogue and the management of socio-economic development projects.

(1) Subsidiaries included in the One MAESTRO roll-out scope (see point 5.11.4 of this chapter) and having an operational activity, i.e., excluding commercial offices, trading activities and EP subsidiaries with no exploration or production operations in 2023.

5.9.2.2 Examples of management of negative impacts linked to operational activities

Following the analysis of the challenges and the societal context, the actions taken by subsidiaries to minimize the impacts are adapted to the reality of the situation on the ground.

Impacts for local communities on access to land, maritime space and resources

In Mozambique, Mozambique LNG set up a dedicated Foundation to play a role in the socio-economic development of the entire province of Cabo Delgado, with the purpose of sharing prosperity, before any production revenues arise during the production phase of the project. The Pamoja Tunaweza (Together We Can) Foundation was officially registered at the end of 2023 and its Chief Executive has been appointed. The Foundation is now operational and has begun the process of engaging with all its stakeholders in order to roll out its actions in the best possible way, which involves working closely with other persons or entities fostering development.

The suspension of industrial operations at the Afungi site did not lead to the suspension of initiatives to support local economic development led by Mozambique LNG, with the following key figures:

- about $40 million was invested in 2022/2023 in more than 40 programs generating revenues, diversifying the local economy and promoting human rights have been launched;
- more than 6,000 jobs have been created since 2021 to contribute towards a return to normalcy and rebuild the lives of impacted individual; around 5,000 farmers have benefited from aid through agricultural programs and 894 young people have received qualifying training;
- 1,200 hectares of mangroves have been restored and nearly 70,000 fruit trees replanted;
- More than 35,000 people have benefited from health information and awareness campaigns and medical advice. More than 25,000 have received medical assistance from 188 mobile brigades.

In addition to this, in 2022, Mozambique LNG also supported local traders from Mocimboa da Praia with 120 tons of food and house building materials to help revitalize local business.

In Uganda, the construction of new houses was implemented, this being part of the compensation process for the 235 households physically displaced by the Tilenga project. At the end of December 2023, 219 houses were delivered. The livelihood restoration program continues by providing support to affected households. The main areas of assistance are the improvement of agriculture and livestock, which are the main livelihood activities of households, but also support for small businesses and vocational training in various trades such as motorcycle mechanics, car mechanics, electricity, hairdressing, catering and sewing among others.

In France, the Integrated Power segment focuses on managing the impacts of its activity on biodiversity. Eco-grazing has been implemented in 39 power plants in France in partnership with 22 local farmers.

Impacts on cultural and religious practices and heritage

Understanding the social and cultural context is fundamental to the proper management of cultural, religious or heritage impacts. To this end, TotalEnergies uses specialists to carry out specific studies prior to new operations. Likewise, mitigation plans are implemented to deal with impacts that could not be avoided.

For example, in 2023:

- in Bolivia, the Exploration & Production subsidiary continued with the implementation of the archaeological mitigation plan through the construction of a Guarani Cultural Interpretation Center which is expected to be used to showcase the archaeological heritage discovered during the construction of the Incahuasi Power Plant. The content of the mitigation plan, as well as the details of the design of the installations, are the result of a co-construction process with the Guarani indigenous people of the Alto Parapetí territory;
- in South Africa and Namibia, following specific impact studies on cultural heritage carried out in 2022 (in addition to regulatory environmental and social impact studies), a program to understand and value this social and cultural heritage, (The Blue Values Journey), continued in 2023 in collaboration with Nelson Mandela University, with the aim of promoting its conservation and transmission.

Other impacts

- In Argentina, the Marketing & Services subsidiary took into account the noise pollution generated by a boiler on the lubricant production site, reducing operating time by 3 hours in order to limit the impact on local residents.

5.9.2.3 Examples of contribution to socio-economic development in favor of local communities

First and foremost, the local projects address the issues of development and solidarity identified thanks to consultations with local communities, and favor cooperation and skills development.

ACCESS TO ENERGY

In connection with the Company's ambition to provide accessible energy to as many people as possible, the Marketing & Services segment developed a range of solar solutions to provide access to distributed energy in nearly 30 countries by the end of 2023. To date, more than 5.2 million lamps and solar kits have been sold (including 362,000 in 2023), giving more than 24 million people access to energy. In 2023, TotalEnergies worked on the development of new products, while working to reduce the environmental impact of its existing products.

In France, the Company is pursuing its action to fight fuel poverty, by helping low-income households make their homes more energy efficient within the framework of a number of regional programs and initiatives (€509 million spent on energy saving certificates precariousness in 2023).

DEVELOPMENT OF LOCAL COMMUNITIES

In France, TotalEnergies Renouvelables France proposes projects eligible for participatory financing of electricity production sites. In 2023, 922 investors financed 8 solar projects throughout France for a total of €3 million. Crowdfunding collections contribute to sharing value with the local population and thus make it possible to invest in the energy transition. Investors thus perceive economic benefits over several years, via interest, generated by the exploitation of the sun.

In Argentina, the Exploration & Production subsidiary implemented the VIA Road Safety program in Buenos Aires and in the regions of Company operations, reaching more than 3,000 young people to make them aware of the risks and the actions to be implemented for safe mobility and train them to become ambassadors of this subject within their communities.

In Italy, the EP subsidiary supports the Lucanica project which for several years has helped SMEs in Basilicata to export their agri-food products to the European market as part of the region's economic diversification. In Nigeria, the Exploration & Production subsidiary contributed to the Made in Nigeria 2023 exhibition to present products made in Nigeria by small and medium-sized businesses.

DIVERSIFIED PROGRAMS

In Marketing & Services, a program called "CSR in the network" was launched in April 2020 on the African continent, based on the geographical footprint of its network of more than 4,600 service stations in approximately 40 countries. The program was approved by the Marketing & Services segment's Management Committee for Africa and is steered by each subsidiary. It focuses on seven areas so that service stations act on their environmental and societal footprint and increase their impact on community development, in particular with:

- the "Young Managers" program, which allows pump attendants who have the potential to benefit from financial and human support to become entrepreneurs and manage service stations. Beneficiaries follow continuing training and benefit from technical assistance. The Company grants them an advance on petroleum and/or non-petroleum products in the form of a loan, thus allowing them to launch their activity. Created more than 60 years ago, the program has benefited nearly 5,000 pump attendants and salespersons. At year-end 2023, more than 1,800 service stations were operated by a "young manager".
- promotion of local products in stores. The subsidiaries encourage the listing of local producers in the range of products sold in Boutique Bonjour stores and highlight them through dedicated communication. These actions carried out by 26 subsidiaries thus provide a point of sale with high visibility to small producers, participating in the sustainability of their activity.

5.9.3 Engaging in citizenship initiatives

TotalEnergies believes that a company must be a committed player in the regions in which it operates, beyond its economic, social and societal contribution. The Company has thus chosen to direct its actions of general interest mainly towards youth, particularly the most vulnerable. Since 2018, through the employees' solidarity engagement program *Action!*, employees have been able to devote up to three workdays a year to general interest projects. At the end of 2023, Action! had been rolled out in 100 countries, and nearly 42,500 solidarity actions had been carried out since its launch.

In France, actions of general interest are carried out by the TotalEnergies Corporate Foundation.

5.9.3.1 TotalEnergies Corporate Foundation

Founded in 1992, the Corporate Foundation is now working alongside its partners in favor of youth, focusing its actions on four priority areas: education and integration; road safety; climate, coasts and oceans; and dialogue between cultures and heritage.

Collective action is given preference as a way of mobilizing all players in a region, associations, public and private bodies. This joint approach based on local needs also allows the testing and spin-off of new solidarity models.

In addition to financial backing, the partner associations receive operational support. For example, this may concern the digital domain, strategy, communication or impact assessment. A community of players is coordinated in order to facilitate exchanges and possible connections among associations working on similar or complementary subjects. It took shape with the holding of webinars and a "summer rendez-vous" of partners that brought together approximately 40 associations in July 2023.

FOUR AREAS OF ACTION

Education and Integration

Unemployment and job insecurity are affecting more and more young people all over the world. The *Education and Integration* area aims to empower young people who are socially vulnerable, by means of support and guidance, training, particularly in industry, and integration into the world of work.

In this context, for example, the Industry of the Future campus, Industreet, located in Stains in the Paris region, which celebrated its second anniversary at the end of 2023, will have welcomed nearly 670 young people. This training center for new professions in the industry delivers free training with certifications, based on learning by doing. Over time, it plans to provide places for 400 young people aged between 18 and 30 each year.

Also, since 2018, the TotalEnergies Corporate Foundation has committed to supporting the deployment of production schools in industrial professions throughout France for 10 years. This significant financial contribution should allow the number of schools to be increased from 25 in seven regions to 100 schools throughout France by 2028. At the end of 2023, the TotalEnergies Corporate Foundation had supported the creation of 37 new schools and the extension of 10 existing ones.

In 2023, the TotalEnergies Corporate Foundation also launched its fourth call for partners in France and selected four new associations in order to broaden its scope of action, particularly on the issues of insertion into the workforce of young people in vulnerable situations, whether social, and/or linked to belonging to a minority subject to exclusion and/or discrimination.

Road safety

Road accidents are the leading cause of death among young people worldwide. Echoing Safety, a core value of TotalEnergies, Road Safety, as the second area of action, aims to ensure safer mobility in order to contribute to the global target of the UN's Action Plan for the decade 2021-2030 by cutting the number of deaths and injuries on the road by 50% between now and 2030. This plan acts through educating young people by means of local awareness-raising, upskilling and advocacy efforts, as well as participation in and support for the initiatives of international organizations.

In this context, in 2023, the TotalEnergies Corporate Foundation continued to roll out VIA, a youth education program on safe mobility and citizenship, training nearly 240,000 students in 1,100 schools spread over 24 countries. Since the start of the program, the overall number of students reached is 580,000 in 43 countries. The Foundation also led an initiative to raise awareness of the effects of alcohol on driving with the Prévention Routière association during the 2023 Rugby World Cup in 2 rugby villages (Nice and Toulouse). This initiative directly affected nearly 19,500 people.

The Company maintained its support for the NGO YOURS (Youth for Road Safety), with the aim of intensifying actions to influence better decisions at the national level and their implementation. With the NGO Global Alliance, the "Strengthening NGOs' voice and capacity in Africa" program mobilized the NGO community around training, communication campaigns and support for local projects in order to help them engage collectively and advocate effectively with decision-makers while building on government plans and existing initiatives.

Data from the partnership maintained with the International Road Federation (IRF), to provide decision-makers and partners with free access to reliable statistics on road safety in 193 countries around the world, have been adopted by major organizations such as the World Health Organization (WHO) for their publications and references.

Climate, coastal areas and oceans

The third area of action aims to support initiatives that benefit coastal areas and the oceans, the preservation of which is all the more necessary in a context of climate change.

Coastal areas and oceans pose major environmental and climate challenges. The objective in this area is to act to preserve ecosystems, to develop and share knowledge about the interactions between climate, coastal areas and oceans by involving applied research experts, young people and the general public, and lastly to allow young people to discover coastal areas (field trips, training in maritime careers).

In this context, in 2023 the TotalEnergies Corporate Foundation renewed the partnership initiated in 2018 with the National Forestry Office to support projects in coastal areas, to which was added exceptional support for the reconstitution of forests after the fires of summer 2022 in Gironde. It also continued to support the Institut Océanographique Albert 1er, Prince de Monaco, in the context of the "Oceano pour tous" project to raise awareness among college students and educate them on the subject of the environment. It also renewed the partnership with the Conservatoire du Littoral to support projects linked to the preparation of the "Adapto +" project, an extension of the Adapto project for flexible management of the coastline.

Dialogue on culture and heritage

The slackening of social ties makes young people more vulnerable and regional cohesion more fragile. This fourth area of action aims to strengthen social cohesion and empower young people through culture and heritage by supporting artistic creation with a social impact by and for young people, attributing value to cultural diversity and preserving heritage.

Within this framework, in 2023 the TotalEnergies Corporate Foundation supported 13 restoration projects providing employment for young people in France through its partnership with the Fondation du Patrimoine (Heritage Foundation). This brings the total number of projects supported since the beginning of this partnership to 300.

In the field of artistic and cultural education, 16 partnerships were set up to promote the empowerment and integration of young people as citizens into society, including:

- ENVOL, in Hauts-de-France, which helps young people who are neither employed, nor in studies, nor in training to prepare their future project by regaining confidence through singing, dancing, theater and writing ("La Classe Départ");
- the Alhambra Cinemarseille, in the South Region, which supports the production of short films by young people in SEGPA (remedial vocational classes) to promote their school careers ("All the light on SEGPA");
- the Concerts de la Loge, in several regions, which put on creations mixing baroque music, hip-hop dance, choral singing and theater with professional artists to improve professional posture and promote integration ("Hip Baroque Choc").

Finally, the TotalEnergies Corporate Foundation was a sponsor of the "Parfums d'Orient" exhibition at the Institut du Monde Arabe.

5.9.3.2 Mobilization in the face of humanitarian emergencies

The TotalEnergies Corporate Foundation provided support of €1 million through international NGOs to help populations affected by the earthquake in Turkey and Syria that occurred in early February 2023.

In response to the emergency appeal launched by the Restos du Cœur at the end of 2023, the TotalEnergies Corporate Foundation made a donation of €5 million in order to help maintain the level of aid from the association to the people it supports. This solidarity initiative echoes the voluntary commitment of many employees serving Restos du Cœur.

5.10 Contractors and suppliers

TotalEnergies' activities generate hundreds of thousands of direct and indirect jobs worldwide. Present in about 120 countries, the Company works with a network of over 100,000 suppliers of goods and services. In 2023, the Company's purchases of goods and services (excluding petroleum products and vessel chartering by Trading & Shipping) represented approximately $30 billion worldwide. The allocation of expenditures at Company level is approximately 28% for goods (products, materials, etc.) and 72% for services (such as consulting services, materials supply operations, transportation, etc.). The Company has identified 1,300 priority suppliers in terms of sustainable development, which represent nearly 60% of the Company's expenditure. Among them, 500 suppliers were selected on the basis of the significance of their commercial relations with the Company (amount of purchasing expenditure, non substitutability, etc.) and 800 suppliers were selected on the basis of the risks they present in terms of human rights and/or the environment due to the business segment and the country in which they operate.

The activities of the Company's contractors and suppliers are likely to present the same risks as those associated with TotalEnergies' activities. The main risks relate basically to human rights in the workplace (forced labor, child labor, discrimination, decent working conditions), health and safety and security, corruption, fraud, environment including climate, biodiversity, circular economy and responsible use of natural resources (water, forests).

Management of the Company's supplier relations is coordinated by a dedicated cross-functional entity, TotalEnergies Global Procurement, which is specifically tasked with providing Purchasing services and assisting the Company's entities and sites[1].

(1) With the exception of certain entities that retain the management of their supplier relations such as Hutchinson, Saft Groupe, Greenflex and TOTSA TotalEnergies Trading SA.

The Company ensures that contractual conditions are negotiated in an equitable manner with its suppliers. TotalEnergies' Code of Conduct reminds this requirement and the three essential principles that guide the Company's relations with its suppliers: dialogue, professionalism and compliance with commitments. TotalEnergies is a signatory to the 2021 Responsible Supplier Relations Charter of the French Ministry of Economy and Finance, which aims to build a sustainable and balanced relationship between customers and suppliers. As part of the development of best practice in business relations, an email address (mediation.fournisseurs@totalenergies.com) available on TotalEnergies' website allows the Company's suppliers to contact the dedicated internal mediator. Its mission is to facilitate relationships between the Company and its French and international suppliers. The general purchasing terms and conditions also mention the possibility of using mediation.

The Company attaches particular importance to working with sustainable suppliers who respect both human rights and the environment, throughout its supply chain. The Company expects its suppliers to adhere to the Fundamental principles of purchasing derived from its Code of Conduct and has structured a sustainable procurement program.

5.10.1 Fundamental principles of purchasing

The Fundamental principles of purchasing are the foundation for the long-term relationships that the Company wishes to build with its suppliers. These principles, derived from the Company's Code of Conduct, reflect the fundamental principles defined in the United Nations Universal Declaration of Human Rights, the fundamental conventions of the International Labor Organization, the UN Guiding Principles on Business and Human Rights, the UN Global Compact, the Voluntary Principles on Security and Human Rights and the OECD Guidelines for Multinational Enterprises. TotalEnergies expects its suppliers to adhere and comply with the Fundamental principles of purchasing and to ensure that their own suppliers and subcontractors also comply with them:

- Principle 1: Respect human rights at work;
- Principle 2: Protect of health, safety and security;
- Principle 3: Act in favor of climate;
- Principle 4: Preserve the environment;
- Principle 5: Prevent corruption, conflicts of interest and fight of fraud;
- Principle 6: Respect competition law;
- Principle 7: Promote economic and social development.

The Fundamental Principles of purchasing are available in French and English on the TotalEnergies website (heading sustainable development/ contractors and suppliers) and are regularly used for awareness-raising. During the pre-qualification process, suppliers commit to comply with these principles. The Company's rules require that the Fundamental Principles of Purchasing or equivalent principles be systematically included in procurement contracts signed with suppliers. TotalEnergies ensures compliance with these Principles by its suppliers through an audit program.

5.10.2 The Sustainable Procurement program

A PROCESS OF CONTINUOUS IMPROVEMENT

In accordance with the Company's ambition to integrate all aspects of sustainable development at the heart of its strategy, projects and operations, TotalEnergies is engaged in a process of continuous improvement regarding sustainable procurement.

In 2016, the Company initiated a program to audit its suppliers in terms of respect for human rights at work. In 2019, it adopted a new CSR risk map linked to purchasing before creating, in 2020, a department dedicated to sustainable procurement, within TotalEnergies Global Procurement. In January 2022, the Company's Executive Committee adopted the Sustainable Procurement program for 2025, covering all aspects of sustainable development, in particular issues linked to climate, human rights and working conditions, inclusive purchasing and the environment, including biodiversity, water, deforestation and pollution. The implementation of this program is managed by the sustainable procurement department and monitored by governing bodies of the Company and by a Sustainable Procurement committee which meets at least once a year.

DESCRIPTION OF THE PROGRAM

The sustainable procurement program covers all aspects of sustainable development via five transversal priorities:

- strengthen the sustainable procurement culture within the Company;
- raise awareness and mobilize suppliers;
- integrate sustainable development criteria at key stage of the procurement process;
- evaluate suppliers with regard to their performance in terms of sustainable development;
- engage the Company's suppliers in a process of continuous improvement.

Each of these priorities is associated with a quantified objective allowing the progress made to be measured.

TotalEnergies sustainable procurement program is aimed at **1,300** sustainability **priority suppliers**. These suppliers account for nearly 60% of the Company's expenditure. They comprise:

- **500 suppliers** selected on the basis of the importance of their commercial relations with the Company (amount of purchasing expenditure, irreplaceability, etc.). These 500 suppliers represent approximately 50% of the Company's purchasing expenditure;
- **800 suppliers** selected on the basis of the risks they present in terms of human rights and/or the environment due to the business segment and the country in which they operate. These 800 suppliers represent approximately 10% of the Company's purchasing expenditure.

PROGRAM OBJECTIVES AND ACHIEVEMENTS

Priority 1: Strengthen the sustainable procurement culture within the Company

Buyers are the first players in the sustainable procurement process, with their internal contacts as well as with the Company's suppliers. It is therefore necessary for them to share a common base of knowledge in terms of sustainable development and sustainable procurement. Since July 2022, TotalEnergies has provided its buyers with a dedicated training, mandatory for any new entrant to the role.

Achievements in 2023

At the end of 2023, 61% of TotalEnergies purchasing function employees were trained in sustainable procurement i.e., the double of the trained population compared to 2022.

Strengthening the sustainable procurement culture

In addition to training, numerous awareness-raising initiatives are regularly carried out in order to strengthen the sustainable procurement culture within the Company. In April 2023, the Director of TotalEnergies Global Procurement presented the sustainable procurement program via a webinar which reached nearly 400 people. A thematic webinar on climate was followed by more than 170 employees and another on supplier audits by more than 220 employees. A mid-year webinar brought together more than 400 employees from the procurement function. The sustainable procurement department also sends a quarterly newsletter to all buyers as well as to business managers.

Priority 2: Raise awareness and mobilize suppliers

The Company regularly raises awareness among its suppliers regarding sustainable development. It engages its main suppliers through a platform, supplier days and other awareness tools.

Achievements in 2023

In 2023, the Company organized supplier days, which were an opportunity to raise awareness among stakeholders regarding sustainability issues, notably in March in China and in July in Nigeria. The Company has also raised awareness among its suppliers through training sessions entirely dedicated to sustainable development, such as the one organized in May 2023 in Vietnam.

Priority 3: Integrate sustainable development criteria at key stages of the purchasing process

TotalEnergies updated its Procurement Directive in 2022 in order to strengthen the sustainable development and climate aspects in the procurement rules and the Company ensures the integration of these criteria at key stages of the process described below.

- Pre-qualification of suppliers: The supplier pre-qualification process covers six criteria: administrative, anti-corruption, technical, HSE, financial and sustainability. During this process, suppliers must adhere to the Fundamental Principles of Purchasing and share their sustainability commitments via a questionnaire. A supplier may be excluded from the list if its response to the sustainable development questionnaire is not satisfactory. A tool for registering pre-qualifications is currently being rolled out within the Company. At the end of 2023, more than 20,000 suppliers were integrated into this tool.
- Evaluation of offers: TotalEnergies integrates sustainable development criteria into the evaluation of offers. The Company takes account of carbon emissions in calculating the total cost of acquisition for the highest emission categories (marine logistics, rotating machines, etc.).
- Contractualization: The Company's rules require that the Fundamental Principles of purchasing be systematically included in purchases in contracts signed with suppliers. These Principles include an audit clause. Additional clauses, for example relating to local content or HSE, are also included in contracts where relevant.
- Monitoring and execution of the contract: Throughout the duration of the contract, suppliers are subject to documentary and/or on-site audits to verify compliance with TotalEnergies' Fundamental Principles of purchasing and to assess their performance in terms of sustainable development.

Achievements in 2023

Priority segments and categories worked to identify the main sources of emissions linked to the services and products purchased as well as to identify reduction levers, jointly with the main suppliers. Additionally, buyers include sustainability issues in their periodic reviews with suppliers. Purchasing rules cover all purchases of goods and services, including office automation purchases.

Priority 4: Evaluate suppliers with regard to their performance in terms of sustainable development

In order to control risks in its supply chain and contribute to improving the practices of its suppliers, the Company committed to assess its 1,300 priority suppliers by the end of 2025, via documentary and/or on-site audits carried out by independent third parties.

Achievements in 2023

In 2023, 37% of the 1,300 priority suppliers were assessed on their sustainable development performance via documentary audits (EcoVadis) and on-site audits.

Supplier evaluation via documentary audits

In 2023, TotalEnergies joined forces with EcoVadis to evaluate its suppliers in terms of sustainable development. EcoVadis carries out a documentary assessment to assess the maturity and performance of suppliers in terms of the environment, human rights, ethics and responsible purchasing. Each company is evaluated by independent analysts on essential issues depending on its size, location and business segment. The EcoVadis rating may be shared by the supplier with its other customers. It also gives rise to an improvement plan.

In 2023, 180 suppliers were evaluated via EcoVadis. 98% of them obtained a score above 45/100, a score beyond which EcoVadis considers that the supplier is "committed to CSR", and the average score is 65/100.

Supplier assessment via on-site audits

Between 2016 and 2022, the Company conducted audits linked to working conditions. Since 2022, the Company has applied a new, expanded audit framework to cover labor and human rights issues – such as child labor, forced labor, discrimination, freedom of association and collective bargaining, working conditions, working hours, health and safety at work – but also environmental issues such as the protection of biodiversity, the responsible use of water and natural resources, the fight against pollution, as well as climate issues. These audits, carried out by an independent third party, include an on-site visit, a documentary review and interviews with workers. Tested in 2022, this audit framework was used for the 2023 audit plan.

The Company set itself the objective of evaluating 300 suppliers via these on-site audits in 2023 and this objective was achieved. In total, since 2016, the Company has audited 740 priority suppliers in more than 86 countries, covering more than 230,000 people.

Priority 5: Engage our suppliers in a process of continuous improvement

The Company ensures that its suppliers are committed to a process of continuous progress. Thus, in the event of a deficiency observed during the on-site audit, a supplier must put in place an action plan, followed by the TotalEnergies teams and whose effectiveness is verified by an independent external service provider. Among the 740 suppliers audited since 2016, 171 resulted in verified improvements positively impacting nearly 60,000 workers concerning the right to a weekly day off, access to drinking water on site and overtime pay. The others are being monitored.

In 2023, the Company developed an internal audit management tool which centralizes data from audits carried out since 2016. This allows management and operational teams to understand and address the issues specific to their ecosystems in order to better support suppliers in the improvement of their practices. For example, the Company organized training for buyers and suppliers in Vietnam in June 2023, targeting the topics raised during the 16 audits carried out in this country.

In order to support its suppliers in improving their practices, the Company also published in May 2022 a Practical Guide on Human Rights at Work for suppliers, accessible on the TotalEnergies website (sustainable development/subcontracting and suppliers).

The Company also organizes a Suppliers Day every two years, the last having been organized in November 2022. This is an event bringing together nearly 200 representatives of the Company's suppliers – the Chairman and CEO and two members of the Executive Committee are intervened and underlined the Company's ambition as well as the commitment expected from suppliers in terms of sustainable development. This event was the opportunity to award for the first time a Sustainability Award to one of the Company's suppliers.

Finally, the Company encourages its main suppliers to reduce their emissions and has set itself the objective that 90% of the 400 most emitting suppliers have adopted reduction objectives for their scopes 1 et 2 in 2025. At the end of 2023, 70% of among them have adopted targets for reducing their emissions. Suppliers who responded that they have set reduction targets are subject to regular monitoring. Suppliers who have not adopted targets for reducing their emissions are also monitored and the Company asks them for an action plan aimed at ensuring that they adopt targets by 2025.

5.10.3 Beyond Tier 1

MEASURE OF GHG EMISSIONS LINKED TO PURCHASED GOODS AND SERVICES

In 2021, the Company carried out a first estimate of emissions linked to its purchases of goods and services, limited to the scope of TotalEnergies Global Procurement purchases. In 2022, it updated this estimate by extending it to the scope of purchases from Hutchinson and Saft Groupe. In 2023, emissions linked to purchases of goods and services are estimated at around 13 Mt CO_2e (excluding purchases of oil and petroleum products net of the Company's production and medium and long-term LNG supply contracts).

WORKERS' VOICE TOOL

Aware of the importance of guaranteeing respect for working conditions on the sites of major construction projects, TotalEnergies wanted to test a complementary approach to the already existing audit and complaint reporting systems. In 2023, the Company implemented a pilot "workers' voice survey" within two of its large industrial projects: Tilenga in Uganda and EACOP in Tanzania. This pilot aims to directly interview workers via their mobile phones in order to collect information on respect for human rights and working conditions on site. The percentage of workers participating via this system currently varies from 12% to 72% depending on the sites. The objective is to involve workers who work on site, including those from tier 1 suppliers and beyond. Worker participation is voluntary and anonymous. Among workers volunteering to participate in the system, the response rate to regular surveys varies from 87% to 95%. TotalEnergies shares the results of these surveys with suppliers who are required to propose action plans.

MINERALS

The origin, extraction and refining conditions and the use of certain minerals, ores and raw materials are the subject of particular attention, given the potential risks to human rights and the environment. In 2022, TotalEnergies conducted an internal study to identify the Company's priorities in this area. This study, based on a materiality analysis and a risk analysis, identified three priorities: cobalt, polysilicon and conflict minerals (gold, tungsten, tin and tantalum).

- Cobalt: since cobalt can be used in the manufacture of certain batteries, Saft Groupe has been conducting an annual campaign since 2021 to collect information from its suppliers. Saft Groupe relies on the Extended Minerals Reporting Template (EMRT) provided by the *Responsible Minerals Initiative*® (RMI®) to identify the processing units in its supply chain and the country of origin of the cobalt ores. As part of a progress-led approach, Saft Groupe is also a member of the *Global Battery Alliance (GBA)*, within the *World Economic Forum (WEF)*, a global platform for establishing and collaborating on a sustainable battery value chain.
- Polysilicon: polysilicon is used in the manufacture of solar panels. TotalEnergies Global Procurement carries out traceability audits upstream of the supplier's selection or commissions an independent third party to conduct them. TotalEnergies has joined a pool of US developers who jointly commission and share traceability audits.
- Conflict minerals: the qualification process identifies suppliers using minerals from conflict zones for the Company's purchases. Thus, pursuant to Rule 13p-1 of the U.S. Securities Exchange Act of 1934, as amended, which implemented certain provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, since 2014, TotalEnergies has filed with the United States Securities and Exchange Commission (SEC) an annual document relating to "minerals from conflict zones" sourced from the Democratic Republic of the Congo or neighboring countries. This document indicates whether, during the preceding calendar year, any such minerals were necessary for the operation or for the production of a product manufactured by TotalEnergies SE or one of its consolidated companies or contracted by TotalEnergies SE or one of its consolidated companies to be manufactured. The purpose of this regulation is to prevent the direct or indirect funding of armed groups in central Africa. For more information, please refer to TotalEnergies' most recent publication, available on the TotalEnergies website or sec.gov.

  As conflict minerals may potentially be present in the electrical and electronic components used in battery manufacturing, Saft Groupe conducts an annual campaign to collect information from its suppliers. Saft Groupe relies on the Conflict Minerals Reporting Template (CMRT) provided by the Responsible Minerals Initiative® (RMI®) to determine the presence of conflict minerals in its supply chain and to identify the processing units for these minerals that are likely to participate in it and the country of origin of the ores. Saft Groupe became a member of the RMI in 2022.

  In 2023, the Company created the Strategic Materials division within the Integrated Power segment. This division analyzes TotalEnergies' exposure in this area. A Risk and Resilience division was also created in 2023 within TotalEnergies Global Procurement in order to develop better knowledge of its supply chain.

5.10.4 Local economic development

LOCAL ECONOMIC DEVELOPMENT

TotalEnergies is committed to local economic development. In this respect, insofar as operational constraints allow, the Company uses local employment and subcontracting and also contributes to the development of local skills.

For the Company's large industrial projects, a local content development and management approach has been structured to strengthen the positive impact on local employment and economic activity notably by involving the main suppliers. Calls for tenders include local content criteria aimed to ensure at least equal opportunity for local subcontractors, or, depending on the local context, quantified contractual obligations (use of local subcontractors, employment, investment in local capacities) for subcontractors. Studies aiming to determine the capacity of suppliers have been carried out or are underway for new major projects in countries such as South Africa and Iraq, as well as for offshore wind power projects.

To facilitate performance measurement, a web-connected digital reporting solution has been developed and is currently being deployed. It is intended to calculate the impact of local purchases for large projects in terms of value creation and jobs created. Online training (available since January 2022) aims to enable the deployment of best practice for the sustainable development of local content and its consideration in the Company's purchasing strategy.

INCLUSIVE PURCHASES IN FRANCE

Lastly, the Company pays special attention to the adapted and protected sector (sheltered employment sector for disabled workers). TotalEnergies is a member of the French Pas@Pas organization and provides its buyers with an online tool that can be used to identify potential suppliers and service providers in the sheltered employment sector by region and category.

In 2022, the Company provided its buyers with a guide to support them in purchasing from the adapted sector as well as an awareness-raising webinar with more than 100 participants. In 2022, TotalEnergies was also on the jury of Handiformelles, an event rewarding innovative projects carried out by EA-ESATs (adapted enterprises and vocational rehabilitation centers) and participated in the "TrophésH'Up", an event rewarding entrepreneurs with disabilities.

Tthe Company also joined, in 2022, the Collective for a More Inclusive Economy and participated in the Inclusive Purchasing Forum to connect the Company's buyers with companies in the adapted sector. In 2023, it participated in the second Forum and signed the Manifesto "Let's transform our purchasing policy for a more inclusive economy" alongside the other members of the Collective. The Company has also aligned its objectives with those of the Collective and aims to increase the share of its inclusive purchases by 30% in 2025 compared to 2022, to €5 million in 2025. In 2023, the Company spent €4,3 million to inclusive actors.

TotalEnergies SME POOL

Since 2019, TotalEnergies has coordinated the *TotalEnergies SME Pool* program to help a dozen or so of the Company's small and medium-sized suppliers grow their business over 18 months. During this time, these companies are introduced to other major groups, free of charge, and receive guidance for their executives and support in their international growth through TotalEnergies' People & Social Engagement France directorate. In September 2020, TotalEnergies received a Trophées Décision Achats CSR gold award in recognition of this initiative. In September 2022, the third edition of the program was launched with 11 new winners who benefited from this program until the end of 2023.

5.10.5 Payment terms

The payment terms of invoices from suppliers and customers of TotalEnergies SE as of December 31, 2023, presented in the table below pursuant to the provisions of Article D. 441-6 of the French Commercial Code, are established within the boundaries of the parent company, and not TotalEnergies and therefore include invoices issued and received between TotalEnergies SE and its subsidiaries.

	SUPPLIERS						CUSTOMERS					
	Invoices received and outstanding at the closing date of the previous fiscal year						Invoices issued and outstanding at the closing date of the previous fiscal year					
As of December 31, 2023 (M€)	0 day (provisional)	1 to 30 days	31 to 60 days	61 to 90 days	91 days or more	Total (1 day or more)	0 day (provisional)	1 to 30 days	31 to 60 days	61 to 90 days	91 days or more	Total (1 day or more)
(A) Late payment brackets												
Number of invoices involved	116					633	322					14,074
Total value of invoices involved (including tax)	3	0	0	0	4	4	52	39	246	93	473	852
Percentage of the total value of purchases for the fiscal year (including tax)	0.1%	0.0%	0.0%	0.0%	0.1%	0.1%						
Percentage of sales for the fiscal year (including tax)							0.7%	0.5%	3.3%	1.3%	6.4%	11.5%
(B) Invoices excluded from (A) relating to disputed or unrecorded liabilities and receivables												
Number of invoices excluded						None						None
Total value of invoices excluded						None						None
(C) Reference payment terms used (contractual or legal – Article L. 441-6 or Article L. 443-1 of the French Commercial Code)												
Payment terms used for late payment penalties						Legal payment terms						Legal payment terms

A significant portion of the invoices issued by TotalEnergies SE relates to internal services re-invoiced to the companies of the Company. Most of these companies are included in the scope of consolidation. Thus, 91% of the outstanding customer invoices due at the balance sheet date (i.e. 93% of the total amount including VAT) relate to consolidated companies.

In order to present only the invoices issued to non-consolidated companies or third parties, the table below has been restated for invoices issued and received by consolidated companies.

	SUPPLIERS (non-consolidated compagnies or third parties)						CUSTOMERS (non-consolidated compagnies or third parties)					
	Invoices received and outstanding at the closing date of the previous fiscal year						Invoices issued and outstanding at the closing date of the previous fiscal year					
As of December 31, 2023 *(M€)*	0 day (provisional)	1 to 30 days	31 to 60 days	61 to 90 days	91 days or more	Total (1 day or more)	0 day (provisional)	1 to 30 days	31 to 60 days	61 to 90 days	91 days or more	Total (1 day or more)
Late payment brackets												
Number of invoices involved	94					549	67					1,333
Total value of invoices involved (including tax)	3	0	0	0	3	3	6	6	8	7	43	63
Percentage of the total value of purchases for the fiscal year (including tax)	0.4%	0.0%	0.0%	0.0%	0.4%	0.4%						
Percentage of sales for the fiscal year (including tax)							3.0%	3.0%	3.9%	3.4%	20.9%	31.2%

5.11 Reporting scopes and methodology

5.11.1 Frameworks

The Company's reporting is based:

- for workforce indicators, on a practical handbook on the Company's workforce reporting protocol and methodology,
- for safety indicators, on a company rule on event and statistical reporting,
- for environmental and climate change-related indicators, on a Company reporting rule, together with segment-specific instructions,
- for societal indicators, on Company instructions.

These documents are available to all subsidiaries of the Company and can be consulted at corporate headquarters, in the relevant divisions.

5.11.2 Scopes

Workforce and Health reporting is based on three surveys: the Global Workforce Analysis, the complementary Worldwide Human Resources Survey and the Compensation Survey. Three centralized tools (Sogreat, HR4U and the Company compensation questionnaire) are used to aid in those surveys.

The Global Workforce Analysis is conducted once a year, on December 31, in all the controlled, consolidated companies (refer to Note 18 to the Consolidated Financial Statements, point 8.7 of chapter 8) having employees, *i.e.*, 348 companies in 93 countries at December 31, 2023. The survey mainly covers worldwide workforces, hiring under permanent and fixed-term contracts (non-French equivalents of "contrats à durée déterminée" or "indéterminée") and employee turnover at the global level. It offers a breakdown of the workforce by gender, professional category (managers and other employees and non-French equivalents), age and nationality.

The Worldwide Human Resources Survey (WHRS) is an annual survey that comprises 292 workforce indicators, including the health indicators described in point 5.3.4. The indicators are selected in cooperation with the relevant liaisons and cover major components of the Company Human Resources policy, such as mobility, talent development, training, work conditions, workplace dialogue, deployment of the Code of Conduct, human rights and health. The survey covers a representative sample of the consolidated scope. The data published in this document is extracted from the most recent survey, carried out in December 2023 and January 2024. 137 companies in 51 countries, representing 90.0% of the consolidated Company workforce (92,319 employees) responded to all the topics.

The Compensation Survey is carried out once a year with a representative sample of the consolidated scope, aligned with the WHRS scope. The data published in this document are taken from the most recent survey, carried out in September 2023 on data extrapolated at December 31, 2023:

The "Socle Social Commun" or "Common Social Basis" (whereby all employees have the same rights) brings together the following in France: TotalEnergies SE, Elf Exploration Production, TotalEnergies Marketing Services, TotalEnergies Marketing France, TotalEnergies Additives and Fuels Solutions, TotalEnergies Lubrifiants, TotalEnergies Fluids, TotalEnergies Raffinage Chimie, TotalEnergies Petrochemicals France, TotalEnergies Raffinage France, TotalEnergies Global Information Technology Services, TotalEnergies Global Financial Services, TotalEnergies Global Procurement, TotalEnergies Global Human Resources Services, TotalEnergies Learning Solutions, TotalEnergies Facilities Management Services, TotalEnergies Consulting and TotalEnergies OneTech.

Environmental and climate change reporting covers all activities, sites and industrial assets in which TotalEnergies SE, or one of the companies it controls exclusively, is the operator, i.e., it either operates or contractually manages the operations ("operated domain"). Compared to the scope of financial consolidation, this corresponds to fully consolidated companies, with some exceptions[1]. The Company subsidiaries that are not fully consolidated because they are not material from a financial standpoint are consolidated in the reporting on environmental indicators.

Greenhouse gas (GHG) emissions "based on the Company's equity interest" are published for the "equity interest domain". This scope, which is different from the "operated domain," includes all the assets in which the consolidated subsidiaries have a financial interest or rights to production. This scope includes the entire statutory scope of the consolidated extra-financial performance statement and the emissions of subsidiaries consolidated by equity method or not consolidated because not material from a financial standpoint.

The list of environmental and climate change-related indicators on which an entity must report is drawn up on the basis of the materiality thresholds (refer to section entitled "Consolidation method").

Safety reporting covers employees of subsidiaries controlled exclusively by the Company, employees of contractors working on sites, assets or activities operated by those subsidiaries and employees of transportation companies under long-term contracts. Compared to the scope of financial consolidation, this corresponds to fully consolidated companies, with some exceptions[2]. Subsidiaries not consolidated because they are not material from a financial standpoint are consolidated in the reporting on safety indicators.

Reporting on societal indicators covers the subsidiaries of the EP, RC, Integrated LNG, Integrated Power and M&S segments that are part of the One MAESTRO scope of deployment (refer to point 5.11.4) with an operational activity, i.e. excluding the commercial offices of M&S, the trading activities of RC and the EP subsidiaries that had no exploration or production activity in 2023.

Compared to the scope of financial consolidation, this corresponds to fully consolidated companies of the EP, RC and M&S segments, with some exceptions[3]. It also includes subsidiaries of the EP, RC and M&S segments corresponding to that scope that are not fully consolidated because they are not material from a financial standpoint.

Reporting on the Voluntary Principles on Security and Human Rights (VPSHR) covers the Company entities and subsidiaries that are particularly exposed to the disproportionate use of force. An annual campaign is used to send auto-diagnosis and risk assessment tools to these entities. This internal process has been in place since 2016 and since 2022, the campaign includes an activities survey. The results obtained are consolidated by the Corporate Security Division. The 2023 campaign specifically targeted 98 countries and the response rate was 100%.

CONSOLIDATION METHOD

For the scopes defined above, the workforce, safety and societal indicators are fully consolidated.

For the "operated domain" scope, the environmental indicators are fully consolidated. For the "equity interest domain" scope, greenhouse gas emissions are consolidated based on the Company's equity interest in the assets or its share of production for oil and gas production assets. For non-operated assets, TotalEnergies relies on information provided by its partner operators. In cases where this information is not available, estimates are made based on past data or budget data or by analogy with similar assets.

The list of environmental and climate change-related indicators on which an entity must report is drawn up on the basis of the materiality thresholds. These thresholds were calibrated in order to report 99% of greenhouse gas emissions and 95% of the Company's other emissions observed or modeled based on data related to financial year 2022. In addition, no site accounting for more than 2% of an indicator excludes this indicator from its reporting.

CHANGES IN SCOPE OF CONSOLIDATION

Workforce indicators are calculated on the basis of the consolidated scope of the Company as of December 31, 2023. These workforce data are presented on the basis of the operational business segments identified in the 2023 Consolidated Financial Statements.

For environmental and climate change-related indicators, acquisitions are recognized from the acquisition date whenever possible, or otherwise from January 1 of the current year or the following year. Some subsidiaries acquired in 2023 will be included in the reporting published in 2025 on financial year 2024[4]. Any facility sold before December 31 is excluded from the Company's reporting scope for the current year[5].

Regarding safety indicators, acquisitions are recognized in the same year as soon as possible or from January 1 of the following year. All facilities sold are recognized up to the date of the sale.

Regarding societal indicators, acquisitions are recognized in the same year as soon as possible and in any case within 36 months of acquisition.

5.11.3 Principles adopted

INDICATOR SELECTION AND RELEVANCE

The data published in this statement are intended to inform stakeholders about the Company's annual results in social and environmental responsibility. The environmental indicators include the Company's performance indicators with reference made, to a large extent, to the IPIECA reporting guidelines updated in 2020 or the GRI reporting framework.

(1) As an exception, the scope of reporting on climate change-related indicators does not include jointly controlled companies Naphtachimie (RC), BASF TOTAL Petrochemicals (RC), Appryl (RC); and approximately 80 jointly controlled assets operated by third parties in Exploration & Production.
(2) As an exception, the scope of reporting on safety indicators does not include jointly controlled companies Naphtachimie (RC), BASF TOTAL Petrochemicals (RC), Appryl (RC); and some 80 jointly controlled assets operated by third parties in EP.
(3) The scope of reporting of societal indicators for the EP, RC, Integrated LNG, Integrated Power and M&S sectors does not, by exception, include the M&S sales offices, RC trading activities, EP subsidiaries not having had an exploration or production operation in 2023, subsidiaries not applying One MAESTRO in these sectors either Polyblend (RC sector), Synova (RC sector), Sobegi (RC sector), Hutchinson (RC sector) and Zeeland Refinery (RC sector) as well as the consolidated companies for of which the Company does not have exclusive control, namely Naphtachemicals (RC sector), BASF TOTAL Petrochemicals (RC sector) and approximately 80 assets under joint control operated by third parties in Exploration-Production.
(4) The Biogas Polska Grupa Biogazowa (PGB) subsidiary, acquired in 2023, is excluded from the environmental or climate change-related reporting for 2023 fiscal year.
(5) Except the EP Dunga site in Kazakhstan, the EP Skirne and Atla sites in Norway, the TotalEnergies EP Canada subsidiary, the TotalEnergies EP Thailand subsidiary, the Cray Valley sites (Beaumont, Channel View 2, Chatom, Exton, Ravenne, Stratford) which were included in the environmental and climate change-related until their date of sale or deconsolidation.

METHODOLOGICAL SPECIFICITIES

The methodologies may be adjusted, in particular in light of the diversity of the Company's activities, the integration of newly acquired entities, the absence of regulations or standardized international definitions, practical procedures for collecting data, or changes in methods.

Restatement of previous years' published data is limited to changes in methodology.

CONSOLIDATION AND INTERNAL CONTROL

The workforce, environmental and climate change-related, societal and health and safety data is consolidated and checked by each operational unit and business segment before being checked at Company level. Data pertaining to certain specific indicators are calculated directly by the business segments. These processes undergo regular internal audits.

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

5.11.4 Details of certain indicators

WORKFORCE DEFINITIONS AND INDICATORS

Outside of France, "management staff" refers to any employee whose job level is the equivalent of 300 or more Hay points. Permanent contracts correspond to "contrats à durée indéterminée" (CDI) and fixed-term contracts to "contrats à durée déterminée" (CDD), according to the terminology used in the Company's workforce reporting.

SAFETY DEFINITIONS AND INDICATORS

TRIR (Total Recordable Injury Rate): number of recorded injuries per million hours worked.

LTIR (Lost Time Injury Rate): number of lost-time injuries per million hours worked.

Employees of contractors: any employee of a contractor working at a site that is part of the safety reporting scope or assigned by a transportation company under a long-term contract.

Tier 1 and Tier 2: indicator of the number of loss of primary containment events with more or less significant consequences, as defined by API 754 (for downstream) and IOGP 456 (for upstream) standards - Excluding acts of sabotage and theft.

Near miss: sudden event which in slightly different circumstances could have resulted in an accident. Near misses have a potential but no actual severity.

Incidents and near misses are assessed in terms of actual or potential severity based on a scale that consists of six levels. Events with an actual or potential severity level of four or more are considered serious.

ENVIRONMENTAL OR CLIMATE CHANGE-RELATED DEFINITIONS AND INDICATORS

Lifecycle Carbon intensity of energy products sold: this indicator measures the average GHG emissions of a unit of energy products used by the Company's customers across its lifecycle (i.e., Scope 1+2+3), from production to end use by customers. This indicator is calculated as a division which takes into account:

- for the numerator:
  - emissions connected to the production and conversion of energy products used by the customers of the Company,
  - emissions connected to the end use of energy products sold to the Company's customers. For each product, stoichiometric emission factors[1] are applied to these sales to obtain an emission volume. Non-energy use products (bitumen, lubricants, plastics, etc.) are not taken into account,
  - less the CO_2 sequestered by Carbon Capture and Storage (CCS) and natural carbon sinks.
- for the denominator: the quantity of energy sold. Electricity is placed on an equal footing with fossil fuels, taking into account average capacity factors and average efficiency ratios.

The carbon intensity indicator therefore corresponds to the average emissions associated with each unit of energy used by customers. To track changes in the indicator , it is expressed in base 100 compared to 2015.

COVID-19 effect: the COVID-19 effect is assessed on the basis of a 10% decrease of petroleum products demand in 2021 compared with their structural demand. In 2022, this effect only applied to Scope 3 emissions during the first half of the year.

Enabled emissions reductions by LNG sales and renewables: difference between the emissions associated to a reference electricity production (alternative source) and the emissions associated with the electricity production either when it is produced thanks to gas supplied by TotalEnergies (by regasifying LNG) or via power generation from renewable power plants owned by the Company (solar and wind).

For LNG, the Company has identified, for each LNG-receiving country, the likely source of competing flexible power generation (alternative source). When the final use for power generation is established and the alternative source of power is identified, the difference between emissions from the alternative fuel (heavy fuel or coal) and natural gas has been calculated, by using power generation emission factors of each country[2] for each of these sources[3]. For the countries where the final use of LNG sales is not identified, this method is applied to LNG sales volumes weighed by the percentage of gas used for power generation in the overall local natural gas consumption[4].

For renewables, the methodology compares emissions from the country's alternative non-renewable mix (following IRENA's methodology) and the ones from solar and wind generation. The applied emission factors (published by IEA) cover the entire life cycle of power generation[5]. Non-renewable production mixes are based on IEA[6] projections by country[7] or, if unavailable, by region[8].

(1) The emission factors used are taken from a technical note of the CDP: *Guidance methodology for estimation of scope 3 category 11 emissions for oil and gas companies.*
(2) France, Luxembourg, Belgium, the Netherlands and Germany are considered as a single electricity and gas network.
(3) Emission factors associated with combustion published in September 2023 by IEA for the year 2021, except for France where the emission factors published by RTE France were used.
(4) Distribution of gas use and electricity production mix for 2022 provided by Enerdata.
(5) Combustion and upstream emission factors published in September 2023 by IEA for the year 2021.
(6) STEPS scenario of the World Energy Outlook 2023.
(7) For Brazil, India and the US.
(8) For Subsaharian Africa, rest of America, Asia-Pacific (excluding China), Europe and Middle-East North Africa.

Energy mix of sales: the mix is calculated by taking into account electricity sales, marketable gas production from Exploration & Production and LNG sales, sales of petroleum products (from Marketing & Services and bulk refining sales) and distribution of biofuels, biomass and H_2 sales. Electricity is placed on an equal footing with fossil fuels, taking into account average capacity factors and average efficiency ratios.

Freshwater: water with salinity below 2 g/l.

GEEI (Global Energy Efficiency Index): a combination of energy intensity ratios (ratio of net primary energy consumption to the level of activity) per business reduced to base 100 in 2010 and consolidated with a weighting based on each business's net primary energy consumption. The scope of the indicator relates to the "operated domain" of the Company's upstream oil and gas activities and the Refining & Chemicals segment, with the exception of Hutchinson. It does not include facilities for power generation from renewable sources or natural gas, such as combined-cycle natural gas power plants.

GHG: the six greenhouse gases in the Kyoto protocol, namely CO_2, CH_4, N_2O, HFCs, PFCs and SF_6, with their respective GWP (Global Warming Potential) as described in the 2007 IPCC report. HFCs, PFCs and SF_6 are virtually absent from the Company's emissions or are considered as non-material, and are therefore no longer counted with effect from 2018.

GHGs based on the Company's equity interest: greenhouse gases emitted by the sites and activities that are part of the Company's "equity interest domain" (refer to point 5.11.2, "Scopes"). They are calculated on a pro rata basis according to the Company's share in the entity or the production (in the case of the Company's upstream oil & gas activities).

Hydrocarbon spills with an environmental impact: spills with a volume greater than 1 barrel (≈159 liters) are counted. These are accidental spills of which at least part of the volume spilled reaches the natural environment (including non-waterproof ground). Spills resulting from sabotage or malicious acts are excluded. Spills that do not affect the environment are also excluded.

Intensity of CO_2 equivalent emissions: Scope 1+2 GHG emissions from the facilities operated by the Company for its upstream oil & gas activities (kg) divided by the Company's operated hydrocarbon production in barrels of oil equivalent (boe).

Intensity of methane emissions: the volume of methane emissions divided by the volume of commercial gas produced, from all facilities operated by the Company (oil and/or gas) for its upstream oil & gas activities. Gas facilities are facilities for which the sum of exported gas production and fuel gas (in boe) represents more than 50% of the operated production (exports + fuel gas).

Low-carbon hydrogen: Hydrogen produced from non renewable resources but with greenhouse gas emissions below a maximum threshold. For example, the hydrogen produced from natural gas via the steam reforming process associated with a capture and storage (CCS) process. In Europe, the maximum threshold of greenhouse gas emission for low-carbon hydrogen is the same as that for renewable hydrogen, *i.e.* 3.38 kg CO_2e/kg H_2 according to the European Directive 2018/2001 named RED II. In common language, low-carbon hydrogen is often considered to include renewable hydrogen.

Native CO_2: CO_2 present and indigenous within a geological reservoir for hydrocarbon production, prior to hydrocarbon production or any CO_2 injection.

Non-routine flaring: flaring other than routine flaring and safety flaring occurring primarily during occasional and intermittent events.

Oil spill preparedness:

- an oil spill scenario is deemed "significant" when its consequences are at a minimum on a small scale and have a limited impact on the environment (approximately several hundred meters of shores impacted or several tons of hydrocarbons involved),
- an oil spill preparedness plan is deemed operational if it describes the alert mechanisms, if it is based on pollution scenarios that stem from risk analyses and if it describes mitigation strategies that are adapted to each scenario; if it defines the technical and organizational resources, internal and external, to be deployed; and lastly if it indicates the items to be addressed in order to begin monitoring the environmental impact of the pollution,
- proportion of those sites that have performed an oil spill response exercise or whose exercise was prevented following a decision by the authorities: are included for this indicator sites that have performed an exercise during the year on the basis of one of the scenarios identified in the oil spill preparedness plan up to the equipment deployment stage as well as sites that have been prevented from carrying out an exercise by a competent authority (e.g. administration, port authority, local fire brigade).

Oil & gas facilities: facilities of the Company except combined-cycle natural gas power plants.

Routine flaring: flaring during normal production operations conducted in the absence of sufficient facilities or adequate geological conditions for the reinjection, on-site utilization or sale of the gas produced (as defined by the working group of the Global Gas Flaring Reduction program as part of the World Bank's Zero Routine Flaring initiative). Routine flaring does not include safety flaring.

Safety flaring: flaring to ensure the safe performance of operations conducted at the production site (emergency shutdown, safety-related testing, etc.).

Scope 1 GHG emissions: direct emissions of greenhouse gases from sites or activities that are included in the scope of reporting for climate change-related indicators. Direct biogenic CO_2 emissions are excluded from Scope 1 and reported separately.

Scope 2 GHG emissions: indirect emissions attributable to brought-in energy (electricity, heat, steam), net from potential energy sales, excluding purchased industrial gases (H_2). If not stated otherwise, TotalEnergies reports Scope 2 GHG emissions according to the market-based method defined by the GHG Protocol.

Scope 3 GHG emissions: other indirect emissions. If not stated otherwise, TotalEnergies reports Scope 3 GHG emissions, category 11, which correspond to indirect GHG emissions related to the use of energy products by customers, i.e. from their combustion to obtain energy. The Company follows the oil & gas industry reporting guidelines published by IPIECA, which comply with the GHG Protocol methodologies. In order to avoid double counting, this methodology accounts for the largest volume in the oil, biofuels and gas value chains, i.e. the higher of the two production volumes or sales for end use. For TotalEnergies, in 2023, the calculation of Scope 3 GHG emissions for the oil and biofuels[(1)] value chains considers products sales (higher than production) and for the gas value chain, gas sales either as LNG or as part of direct sales to B2B/B2C customers. A stoichiometric emission (oxidation of molecules to carbon dioxide) factor is applied to these sales or production to obtain an emission volume.

Upstream oil and gas activities: the Company's upstream oil and gas activities include the oil and gas exploration and production activities conducted by the Exploration & Production and Integrated LNG segments. They do not include power generation facilities based on renewable sources or natural gas such as combined-cycle natural gas power plants.

Water consumption: volume of water (fresh, brackish or sea water) taken that is not discharged into the environment or to a third party.

Waste: all waste is counted, with the exception of drilling debris, mining cuttings and polluted soil at inactive sites, which are counted separately.

(1) The abatement rates applied to the emissions of biofuels compared to equivalent fossil fuels are in line with the minimums required by European regulations (RED II). An average value of approximately -55% is used in the calculation of the carbon intensity indicator.

SOCIETAL DEFINITIONS AND INDICATORS

Non-commercial grievance management mechanism: A complaint is the expression (in whatever form) by external stakeholders of dissatisfaction (of whatever degree) with a specific impact, real or perceived, related to the operations of the entity or subsidiary. The mechanism is a process for receiving, recording, investigating, responding to and closing complaints from affected stakeholders in a diligent, fair and efficient manner.

Dialogue with external stakeholders: This is an interactive process between TotalEnergies entities (headquarters, sites, projects, etc.) and external stakeholders. This process comprises a series of activities and approaches that make it possible to obtain feedback on key issues and impacts of the Company and to improve the decision-making process.

OTHER DEFINITION

One MAESTRO (Management and Expectations Standards Toward Robust Operations): the Company's operational Health, Safety, Environment and Societal reference framework. This reference framework applies to companies controlled exclusively by TotalEnergies with the following exceptions: subsidiaries acquired for less than three years ago and subsidiaries covered by an audited reference framework of their own, namely Hutchinson (RC), Zeeland Refinery (RC), Polyblend (RC), Sobegi (RC), Synova (RC), Saft Groupe (Integrated Power segment) and TEP Barnett (Integrated LNG segment).

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

6

TotalEnergies and its shareholders

6.1 Listing details

6.1.1 Listing

Stock exchanges and markets

- Paris (Euronext Paris);
- Brussels (Euronext Brussels);
- London (London Stock Exchange); and
- New York (New York Stock Exchange or NYSE).

Market capitalization as of December 31, 2023[1]

Market	Market capitalization	Closing price
Euronext	€148.6 billion	€61.60
NYSE	$162.5 billion	$67.38

Codes (Euronext)

ISIN	FR0000120271
Reuters	TTEF.PA
Bloomberg	TTE FP
Ticker	TTE
LEI	529900S21EQ1BO4ESM68

Market capitalization on Euronext Paris and in the Eurozone as of December 31, 2023[2]

TotalEnergies SE is the fourth-largest market capitalization on the Euronext Paris regulated market and the sixth-largest capitalization of the Euro Stoxx 50.

Free float

As of December 31, 2023, the free float factor determined by Euronext Paris for calculating the weight of TotalEnergies SE in the CAC 40 was 100%. The free float factor determined by Stoxx for calculating the weight of TotalEnergies SE in the Euro Stoxx 50 was 100%[3].

Par value

€2.50.

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

Main indices as of December 31, 2023

Index	Weighting in the index
CAC 40	8.90% (2nd)
Euro Stoxx 50	4.63% (3rd)
Stoxx Europe 50	3.02% (9th)

Sources: Euronext and Stoxx.

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

6.1.2 Share performance

6.1.2.1 Change in share prices between January 1 and December 31, 2023

The change in TotalEnergies' share price in 2023, compared with that of the share prices of its main peers listed in Europe and the United States, is shown in the following tables:

In Europe

(% calculated on the basis of the closing price in local currency)

TotalEnergies (euro)	**5.03%**
Shell (euro)	12.54%
BP (pound sterling)	(1.84)%
ENI (euro)	15.52%

Source: Bloomberg.

In the United States (American Depositary Receipts prices for European companies)

(% calculated on the basis of the closing price in US$)

TotalEnergies	**8.54%**
ExxonMobil	(9.36)%
Chevron	(16.90)%
Shell	15.54%
BP	1.35%
ENI	18.67%

Source: Bloomberg.

(1) Based on a share capital composed of 2,412,251,835 shares as of December 31, 2023.
(2) Source: Bloomberg.
(3) Source: Stoxx.

6.1.2.2 Shareholder's annual return

€1,000 invested in TotalEnergies shares by an individual residing in France, assuming that the dividends are reinvested in TotalEnergies shares, would have generated the following returns as of December 31, 2023 (excluding tax and social withholding):

	Shareholder's annual return		Value as of December 31, 2023 of €1,000 invested	
Investment term	TotalEnergies	CAC 40[(a)]	TotalEnergies	CAC 40
1 year	10.39%	20.16%	1,104	1,202
5 years	12.64%	12.88%	1,813	1,833
10 years	9.42%	8.99%	2,461	2,365
15 years	9.24%	9.43%	3,767	3,865

(a) CAC 40 prices taken into account to calculate the annual returns include all dividends distributed by the companies that are in the index.
Sources: Non-Adjusted data from Euronext Paris, Bloomberg.

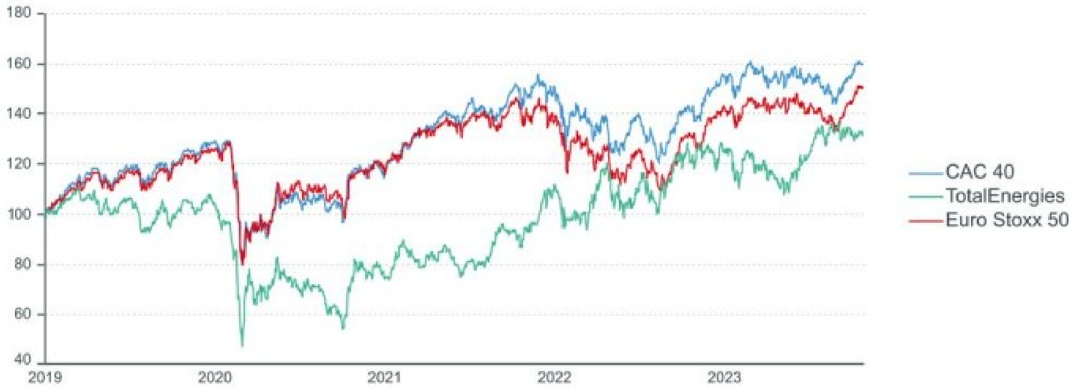
6.1.2.3 Market information summary

TotalEnergies share prices over the 2019-2023 period *(in €)*	2019	2020	2021	2022	2023
Highest (during trading session)	52.27	50.93	45.55	60.44	64.80
Lowest (during trading session)	42.65	21.12	33.91	43.60	50.55
Last price of the year (closing)	49.20	35.30	44.63	58.65	61.60
Average of the last 30 trading sessions (closing)	48.32	36.34	43.53	57.95	61.96

Trading volume *(average per session)*					
Euronext Paris[(a)]	5,655,301	8,528,721	6,716,595	6,952,567	4,719,338
NYSE[(b)]	1,771,550	2,965,225	2,155,119	2,426,647	1,435,870

(a) Number of TotalEnergies shares traded.
(b) Number of American Depositary Receipts (ADR) traded.
Sources: Non-Adjusted data from Euronext Paris, NYSE.

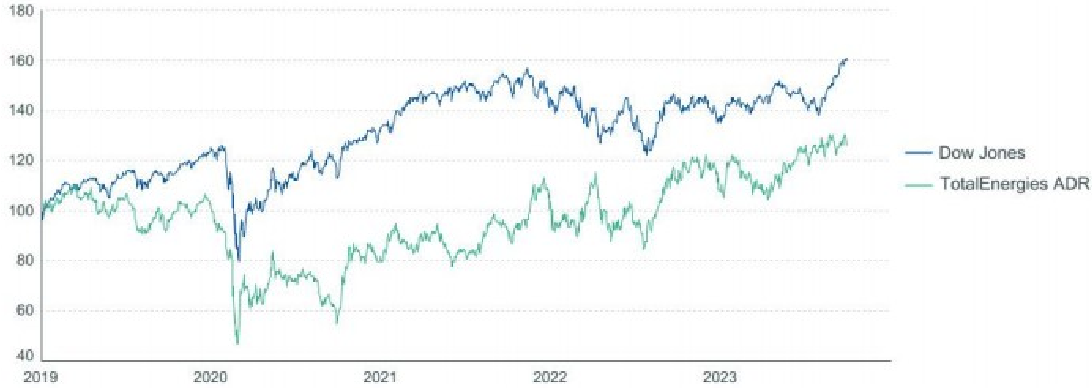
Change in TotalEnergies share price at closing on Euronext Paris (2019-2023)



Base 100 at 01/01/2019.

Sources: Non-Adjusted data from Euronext Paris, Bloomberg.

Change in TotalEnergies ADR price at closing on NYSE (2019-2023)

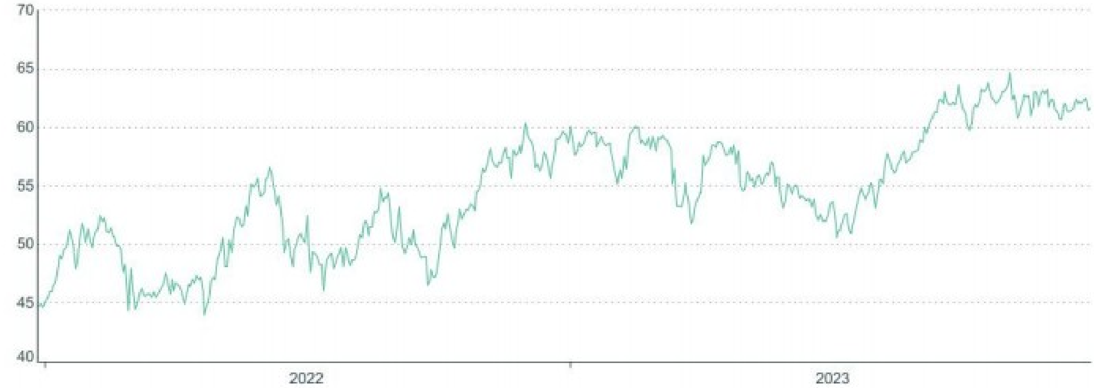


Base 100 at 01/01/2019.

Sources: NYSE, Bloomberg.

Change in TotalEnergies share price at closing on Euronext Paris (2022-2023)

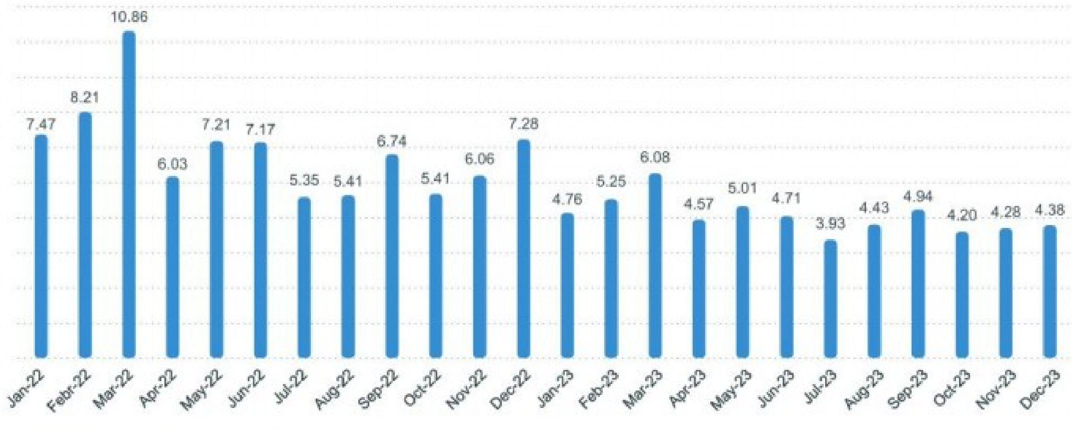
(in €)



Source: Non-Adjusted data from Euronext Paris.

Average number of TotalEnergies shares traded on Euronext Paris (2022-2023)

(in millions of shares)



Source: Non-Adjusted data from Euronext Paris.

6.2 Shareholder return and dividend

6.2.1 Shareholder return policy

SHAREHOLDER RETURN FOR 2023

The Board of Directors, at its meeting on February 6, 2024, after having closed the financial statements for fiscal yar 2023, decided to propose at the Shareholders' Meeting to be held on May 24, 2024, the distribution of an ordinary dividend amounting to 3.01 euros per share for fiscal year 2023 compared to the ordinary dividend of 2.81 euros per share for fiscal year 2022, *i.e.*, an increase in 7.1%. As a consequence, taking into account these three interim dividends of 0.74 euro per share previously decided by the Board of Directors, the final ordinary dividend for fiscal year 2023 amount to 0.79 euro per share.

In 2023, at its meeting on February 7, the Board of Directors indicated a shareholder return policy for 2023 targeting a pay-out between 35-40%, which will combine an increase in interim dividends of more than 7% to €0.74/share and share buybacks of $2 billion in the first quarter. In addition, in view of the growth in structural cash flow forecast and the share buybacks carried out in 2022 (5% of the share capital), the Board of Directors proposed to the Shareholders' Meeting the distribution of a final 2022 ordinary dividend of €0.74/share, an increase of 6.4% for the ordinary 2022 dividend to €2.81/share, plus the special dividend of €1/share paid in December 2022.

Following the Board of Directors' meeting on September 27, 2023, TotalEnergies announced to expect to distribute about 44% of its CFFO in 2023 to its shareholders and to increase shareholder distribution guidance to more than 40% of CFFO beyond 2023. Confident in the strong fundamentals of the Company, the clear and disciplined investment policy, and the solid potential for cash generation growth in the coming years, the Board of directors had taken the following decisions:

- in 2023, allocate $1.5 billion of the Canadian assets' divestment proceeds to share buybacks, to reach $9 billion for the year. The Company expects to return about 44% of CFFO to shareholders in 2023,
- increase the shareholder distribution guidance to more than 40% of CFFO through the cycles keeping net investments between $16-18 billion per year over 2024-28 to implement the transition of the Company.

The implementation of these decisions set the return to shareholders to 46% of 2023 cash flow.

In 2022, at its meeting on February 9, 2022, the Board of Directors decided to propose to the Shareholders' Meeting the distribution of a final dividend of 0.66 euro per share for the fiscal year 2021, equal to the previous three interim dividends paid for this fiscal year 2021, thus setting the dividend for 2021 at 2.64 euros per share. The Board of Directors, at its meetings on April 2022, July 2022 and October 2022 decided to distribute a first, a second and a third interim dividends for the fiscal year 2022, respectively, 5% higher than the interim dividends and the proposed final dividend for fiscal 2021, i.e. €0.69 per share. In addition to this 5% increase for the interim dividends for the fiscal 2022, the Board of Directors decided to distribute an exceptional interim dividend of €1 per share in December 2022 and to maintain the share buyback program at $7 billion. The implementation of these decisions sets the return to shareholders to 37.2% of 2022 cash flow.

SHAREHOLDER RETURN POLICY FOR 2024

Confident in the strong fundamentals of the Company, which celebrates its 100-year anniversary in 2024, the Board of Directors, at its meeting on February 6, 2024, confirmed a shareholder return policy for 2024 targeting >40% CFFO payout, which will combine an increase in interim dividends of 6.8% to €0.79/share and $2 billion of share buybacks in the first quarter of 2024, in line with the following cash flow allocation priorities:

- a sustainable ordinary dividend through cycles, that was not cut during the Covid crisis, and whose increase is supported by underlying cash flow growth,
- investments to support of a strategy balanced between the various energies,
- maintaining a strong balance sheet,
- buybacks to share surplus cash flow generated at high prices.

6.2.2 Dividend payment policy

On October 28, 2010, the Corporation's Board of Directors adopted a policy based on quarterly dividend payments starting in fiscal year 2011.

The decision of TotalEnergies SE's subsidiaries to declare dividends is made by their relevant Shareholders' Meetings and is subject to the provisions of applicable local laws and regulations. As of December 31, 2023, there is no restriction under such provisions that would materially restrict the distribution to TotalEnergies SE of the dividends declared by those subsidiaries.

Dividends for fiscal year 2023

On February 6, 2024, the Board of Directors, after having closed the financial statements for fiscal year 2023, decided to propose to the Shareholders' Meeting on May 24, 2024, the distribution of an ordinary dividend of 3.01 euros per share for fiscal year 2023.

Subject to the Shareholders' decision on May 24, 2024, considering the first three interim dividends already decided by the Board of Directors, the final ordinary dividend for fiscal year 2023 will amount to 0.79 euro per share.

2023 dividend	First interim	Second interim	Third interim	Final
Amount	€0.74	€0.74	€0.74	€0.79
Set date	April 26, 2023	July 26, 2023	October 25, 2023	May 24, 2024
Ex-dividend date	September 20, 2023	January 2, 2024	March 20, 2024	June 19, 2024
Payment date	October 2, 2023	January 12, 2024	April 3, 2024	July 1, 2024

Dividends for fiscal year 2024

Subject to the applicable legislative and regulatory provisions, as well as the pending approval by the Board of Directors and the Shareholders' Meeting called to approve the 2024 financial statements, the ex-date and payment calendar for the interim and final dividends for fiscal year 2024 is expected to be as follows:

	Ex-dividend date	Payment date
First interim	September 25, 2024	October 1, 2024
Second interim	January 2, 2025	January 6, 2025
Third interim	March 26, 2025	April 1, 2025
Final	June 19, 2025	July 1, 2025

The provisional ex-dividend and payment dates above relate to the shares admitted for trading on Euronext.

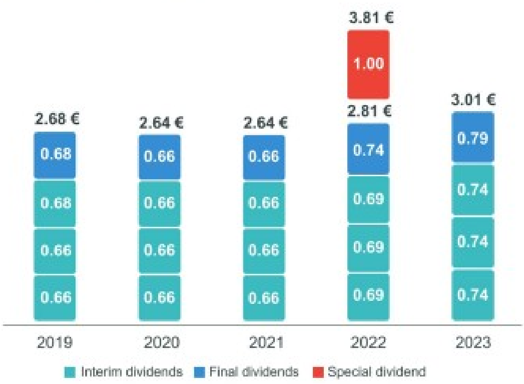
Dividends for fiscal year 2025

Subject to the applicable legislative and regulatory provisions, as well as the pending approval by the Board of Directors and the Shareholders' Meeting called to approve the 2025 financial statements, the ex-date and payment calendar for the interim and final dividends for fiscal year 2025 is expected to be as follows:

	Ex-dividend date	Payment date
First interim	October 1, 2025	October 3, 2025
Second interim	January 2, 2026	January 6, 2026
Third interim	April 1, 2026	April 7, 2026
Final	July 1, 2026	July 3, 2026

The provisional ex-dividend and payment dates above relate to the shares admitted for trading on Euronext.

Dividends for the last five fiscal years[(1)]

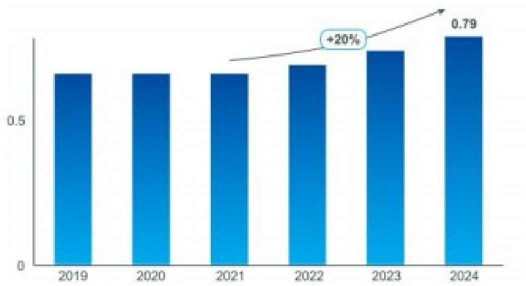


Payout

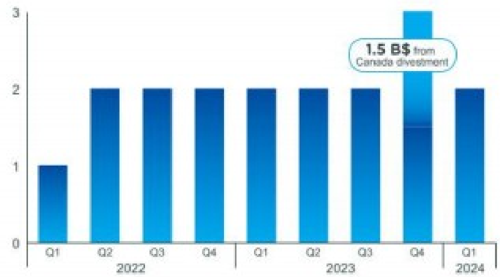
The rate of return to shareholders is calculated on the basis of the amount of dividends paid during the year, plus the amount of TotalEnergies share buybacks in view of their cancellation carried out by the Corporation during the year, divided by the cash flow from operations excluding working capital (CFFO)[(2)] for the fiscal year in question.

The payout (rate of return to shareholders) for fiscal year 2023 was 46.0%[(3)].

Quarterly dividend *(€/share)*



Share buybacks in view of their cancellation *(B$)*



(1) Subject to approval by the Shareholders' Meeting on May 24, 2024. Since January 1, 2018, those dividends received by individuals having their tax residence in France are subject to a 30% flat rate on the gross amount (i.e., 12.8% for income tax and 17.2% for social security contributions). However, with respect to income tax, taxpayers can opt for the taxation of their dividend income at the progressive scale with a 40% rebate.
(2) Refer to the glossary for the definition and further information on alternative performance measures (Non-GAAP measures) and to point 1.9 of chapter 1 for reconciliation tables.
(3) Based on an amount of $16.52 billion, consisting of dividends paid in cash plus TotalEnergies share buybacks during 2023 plus an operating cash flow before working capital changes (CFFO) of $35.95 billion in 2023.

6.2.3 Dividend payment

Société Générale Securities Services manages the payment of the dividend, which is made through financial intermediaries using the Euroclear France direct payment system.

JP Morgan Chase Bank N.A. (383 Madison Avenue, Floor 11, New York, 10179, USA) manages the payment of dividends to holders of TotalEnergies ADR.

Dividend payment on stock certificates

The Corporation issued stock certificates (*certificats représentatifs d'actions*, CR Actions) in Belgium as part of the public exchange offer for Total Petrochemicals & Refining SA/NV (formerly Petrofina) shares.

The CR Actions is a stock certificate provided for by French rules, issued by Euroclear France, intended to circulate exclusively outside of France, and which may not be held by French residents. Since January 1, 2018, in compliance with Belgian law, CR Actions may only be issued in the form of a dematerialized certificate. CR Actions issued before this date are freely convertible from a physical certificate into a dematerialized certification in the form of a security registered on a custody account.

In addition, ING Belgique is the bank handling the payment of all coupons detached from outstanding CR Actions. No fees are applicable to the payment of coupons detached from CR Actions, except for any income or withholding taxes; the payment may be received on request at the following bank branches:

- ING Belgique, Avenue Marnix 24, 1000 Brussels, Belgium,
- BNP Paribas Fortis, Avenue des Arts 45, 1040 Brussels, Belgium, and
- KBC BANK N.V., Avenue du Port 2, 1080 Brussels, Belgium.

6.2.4 Coupons

Fiscal year	Ex-dividend date	Payment date	Date of expiration	Type of coupon	Amount *(in €)*
2016	09/27/2016	10/14/2016	10/14/2021	Interim dividend	0.61
	12/21/2016	01/12/2017	01/12/2022	Interim dividend	0.61
	03/20/2017	04/06/2017	04/06/2022	Interim dividend	0.61
	06/05/2017	06/22/2017	06/22/2022	Final dividend	0.62
2017	09/25/2017	10/12/2017	10/12/2022	Interim dividend	0.62
	12/19/2017	01/11/2018	01/11/2023	Interim dividend	0.62
	03/19/2018	04/09/2018	04/09/2023	Interim dividend	0.62
	06/11/2018	06/28/2018	06/28/2023	Final dividend	0.62
2018	09/25/2018	10/12/2018	10/12/2023	Interim dividend	0.64
	12/18/2018	01/10/2019	01/10/2024	Interim dividend	0.64
	03/19/2019	04/05/2019	04/05/2024	Interim dividend	0.64
	06/11/2019	06/13/2019	06/13/2024	Final dividend	0.64
2019	09/27/2019	10/01/2019	10/01/2024	Interim dividend	0.66
	01/06/2020	01/08/2020	01/08/2025	Interim dividend	0.66
	03/30/2020	04/01/2020	04/01/2025	Interim dividend	0.68
	06/29/2020	07/01/2020	07/01/2025	Final dividend	0.68
2020	09/25/2020	10/02/2020	10/02/2025	Interim dividend	0.66
	01/04/2021	01/11/2021	01/11/2026	Interim dividend	0.66
	03/25/2021	04/01/2021	04/01/2026	Interim dividend	0.66
	06/24/2021	07/01/2021	07/01/2026	Final dividend	0.66
2021	09/21/2021	10/01/2021	10/01/2026	Interim dividend	0.66
	01/03/2022	01/13/2022	01/13/2027	Interim dividend	0.66
	03/22/2022	04/01/2022	04/01/2027	Interim dividend	0.66
	06/21/2022	07/01/2022	07/01/2027	Final dividend	0.66
2022	09/21/2022	10/03/2022	10/03/2027	Interim dividend	0.69
	12/06/2022	12/16/2022	12/16/2027	Special dividend	1.00
	01/02/2023	01/12/2023	01/12/2028	Interim dividend	0.69
	03/22/2023	04/03/2023	04/03/2028	Interim dividend	0.69
	06/21/2023	07/03/2023	07/03/2028	Final dividend	0.74
2023[(a)]	09/20/2023	10/02/2023	10/02/2028	Interim dividend	0.74
	01/02/2024	01/12/2024	01/12/2029	Interim dividend	0.74
	03/20/2024	04/03/2024	04/03/2029	Interim dividend	0.74
	06/19/2024	07/01/2024	07/01/2029	Final dividend	0.79

(a) Subject to approval by the Shareholders' Meeting on May 24, 2024.

6.3 Share buybacks

The Shareholders' Meeting on May 26, 2023, after considering the report from the Board of Directors, authorized the Board of Directors, pursuant to the provisions of Article L. 22-10-62 of the French Commercial Code, of Regulation (EU) No. 596/2014 of April 16, 2014, on market abuse and of the General Regulation (*règlement général*) of the French Financial Markets Authority (*Autorité des marchés financiers*), to buy or sell shares of the Corporation. The number of shares acquired may not exceed 10% of the share capital. The maximum purchase price was set at €100 per share. This authorization was granted for a period of 18 months and replaced the previous authorization granted by the Shareholders' Meeting on May 25, 2022.

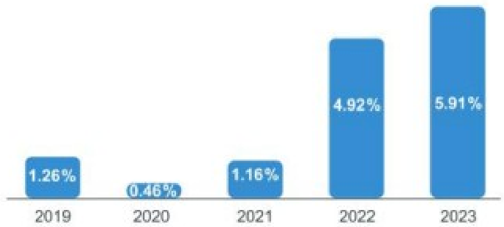
In 2023, TotalEnergies SE bought back 144,700,577 TotalEnergies shares including:

- 142,569,920 TotalEnergies shares in order to cancel them in an amount of $9 billion, and
- 2,130,657 TotalEnergies shares in order to cover the performance share plans approved by the Board of Directors.

In addition, since the closing of fiscal year 2023 until February 29, 2024, TotalEnergies SE bought back 21,813,145 TotalEnergies shares *i.e.*:

- 20,773,547 TotalEnergies shares in order to cancel them in an amount of $1,348 million, and
- 1,039,598 TotalEnergies shares in order to cover the share grant plans approved by the Board of Directors.

Percentage of share capital bought back in order to cancel (2019-2023)



6.3.1 Board of Directors' report on share buybacks and sales

6.3.1.1 Share buybacks during fiscal year 2023

Following the Board of Directors' decisions during its meetings on December 14, 2022 and March 15, July 26 and September 27, 2023, and pursuant to the authorizations granted by the Shareholders' Meetings on May 25, 2022 and May 26, 2023, the Corporation bought back 142,569,920 TotalEnergies shares during fiscal year 2022, in order to cancel them, *i.e.*, 5.9% of the share capital as of December 31, 2023. These shares were bought back for a total amount of €8.33 billion, or $9.00 billion[1], at an average unit price of €58.45.

In addition, the Corporation bought back, in 2022, a total of 2,130,657 TotalEnergies shares for a total of €128 million, at an average unit price of €60.08, in order to cover the performance share plans decided by the Board of Directors, using the authorizations granted by the Shareholders' Meetings.

6.3.1.2 Cancellation of Corporation shares during fiscal years 2021 to 2023

The Board of Directors, pursuant to the authorization granted by the Shareholders' Meetings on May 26, 2017 and on May 25, 2022, to reduce the Corporation's share capital in one or more steps by cancelling shares, in accordance with the provisions of Articles L. 22-10-62 and L. 225-213 of the French Commercial Code, cancelled the following TotalEnergies shares:

Fiscal year	Date of Board of Directors' decision	Number of shares bought back and cancelled	Percentage of share capital cancelled[a]
2023	September 21, 2023[b]	86,012,344	3.44%
	February 6, 2023	128,869,261	4.92%
2022	February 9, 2022	30,665,526	1.16%
2021	February 8, 2021	23,284,409	0.88%

(a) Percentage of the share capital that the cancelled shares represented on the operations' date.
(b) Cancellation effective as of September 25, 2023.

6.3.1.3 Transfer of shares during fiscal year 2023

6,463,426 TotalEnergies shares were transferred to the beneficiaries during fiscal year 2023 following the final award of TotalEnergies shares under share plans decided by the Board of Directors.

6.3.1.4 Shares held in the name of the Corporation as of December 31, 2023

As of December 31, 2023, the Corporation held 60,543,213 treasury shares representing 2.51% of TotalEnergies SE's share capital on that same date, including 3,985,637 shares to cover performance share plans and the remainder in order to cancel.

In accordance with French law, these shares are deprived of voting rights and do not entitle right to dividends.

In addition, shares bought back in order to be allocated to employees of the Corporation or other TotalEnergies' companies when such shares are held to cover expired share purchase option plans or to cover the grants of performance share plans that were not granted by the end of the vesting period, may be held under the conditions applicable to the holding by the Corporation of its own shares and used in accordance with the purposes specified share buyback by the Corporation.

(1) At the ECB exchange rate on the date of the share buybacks.

6.3.1.5 Reallocation of shares for other purposes during fiscal year 2023

Treasury shares held by the Corporation were not, during fiscal year 2023, reallocated for purposes other than those initially planned when purchased.

6.3.1.6 Conditions for the share buybacks and use of derivative instruments

No derivative instruments were used in the context of the share buyback programs authorized by the Shareholders' Meetings on May 25, 2022, and May 26, 2023. TotalEnergies has no open purchase or sale position as of December 31, 2023.

TRANSACTIONS COMPLETED BY THE CORPORATION INVOLVING ITS TREASURY SHARES FROM JANUARY 1 TO DECEMBER 31, 2023

	Cumulative gross movements	
	Purchases	Sales/Transfers
Number of shares	144,700,577	6,463,426[a]
Average transaction price[b] (in €)	58.49	–
Amount of transactions (in €)	8,463,015,314.27[c]	–

(a) Corresponds to the final award of TotalEnergies shares under the performance share plans.
(b) Including brokerage fees (excluding taxes).
(c) Including €1,269,261.94 of brokerage fees (excluding taxes).

TREASURY SHARES AT DECEMBER 31, 2023

Percentage of share capital held by TotalEnergies SE	2.51%
Number of shares held in portfolio	60,543,213[a]
Par value of the portfolio (in €m)	151.4[b]
Book value of the portfolio (in €m)	3,737.7
Market value of the portfolio (in €m)	3,729.5[c]

(a) Including 3,887,587 shares held to cover the performance share plans and 98,050 shares to be awarded under new share purchase option plans or new performance share plans.
(b) Based on a TotalEnergies share par value of €2.50.
(c) Based on TotalEnergies' closing share price of €61.60 on Euronext Paris on December 31, 2023.

6.3.2 Share buyback program

6.3.2.1 Description of the share buyback program under Articles 241-1 et seq. of the AMF General Regulation

The objectives of the share buyback program are as follows:

- reduce the Corporation's capital through the cancellation of shares,
- honor the Corporation's obligations related to securities convertible or exchangeable into Corporation shares,
- honor the Corporation's obligations related to stock option programs or other share grants to the Corporation's executive directors or to employees of the Corporation or of subsidiaries of TotalEnergies, and
- stimulate the secondary market or the liquidity of the TotalEnergies share under a liquidity agreement.

6.3.2.2 Legal framework

Implementation of this share buyback program, which is covered by Articles L. 22-10-62 *et seq.*, L. 225-213 of the French Commercial Code, Articles 241-1 *et seq.* of the General Regulation of the AMF, and the provisions of Regulation (EU) No 596/2014 on market abuse, is subject to approval by the TotalEnergies SE Shareholders' Meeting on May 24, 2024, under the proposed fourth resolution, which reads as follows:

"Upon presentation of the report by the Board of Directors and information appearing in the description of the program prepared pursuant to Articles 241-1 *et seq.* of the General Regulation *(règlement général)* of the French Financial Markets Authority *(Autorité des marchés financiers)*, and voting under the conditions of quorum and majority required for Ordinary Shareholders' Meetings, the shareholders hereby authorize the Board of Directors, with the possibility to sub-delegate such authority under the terms provided for by French law, pursuant to the provisions of Article L. 22-10-62 of the French Commercial Code and of Regulation (EU) No. 596/2014 of April 16, 2014, on market abuse and of the General Regulation of the AMF, to buy or sell shares of the Corporation within the framework of a share buyback program.

The purchase, sale or transfer of such shares may be transacted by any means on regulated markets, multilateral trading facilities or over the counter, including the purchase or sale by block trades, in accordance with the regulations of the relevant market regulatory authorities. Such transactions may include the use of any financial derivative instrument traded on regulated markets and implementing option strategies.

These transactions may be carried out at any time, in accordance with the applicable rules and regulations at the date of the operations under consideration, except during any public offering periods applying to the Corporation's share capital.

The maximum purchase price is set at €100 per share.

In the case of a share capital increase by incorporation of reserves and free share grants or in the case of a stock split or a reverse stock split, this maximum price shall be adjusted by applying the ratio of the number of shares outstanding before the transaction to the number of shares outstanding after the transaction.

Pursuant to the provisions of Article L. 22-10-62 of the French Commercial Code, the maximum number of shares that may be bought back under this authorization may not exceed 10% of the total number of shares composing the capital as of the date on which this authorization is used. This limit of 10% is applicable to the share capital of the Corporation which will be adjusted as a result of transactions impacting the share capital after the date of the present meeting. Purchases made by the Corporation may under no circumstances result in the Corporation holding more than 10% of the share capital, either directly or indirectly through subsidiaries.

As of February 29, 2024, out of the 2,386,846,474 outstanding shares, the Corporation held 56,950,697 shares directly. As a result, the maximum number of shares that the Corporation could buy back is 181,733,950 shares and the maximum amount that the Corporation would spend to acquire such shares is €18,173,395,000.00 (excluding acquisition fees).

The purpose of this share buyback program is to reduce the number of outstanding shares of the Corporation or to allow it to fulfill its engagements in connection with:

- convertible or exchangeable securities that may give holders rights to receive shares of the Corporation; and/or
- share purchase option plans, employee shareholding plans, company savings plans or other share allocation programs for executive directors or employees of the Corporation or TotalEnergies' companies.

The purpose of buybacks may also be the implementation of the market practice accepted by the French Financial Markets Authority (*Autorité des marchés financiers*), i.e., support the secondary market or the liquidity of TotalEnergies shares by an investment services provider by means of a liquidity agreement compliant with the deontology charter recognized by the French Financial Markets Authority (*Autorité des marchés financiers*).

This program may also be used by the Corporation to trade in its own shares, either on or off the market, for any other purpose that is authorized under the applicable law or any other permitted market practice that may be authorized at the date of the operations under consideration. In case of transactions other than the abovementioned intended purposes, the Corporation will inform its shareholders in a press release.

According to the intended purposes, the treasury shares acquired could in particular be either:

- canceled, up to the legal limit of 10% of the total number of shares composing the capital on the date of the operation, per each 24-month period,
- granted for no consideration to the employees and to the executive directors of the Corporation or of TotalEnergies' companies,
- delivered to the beneficiaries of the Corporation's shares purchase options having exercised such options,
- sold to employees, either directly or through the intermediary of company savings funds,
- delivered following the exercise of rights attached to securities giving rights to the allocation of Corporation shares, either through redemption, conversion, exchange, presentation of a warrant or in any other manner, and
- used in any other way consistent with the purposes stated in this resolution.

The shares bought back and held by the Corporation will be deprived of voting rights and dividend rights.

This authorization is granted for an 18-month period from the date of this Meeting. It renders ineffective, up to the unused portion, any previous authorization having the same purpose.

The Board of Directors is hereby granted full authority, with the right to sub-delegate such authority, to undertake all actions authorized by this resolution."

6.3.2.3 Conditions

Maximum share capital to be purchased and maximum funds allocated to the transaction

The maximum number of shares that may be purchased under the authorization provided by the Shareholders' Meeting on May 24, 2024[(1)], may not exceed 10% of the total number of shares composing the capital, with this limit applying to an amount of the Corporation's share capital that will be adjusted, if necessary, to include transactions affecting the share capital subsequent to this Meeting. Purchases made by the Corporation may under no circumstances result in the Corporation holding more than 10% of the share capital, either directly or indirectly through subsidiaries.

Before any share cancellation under the authorization granted by the Shareholders' Meeting on May 24, 2024, based on the number of shares outstanding as of February 29, 2024[(2)] and given the 56,950,697 shares held by the Corporation as of February 29, 2024, representing 2.39% of the share capital, the maximum number of shares that may be purchased would be 181,733,950 representing a theoretical maximum investment of €18,173,395,000.00 (excluding acquisition fees) based on the maximum purchase price of €100.

(1) Subject to approval of the Shareholders' Meeting on May 24, 2024.
(2) 2,386,846,474 shares.

Conditions for buybacks

Such shares may be bought back by any means on regulated markets, multilateral trading facilities or over the counter, including through the purchase or sale of blocks of shares, under the conditions authorized by the relevant market regulatory authorities. These means include the use of any financial derivative instrument traded on a regulated market or over the counter and the implementation of option strategies, with the Corporation taking measures, however, to avoid increasing the volatility of its stock. The portion of the program carried out through the purchase of blocks of shares will not be subject to quota allocation, up to the limit set by this resolution. These transactions may be carried out at any time, in accordance with the applicable rules and regulations, except during any public offering periods applying to the Corporation's share capital.

Duration and schedule of the share buyback program

In accordance with the fourth resolution, submitted to the Shareholders' Meeting on May 24, 2024, the share buyback program may be implemented over an 18-month period following the date of this Meeting, *i.e.*, until November 24, 2025.

Transactions carried out under the previous program

Transactions carried out under the previous program are listed in the special report of the Board of Directors on share buybacks (refer to point 6.3.1 of this chapter).

6.4 Shareholders

6.4.1 Major shareholders

6.4.1.1 Changes in major shareholders' holdings

TotalEnergies SE's major shareholders[1] as of December 31, 2023, 2022 and 2021 were as follows:

	2023			2022		2021	
As of December 31	% of share capital	% of voting rights	% of theoretical voting rights[(a)]	% of share capital	% of voting rights	% of share capital	% of voting rights
BlackRock, Inc.[(b)]	6.5	6.1	6.5	6.6	6.0	6.2	5.3
Employee shareholders[(c)]	7.4	7.6	7.4	6.8	12.4	6.8	11.4
of which FCPE TotalEnergies Actionnariat France (French shareholders' company mutual fund)	*4.6*	*4.7*	*4.6*	*4.2*	*8.1*	*4.2*	*7.3*
Other shareholders	86.1	88.9	86.1	86.6	81.6	87.0	83.3
of which holders of ADR[(d)]	*8.2*	*8.4*	*8.2*	*8.7*	*8.5*	*8.2*	*7.8*

(a) Pursuant to Article 223-11 of the AMF General Regulation, the number of theoretical voting rights is calculated on the basis of all shares to which voting rights are attached, including treasury shares that are deprived of voting rights.
(b) Information taken from Schedule 13G/A filed by BlackRock, Inc ("BlackRock") with the SEC on February 2, 2024, in which BlackRock declares a holding of 157,441,537 shares in TotalEnergies as of December 31, 2023 (*i.e.*, 6.5% of the Corporation's share capital). BlackRock stated that it has the exclusive right to dispose of its holding and of 144,192,502 voting rights (*i.e.*, 6.1% of the Corporation's voting rights). In addition, BlackRock stated that it does not have any joint voting rights or joint right to dispose of these shares.
(c) On the basis of the definition of employee shareholding set forth in Article L. 225-102 of the French Commercial Code and, since 2020, Article 11 para. 6 of the Corporation's Articles of Association. Amundi, the holding company of Amundi Asset Management, which in turn manages the TotalEnergies Actionnariat France fund (see below), filed a Schedule 13G/A with the SEC on February 14, 2024, declaring a holding of 230,121,419 TotalEnergies shares as of December 31, 2023 (9.5% of the Corporation's share capital). Amundi stated that it does not have any exclusive voting rights or exclusive right to dispose of these shares and that it has joint voting rights on 48,862,604 of these shares (*i.e.*, 2.1% of the Corporation's voting rights) and a joint right to dispose of all of these shares.
(d) Including all the American Depositary Shares represented by ADR listed on the NYSE.

The percentage of the holdings of the major shareholders was calculated based on the below data:

As of December 31	2023	2022	2021
Number of shares composing the share capital	2,412,251,835	2,619,131,285	2,640,429,329
Number of voting rights attached to the shares	2,351,708,622	2,671,776,303	2,771,376,477
Number of theoretical voting rights	2,412,251,835[(a)]	2,808,963,970[(b)]	2,805,217,581[(c)]

(a) Exercisable at the Shareholders' Meeting taking into account 60,543,213 voting rights attached to the 60,543,213 TotalEnergies shares held by TotalEnergies SE that are deprived of voting rights.
(b) Exercisable at the Shareholders' Meeting as of December 31, 2022.
(c) Exercisable at the Shareholders' Meeting as of December 31, 2021.

6.4.1.2 Holdings above the legal thresholds

In accordance with the provisions of Article L. 233-13 of the French Commercial Code, to TotalEnergies SE's' knowledge, one identified shareholders held 5% or more of the share capital or voting rights at year-end 2023: BlackRock held, as of December 31, 2023, 6.5% of the share capital representing 6.1% of the voting rights exercisable at Shareholders' Meetings and 6.5% of the theoretical voting rights.

(1) Major shareholders are defined herein as shareholders whose interest exceeds 5% of the share capital or voting rights.

6.4.1.3 Legal threshold notifications in fiscal year 2023

AMF notice no.	Date of passing threshold	Group	Number of shares	% of share capital	% of voting rights	Going below/above threshold of 5% of voting rights	Number of shares composing the share capital	Number of voting rights
223C1103	05/27/2023	Amundi Asset Management	110,846,664	4.45%	4.45%	Below	2,490,262,024	2,490,262,024

6.4.1.4 Threshold notifications required by the bylaws

In addition to the legal obligations to inform notably the Corporation and the French Financial Markets Authority when the number of shares (or securities similar to shares or voting rights pursuant to Article L. 233-9 of the French Commercial Code) held represents more than 5%, 10%, 15%, 20%, 25%, 30%, one third, 50%, two thirds, 90% or 95% of the share capital or theoretical voting rights, such information being made at the latest on the close of the fourth trading day after the threshold is exceeded (Article L. 233-7 of the French Commercial Code and Article 223-14 of the AMF General Regulation), any individual or legal entity who directly or indirectly comes to hold a percentage of the share capital, voting rights or rights giving future access to the Corporation's share capital that is equal to or greater than 1%, or a multiple of this percentage, is required to notify the Corporation within 15 days of the date on which each of the above thresholds is exceeded, by registered mail with return receipt requested, and indicate the number of shares held.

If not declared, any shares held in excess of the threshold that should have been declared will be deprived of voting rights at Shareholders' Meetings if, at a Shareholders' Meeting, the failure to make a declaration is acknowledged and if one or more shareholders holding collectively at least 3% of the Corporation's share capital or voting rights so request at that Meeting.

Any individual or legal entity is also required to notify the Corporation in due form and within the time limits stated above when their direct or indirect holdings fall below each of the thresholds mentioned above.

Notifications must be sent to the Head of Investor Relations, contact details provided in point 6.6.6 of this chapter.

6.4.1.5 Temporary transfer of securities

Pursuant to legal provisions, any legal entity or individual (with the exception of those described in paragraph IV-3 of Article L. 233-7 of the French Commercial Code) holding alone or in concert a number of shares representing more than two percent of the Corporation's voting rights pursuant to one or more temporary transfer or similar operations as described in Article L. 22-10-48 of the aforementioned Code is required to notify the Corporation and the AMF of the number of shares temporarily owned no later than the second business day preceding the Shareholders' Meeting at midnight (Paris time).

Notifications must be emailed to the Corporation at the following address: holding.df-declarationdeparticipation@totalenergies.com.

If no notification is sent, any shares acquired under any of the above temporary transfer operations will be deprived of voting rights at the relevant Shareholders' Meeting and at any Shareholders' Meeting that may be held until such shares are transferred again or returned.

6.4.1.6 Shareholders' agreements

TotalEnergies SE is not aware of any agreements among its shareholders.

6.4.2 Employee shareholding

As of December 31, 2023, based on the definition of employee shareholding set forth in Article L. 225-102 of the French Commercial Code and Article 11 paragraph 6 of the Corporation's Articles of Association, the Company's employees held, directly or indirectly, 177,935,627 TotalEnergies shares, representing 7.4% of the Corporation's share capital and 7.6% of the voting rights, distributed as follows:

FCPE TotalEnergies Actionnariat France	**110,265,012**
FCPE TotalEnergies Actionnariat International Capitalisation	**39,440,696**
FCPE TotalEnergies France Capital+	**1,734,657**
FCPE TotalEnergies Intl Capital	**669,860**
FCPE Direct Energie	**93,632**
Shares subscribed by employees in the US	**1,250,028**
Shares subscribed by employees in Italy, Germany, Spain and Denmark	**1,388,088**
TotalEnergies shares resulting from the exercise of stock options and held as registered shares within a Company Savings Plan	**976,426**
TotalEnergies performance shares granted to employees	**22,117,228**
Total shares held by employees	**177,935,627**

The management of each of the collective investment funds (FCPEs) mentioned above is controlled by a dedicated Supervisory Board, two thirds of its members representing holders of fund units and one third representing the company. In accordance with legal provisions, the employees representing the unitholders are elected from among the unitholder employees as a whole based on the number of units held by each unitholder and, for the exercise of the voting rights attached to the securities issued by the company, after discussion in the presence of the company representatives, the voting operations take place without the latter being present.

The Supervisory Board is responsible for reviewing the collective investment fund's management report and annual financial statements, as well as the financial, administrative and accounting management of the fund, exercising voting rights attached to portfolio securities, deciding contributions of securities in case of a public tender offer, deciding mergers, spin-offs or liquidations, and granting its approval prior to changes in the rules and procedures of the collective investment fund in the conditions provided for by the rules and procedures.

These rules and procedures also stipulate a simple majority vote for decisions, except for decisions requiring a qualified majority vote of two thirds plus one related to a change in a fund's rules and procedures, its conversion or disposal.

For employees holding shares outside of the employee collective investment funds mentioned in the table above, voting rights are exercised individually.

The information regarding shares held by the administration and management bodies is set forth in point 4.1.6 of chapter 4.

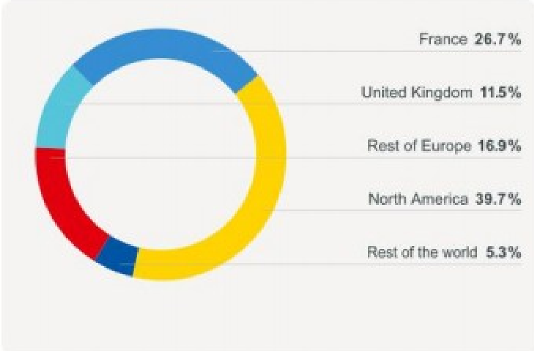
6.4.3 Shareholding structure

Estimate as of December 31, 2023, based on the request for the identification of shareholders made on that date, pursuant to Article L. 228-2 of the French Commercial Code.

By shareholder type

(a) Based on the definition of employee shareholding set forth in Article L. 225-102 of the French Commercial Code and Article 11 paragraph 6 of the Corporation's Articles of Association.

By area[a]



(a) Excluding treasury shares.

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[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

6.6 Investor relations

6.6.1 Documents on display

Information and documents regarding TotalEnergies SE, its bylaws and the Corporation's Statutory and Consolidated Financial Statements for the year ended December 31, 2023, or previous fiscal years, may be consulted at its registered office pursuant to the legal and regulatory provisions in force, as well as on TotalEnergies' website.

In addition, TotalEnergies SE's Reference Documents or Universal Registration Documents (including the annual financial reports) and the interim financial reports (filed with the market authorities) for each of the past 10 financial years are available on the Corporation's website (under Investors/Publications and regulated information). The Company's half-yearly results and outlook presentations, as well as the quarterly financial information, are also available on the TotalEnergies website.

Furthermore, in order to meet its obligations related to the listing of its shares in the United States, the Corporation also files an annual report on Form 20-F, in English, with the SEC. This report is also available on the Corporation's website.

6.6.2 Relationships with institutional investors, financial analysts and individual shareholders

Members of the Company's General Management and Investor Relations regularly meet with institutional investors and financial analysts in the leading financial centers throughout the world.

In 2023, the Company kept up a sustained rate of meetings, mainly held by videoconference. Approximately 1,200 meetings were held.

(1) Apart from the countries and territories mentioned in point 2 bis (2°) of the same article. As of May 1, 2023, the NCCTs concerned by the provision are: Anguilla, Bahamas, Seychelles, Turks and Caicos Islands, Vanuatu and until February 16, 2024 inclusive, British Virgin Islands and Panama.

Each year, two main presentations are given to the financial community: one in February following the publication of the results for the previous fiscal year, and the other in September to present the Company's outlook and objectives. A series of meetings is held after each of these presentations. In addition, each year the Chief Financial Officer hosts three conference calls to discuss results for the first, second and third quarters of the year. The information presented and broadcast at these events are available on the TotalEnergies website.

With a dedicated team, the Company also maintains an ongoing dialogue with investors, extra-financial analysts and extra-financial rating agencies on extra-financial issues. In all, more than 450 extra-financial meetings were organized in France and abroad in 2023. On April 4 and 5, 2023, the Lead Independent Director met with several shareholders representing close to 20% of the share capital of TotalEnergies.

The Sustainability & Climate - Progress Report 2023, presenting the progress made in implementing TotalEnergies' ambitions for sustainable development and energy transition toward carbon neutrality was submitted to an advisory vote at the Annual Shareholders' Meeting held on May 26, 2023. The resolution was approved by the shareholders at close to 89% of the votes cast. The Sustainability & Climate - Progress Report 2024, adopted by the Board of Directors, will be submitted to an advisory vote at the Annual Shareholders' Meeting on May 24, 2024.

In addition, the Company has an ISO 9001 certified team dedicated to relationships with individual shareholders and offering a comprehensive communication package, featuring:

- a direct-line, email address, and postal address (refer to point 6.6.6 of this chapter),
- documentation and material provided for individual shareholders (e.g., the shareholders' newsletter, e-newsletter, etc.),
- shareholder meetings and fairs in France and abroad,
- the Shareholders' Club, which organizes visits to industrial facilities, cultural events sponsored by the TotalEnergies Foundation and conferences about the Company,
- the Shareholders' e-Advisory Committee, which expresses its views on the communication service as a whole.

The documentation on relationships with individual shareholders is available on the TotalEnergies website (under Investors/Individual shareholders).

This team also organized the Annual Shareholders' Meeting which was held on May 26, 2023, in Paris. As the Company is particularly committed to preserving this key moment in the expression of shareholder democracy, it took care to implement the necessary means to facilitate remote participation by shareholders. They were able to follow the meeting in full and live, thanks to its broadcast on the Company's website. Shareholders also had the opportunity to ask questions online via a dedicated platform accessible from the Company's website between May 5 and May 19, 2023, with more than 50 questions received. As every year, the Chairman and Chief Executive Officer spent more than an hour answering them after the questions had been classified by major themes. The replay of the Shareholders' Meeting remains accessible on the TotalEnergies website.

6.6.3 Registered shareholding

TotalEnergies shares can be held in bearer form or registered form. In the latter case, shareholders are identified by TotalEnergies SE, in its capacity as the issuer, or by its agent, Société Générale Securities Services, which is responsible for keeping the register of shareholders' registered shares.

REGISTERED SHARES

There are two forms of registration:

- administered registered shares: shares are registered with TotalEnergies through the Corporation's agent, but the holder's financial intermediary continues to administer them (sales, purchases, coupons, etc.),
- pure registered shares: TotalEnergies holds and directly administers shares on behalf of the holder through the Corporation's agent (sales, purchases, coupons, Shareholders' Meeting notices, etc.), so that the shareholder does not need to appoint a financial intermediary.

MAIN ADVANTAGES OF REGISTERED SHARES

The advantages of registered shares include:

- a customer relations center, Nomilia, available in six languages 24/7 by phone on +33 (0)2 51 85 67 89 (local call rate) with access to an advisor from Société Générale Securities Services, from Monday to Friday (business days) from 8.30 a.m. to 6.00 p.m., Paris time,
- registration as a recipient of all information published by the TotalEnergies for its shareholders,
- the ability to join the TotalEnergies Shareholders' Club by holding at least 50 shares.

The advantages of pure registered shares, in addition to those of administered registered shares, include:

- no custodial fees,
- easier placement of market orders(1) (phone, mail, fax, Internet),
- brokerage fees of 0.19% (incl. tax) of the gross amount of the trade, with no minimum charge and up to €1,000 per trade,
- the option to view and manage shareholdings online via the Sharinbox site.

To convert TotalEnergies shares into pure registered shares, shareholders must fill out a form that can be obtained upon request from the Individual Shareholder Relations Department and send it to their financial intermediary.

(1) Provided the subscriber has signed the market service agreement. Signing this agreement is free of charge.

6.6.4 Forecast financial calendar for 2024

February 7, 2024	Results of the fourth quarter and full year 2023 and Investors' Day
March 20, 2024	Ex-dividend date for the third 2023 interim dividend
March 21, 2024	Sustainability & Climate Workshop
April 3, 2024	Payment date for the third 2023 interim dividend
April 26, 2024	Results of the first quarter of 2024
May 24, 2024	2024 Annual Shareholders' Meeting in Paris
June 19, 2024	Ex-dividend date for the 2023 final dividend[a]
July 1, 2024	Payment date for the 2023 final dividend[a]
July 25, 2024	Results of the second quarter and first half of 2024
September 25, 2024	Ex-dividend date for the first 2024 interim dividend[b]
October 1, 2024	Payment date for the first 2024 interim dividend[b]
October 2, 2024	Investors' Day (outlook and objectives)
October 31, 2024	Results of the third quarter and first nine months of 2024

(a) Subject to approval at the Annual Shareholders' Meeting called to approve the 2023 financial statements.
(b) Subject to the Board of Directors' decision.

The calendar including Shareholders' Meetings and investor fairs is available on the TotalEnergies website (under Investors).

6.6.5 Forecast financial calendar for 2025-2026

January 2, 2025	Ex-dividend date for the second 2024 interim dividend[a]
January 6, 2025	Payment date for the second 2024 interim dividend[a]
March 26, 2025	Ex-dividend date for the third 2024 interim dividend[a]
April 1, 2025	Payment date for the third 2024 interim dividend[a]
May 23, 2025	2025 Annual Shareholders' Meeting in Paris
June 19, 2025	Ex-dividend date for the final 2024 dividend[b]
July 1, 2025	Payment date for the final 2024 interim dividend[b]
October 1, 2025	Ex-dividend date for the first 2025 interim dividend[a]
October 3, 2025	Payment date for the first 2025 interim dividend[a]
January 2, 2026	Ex-dividend date for the second 2025 interim dividend[a]
January 6, 2026	Payment date for the second 2025 interim dividend[a]
April 1, 2026	Ex-dividend date for the third 2025 interim dividend[a]
April 7,2026	Payment date for the third 2025 interim dividend[a]
July 1, 2026	Ex-dividend date for the final 2025 dividend[c]
July 3, 2026	Payment date for the final 2025 interim dividend[c]

(a) Subject to the Board of Directors' decision.
(b) Subject to approval at the Annual Shareholders' Meeting called to approve the 2024 financial statements.
(c) Subject to approval at the Annual Shareholders' Meeting called to approve the 2025 financial statements.

6.6.6 Contacts

Mr. Renaud Lions
Senior Vice President of Investor Relations, TotalEnergies SE

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Mr. Vincent Granier
Head of Individual Shareholder Relations

TotalEnergies SE Individual Shareholder Relations Department
Tour Coupole 2, Place Jean Millier
92078 Paris La Défense Cedex, France
Email address: actionnaires@totalenergies.com

Tel. (Monday to Friday from 9:00 a.m. to 12:30 p.m. and from 1:30 p.m. to 5:00 p.m., Paris time):

- From France: 0800 039 039 (toll-free number from a landline);
- from other countries: +33 (0) 1 47 44 24 02.

7

General information

7.1 Share capital

7.1.1 Amount of share capital

On February 6, 2024, the Board of Directors decided, with effect as of February 12, 2024, to decrease the share capital of TotalEnergies SE by way of cancellation of 25,405,361 treasury shares. As of February 12, 2024, the share capital of the Corporation thus amounts to €5,967,116,185.00 and is divided into 2,386,846,474 shares.

As of December 31, 2023, the share capital amounted to €6,030,629,587.50, divided into 2,412,251,835 ordinary shares, each with a par value of €2.50. All the shares issued have been fully paid up.

7.1.2 Features of the shares

There is a single category of shares. The shares are registered or in bearer form, at the shareholder's discretion.

The shares are in book-entry form and registered in an account.

7.1.3 Potential capital as of December 31, 2023

The potential share capital consists of the existing share capital to which are added the new TotalEnergies shares that could be issued in the event of (i) the conversion or reimbursement in shares of all the securities giving access to the share capital, or (ii) the exercise of all the share subscription options.

As of December 31, 2023, there were no financial instruments likely to result in the creation of new TotalEnergies shares.

7.1.4 History of changes in share capital between 2021 and 2023

Transaction acknowledgment date	Shares created/ (canceled) *(number of shares)*	Type of transaction *(share capital increase/reduction)*	Nominal amount of the transaction *(euros)*	Issuance/ share premium per share *(euros)*	Share capital after the transaction *(euros)*	Shares composing the capital after the transaction *(number of shares)*
Fiscal year 2021						
February 8, 2021	(23,284,409)	Reduction – Cancellation of treasury shares	(58,211,022.50)	n/a	6,574,599,040.00	2,629,839,616
June 9, 2021	10,589,713	Share capital increase reserved for employees	26,474,282.50	28.00[a]	6,601,073,322.50	2,640,429,329

(a) Only the created 10,376,190 shares subscribed by the employees as part of the share capital increase included an issuance premium. The 213,523 shares created for the matching contribution, in the form of free shares pursuant to Article L. 3332-21 of the French Labor Code, did not include an issuance premium.

Transaction acknowledgment date	Shares created/ (canceled) *(number of shares)*	Type of transaction *(share capital increase/reduction)*	Nominal amount of the transaction *(euros)*	Issuance/ share premium per share *(euros)*	Share capital after the transaction *(euros)*	Shares composing the capital after the transaction *(number of shares)*
Fiscal year 2022						
February 9, 2022	(30,665,526)	Reduction – Cancellation of treasury shares	(76,663,815.00)	n/a	6,524,409,507.50	2,609,763,803
April 26, 2022	9,471	Increase - Deferred contribution pursuant to the 2017 capital increase reserved for employees	23,667.50	n/a	6,524,433,185.00	2,609,773,274
June 8, 2022	9,358,011	Share capital increase reserved for employees	23,395,027.50	34.50[a]	6,547,828,212.50	2,619,131,285

(a) Only the created 9,130,380 shares subscribed by the employees as part of the share capital increase included an issuance premium. The 227,631 shares created for the matching contribution, in the form of free shares pursuant to Article L. 3332-21 of the French Labor Code, did not include an issuance premium.

Transaction acknowledgment date	Shares created/ (canceled) (number of shares)	Type of transaction (share capital increase/reduction)	Nominal amount of the transaction (euros)	Issuance/ share premium per share (euros)	Share capital after the transaction (euros)	Shares composing the capital after the transaction (number of shares)
Fiscal year 2023						
February 7, 2023	(128,869,261)	Reduction – Cancellation of treasury shares	(322,173,152.50)	n/a	6,225,655,060.00	2,490,262,024
June 7, 2023	8,002,155	Share capital increase reserved for employees	20,005,387.50	43.10[a]	6,245,660,447.50	2,498,264,179
September 25, 2023	(86,012,344)	Reduction – Cancellation of treasury shares	(215,030,860.00)	n/a	6,030,629,587.50	2,412,251,835

(a) Only the created 7,760,062 shares subscribed by the employees as part of the share capital increase included an issuance premium. The 242,093 shares created for the matching contribution, in the form of free shares pursuant to Article L. 3332-21 of the French Labor Code, did not include an issuance premium.

7.2 Articles of Association; other information

The Annual Shareholders' Meeting held on May 29, 2020 approved to transform TOTAL S.A. into a European company *(Societas Europaea* or SE). The legal status of a European company is common to all the countries in the European Union and is used by an increasing number of companies in France and in Europe. This status better reflects the economic and social reality of TotalEnergies and ensures that its European dimension is fully recognized.

The Corporation officially became a European company on the date it was registered under its new status in the Nanterre Trade and Companies Register, on July 16, 2020. The process was completed without the creation of a new legal entity and had no impact on the Company's governance, activities, tax affairs or organization, the listing places or the location of the registered office, which remained in France.

The Shareholders' Meeting on May 28, 2021 decided to change the corporate name to TotalEnergies SE, thereby anchoring the Corporation's transformation into an integrated energy company.

7.2.1 General information concerning the Corporation

The Corporation's name is TotalEnergies SE.

TotalEnergies SE is a European company governed by French law. The registered office is located at 2, Place Jean Millier, La Défense 6, 92400 Courbevoie, France. It is registered in the Nanterre Trade and Companies Register under No. 542 051 180.

The Corporation's term was extended until March 28, 2119, *i.e.*, it will expire on March 28, 2119, unless dissolved prior to this date or extended.

Fiscal year: from January 1 to December 31 of each year.

LEI (Legal Entity Identifier): 529900S21EQ1BO4ESM68.

EC Registration Number: FR 59 542 051 180.

APE Code (NAF): 111Z until January 7, 2008; 7010Z since January 8, 2008.

The Corporation's Articles of Association are available on the Company's website.

The telephone number is +33 (0)1 47 44 45 46 and its Internet address is totalenergies.com.

7.2.2 Corporate purpose

The purpose of the Corporation, directly and indirectly and in all countries, is:

1. All activities relating to production and distribution of all forms of energy, including electricity from renewables;
2. The search for and extraction of mining deposits, particularly all forms of hydrocarbons, and the production, refining, transportation, processing and trading in said materials as well as their derivatives and by-products;
3. All activities relating to the chemicals sector in all its forms and to the rubber sector;

And in general, all financial, commercial, industrial, securities or real estate transactions, and acquisitions of interests or holdings in any form whatsoever, in any business or company existing or to be created that may relate, directly or indirectly, to the above-mentioned purposes or to any similar or related purposes, of such nature as to promote the Company's expansion or its development.

7.2.3 Provisions of the Articles of Association governing the administration and management bodies

7.2.3.1 Election of directors and term of office

Directors are elected up to a maximum number of directors authorized by law (currently 18) by the Shareholders' Meeting, which determines the duration of their term of office not to exceed three years, subject to the legal provisions that allow the term to be extended until the next Ordinary Shareholders' Meeting called to approve the financial statements for the previous fiscal year.

In addition, one director representing the employee shareholders is elected by the Shareholders' Meeting for a three-year term from a list of at least two candidates preselected by the employee shareholders under the conditions provided for by the laws, regulations and Articles of Association in force. However, his or her term shall expire automatically once this director is no longer an employee or a shareholder. The Board of Directors may meet and conduct valid deliberations until the date his or her replacement is named.

In addition, a director representing the employees is designated by the Corporation's Central Social and Economic Committee. Where the number of directors appointed by the Shareholders' Meeting is greater than eight[1], a second director representing the employees is designated by the TotalEnergies European Works Council (the SE Committee). In accordance with applicable legal provisions, the director elected by the Central Social and Economic Committee must have held an employment contract with the Corporation or one of its direct or indirect subsidiaries, whose registered office is based in mainland France, for at least two years prior to appointment. By way of derogation, the second director elected by the SE Committee must have held an employment contract with the Corporation or one of its direct or indirect subsidiaries for at least two years prior to appointment. The term of office for a director representing the employees is three years. However, the term of office ends following the Ordinary Shareholders' Meeting called to approve the financial statements for the last fiscal year and held in the year during which the said director's term of office expires.

7.2.3.2 Age limit of directors

On the closing date of each fiscal year, the number of individual directors over the age of 70 may not be greater than one third of the directors in office. If that number is exceeded, the oldest Board member is automatically considered to have resigned. The permanent representative of a legal entity director must be less than 70 years old.

7.2.3.3 Age limit of the Chairperson of the Board and the Chief Executive Officer

The office of the Chairperson of the Board of Directors automatically ceases on his or her 70th birthday at the latest.

To hold this office, the Chief Executive Officer must be under the age of 67. When the age limit is reached during his or her duties, such duties automatically cease, and the Board of Directors elects a new Chief Executive Officer. However, his or her duties as Chief Executive Officer will continue until the date of the Board of Directors' meeting aimed at electing his or her successor. Subject to the age limit specified above, the Chief Executive Officer can always be re-elected.

The age limits specified above are stipulated in the Corporation's Articles of Association.

7.2.3.4 Minimum interest in the Company held by directors

Each director (other than the director representing employee shareholders or the directors representing employees) must own at least 1,000 shares during his or her term of office. If, however, any director ceases to own the required number of shares, they may adjust their position subject to the conditions set by law. The director representing employee shareholders must hold, during his or her term of office, either individually or through a Company Savings Plan (*Fonds Commun de Placement d'Entreprise*, FCPE) governed by Article L. 214-165 of the French Monetary and Financial Code, at least one share or a number of units in said fund equivalent to at least one share. The directors representing employees are not required to be shareholders.

7.2.3.5 Majority rules for Board meetings

Decisions are adopted by a majority vote of the directors present or represented. In the event of a tie vote, the person chairing the meeting shall cast the deciding vote.

When permitted by applicable regulations, directors participating in the meeting by means of video conferencing or telecommunications as defined by decree shall be deemed present for the calculation of the *quorum* and the majority.

7.2.3.6 Rules of procedure and Committees of the Board of Directors

Refer to point 4.1.2 of chapter 4.

7.2.3.7 Form of management

Management of the Corporation is assumed either by the Chairperson of the Board of Directors (who then holds the title of Chairman and Chief Executive Officer), or by another person appointed by the Board of Directors with the title of Chief Executive Officer. It is the responsibility of the Board of Directors to choose between these two forms of management under the majority rules described above.

At its meeting on December 16, 2015, the Board of Directors decided to reunify the positions of Chairperson and Chief Executive Officer of the Corporation as from December 19, 2015. Since that date, Mr. Pouyanné has held the position of Chairman and Chief Executive Officer of TotalEnergies SE. After his term of office as director was renewed for a three-year period at the Shareholders' Meeting on May 28, 2021, the Board of Directors reappointed Mr. Pouyanné as Chairman and Chief Executive Officer for the same period, expiring at the end of the 2024 Shareholders' Meeting called to approve the financial statements for fiscal year 2023.

The Board of Directors, at its meeting held on September 21, 2023, after reaffirming its support to the quality and the relevance of the strategy implemented, considered that it is highly desirable that Mr. Patrick Pouyanné, Chairman and Chief Executive Officer, continues to drive this strategy's deployment at the helm of the Company. On the proposal of the Governance and Ethics Committee, it has therefore been unanimously decided that the renewal of the mandate of Mr. Patrick Pouyanné will be proposed to the Shareholders' Meeting to be held on May, 24 2024. In the frame of the balanced governance implemented since 2015, it also unanimously decided to propose the renewal of the mandate of Mr. Jacques Aschenbroich, who has held the position of Lead Independent Director since May 2023.

Unified management form

The discussions held with the Governance and Ethics Committee in the best interests of the Corporation had led to a firm proposal to continue to combine the functions of Chairman and Chief Executive Officer. Indeed, this management form of the Corporation is considered to be the most appropriate for dealing with the challenges and specificities of the energy sector, which is facing major transformations. More than ever, this context requires agility of movement, which the unity of command reinforces, by giving the Chairman and Chief Executive Officer the power to act and increased representation of the Corporation in its strategic negotiations with States and partners of the Company.

(1) Neither the director representing employee shareholders, elected by the Annual Shareholders' Meeting, nor the director(s) representing employees are taken into consideration when calculating the eight-member threshold, which is assessed on the date on which the employee director(s) is/are elected.

Balance of power

The unity of the power to manage and represent the Corporation is also particularly well regulated by the Corporation's governance.

The balance of power is established through the quality, complementarity and independence of the members of the Board of Directors and its four Committees, as well as through the Articles of Association and the Board's Rules of Procedure, which define the means and prerogatives of the Lead Independent Director, notably:

- in his relations with the Chairman and Chief Executive Officer: contribution to the agenda of Board meetings or the possibility of requesting a meeting of the Board of Directors and sharing opinions on major issues;
- in his contribution to the work of the Board of Directors: chairing meetings in the absence of the Chairman and Chief Executive Officer, or when the examination of a subject requires his abstention, evaluation and monitoring of the functioning of the Board, prevention of conflicts of interest, and dialogue with the directors and Committee Chairpersons;
- in his relations with shareholders: the possibility, with the approval of the Chairman and Chief Executive Officer, of meeting with them on corporate governance issues, a practice that has already been used on several occasions.

The balance of power within the governance bodies, in addition to the independence of its members, is further strengthened by the full involvement of the directors, whose participation in the work of the Board and its Committees is exemplary. The diversity of their skills and expertise also enables the Chairman and Chief Executive Officer to benefit from a wide range of contributions.

In addition, the Board's rules of procedures provide that any investment or divestment transactions contemplated by the Company involving amounts in excess of 3% of shareholders' equity must be approved by the Board, which is also kept informed of all significant events concerning the Corporation's operations, in particular investments and divestments in excess of 1% of shareholders' equity.

Lastly, the Corporation's Articles of Association provide the necessary guarantees of compliance with good governance practices in the context of a unified management structure. In particular, they provide that the Board may be convened by any means, including orally, or even at short notice depending on the urgency of the matter, by the Chairman or by one third of its members, including the Lead Independent Director, at any time and as often as the interests of the Corporation require.

7.2.4 Rights, privileges and restrictions attached to the shares

In addition to the voting right, each share entitles the holder to a portion of the corporate assets, distributions of profits and liquidation dividend that is proportional to the number of shares issued, subject to the laws and regulations in force, as well as the Articles of Association.

No privilege is attached to a specific class of shares or to a specific class of shareholders.

Since the decision of the Extraordinary Shareholders' Meeting held on May 26, 2023, which decided to eliminate double voting rights, no double voting right is attached to the shares of the Corporation.

7.2.4.1 Voting rights

Each share of the Corporation entitles to one vote.

7.2.4.2 Limitation of voting rights

Article 18 of the Corporation's Articles of Association provides that at Shareholders' Meetings, no shareholder may cast, by himself or through his agent, on the basis of the voting rights attached to the shares he holds directly or indirectly and the shares for which he holds powers, more than 10% of the total number of voting rights attached to the shares of the Corporation.

Additionally, Article 18 of the Articles of Association also provides that the limitation on voting rights no longer applies, absent any decision of the Shareholders' Meeting, if an individual or a legal entity acting solely or together with one or more individuals or entities acquires at least two thirds of the shares of the Corporation following a public tender offer for all the shares of the Corporation. In that case, the Board of Directors acknowledges that the limitation no longer applies and carries out the necessary procedure to modify the Corporation's Articles of Association accordingly.

Once acknowledged, the fact that the limitation no longer applies is final and applies to all Shareholders' Meetings following the public tender offer under which the purchase of at least two thirds of the overall number of shares of the Corporation was made possible, and not solely to the first meeting following that public tender offer.

Since in such circumstances the limitation no longer applies, such limitation on voting rights cannot prevent or delay any takeover of the Corporation, except in case of a public tender offer where the bidder does not acquire at least two thirds of the Corporation's share capital.

7.2.4.3 Fractional rights

Whenever it is necessary to own several shares in order to exercise a right, a number of shares less than the number required does not give the owners any right with respect to the Corporation; in such case, the shareholders are responsible for aggregating the required number of shares.

7.2.4.4 Statutory allocation of profits

The Corporation may distribute dividends under the conditions provided for by the French Commercial Code and the Corporation's Articles of Association.

The net profit for the period is equal to the net income minus general expenses and other personnel expenses, all amortization and depreciation of the assets, as well as all provisions for commercial and industrial contingencies.

From this profit, minus prior losses, if any, the following items are deducted in the order indicated:

- 5% to constitute the legal reserve fund, until said fund reaches 10% of the share capital,
- the amounts set by the Shareholders' Meeting in order to fund reserves for which it determines the allocation or use, and
- the amounts that the Shareholders' Meeting decides to retain.

The remainder is paid to the shareholders as dividends.

The Board of Directors may pay interim dividends.

The Shareholders' Meeting held to approve the financial statements for the fiscal year may decide to grant shareholders an option, for all or part of the dividend or interim dividends, between payment of the dividend in cash or in shares.

The Shareholders' Meeting may decide at any time, but only based on a proposal by the Board of Directors, to make a full or partial distribution of the amounts in the reserve accounts, either in cash or in shares of the Corporation.

Dividends that have not been claimed at the end of a five-year period are forfeited to the French State.

7.2.5 Amending shareholders' rights

Any amendment to the Articles of Association must be approved or authorized by the Shareholders' Meeting voting with the *quorum* and majority required by the laws and regulations governing Extraordinary Shareholders' Meetings.

7.2.6 Shareholders' Meetings

Refer to point 4.4.3 of chapter 4 for the terms and conditions of the notice of and admission to Shareholders' Meetings.

7.2.7 Identification of the holders of bearer shares

In accordance with Article 9 of its Articles of Association, TotalEnergies SE is entitled to make use of the legal provisions regarding identification of holders of securities that grant an immediate or future voting right at the Corporation Shareholders' Meetings.

Law No. 2019-486 of May 22, 2019, on the growth and transformation of businesses amended Article L. 228-2 of the French Commercial Code to stipulate that this ability to make use of the procedure is a matter of law, and any provision of the Articles of Association to the contrary shall be deemed unwritten.

7.2.8 Thresholds to be declared according to the Articles of Association

Any individual or entity who directly or indirectly acquires a percentage of the share capital, voting rights or rights giving future access to the share capital of the Corporation that is equal to or greater than 1%, or a multiple of this percentage, is required to notify the Corporation within 15 days of crossing each threshold, by registered mail with return receipt requested, and to declare the number of securities held.

In the event that the shares above these thresholds are not declared, as specified in the preceding paragraph, any shares held in excess of the threshold that should have been declared will be deprived of voting rights at Shareholders' Meetings if, at a Shareholders' Meeting, the failure to make a declaration is acknowledged and if one or more shareholders holding collectively at least 3% of the Corporation's share capital or voting rights so request at that meeting.

All individuals and entities are also required to notify the Corporation, in due form and within the time limits stated above, when their direct or indirect holdings fall below each of the thresholds mentioned in the first paragraph.

7.2.9 Changes in the share capital

The Corporation's share capital may be changed only under the conditions stipulated by the legal and regulatory provisions in force. No provision of the Articles of Association, charter, or internal regulations provide for more stringent conditions than the law governing changes in the Corporation's share capital.

The French Commercial Code stipulates that shareholders hold, in proportion to their number of shares, a preemptive subscription right to shares issued for cash as par of share capital increase. The Extraordinary Shareholders' Meeting can decide, under the conditions provided for by law, to remove this preemptive subscription right.

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

9

Supplemental oil and gas information (unaudited)

9.1 Oil and gas information pursuant to FASB Accounting Standards Codification 932

Proved reserves estimates are calculated according to the Securities and Exchange Commission (SEC) Rule 4-10 of Regulation S-X set forth in the "Modernization of Oil and Gas Reporting" release (SEC Release n° 33-8995) and the Financial Accounting Standard Board (FASB) Accounting Standards Update regarding Extractive Activities – Oil and Gas (ASC 932), which provide definitions and disclosure requirements.

9.1.1 Assessment process for reserves

Reserves estimations are performed by experienced geoscientists, engineers and economists under the supervision of each subsidiary's General Management. Staff involved in reserves evaluation are trained to follow SEC-compliant internal guidelines and policies regarding criteria that must be met before reserves can be considered as proved. As of December 31, 2023, all of the Company's proved reserves held in consolidated subsidiaries and equity affiliates are estimated within the affiliates of the Company.

The technical validation process relies on a Technical Reserves Committee that is responsible for approving proved reserves variations above a certain threshold and technical evaluations of reserves associated with an investment decision that requires approval from the Exploration & Production Executive Committee. The Chairman of the Technical Reserves Committee is appointed by the President of Exploration & Production and the President of the OneTech Branch, and its members have expertise in reservoir engineering, production geology, production geophysics, reserves methodology, drilling and development studies.

An internal control process related to reserves estimation is formalized and involves the following elements:

- a central Reserves Entity, the role of which is to consolidate, document and archive the Company's reserves; to ensure coherence of evaluations worldwide; to maintain the Corporate Reserves Guidelines Standards in line with SEC guidelines and policies; to deliver training on reserves evaluation and classification; and to conduct periodically in-depth technical review of reserves for each affiliate,
- an annual review of affiliate reserves conducted by an internal group of specialists selected for their expertise in geosciences and engineering and their knowledge of the affiliates. All members of this group, chaired by the Reserves Vice-President of the Company and composed of at least three Technical Reserves Committee members, are knowledgeable in the SEC guidelines for proved reserves evaluation. Their responsibility is to provide an independent review of significant reserves changes proposed by affiliates and ensure that reserves are estimated using appropriate standards and procedures,
- Following the annual review of the reserves, a SEC Reserves Committee chaired by the Exploration & Production Senior Vice President Finance and Economics and comprised of the New Business - Carbon Neutrality EP, the Legal EP, the Finance EP, the Reserves Vice Presidents as well as the Chairman of the Technical Reserves Committee, approves the elements of the SEC reserves booking proposals concerning criteria that are not dependent upon technical expertise (reservoir, geosciences, etc.). The results of the annual review and the proposals for including revisions or additions of SEC Proved Reserves are presented to the Exploration & Production Executive Committee for approval before final validation by the Company's General Management and Chief Financial Officer.

The reserves evaluation and control process are audited periodically by the Company's internal auditors.

The Reserves Vice-President in charge of the central Reserves Entity is appointed by the President of Exploration & Production. As Reserves Vice-President, he supervises the Reserves Entity, chairs the annual review of reserves, and is member of the Technical Reserves Committee and the SEC Reserves Committee. The Reserves Vice-President is also member of the Development Committee of the OneTech Branch. The current Reserves Vice-President has over 34 years of experience in the oil and gas industry, with skills in geosciences and reservoir engineering, as well as in the field of reserves evaluation and control process. He holds an engineering degree from Ecole Nationale Supérieure de Géologie de Nancy, France and a Master of Science from Stanford University, California. He is an active member of the SPE (Society of Petroleum Engineers) for more than 30 years.

9.1.2 Proved developed reserves

As of December 31, 2023, TotalEnergies' proved developed reserves of hydrocarbons (oil, bitumen and gas) were 6,835 Mboe and represented 65% of the proved reserves. As of December 31, 2022, proved developed reserves of hydrocarbons were 6,990 Mboe and represented 69% of the proved reserves[(1)]. As of December 31, 2021, proved developed reserves of hydrocarbons were 7,980 Mboe and represented 66% of the proved reserves.

9.1.3 Proved undeveloped reserves

As of December 31, 2023, TotalEnergies' proved undeveloped reserves (PUDs) of hydrocarbons were 3,729 Mboe compared to 3,200 Mboe as of December 31, 2022 and 4,082 Mboe as of December 31, 2021[(2)]. The variation between December 31, 2022 and December 31, 2023 is due to:

- -504 Mboe converted from PUDs to proved developed reserves within the scope of development activities in Azerbaijan, Brazil, the United Arab Emirates, Nigeria, Australia, Norway, Qatar and Oman. This confirms once again the Company's ability to develop and bring into production large scale and complex projects;
- +155 Mboe of net revisions of previous estimates which break down to +17 Mboe due to change of economic factors mainly from production sharing contracts, +63 Mboe due to technical revisions and +75 Mboe due to improved recovery;

(1) A year-over-year revision of -1,086 Mboe was recorded after thedeconsolidation of Company's share in Novatek at December 31, 2022.
(2) The variation between December 31, 2021 and December 31, 2022 included -653 Mboe due to Novatek, including a revision of -536 Mboe after the deconsolidation of the Company's share in this company.

- +71 Mboe related to extensions and discoveries, mainly in Argentina, Angola, China and the United States;
- -241 Mboe from sales, mainly in Canada;
- +1,048 Mboe from acquisitions in Qatar, Iraq, the United Arab Emirates and Argentina.

In 2023, the costs incurred to develop proved undeveloped reserves were $6.9 billion, which represented 79% of 2023 development costs incurred, and were related to projects located for the most part in Uganda, the United Arab Emirates, the United States, Qatar, Norway and Iraq.

The Company's PUDs that may remain undeveloped for five years or more after first disclosure (PUD5+) correspond to the remaining PUD on large scale and complex development projects and to field development projects the implementation of which is dependent on capacity constraints.

Although the Company has converted significant amount of reserves associated to large scale and complex projects from PUD5+ into developed reserves in the last years, those projects still hold PUD5+ that are expected to be developed over time as part of initial field development plans or additional development phases.

In addition, some projects are designed and optimized for a given production capacity that controls the pace at which the field is developed and the wells are drilled. At production start-up, only a portion of the proved reserves is developed to meet capacity constraints and contractual obligations.

Under these specific circumstances, the Company believes that it is justified to report as proved reserves those PUDs, the development of which could span over more than five years after the launching of the project.

9.1.4 Estimated proved reserves of oil, bitumen and gas

The following tables present, for oil, bitumen and gas reserves, an estimate of the Company's oil, bitumen and gas quantities by geographic areas as of December 31, 2023, 2022 and 2021.

Quantities shown correspond to proved developed and undeveloped reserves together with changes in quantities for 2023, 2022 and 2021.

The definitions used for proved, proved developed and proved undeveloped oil and gas reserves are in accordance with the revised Rule 4-10 of SEC Regulation S-X.

All references in the following tables to reserves or production are to the Company's entire share of such reserves or production. TotalEnergies's worldwide proved reserves include the proved reserves of its consolidated subsidiaries as well as its proportionate share of the proved reserves of equity affiliates.

Year-over-year variations in proved reserves at December 31, 2023 are detailed in sections 9.1.2, 9.1.3 and are complemented below.

For consolidated subsidiaries, the revisions of +465 Mboe for the year 2023 were due to:

- +409 Mboe due to new information obtained from drilling and production history, notably in recent developments and improved recovery. These revisions are mainly in Brazil, Australia, Algeria, United Arab Emirates and Norway;
- -84 Mboe due to change of economic factors leading to reduced economic life mainly in North America and in mature assets in North Sea;
- +125 Mboe resulting from contractual and royalty effects linked to low prices in 2023;
- +15 Mboe resulting from variations linked to reclassifications and license extensions.

For consolidated subsidiaries, the acquisitions correspond to the recognition of proved reserves in United Arab Emirates, Iraq and Argentina. The sales were completed in Canada, Kazakhstan and Netherlands.

For equity affiliates, year-over-year revisions of +73 Mboe at December 31, 2023 are mainly due to license extensions in Oman. The acquisition corresponds to the recognition of proved reserves in Qatar.

9.1.4.1 Changes in oil, bitumen and gas reserves

Proved developed and undeveloped reserves *(in million barrels of oil equivalent)*	Consolidated subsidiaries Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[(a)]	Russia	Middle East and North Africa	Total
Balance as of December 31, 2020 – Brent at 41.32$/b	**1,757**	**1,572**	**1,300**	**1,219**	**12**	**2,245**	**8,105**
Revisions of previous estimates	134	132	33	231	(3)	51	578
Extensions, discoveries and other	285	24	7	17	<1	100	433
Acquisitions of minerals in place	–	12	–	–	–	41	53
Sales of minerals in place	(16)	–	–	–	–	–	(16)
Production for the year	(187)	(135)	(113)	(162)	(1)	(164)	(762)
Balance as of December 31, 2021 – Brent at 69.23$/b	**1,973**	**1,605**	**1,227**	**1,305**	**8**	**2,273**	**8,391**
Revisions of previous estimates	(27)	294	14	97		95	473
Extensions, discoveries and other	15	153	16	4		15	203
Acquisitions of minerals in place	–	182	–	–		42	224
Sales of minerals in place	(9)	(21)	–	(11)		(9)	(50)
Production for the year	(166)	(155)	(96)	(164)		(178)	(759)
Balance as of December 31, 2022 – Brent at 101.24$/b	**1,786**	**2,058**	**1,161**	**1,239**		**2,238**	**8,482**
Revisions of previous estimates	144	89	68	56		108	465
Extensions, discoveries and other	18	38	13	–		1	70
Acquisitions of minerals in place	–	12	–	–		346	358
Sales of minerals in place	–	(589)	(20)	–		–	(609)
Production for the year	(165)	(155)	(94)	(166)		(204)	(784)
December 31, 2023 – Brent at 83.27$/b	**1,783**	**1,453**	**1,128**	**1,129**		**2,489**	**7,982**
Minority interest in proved developed and undeveloped reserves as of							
December 31, 2021 – Brent at 69.23$/b	61	–	–	–		–	61
December 31, 2022 – Brent at 101.24$/b	53	–	–	–		–	53
December 31, 2023 – Brent at 83.27$/b	**51**	**–**	**–**	**–**		**–**	**51**

(a) As of January 1, 2022, the Europe column includes the Russia data.

Proved developed and undeveloped reserves *(in million barrels of oil equivalent)*	Equity affiliates							
	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[a]	Russia	Middle East and North Africa	Total	*Total excl. Novatek*[b]
Balance as of December 31, 2020 – Brent at 41.32$/b	**79**	**79**	**–**	**–**	**2,943**	**1,122**	**4,223**	***2,297***
Revisions of previous estimates	(3)	(<1)	–	–	(473)	82	(394)	*(144)*
Extensions, discoveries and other	–	–	–	–	187	–	187	*8*
Acquisitions of minerals in place	–	–	–	–	–	–	–	–
Sales of minerals in place	–	(78)	–	–	–	–	(78)	*(78)*
Production for the year	(7)	(1)	–	–	(180)	(79)	(267)	*(154)*
Balance as of December 31, 2021 – Brent at 69.23$/b	**69**	**–**	**–**	**–**	**2,477**	**1,125**	**3,671**	***1,929***
Revisions of previous estimates	8	–	–	(1,621)		50	(1,563)	*59*
Extensions, discoveries and other	2	–	–	–		–	2	*2*
Acquisitions of minerals in place	–	–	–	–		–	–	–
Sales of minerals in place	–	–	–	(152)		–	(152)	*(152)*
Production for the year	(6)	–	–	(170)		(74)	(250)	*(130)*
Balance as of December 31, 2022 – Brent at 101.24$/b	**73**	**–**	**–**	**534**		**1,101**	**1,708**	***1,708***
Revisions of previous estimates	6	–	–	–		67	73	*73*
Extensions, discoveries and other	–	–	–	–		–	–	–
Acquisitions of minerals in place	–	–	–	–		923	923	*923*
Sales of minerals in place	–	–	–	–		–	–	–
Production for the year	(7)	–	–	(40)		(75)	(122)	*(122)*
Balance as of December 31, 2023 – Brent at 83.27$/b	**72**	**–**	**–**	**494**		**2,016**	**2,582**	***2,582***

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) Given the material nature of the deconsolidation in 2022 of the reserves relating to the Company's share in Novatek, this column displays, for information, the Company's proved reserves, excluding Novatek.

Proved developed and undeveloped reserves *(in million barrels of oil equivalent)*	Consolidated subsidiaries and equity affiliates							
	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[(a)]	Russia	Middle East and North Africa	Total	*Total excl. Novatek[(b)]*
As of December 31, 2021 – Brent at 69.23$/b								
Proved developed and undeveloped reserves	**2,042**	**1,605**	**1,227**	**1,305**	**2,485**	**3,398**	**12,062**	***10,320***
Consolidated subsidiaries	1,973	1,605	1,227	1,305	8	2,273	8,391	*8,391*
Equity affiliates	69	–	–	–	2,477	1,125	3,671	*1,929*
Proved developed reserves	**1,010**	**823**	**957**	**907**	**1,543**	**2,740**	**7,980**	***6,891***
Consolidated subsidiaries	1,005	823	957	907	7	1,789	5,488	*5,488*
Equity affiliates	5	–	–	–	1,536	951	2,492	*1,403*
Proved undeveloped reserves	**1,032**	**782**	**270**	**398**	**942**	**658**	**4,082**	***3,429***
Consolidated subsidiaries	968	782	270	398	1	484	2,903	*2,903*
Equity affiliates	64	–	–	–	941	174	1,179	*526*
As of December 31, 2022 – Brent at 101.24$/b								
Proved developed and undeveloped reserves	**1,859**	**2,058**	**1,161**	**1,773**		**3,339**	**10,190**	***10,190***
Consolidated subsidiaries	1,786	2,058	1,161	1,239		2,238	8,482	*8,482*
Equity affiliates	73	–	–	534		1,101	1,708	*1,708*
Proved developed reserves	**919**	**1,243**	**920**	**1,173**		**2,735**	**6,990**	***6,990***
Consolidated subsidiaries	914	1,243	920	842		1,785	5,704	*5,704*
Equity affiliates	5	–	–	331		950	1,286	*1,286*
Proved undeveloped reserves	**940**	**815**	**241**	**600**		**604**	**3,200**	***3,200***
Consolidated subsidiaries	872	815	241	397		453	2,778	*2,778*
Equity affiliates	68	–	–	203		151	422	*422*
As of December 31, 2023 – Brent at 83.27$/b								
Proved developed and undeveloped reserves	**1,855**	**1,453**	**1,128**	**1,624**		**4,504**	**10,564**	***10,564***
Consolidated subsidiaries	1,783	1,453	1,128	1,130		2,488	7,982	*7,982*
Equity affiliates	72	–	–	494		2,016	2,582	*2,582*
Proved developed reserves	**871**	**919**	**912**	**1,185**		**2,948**	**6,835**	***6,835***
Consolidated subsidiaries	865	919	912	882		1,972	5,550	*5,550*
Equity affiliates	6	–	–	303		976	1,285	*1,285*
Proved undeveloped reserves	**984**	**534**	**216**	**439**		**1,556**	**3,729**	***3,729***
Consolidated subsidiaries	918	534	216	248		516	2,432	*2,432*
Equity affiliates	66	–	–	191		1,040	1,297	*1,297*

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) Given the material nature of the deconsolidation in 2022 of the reserves relating to the Company's share in Novatek, this column displays, for information, the Company's proved reserve, excluding Novatek.

9.1.4.2 Changes in oil & bitumen reserves

The oil reserves include crude oil, condensates and natural gas liquids reserves[(1)].

Proved developed and undeveloped reserves *(in million barrels)*	Consolidated subsidiaries							
	Oil							Bitumen
	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[(a)]	Russia	Middle East and North Africa	Total	Americas
Balance as of December 31, 2020 – Brent at 41.32$/b	**906**	**515**	**575**	**569**	**10**	**1,961**	**4,536**	**467**
Revisions of previous estimates	89	45	22	104	(2)	39	297	(17)
Extensions, discoveries and other	272	5	<1	6	<1	8	291	–
Acquisitions of minerals in place	–	12	–	–	–	11	23	–
Sales of minerals in place	(14)	–	–	–	–	–	(14)	–
Production for the year	(144)	(31)	(40)	(82)	(1)	(141)	(439)	(33)
Balance as of December 31, 2021 – Brent at 69.23$/b	**1,109**	**546**	**557**	**597**	**7**	**1,878**	**4,694**	**417**
Revisions of previous estimates	(4)	39	3	55		62	155	240[(b)]
Extensions, discoveries and other	15	54	–	2		1	72	–
Acquisitions of minerals in place	–	173	–	–		34	207	–
Sales of minerals in place	(8)	–	–	(7)		(9)	(24)	–
Production for the year	(129)	(50)	(33)	(79)		(152)	(443)	(37)
Balance as of December 31, 2022 – Brent at 101.24$/b	**983**	**762**	**527**	**575**		**1,814**	**4,661**	**620**
Revisions of previous estimates	81	116	36	33		84	350	–
Extensions, discoveries and other	4	2	–	–		1	7	–
Acquisitions of minerals in place	–	–	–	–		334	334	–
Sales of minerals in place	–	–	(18)	–		–	(18)	(589)
Production for the year	(125)	(61)	(39)	(83)		(172)	(480)	(31)
December 31, 2023 – Brent at 83.27$/b	**943**	**819**	**506**	**525**		**2,061**	**4,854**	**–**
Minority interest in proved developed and undeveloped reserves as of								
December 31, 2021 – Brent at 69.23$/b	54	–	–	–		–	54	–
December 31, 2022 – Brent at 101.24$/b	48	–	–	–		–	48	–
December 31, 2023 – Brent at 83.27$/b	**44**	**–**	**–**	**–**		**–**	**44**	**–**

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) The significant revisions in 2022 are mainly due to changes in economical conditions impacting Fort Hills mine project.

(1) The tables do not include separate figures for NGL reserves because they represented less than 8.5% of the Company's proved developed and undeveloped oil reserves in each of the years 2021, 2022 and 2023.

Proved developed and undeveloped reserves *(in million barrels)*	Equity affiliates[a]							
	Oil							
	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[b]	Russia	Middle East and North Africa	Total	*Total excl. Novatek[c]*
Balance as of December 31, 2020 – Brent at 41.32$/b	**11**	**76**	**–**	**–**	**330**	**384**	**801**	***548***
Revisions of previous estimates	1	(1)	–	–	(24)	71	47	*61*
Extensions, discoveries and other	–	–	–	–	34	–	34	*1*
Acquisitions of minerals in place	–	–	–	–	–	–	–	–
Sales of minerals in place	–	(75)	–	–	–	–	(75)	*(75)*
Production for the year	(2)	(<1)	–	–	(26)	(47)	(75)	*(56)*
Balance as of December 31, 2021 – Brent at 69.23$/b	**10**	**–**	**–**	**–**	**314**	**408**	**732**	***479***
Revisions of previous estimates	4	–	–	(234)		47	(183)	*50*
Extensions, discoveries and other	–	–	–	–		–	–	–
Acquisitions of minerals in place	–	–	–	–		–	–	–
Sales of minerals in place	–	–	–	(40)		–	(40)	*(40)*
Production for the year	(2)	–	–	(23)		(49)	(74)	*(54)*
Balance as of December 31, 2022 – Brent at 101.24$/b	**12**	**–**	**–**	**17**		**406**	**435**	***435***
Revisions of previous estimates	1	–	–	–		19	20	*20*
Extensions, discoveries and other	<1	–	–	–		–	<1	*<1*
Acquisitions of minerals in place	–	–	–	–		233	233	*233*
Sales of minerals in place	–	–	–	–		–	–	–
Production for the year	(2)	–	–	(2)		(51)	(55)	*(55)*
Balance as of December 31, 2023 – Brent at 83.27$/b	**11**	**–**	**–**	**15**		**607**	**633**	***633***

(a) There are no bitumen reserves for equity affiliates.
(b) As of January 1, 2022, the Europe column includes the Russia data.
(c) Given the material nature of the deconsolidation in 2022 of the reserves relating to the Company's share in Novatek, this column displays, for information, the Company's proved reserves, excluding Novatek.

Proved developed and undeveloped reserves *(in million barrels)*	Consolidated subsidiaries and equity affiliates								
	Oil								Bitumen
	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[(a)]	Russia	Middle East and North Africa	Total	*Total excl. Novatek[(b)]*	Americas
As of December 31, 2021 – Brent at 69.23$/b									
Proved developed and undeveloped reserves[(c)]	**1,119**	**546**	**557**	**597**	**321**	**2,286**	**5,426**	***5,173***	**417**
Consolidated subsidiaries	1,109	546	557	597	7	1,878	4,694	*4,694*	417
Equity affiliates	10	–	–	–	314	408	732	479	–
Proved developed reserves	**731**	**183**	**479**	**438**	**189**	**1,885**	**3,905**	***3,763***	**136**
Consolidated subsidiaries	730	183	479	438	6	1,582	3,418	*3,418*	136
Equity affiliates	1	–	–	–	183	303	487	345	–
Proved undeveloped reserves	**388**	**363**	**78**	**159**	**132**	**401**	**1,521**	***1,410***	**281**
Consolidated subsidiaries	379	363	78	159	1	296	1,276	*1,276*	281
Equity affiliates	9	–	–	–	131	105	245	134	–
As of December 31, 2022 – Brent at 101.24$/b									
Proved developed and undeveloped reserves[(c)]	**995**	**762**	**527**	**592**		**2,220**	**5,096**	***5,096***	**620**
Consolidated subsidiaries	983	762	527	575		1,814	4,661	*4,661*	620
Equity affiliates	12	–	–	17		406	435	*435*	–
Proved developed reserves	**657**	**382**	**477**	**437**		**1,874**	**3,827**	***3,827***	**385**
Consolidated subsidiaries	656	382	477	425		1,566	3,506	*3,506*	385
Equity affiliates	1	–	–	12		308	321	*321*	–
Proved undeveloped reserves	**338**	**380**	**50**	**155**		**346**	**1,269**	***1,269***	**235**
Consolidated subsidiaries	327	380	50	150		248	1,155	*1,155*	235
Equity affiliates	11	–	–	5		98	114	*114*	–
As of December 31, 2023 – Brent at 83.27$/b									
Proved developed and undeveloped reserves[(c)]	**954**	**819**	**506**	**540**		**2,667**	**5,486**	***5,486***	**–**
Consolidated subsidiaries	943	819	506	525		2,061	4,854	*4,854*	–
Equity affiliates	11	–	–	15		606	632	*632*	–
Proved developed reserves	**610**	**459**	**441**	**451**		**2,048**	**4,009**	***4,009***	**–**
Consolidated subsidiaries	608	459	441	442		1,742	3,692	*3,692*	–
Equity affiliates	2	–	–	9		306	317	*317*	–
Proved undeveloped reserves	**344**	**360**	**65**	**89**		**619**	**1,477**	***1,477***	–
Consolidated subsidiaries	335	360	65	83		319	1,162	*1,162*	–
Equity affiliates	9	–	–	6		300	315	*315*	–

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) Given the material nature of the deconsolidation in 2022 of the reserves relating to the Company's share in Novatek, this column displays, for information, the Company's proved reserves, excluding Novatek.
(c) The tables do not include separate figures for NGL reserves because they represented less than 8.5% of the Company's proved developed and undeveloped oil reserves in each of the years 2021, 2022 and 2023.

9.1.4.3 Changes in gas reserves

Proved developed and undeveloped reserves (in billion cubic feet)	Consolidated subsidiaries						
	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[a]	Russia	Middle East and North Africa	Total
Balance as of December 31, 2020 – Brent at 41.32$/b	**4,435**	**3,297**	**3,892**	**3,487**	**7**	**1,575**	**16,693**
Revisions of previous estimates	235	582	27	691	(2)	46	1,579
Extensions, discoveries and other	69	106	37	60	–	499	771
Acquisitions of minerals in place	–	–	–	–	–	156	156
Sales of minerals in place	(8)	–	–	–	–	–	(8)
Production for the year	(219)	(396)	(418)	(432)	(<1)	(126)	(1,591)
Balance as of December 31, 2021 – Brent at 69.23$/b	**4,512**	**3,589**	**3,538**	**3 806**	**5**	**2,150**	**17,600**
Revisions of previous estimates	(123)	77	74	234		175	437
Extensions, discoveries and other	1	542	91	8		76	718
Acquisitions of minerals in place	–	43	–	–		43	86
Sales of minerals in place	(9)	(129)	–	(24)		–	(162)
Production for the year	(188)	(383)	(350)	(461)		(143)	(1,525)
Balance as of December 31, 2022 – Brent at 101.24$/b	**4,193**	**3,739**	**3,353**	**3,568**		**2,301**	**17,154**
Revisions of previous estimates	362	(146)	166	128		118	628
Extensions, discoveries and other	66	203	70	–		–	339
Acquisitions of minerals in place	–	63	–	–		61	124
Sales of minerals in place	–	–	(8)	(1)		–	(9)
Production for the year	(196)	(356)	(294)	(446)		(177)	(1,469)
December 31, 2023 – Brent at 83.27$/b	**4,425**	**3,503**	**3,287**	**3,249**		**2,303**	**16,767**
Minority interest in proved developed and undeveloped reserves as of							
December 31, 2021 – Brent at 69.23$/b	33	–	–	–		–	33
December 31, 2022 – Brent at 101.24$/b	27	–	–	–		–	27
December 31, 2023 – Brent at 83.27$/b	**34**	**–**	**–**	**–**		**–**	**34**

(a) As of January 1, 2022, the Europe column includes the Russia data.

Proved developed and undeveloped reserves *(in billion cubic feet)*	Equity affiliates							
	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[a]	Russia	Middle East and North Africa	Total	*Total excl. Novatek[b]*
Balance as of December 31, 2020 – Brent at 41.32$/b	**354**	**21**	**–**	**–**	**14,114**	**4,038**	**18,527**	***9,563***
Revisions of previous estimates	(9)	<1	–	–	(2,473)	53	(2,429)	*(1 139)*
Extensions, discoveries and other	–	–	–	–	810	–	810	*34*
Acquisitions of minerals in place	–	–	–	–	–	–	–	–
Sales of minerals in place	–	(21)	–	–	–	–	(21)	*(21)*
Production for the year	(29)	(<1)	–	–	(828)	(180)	(1,037)	*(536)*
Balance as of December 31, 2021 – Brent at 69.23$/b	**316**	**–**	**–**	**–**	**11,623**	**3,911**	**15,850**	***7,901***
Revisions of previous estimates	25	–	–	(7,403)		7	(7,371)	*43*
Extensions, discoveries and other	10	–	–	–		–	10	*10*
Acquisitions of minerals in place	–	–	–	–		–	–	–
Sales of minerals in place	–	–	–	(608)		–	(608)	*(608)*
Production for the year	(25)	–	–	(790)		(127)	(942)	*(407)*
Balance as of December 31, 2022 – Brent at 101.24$/b	**326**	**–**	**–**	**2,822**		**3,791**	**6,939**	***6,939***
Revisions of previous estimates	29	–	–	–		226	255	*255*
Extensions, discoveries and other	–	–	–	–		–	–	–
Acquisitions of minerals in place	–	–	–	–		3,922	3,922	*3,922*
Sales of minerals in place	–	–	–	–		–	–	–
Production for the year	(28)	–	–	(211)		(127)	(366)	*(366)*
Balance as of December 31, 2023 – Brent at 83.27$/b	**327**	**–**	**–**	**2,611**		**7,812**	**10,750**	***10,750***

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) Given the material nature of the deconsolidation in 2022 of the reserves relating to the Company's share in Novatek, this column displays, for information, the Company's proved reserves, excluding Novatek.

Proved developed and undeveloped reserves *(in billion cubic feet)*	Consolidated subsidiaries and equity affiliates							
	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[(a)]	Russia	Middle East and North Africa	Total	*Total excl. Novatek[(b)]*
As of December 31, 2021 – Brent at 69.23$/b								
Proved developed and undeveloped reserves	**4,828**	**3,589**	**3,538**	**3,806**	**11,628**	**6,061**	**33,450**	***25,501***
Consolidated subsidiaries	4,512	3,589	3,538	3, 806	5	2,150	17,600	*17,600*
Equity affiliates	316	–	–	–	11,623	3,911	15,850	*7,901*
Proved developed reserves	**1,366**	**2,833**	**2,517**	**2,523**	**7,272**	**4,682**	**21,193**	***16,141***
Consolidated subsidiaries	1,349	2,833	2,517	2,523	4	1,150	10,376	*10,376*
Equity affiliates	17	–	–	–	7,268	3,532	10,817	*5,765*
Proved undeveloped reserves	**3,462**	**756**	**1,021**	**1,283**	**4,356**	**1,379**	**12,257**	***9,360***
Consolidated subsidiaries	3,163	756	1,021	1,283	1	1,000	7,224	*7,224*
Equity affiliates	299	–	–	–	4,355	379	5,033	*2,136*
As of December 31, 2022 – Brent at 101.24$/b								
Proved developed and undeveloped reserves	**4,519**	**3,739**	**3,353**	**6,390**		**6,092**	**24,093**	***24,093***
Consolidated subsidiaries	4,193	3,739	3,353	3,568		2,301	17,154	*17,154*
Equity affiliates	326	–	–	2,822		3,791	6,939	*6,939*
Proved developed reserves	**1,281**	**2,651**	**2,339**	**3,985**		**4,704**	**14,960**	***14,960***
Consolidated subsidiaries	1,259	2,651	2,339	2,243		1,206	9,698	*9,698*
Equity affiliates	22	–	–	1,742		3,498	5,262	*5,262*
Proved undeveloped reserves	**3,238**	**1,088**	**1,014**	**2,405**		**1,388**	**9,133**	***9,133***
Consolidated subsidiaries	2,934	1,088	1,014	1,325		1,095	7,456	*7,456*
Equity affiliates	304	–	–	1,080		293	1,677	*1,677*
As of December 31, 2023 – Brent at 83.27$/b								
Proved developed and undeveloped reserves	**4,751**	**3,503**	**3,287**	**5,861**		**10,115**	**27,517**	***27,517***
Consolidated subsidiaries	4,424	3,503	3,287	3,250		2,303	16,767	*16,767*
Equity affiliates	327	–	–	2,611		7,812	10,750	*10,750*
Proved developed reserves	**1,285**	**2,562**	**2,488**	**3,970**		**4,880**	**15,185**	***15,185***
Consolidated subsidiaries	1,262	2,562	2,488	2,369		1,259	9,940	*9,940*
Equity affiliates	23	–	–	1,601		3,621	5,245	*5,245*
Proved undeveloped reserves	**3,466**	**941**	**799**	**1,891**		**5,235**	**12,332**	***12,332***
Consolidated subsidiaries	3,162	941	799	881		1,044	6,827	*6,827*
Equity affiliates	304	–	–	1,010		4,191	5,505	*5,505*

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) Given the material nature of the deconsolidation in 2022 of the reserves relating to the Company's share in Novatek, this column displays, for information, the Company's proved reserves, excluding Novatek.

9.1.5 Results of operations for oil and gas producing activities

The following tables do not include revenues and expenses related to oil and gas transportation activities and LNG liquefaction and transportation.

	Consolidated subsidiaries						
(M$)	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[(a)]	Russia	Middle East and North Africa	Total
2021							
Revenues Non-Company sales	809	896	2,089	1,368	–	1,676	6,838
TotalEnergies sales	8,881	3,133	1,834	9,420	53	7,995	31,316
Total Revenues	**9,690**	**4,029**	**3,923**	**10,788**	**53**	**9,671**	**38,154**
Production costs	(1,076)	(856)	(353)	(1,156)	(11)	(620)	(4,072)
Exploration expenses	(170)	(250)	(128)	(161)	(1)	(30)	(740)
Depreciation, depletion and amortization and valuation allowances	(3,457)	(1,533)	(1,309)	(2,371)	(21)	(771)	(9,462)
Other expenses[(b)]	(722)	(494)	(204)	(370)	(14)	(6,076)	(7,880)
Pre-tax income from producing activities[(c)]	**4,265**	**896**	**1,929**	**6,730**	**6**	**2,174**	**16,000**
Income tax	(1,537)	(183)	(822)	(3,953)	(14)	(795)	(7,304)
Results of oil and gas producing activities[(c)]	**2,728**	**713**	**1,107**	**2,777**	**(8)**	**1,379**	**8,696**
2022							
Revenues Non-Company sales	1,407	980	2,059	2,650		2,110	9,207
TotalEnergies sales	11,257	6,512	2,052	18,077		12,755	50,653
Total Revenues	**12,664**	**7,492**	**4,111**	**20,727**		**14,865**	**59,859**
Production costs	(1,037)	(1,037)	(425)	(1,130)		(638)	(4,267)
Exploration expenses	(185)	(900)	(27)	(130)		(56)	(1,299)
Depreciation, depletion and amortization and valuation allowances	(3,459)	(823)	(1,015)	(1,875)		(1,055)	(8,227)
Other expenses[(d)]	(1,007)	(919)	(262)	(466)		(10,506)	(13,160)
Pre-tax income from producing activities[(e)]	**6,976**	**3,813**	**2,382**	**17,126**		**2,609**	**32,907**
Income tax	(3,278)	(910)	(837)	(12,288)		(952)	(18,265)
Results of oil and gas producing activities[(e)]	**3,698**	**2,903**	**1,545**	**4,838**		**1,657**	**14,641**
2023							
Revenues Non-Company sales	1,049	884	1,402	1,240		1,930	6,505
TotalEnergies sales	8,766	5,561	2,213	10,128		12,480	39,148
Total Revenues	**9,815**	**6,445**	**3,615**	**11,369**		**14,410**	**45,654**
Production costs	(1,006)	(1,051)	(342)	(1,178)		(740)	(4,317)
Exploration expenses	(118)	(149)	(6)	(226)		(74)	(573)
Depreciation, depletion and amortization and valuation allowances	(3,453)	(1,181)	(1,125)	(1,661)		(1,044)	(8,465)
Other expenses[(f)]	(711)	(1,047)	(227)	(417)		(9,673)	(12,075)
Pre-tax income from producing activities[(g)]	**4,527**	**3,017**	**1,915**	**7,886**		**2,879**	**20,224**
Income tax	(1,756)	(739)	(559)	(6,194)		(930)	(10,178)
Results of oil and gas producing activities[(g)]	**2,771**	**2,278**	**1,356**	**1,692**		**1,949**	**10,046**

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) Including production taxes and accretion expense as provided by IAS 37 ($434 million in 2021).
(c) Including adjustment items applicable to ASC 932 perimeter, amounting to a net charge of $771 million before tax and $763 million after tax, related to asset impairments.
(d) Including production taxes ($12,740 million and accretion expense as provided by IAS 37 ($420 million in 2022).
(e) Including adjustment items applicable to ASC932 perimeter, amounting to a net charge of $631 million before tax, related to production cost ($84 million), net asset impairment reversal ($178 million) and exploration charges ($725 million). Adjustment after tax is a charge of $1,379 million, including non-recurrent tax charge ($725 million).
(f) Including production taxes ($11,498 million and accretion expense as provided by IAS 37 ($576 million in 2022).
(g) Including adjustment items applicable to ASC932 perimeter, amounting to a net charge of $481 million before tax and $436 million after tax, related to asset impairments

(M$)	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[a]	Russia	Middle East and North Africa	Total
	Equity affiliates						
2021							
Revenues Non-Company sales	278	–	–	–	3,702	3,236	7,216
TotalEnergies sales	35	–	–	–	23	1,061	1,119
Total Revenues	**313**	**–**	**–**	**–**	**3,725**	**4,297**	**8,335**
Production costs	–	(7)	–	–	(189)	(268)	(464)
Exploration expenses	–	–	–	–	(16)	–	(16)
Depreciation, depletion and amortization and valuation allowances	–	(1,013)	–	–	(276)	(258)	(1,547)
Other expenses	(139)	5	–	–	(301)	(2,295)	(2,730)
Pre-tax income from producing activities	**174**	**(1,015)**	**–**	**–**	**2,943**	**1,476**	**3,578**
Income tax	–	(10)	–	–	(446)	(573)	(1,029)
Results of oil and gas producing activities	**174**	**(1,025)**	**–**	**–**	**2,497**	**903**	**2,549**
2022							
Revenues Non-Company sales	725	–	–	4,844		4,249	9,817
TotalEnergies sales	(36)	–	–	512		1,981	2,457
Total Revenues	**688**	**–**	**–**	**5,356**		**6,230**	**12,274**
Production costs	(6)	–	–	(311)		(277)	(595)
Exploration expenses	–	–	–	(47)		–	(47)
Depreciation, depletion and amortization and valuation allowances	–	–	–	(6,546)		(334)	(6,881)
Other expenses	6	–	–	(399)		(3,620)	(4,013)
Pre-tax income from producing activities	**688**	**–**	**–**	**(1,948)**		**1,998**	**739**
Income tax	–	–	–	(866)		(717)	(1,583)
Results of oil and gas producing activities	**688**	**–**	**–**	**(2,814)**		**1,282**	**(844)**
2023							
Revenues Non-Company sales	276	–	–	1,203		3,473	4,951
TotalEnergies sales	1	–	–	373		1,299	1,673
Total Revenues	**277**	**–**	**–**	**1,576**		**4,771**	**6,625**
Production costs	(8)	–	–	(23)		(300)	(331)
Exploration expenses	–	–	–	–		–	–
Depreciation, depletion and amortization and valuation allowances	–	–	–	(81)		(792)	(873)
Other expenses	(64)	–	–	(1)		(2,799)	(2,864)
Pre-tax income from producing activities	**205**	**–**	**–**	**1,472**		**880**	**2,557**
Income tax		–	–	(397)		(501)	(898)
Results of oil and gas producing activities	**205**	**–**	**–**	**1,075**		**379**	**1,659**

(a) As of January 1, 2022, the Europe column includes the Russia data.

9.1.6 Cost incurred

The following tables set forth the costs incurred in the Company's oil and gas property acquisition, exploration and development activities, including both capitalized and expensed amounts. They do not include costs incurred related to oil and gas transportation and LNG liquefaction and transportation activities.

	Consolidated subsidiaries						
(M$)	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[(a)]	Russia	Middle East and North Africa	Total
2021							
Proved property acquisition	94	39	10	–	–	50	193
Unproved property acquisition	142	124	–	–	–	66	332
Exploration costs	302	523	19	215	1	62	1,122
Development costs[(c)]	1,508	1,591	603	1,836	30	991	6,559
Total cost incurred	**2,046**	**2,277**	**632**	**2,051**	**31**	**1,169**	**8,206**
2022							
Proved property acquisition[(b)]	96	4,227	6	5		102	4,436
Unproved property acquisition	3	438	4	–		48	493
Exploration costs	158	493	44	172		154	1,021
Development costs[(c)]	1,609	1,671	719	979		1,085	6,063
Total cost incurred	**1,866**	**6,829**	**773**	**1,156**		**1,389**	**12,013**
2023							
Proved property acquisition[(d)]	97	309	5	21		1,243	1,675
Unproved property acquisition	24	255	56	–		273	608
Exploration costs	528	367	12	204		140	1,250
Development costs[(c)]	2,259	2,059	835	1,014		1,698	7,825
Total cost incurred	**2,908**	**2,989**	**908**	**1,239**		**3,354**	**11,398**

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) Including cost incurred relating to acquisition of Atapu and Sépia assets in Brazil.
(c) Including asset retirement costs capitalized during the year and any gains or losses recognized upon settlement of asset retirement obligation during the year.
(d) Including cost incurred relating to acquisition of Umm Lulu SARB assets in Abu Dhabi.

	Equity affiliates						
(M$)	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[(a)]	Russia	Middle East and North Africa	Total
2021							
Proved property acquisition	–	–	–	–	–	–	–
Unproved property acquisition	–	–	–	–	–	–	–
Exploration costs	–	–	–	–	–	6	6
Development costs[(b)]	–	1	–	–	362	523	886
Total cost incurred	**–**	**1**	**–**	**–**	**362**	**529**	**892**
2022							
Proved property acquisition	–	–	–	–		–	–
Unproved property acquisition	–	–	–	–		–	–
Exploration costs	–	–	–	–		2	2
Development costs[(b)]	–	–	–	693[(c)]		635	1,328
Total cost incurred	**–**	**–**	**–**	**693**		**637**	**1,330**
2023							
Proved property acquisition	–	–	–	–		225	225
Unproved property acquisition	–	–	–	–		–	–
Exploration costs	–	–	–	–		5	5
Development costs[(b)]	–	–	–	–		899	899
Total cost incurred	**–**	**–**	**–**	**–**		**1,129**	**1,129**

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) Including asset retirement costs capitalized during the year and any gains or losses recognized upon settlement of asset retirement obligation during the year.
(c) Including mainly the Novatek incurred costs.

9.1.7 Capitalized costs related to oil and gas producing activities

Capitalized costs represent the amount of capitalized proved and unproved property costs, including support equipment and facilities, along with the related accumulated depreciation, depletion and amortization.

The following tables do not include capitalized costs related to oil and gas transportation and LNG liquefaction and transportation activities.

	Consolidated subsidiaries						
(M$)	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[(a)]	Russia	Middle East and North Africa	Total
As of December 31, 2021							
Proved properties	86,489	32,124	38,289	54,294	730	18,618	230,544
Unproved properties	8,248	6,523	1,699	2,321	4	2,641	21,436
Total capitalized costs	**94,737**	**38,647**	**39,988**	**56,615**	**734**	**21,259**	**251,980**
Accumulated depreciation, depletion and amortization	(62,223)	(21,686)	(22,249)	(39,805)	(623)	(11,645)	(158,231)
Net capitalized costs	**32,514**	**16,961**	**17,739**	**16,810**	**111**	**9,614**	**93,749**
As of December 31, 2022							
Proved properties	84,613	38,635	38,051	48,414		18,646	228,359
Unproved properties	8,240	5,673	1,761	1,820		2,484	19,978
Total capitalized costs	**92,853**	**44,308**	**39,812**	**50,234**		**21,130**	**248,337**
Accumulated depreciation, depletion and amortization	(61,898)	(21,433)	(22,366)	(35,464)		(10,882)	(152,043)
Net capitalized costs	**30,955**	**22,875**	**17,446**	**14,770**		**10,248**	**96,294**
As of December 31, 2023							
Proved properties	86,930	27,654	36,066	49,825		21,266	221,741
Unproved properties	8,184	5,373	1,827	1,672		2,734	19,790
Total capitalized costs	**95,114**	**33,027**	**37,893**	**51,497**		**24,000**	**241,531**
Accumulated depreciation, depletion and amortization	(65,070)	(12,632)	(21,160)	(37,838)		(11,423)	(148,122)
Net capitalized costs	**30,044**	**20,395**	**16,733**	**13,659**		**12,578**	**93,409**

(a) As of January 1, 2022, the Europe column includes the Russia data.

	Equity affiliates						
(M$)	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[(a)]	Russia	Middle East and North Africa	Total
As of December 31, 2021							
Proved properties	–	–	–	–	6,979	4,892	11,871
Unproved properties	–	–	–	–	2,142	–	2,142
Total capitalized costs	**–**	**–**	**–**	**–**	**9,121**	**4,892**	**14,013**
Accumulated depreciation, depletion and amortization	–	–	–	–	(2,381)	(2,398)	(4,779)
Net capitalized costs	**–**	**–**	**–**	**–**	**6,740**	**2,494**	**9,234**
As of December 31, 2022							
Proved properties	–	–	–	1,445		5,505	6,949
Unproved properties	–	–	–	–		–	–
Total capitalized costs	**–**	**–**	**–**	**1,445**		**5,505**	**6,949**
Accumulated depreciation, depletion and amortization	–	–	–	(471)		(2,742)	(3,213)
Net capitalized costs	**–**	**–**	**–**	**973**		**2,763**	**3,737**
As of December 31, 2023							
Proved properties	–	–	–	1,445		6,658	8,103
Unproved properties	–	–	–	–		–	–
Total capitalized costs	**–**	**–**	**–**	**1,445**		**6,658**	**8,103**
Accumulated depreciation, depletion and amortization	–	–	–	(552)		(3,523)	(4,075)
Net capitalized costs	**–**	**–**	**–**	**892**		**3,135**	**4,028**

(a) As of January 1, 2022, the Europe column includes the Russia data.

9.1.8 Standardized measure of discounted future net cash flows (excluding transportation)

The standardized measure of discounted future net cash flows relating to proved oil and gas reserve quantities was developed as follows:

- estimates of proved reserves and the corresponding production profiles are based on existing technical and economic conditions;
- the estimated future cash flows are determined based on prices used in estimating the Company's proved oil and gas reserves;
- the future cash flows incorporate estimated production costs (including production taxes), future development costs and asset retirement costs. All cost estimates are based on year-end technical and economic conditions;
- future income taxes are computed by applying the year-end statutory tax rate to future net cash flows after consideration of permanent differences and future income tax credits; and
- future net cash flows are discounted at a standard discount rate of 10%.

These principles applied are those required by ASC 932 and do not reflect the expectations of real revenues from these reserves, nor their present value; hence, they do not constitute criteria for investment decisions. An estimate of the fair value of reserves should also take into account, among other things, the recovery of reserves not presently classified as proved, anticipated future changes in prices and costs and a discount factor more representative of the time value of money and the risks inherent in reserves estimates.

	Consolidated subsidiaries						
(M$)	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[a]	Russia	Middle East and North Africa	Total
As of December 31, 2021							
Future cash inflows	88,082	58,716	47,667	81,227	400	132,166	408,258
Future production costs	(24,040)	(20,512)	(8,397)	(16,328)	(202)	(103,307)	(172,786)
Future development costs	(15,412)	(9,542)	(4,118)	(14,541)	(86)	(9,191)	(52,890)
Future income taxes	(14,474)	(3,415)	(5,520)	(30,532)	(50)	(5,116)	(59,107)
Future net cash flows, after income taxes	**34,156**	**25,247**	**29,632**	**19,826**	**62**	**14,552**	**123,475**
Discount at 10%	(16,610)	(12,913)	(14,259)	(6,941)	(10)	(6,331)	(57,064)
Standardized measure of discounted future net cash flows	**17,546**	**12,334**	**15,373**	**12,885**	**52**	**8,221**	**66,411**
As of December 31, 2022							
Future cash inflows	125,701	117,978	61,701	165,523		181,680	652,583
Future production costs	(27,589)	(34,944)	(9,358)	(20,919)		(148,030)	(240,840)
Future development costs	(15,040)	(12,470)	(4,024)	(13,695)		(8,923)	(54,153)
Future income taxes	(30,512)	(12,121)	(9,502)	(92,432)		(7,562)	(152,130)
Future net cash flows, after income taxes	**52,560**	**58,442**	**38,817**	**38,476**		**17,165**	**205,461**
Discount at 10%	(24,939)	(28,526)	(19,929)	(15,412)		(7,255)	(96,061)
Standardized measure of discounted future net cash flows	**27,621**	**29,916**	**18,887**	**23,064**		**9,911**	**109,399**
As of December 31, 2023							
Future cash inflows	93,472	68,658	47,109	73,259		170,685	453,183
Future production costs	(23,152)	(19,026)	(8,443)	(16,464)		(132,755)	(199,840)
Future development costs	(13,816)	(7,018)	(3,270)	(11,634)		(11,745)	(47,484)
Future income taxes	(16,536)	(9,055)	(7,461)	(31,320)		(6,846)	(71,218)
Future net cash flows, after income taxes	**39,968**	**33,559**	**27,934**	**13,841**		**19,339**	**134,641**
Discount at 10%	(19,230)	(15,698)	(13,809)	(5,290)		(8,047)	(62,074)
Standardized measure of discounted future net cash flows	**20,738**	**17,861**	**14,125**	**8,552**		**11,292**	**72,567**
Minority interests in future net cash flows as of							
December 31, 2021	740	–	–	–	–	–	740
December 31, 2022	1,148	–	–	–	–	–	1,148
December 31, 2023	**720**	**–**	**–**	**–**	**–**	**–**	**720**

(a) As of January 1, 2022, the Europe column includes the Russia data.

(M$)	Equity affiliates						
	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[(a)]	Russia	Middle East and North Africa	Total
As of December 31, 2021							
Future cash inflows	2,793	–	–	–	49,015	49,049	100,857
Future production costs	(114)	–	–	–	(13,769)	(29,100)	(42,983)
Future development costs	(1)	–	–	–	(984)	(3,626)	(4,611)
Future income taxes	(454)	–	–	–	(4,836)	(3,263)	(8,553)
Future net cash flows, after income taxes	**2,224**	**–**	**–**	**–**	**29,426**	**13,060**	**44,710**
Discount at 10%	(1,044)	–	–	–	(15,626)	(7,193)	(23,863)
Standardized measure of discounted future net cash flows	**1,180**	**–**	**–**	**–**	**13,800**	**5,867**	**20,847**
As of December 31, 2022							
Future cash inflows	9,596	–	–	31,691		91,597	132,884
Future production costs	(217)	–	–	(3,716)		(63,146)	(67,079)
Future development costs	–	–	–	(131)		(3,370)	(3,501)
Future income taxes	(2,090)	–	–	(7,368)		(4,312)	(13,770)
Future net cash flows, after income taxes	**7,289**	**–**	**–**	**20,475**		**20,770**	**48,534**
Discount at 10%	(3,289)	–	–	(10,507)		(11,447)	(25,243)
Standardized measure of discounted future net cash flows	**3,999**	**–**	**–**	**9,969**		**9,323**	**23,291**

(a) As of January 1, 2022, the Europe column includes the Russia data.

As of December 31, 2023							
Future cash inflows	3,818	–	–	20,141		103,518	127,477
Future production costs	(955)	–	–	(3,322)		(62,997)	(67,274)
Future development costs		–	–	(70)		(4,081)	(4,151)
Future income taxes	(542)	–	–	(4,517)		(13,907)	(18,966)
Future net cash flows, after income taxes	**2,321**	**–**	**–**	**12,232**		**22,533**	**37,086**
Discount at 10%	(1,008)	–	–	(5,900)		(14,523)	(21,431)
Standardized measure of discounted future net cash flows	**1,313**	**–**	**–**	**6,332**		**8,010**	**15,655**

(a) As of January 1, 2022, the Europe column includes the Russia data.

9.1.9 Changes in the standardized measure of discounted future net cash flows

Consolidated subsidiaries *(M$)*	2021	2022	2023
Discounted future net cash flows at January 1	24,432	**66,411**	**109,399**
Sales and transfers, net of production costs	(26,636)	(42,852)	(29,837)
Net change in sales and transfer prices and in production costs and other expenses	86,421	107,114	(81,604)
Extensions, discoveries and improved recovery	5,128	5,367	887
Changes in estimated future development costs	(2,057)	(2,986)	(1,122)
Previously estimated development costs incurred during the year	6,367	7,656	8,458
Revisions of previous quantity estimates	(5,189)	5,516	5,669
Accretion of 10% discount	2,443	6,637	10,940
Net change in income taxes	(24,718)	(49,265)	54,260
Purchases of reserves in place	218	6,248	2,047
Sales of reserves in place	2	(448)	(6,530)
End of year	**66,411**	**109,399**	**72,567**

Equity affiliates *(M$)*	2021	2022	2023
Discounted future net cash flows at January 1	8,592	20,847	**23,291**
Sales and transfers, net of production costs	(5,154)	(7,676)	(3,442)
Net change in sales and transfer prices and in production costs and other expenses	18,084	17,470	(12,731)
Extensions, discoveries and improved recovery	1,365	172	487
Changes in estimated future development costs	(525)	(209)	25
Previously estimated development costs incurred during the year	880	1,016	743
Revisions of previous quantity estimates	(574)	(7,675)	250
Accretion of 10% discount	859	2,084	2,329
Net change in income taxes	(2,343)	(2,318)	900
Purchases of reserves in place	–	–	3,803
Sales of reserves in place	(337)	(420)	–
End of year	**20,847**	**23,291**	**15,655**

9.2 Other information

9.2.1 Natural Gas Production available for sale

	Consolidated subsidiaries						
	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[a]	Russia	Middle East and North Africa	Total
2021							
Natural Gas production available for sale[b] *(Bcf)*	180	386	403	406	–	110	1,485
2022							
Natural Gas production available for sale[b] *(Bcf)*	150	370	339	432		127	1,418
2023							
Natural Gas production available for sale[b] *(Bcf)*	162	341	284	418		159	1,363

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) The reported volumes are different from those shown in the reserves table due to gas consumed in operations.

	Equity affiliates						
	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[a]	Russia	Middle East and North Africa	Total
2021							
Natural Gas production available for sale[b] *(Bcf)*	25	–	–	–	768	171	964
2022							
Natural Gas production available for sale[b] *(Bcf)*	22	–	–	730		118	870
2023							
Natural Gas production available for sale[b] *(Bcf)*	24	–	–	187		117	328

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) The reported volumes are different from those shown in the reserves table due to gas consumed in operations.

9.2.2 Production prices

	Consolidated subsidiaries						
	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[a]	Russia	Middle East and North Africa	Total
2021[b]							
Oil *($/b)*[c]	65.98	54.47	56.50	63.63	59.18	66.73	64.07
Bitumen *($/b)*	–	40.52	–	–	–	–	40.52
Natural Gas *($/kcf)*	1.60	2.56	4.52	13.87	–	2.45	6.08
2022[b]							
Oil *($/b)*[c]	95.72	80.58	71.38	89.90		95.10	90.99
Bitumen *($/b)*	–	60.66	–	–		–	60.66
Natural Gas *($/kcf)*	2.60	3.32	5.45	31.27		3.94	12.61
2023[b]							
Oil *($/b)*[c]	76.47	67.67	61.27	74.45		80.98	75.41
Bitumen *($/b)*	–	45.27	–	–		–	45.27
Natural Gas *($/kcf)*	1.96	2.93	4.76	12.61		3.44	6.24

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) The volumes used for calculation of the average sales prices are the ones sold from the Company's own production.
(c) The reported price represents an average aggregate price of prices for crude oil, condensates and NGL. The table does not include separate figures for NGL production prices because the production of NGL represented less than 7.5% of the Company's total liquids production in each of the years 2021, 2022 and 2023.

	Equity affiliates						
	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[a]	Russia	Middle East and North Africa	Total
2021[b]							
Oil *($/b)*[c]	–	–	–	–	32.17	67.43	54.89
Bitumen *($/b)*	–	–	–	–	–	–	–
Natural Gas *($/kcf)*	1.83	–	–	–	4.41	7.94	4.51
2022[b]							
Oil *($/b)*[c]	–	–	–	46.12		90.21	75.98
Bitumen *($/b)*	–	–	–	–		–	–
Natural Gas *($/kcf)*	34.75	–	–	7.91		13.73	9.49
2023[b]							
Oil *($/b)*[c]	–	–	–	44.64		73.35	70.26
Bitumen *($/b)*	–	–	–	–		–	–
Natural Gas *($/kcf)*	11.79	–	–	7.97		8.77	8.51

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) The volumes used for calculation of the average sales prices are the ones sold from the Company's own production.
(c) The reported price represents an average aggregate price of prices for crude oil, condensates and NGL. The table does not include separate figures for NGL production prices because the production of NGL represented less than 7.5% of the Company's total liquids production in each of the years 2021, 2022 and 2023.

9.2.3 Production costs

(in $/boe)	Consolidated subsidiaries						
	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[(a)]	Russia	Middle East and North Africa	Total
2021[(b)]							
Oil, bitumen and natural gas	6.00	6.42	3.23	7.35	7.47	3.86	5.49
Of which bitumen	–	15.93	–	–	–	–	15.93
2022[(b)]							
Oil, bitumen and natural gas	6.50	6.87	4.54	7.01		3.65	5.76
Of which bitumen	–	16.58	–	–		–	16.58
2023[(b)]							
Oil, bitumen and natural gas	6.36	6.88	3.72	7.34		3.69	5.65
Of which bitumen	–	20.83	–	–	–	–	20.83

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) The volumes of oil used for this computation are shown in the proved reserves tables of this report. The reported volumes for natural gas are different from those shown in the reserves table due to gas consumed in operations.

(in $/boe)	Equity affiliates						
	Africa (excl. North Africa)	Americas	Asia-Pacific	Europe[(a)]	Russia	Middle East and North Africa	Total
2021[(b)]							
Oil, bitumen and natural gas	–	12.05	–	–	1.12	3.41	1.83
Of which bitumen	–	–	–	–	–	–	–
2022[(b)]							
Oil, bitumen and natural gas	1.13	–	–	1.95		3.90	2.52
Of which bitumen	–	–	–	–		–	–
2023[(b)]							
Oil, bitumen and natural gas	1.32	–	–	0.63		4.12	2.87
Of which bitumen	–	–	–	–		–	–

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) The volumes of oil used for this computation are shown in the proved reserves tables of this report. The reported volumes for natural gas are different from those shown in the reserves table due to gas consumed in operations.

9.3 Report on the payments made to governments (Article L. 22-10-37 of the French Commercial Code)

Article L. 22-10-37 of the French Commercial Code[1] requires large undertakings and public-interest entities that are active in the extractive industry or logging of primary forests to disclose, in an annual report, payments of at least 100,000 euros made to governments in the countries in which they operate.

The consolidated report of TotalEnergies is presented pursuant to the aforementioned provisions. This report covers the aforementioned payments made in 2023 by the Company's Extractive Companies as defined below, for the benefit of each government of states or territories in which TotalEnergies carries out its activities, by detailing the total amount of payments made, the total amount by payment type, the total amount by project and the total amount by payment type for each project. When payments were made in kind, valuated hydrocarbons' volumes are specified.

This report has been approved by the Board of Directors of TotalEnergies SE.

DEFINITIONS

The meaning of certain terms used in this report are set forth below:

Extractive Companies: TotalEnergies SE and any company or undertaking fully consolidated by TotalEnergies SE, the activities of which consist, in whole or in part, of exploration, prospection, discovery, development and extraction of minerals, crude oil and natural gas, among others.

Payment: a single payment or multiple interconnected payments of an amount equal to, or in excess of, 100,000 euros (or its equivalent) paid, whether in money or in kind, for extractive activities.

Payment types included in this report are the following:

- **Taxes**:
  - **Income taxes:** corporate income taxes based on taxable profits of Extractive Companies,
  - **Other Taxes:** other taxes and levies (other than Income taxes). Other Taxes include those based on revenues or production of Extractive Companies, and exclude taxes levied on consumption such as added value taxes, customs duties, personal income taxes and sales taxes.
- **Royalties**: percentage of production payable to the owner of mineral rights,
- **License Fees**: license fees, surface or rental fees, and other consideration for licenses and /or concessions that are paid for access to the area where the extractive activities are conducted,
- **License bonuses**: bonuses paid for and in consideration of signature, discovery, production, awards, grants and transfers of extraction rights; bonuses related to the achievement or failure to achieve certain production levels or certain targets, and discovery of additional mineral reserves /deposits,
- **Dividends**: dividends paid to a host government holding an interest in an Extractive Company,
- **Payments for Infrastructure Improvements**: payments for local development, including the improvement of infrastructure, not directly necessary for the conduct of extractive activities but mandatory pursuant to the terms of a production sharing contract or to the terms of a law relating to oil and gas activities,
- **Production entitlement**: host Government's share of production. This payment is generally made in kind.

Government: any national, regional or local authority of a country or territory, or any department, agency or undertaking controlled by that authority.

Project: operational activities governed by a single contract, license, lease, concession or similar legal agreement and that form the basis for payment liabilities with a Government. If multiple such agreements are substantially interconnected, they shall be considered as a single Project. Payments (such as company income tax when it concerns several projects which cannot be separated in application of the fiscal regulations) unable to be attributed to a Project are disclosed under the item "non-attributable".

REPORTING PRINCIPLES

This report sets forth all Payments as booked in the Extractive Companies' accounts. They are presented based on the Company's share in each Project, whether the Payments have been made directly by the Extractive Companies of TotalEnergies as operator or indirectly through third-party operating companies.

Production entitlement and Royalties that are mandatorily paid in kind and that are owed to host Governments pursuant to legal or contractual provisions (not booked in the Extractive Companies' accounts pursuant to accounting standards) are reported in proportion of the interest held by the Extractive Company in the Project as of the date on which such Production entitlements and Royalties are deemed to be acquired.

Payments in kind are estimated at fair value.

Fair value corresponds to the contractual price of hydrocarbons used to calculate Production entitlement, market price (if available) or an appropriate benchmark price. These prices might be calculated on an averaged basis over a given period.

(1) Article L. 22-10-37 of the French Commercial Code transposes certain provisions set out in Directive 2013/24/UE of the European Parliament and of the Council of June 26, 2013 (chapter 10).

TotalEnergies

9.3.1 Reporting by country and type of Payment

9.3.1.1 Paid in cash

paid in cash (in thousands of dollars)	*Income taxes*	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Europe	***7,705,912***	***115,650***	**7,821,562**	**–**	**18,327**	**20,833**	**–**	**–**	**–**	**7,860,722**
Azerbaijan	–	–	–	–	–	20,833	–	–	–	20,833
Bulgaria	–	–	–	–	217	–	–	–	–	217
Denmark	*128,474*	*731*	129,205	–	6,369	–	–	–	–	135,574
Italy	*38,640*	*56,578*	95,218	–	2,086	–	–	–	–	97,304
Netherlands	*288,815*	–	288,815	–	698	–	–	–	–	289,513
Norway	*4,900,631*	*58,341*	4,958,972	–	3,596	–	–	–	–	4,962,568
United Kingdom	*2,349,352*	–	2,349,352	–	5,361	–	–	–	–	2,354,713
Africa	***1,750,963***	***211,860***	**1,962,823**	**–**	**70,608**	**82,941**	**25,000**	**56,407**	**–**	**2,197,779**
Angola	*623,757*	*83,611*	707,368	–	9,410	18,950	–	1,322	–	737,050
Democratic Republic of the Congo	–	–	–	–	500	–	–	–	–	500
Gabon	*6,500*	*51,573*	58,073	–	3,282	–	25,000	15,391	–	101,746
Kenya	–	–	–	–	292	–	–	–	–	292
Mauritania	–	–	–	–	560	–	–	–	–	560
Mozambique	–	–	–	–	2,120	–	–	2,810	–	4,930
Namibia	–	–	–	–	212	–	–	–	–	212
Nigeria	*1,120,196*	*63,624*	1,183,820	–	10,081	63,991	–	34,154	–	1,292,046
Republic of the Congo	*510*	*13,052*	13,562	–	39,883	–	–	2,730	–	56,175
São Tomé and Principe	–	–	–	–	1,139	–	–	–	–	1,139
Senegal	–	–	–	–	1,152	–	–	–	–	1,152
South Africa	–	–	–	–	268	–	–	–	–	268
Uganda	–	–	–	–	1,709	–	–	–	–	1,709
Middle East and North Africa	***84,285***	***9,869,391***	**9,953,676**	**–**	**14,313**	**378,685**	**–**	**909**	**–**	**10,347,583**
Algeria	–	*273,100*	273,100	–	2,096	28,685	–	–	–	303,881
Cyprus	–	–	–	–	962	–	–	–	–	962
Iraq	*12,125*	–	12,125	–	–	–	–	–	–	12,125
Lebanon	–	–	–	–	224	–	–	–	–	224
Libya	–	*1,385,136*	1,385,136	–	82	–	–	909	–	1,386,127
Oman	–	*461,307*	461,307	–	275	–	–	–	–	461,582
Qatar	*72,160*	*30,046*	102,206	–	–	–	–	–	–	102,206
United Arab Emirates	–	*7,719,802*	7,719,802	–	10,674	350,000	–	–	–	8,080,476
Americas	***245,565***	***882,535***	**1,128,100**	**180,621**	**79,343**	**211,159**	**–**	**107**	**–**	**1,599,330**
Argentina	*34,349*	*80,711*	115,060	–	7,475	–	–	–	–	122,535
Bolivia	–	*172,375*	172,375	–	636	–	–	107	–	173,118
Brazil	*211,216*	*613,227*	824,443	–	18,860	166,713	–	–	–	1,010,016
Canada	–	–	–	102,816	23,479	–	–	–	–	126,295
Mexico	–	*1,577*	1,577	–	27,712	–	–	–	–	29,289
Surinam	–	–	–	–	–	44,446	–	–	–	44,446
United States	–	*14,645*	14,645	77,805	1,181	–	–	–	–	93,631
Asia Pacific	***339,655***	***118,713***	**458,368**	**–**	**2,551**	**15,628**	**–**	**2,980**	**28,766**	**508,293**
Australia	–	*45,211*	45,211	–	2,136	–	–	–	–	47,347
Brunei	*66,446*	*7,852*	74,298	–	5	–	–	–	7,777	82,080
China	*28,177*	*2,019*	30,196	–	–	–	–	–	–	30,196
Indonesia	*2,740*	–	2,740	–	–	–	–	–	–	2,740
Kazakhstan	*18,226*	*63,260*	81,486	–	176	–	–	2,980	20,989	105,631
Papua New Guinea	–	–	–	–	234	–	–	–	–	234
Thailand	*224,066*	*371*	224,437	–	–	15,628	–	–	–	240,065
Total	***10,126,380***	***11,198,149***	**21,324,529**	**180,621**	**185,142**	**709,246**	**25,000**	**60,403**	**28,766**	**22,513,707**

9.3.1.2 Paid in kind

paid in kind (in kboe)	*Income taxes*	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Europe	–	–	**–**	**–**	**–**	**–**	**–**	**–**	**640**	**640**
Azerbaijan	–	–	–	–	–	–	–	–	640	640
Africa	***2,815***	***3,930***	**6,745**	**–**	**0**	**–**	**–**	**–**	**20,735**	**27,480**
Angola	–	–	–	–	–	–	–	–	19,364	19,364
Gabon	*339*	–	339	–	–	–	–	–	–	339
Nigeria	*801*	*972*	1,773	–	0	–	–	–	1,365	3,139
Republic of the Congo	*1,674*	*2,958*	4,632	–	–	–	–	–	5	4,638
Middle East and North Africa	***11,673***	***1,275***	**12,948**	**2,725**	**–**	**–**	**–**	**–**	**48,921**	**64,594**
Algeria	*1,861*	*602*	2,464	–	–	–	–	–	–	2,464
Libya	*6,499*	*673*	7,172	–	–	–	–	–	18,535	25,707
Oman	–	–	–	2,725	–	–	–	–	–	2,725
Qatar	*3,313*	–	3,313	–	–	–	–	–	30,386	33,699
Americas	–	–	**–**	**–**	**–**	**–**	**–**	**–**	**3,718**	**3,718**
Bolivia	–	–	–	–	–	–	–	–	1,170	1,170
Brazil	–	–	–	–	–	–	–	–	2,548	2,548
Asia Pacific	–	***740***	**740**	**–**	**–**	**–**	**–**	**–**	**1,620**	**2,360**
China	–	*740*	740	–	–	–	–	–	953	1,694
Indonesia	–	–	–	–	–	–	–	–	79	79
Kazakhstan	–	–	–	–	–	–	–	–	587	587
Total	***14,488***	***5,946***	**20,433**	**2,725**	**0**	**–**	**–**	**–**	**75,634**	**98,793**

9.3.1.3 Paid in cash and in kind (including valuation of in-kind payments)

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

all payments (in thousands of dollars)	*Income taxes*	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Europe	***7,705,912***	***115,650***	**7,821,562**	**–**	**18,327**	**20,833**	**–**	**–**	**24,083**	**7,884,805**
Azerbaijan	–	–	–	–	–	20,833	–	–	24,083	44,916
Bulgaria	–	–	–	–	217	–	–	–	–	217
Denmark	*128,474*	*731*	129,205	–	6,369	–	–	–	–	135,574
Italy	*38,640*	*56,578*	95,218	–	2,086	–	–	–	–	97,304
Netherlands	*288,815*	–	288,815	–	698	–	–	–	–	289,513
Norway	*4,900,631*	*58,341*	4,958,972	–	3,596	–	–	–	–	4,962,568
United Kingdom	*2,349,352*	–	2,349,352	–	5,361	–	–	–	–	2,354,713
Africa	***1,965,491***	***527,036***	**2,492,527**	**–**	**70,626**	**82,941**	**25,000**	**56,407**	**1,716,365**	**4,443,866**
Angola	*623,757*	*83,611*	707,368	–	9,410	18,950	–	1,322	1,602,707	2,339,757
Democratic Republic of the Congo	–	–	–	–	500	–	–	–	–	500
Gabon	*32,778*	*51,573*	84,351	–	3,282	–	25,000	15,391	–	128,024
Kenya	–	–	–	–	292	–	–	–	–	292
Mauritania	–	–	–	–	560	–	–	–	–	560
Mozambique	–	–	–	–	2,120	–	–	2,810	–	4,930
Namibia	–	–	–	–	212	–	–	–	–	212
Nigeria	*1,186,752*	*144,238*	1,330,990	–	10,099	63,991	–	34,154	113,222	1,552,456
Republic of the Congo	*122,204*	*247,614*	369,818	–	39,883	–	–	2,730	436	412,867
São Tomé and Principe	–	–	–	–	1,139	–	–	–	–	1,139
Senegal	–	–	–	–	1,152	–	–	–	–	1,152
South Africa	–	–	–	–	268	–	–	–	–	268
Uganda	–	–	–	–	1,709	–	–	–	–	1,709
Middle East and North Africa	***849,141***	***9,972,257***	**10,821,398**	**132,797**	**14,313**	**378,685**	**–**	**909**	**2,247,736**	**13,595,838**
Algeria	*152,830*	*320,762*	473,592	–	2,096	28,685	–	–	–	504,373
Cyprus	–	–	–	–	962	–	–	–	–	962
Iraq	*12,125*	–	12,125	–	–	–	–	–	–	12,125
Lebanon	–	–	–	–	224	–	–	–	–	224
Libya	*533,684*	*1,440,340*	1,974,024	–	82	–	–	909	1,529,007	3,504,022
Oman	–	*461,307*	461,307	132,797	275	–	–	–	–	594,379
Qatar	*150,502*	*30,046*	180,548	–	–	–	–	–	718,729	899,277
United Arab Emirates	–	*7,719,802*	7,719,802	–	10,674	350,000	–	–	–	8,080,476
Americas	***245,565***	***882,535***	**1,128,100**	**180,621**	**79,343**	**211,159**	**–**	**107**	**217,207**	**1,816,537**
Argentina	*34,349*	*80,711*	115,060	–	7,475	–	–	–	–	122,535
Bolivia	–	*172,375*	172,375	–	636	–	–	107	24,952	198,070
Brazil	*211,216*	*613,227*	824,443	–	18,860	166,713	–	–	192,255	1,202,271
Canada	–	–	–	102,816	23,479	–	–	–	–	126,295
Mexico	–	*1,577*	1,577	–	27,712	–	–	–	–	29,289
Surinam	–	–	–	–	–	44,446	–	–	–	44,446
United States	–	*14,645*	14,645	77,805	1,181	–	–	–	–	93,631
Asia Pacific	***339,655***	***141,445***	**481,100**	**–**	**2,551**	**15,628**	**–**	**2,980**	**93,704**	**595,963**
Australia	–	*45,211*	45,211	–	2,136	–	–	–	–	47,347
Brunei	*66,446*	*7,852*	74,298	–	5	–	–	–	7,777	82,080
China	*28,177*	*24,751*	52,928	–	–	–	–	–	27,062	79,990
Indonesia	*2,740*	–	2,740	–	–	–	–	–	2,750	5,490
Kazakhstan	*18,226*	*63,260*	81,486	–	176	–	–	2,980	56,115	140,757
Papua New Guinea	–	–	–	–	234	–	–	–	–	234
Thailand	*224,066*	*371*	224,437	–	–	15,628	–	–	–	240,065
Total	***11,105,764***	***11,638,923***	**22,744,687**	**313,418**	**185,160**	**709,246**	**25,000**	**60,403**	**4,299,095**	**28,337,009**

9.3.2 Reporting of Payments by Project and by type of Payment, and by Government and by type of Payment

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Algeria (paid in cash (kusd))										
Payments per Project										
Groupement Berkine	–	*14,218*	14,218	–	–	3,581	–	–	–	17,799
Organisation Orhoud	–	–	–	–	–	692	–	–	–	692
Timimoun	–	*28,841*	28,841	–	800	–	–	–	–	29,641
Tin Fouyé Tabankort II	–	*230,041*	230,041	–	788	9,503	–	–	–	240,332
Tin Fouyé Tabankort Sud	–	–	–	–	508	14,909	–	–	–	15,417
Total	**–**	***273,100***	**273,100**	**–**	**2,096**	**28,685**	**–**	**–**	**–**	**303,881**
Payments per Government										
Direction Générale des Impôts, Direction des Grandes Entreprises c/o Sonatrach	–	–	–	–	–	–	–	–	–	–
Direction Générale des Impôts, Direction des Grandes Entreprises	–	*183,447*	183,447	–	2,096	–	–	–	–	185,543
Agence Nationale pour Valorisation des Ressources en Hydrocarbures (ALNAFT)	–	*75,435*	75,435	–	–	–	–	–	–	75,435
Sonatrach	–	*14,218*	14,218	–	–	28,685	–	–	–	42,903
Total	**–**	***273,100***	**273,100**	**–**	**2,096**	**28,685**	**–**	**–**	**–**	**303,881**
Algeria (paid in kind (kboe))										
Payments per Project										
Groupement Berkine	*1,861*	*602*	2,464	–	–	–	–	–	–	2,464
Organisation Orhoud	–	–	–	–	–	–	–	–	–	–
Timimoun	–	–	–	–	–	–	–	–	–	–
Tin Fouyé Tabankort II	–	–	–	–	–	–	–	–	–	–
Tin Fouyé Tabankort Sud	–	–	–	–	–	–	–	–	–	–
Total	***1,861***	***602***	**2,464**	**–**	**–**	**–**	**–**	**–**	**–**	**2,464**
Payments per Government										
Direction Générale des Impôts, Direction des Grandes Entreprises c/o Sonatrach	*1,861*	*602*	2,464	–	–	–	–	–	–	2,464
Direction Générale des Impôts, Direction des Grandes Entreprises	–	–	–	–	–	–	–	–	–	–
Agence Nationale pour Valorisation des Ressources en Hydrocarbures (ALNAFT)	–	–	–	–	–	–	–	–	–	–
Sonatrach	–	–	–	–	–	–	–	–	–	–
Total	***1,861***	***602***	**2,464**	**–**	**–**	**–**	**–**	**–**	**–**	**2,464**

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes

Algeria (all payments (kusd) - including valuation of in-kind payments)

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Payments per Project										
Groupement Berkine	*152,830[(a)]*	*61,880[(b)]*	214,710	–	–	3,581	–	–	–	218,291
Organisation Orhoud	–	–	–	–	–	692	–	–	–	692
Timimoun	–	*28,841*	28,841	–	800	–	–	–	–	29,641
Tin Fouyé Tabankort II	–	*230,041*	230,041	–	788	9,503	–	–	–	240,332
Tin Fouyé Tabankort Sud	–	–	–	–	508	14,909	–	–	–	15,417
Total	***152,830***	***320,762***	**473,592**	**–**	**2,096**	**28,685**	**–**	**–**	**–**	**504,373**
Payments per Government										
Direction Générale des Impôts, Direction des Grandes Entreprises c/o Sonatrach	*152,830[(a)]*	*47,662[(c)]*	200,492	–	–	–	–	–	–	200,492
Direction Générale des Impôts, Direction des Grandes Entreprises	–	*183,447*	183,447	–	2,096	–	–	–	–	185,543
Agence Nationale pour Valorisation des Ressources en Hydrocarbures (ALNAFT)	–	*75,435*	75,435	–	–	–	–	–	–	75,435
Sonatrach	–	*14,218[(d)]*	14,218	–	–	28,685	–	–	–	42,903
Total	***152,830***	***320,762***	**473,592**	**–**	**2,096**	**28,685**	**–**	**–**	**–**	**504,373**

(a) Corresponds to the valuation of 1,861 kboe at fiscal selling prices for for income taxes.
(b) Includes the valuation for 47,662 k$ of 602 kboe at fiscal selling prices for taxes of different natures.
(c) Corresponds to the valuation of 602 kboe at fiscal selling prices for taxes of different natures.
(d) Corresponds to the share of operating costs paid in complement to the economic interest of TotalEnergies in Groupement Berkine.

Angola (paid in cash (kusd))

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Payments per Project										
Block 0	*156,274*	*83,611*	239,885	–	683	16,950	–	–	–	257,518
Block 16	*60*	–	60	–	262	–	–	–	–	322
Block 17	*311,436*	–	311,436	–	5,700	2,000	–	769	–	319,905
Block 17/06	*49*	–	49	–	101	–	–	–	–	150
Block 20	*17,910*	–	17,910	–	227	–	–	–	–	18,137
Block 21	–	–	–	–	209	–	–	–	–	209
Block 32	*138,028*	–	138,028	–	2,018	–	–	553	–	140,599
Block 48	–	–	–	–	210	–	–	–	–	210
Total	***623,757***	***83,611***	**707,368**	**–**	**9,410**	**18,950**	**–**	**1,322**	**–**	**737,050**
Payments per Government										
Caixa do Tesouro Nacional	*623,757*	*83,611*	707,368	–	303	–	–	–	–	707,671
Ministério dos Recursos Minerais, Petróleo e Gás	–	–	–	–	9,107	–	–	–	–	9,107
ANPG - Agência Nacional de Petróleo, Gás e Biocombustíveis	–	–	–	–	–	18,950	–	1,322	–	20,272
Total	***623,757***	***83,611***	**707,368**	**–**	**9,410**	**18,950**	**–**	**1,322**	**–**	**737,050**

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Angola (paid in kind (kboe))										
Payments per Project										
Block 0	–	–	–	–	–	–	–	–	–	–
Block 16	–	–	–	–	–	–	–	–	–	–
Block 17	–	–	–	–	–	–	–	–	18,528	18,528
Block 17/06	–	–	–	–	–	–	–	–	–	–
Block 20	–	–	–	–	–	–	–	–	–	–
Block 21	–	–	–	–	–	–	–	–	–	–
Block 32	–	–	–	–	–	–	–	–	836	836
Block 48	–	–	–	–	–	–	–	–	–	–
Total	–	–	–	–	–	–	–	–	**19,364**	**19,364**
Payments per Government										
Caixa do Tesouro Nacional	–	–	–	–	–	–	–	–	–	–
Ministério dos Recursos Minerais, Petróleo e Gás	–	–	–	–	–	–	–	–	–	–
ANPG - Agência Nacional de Petróleo, Gás e Biocombustíveis	–	–	–	–	–	–	–	–	19,364	19,364
Total	–	–	–	–	–	–	–	–	**19,364**	**19,364**

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Angola (all payments (kusd) - including valuation of in-kind payments)										
Payments per Project										
Block 0	*156,274*	*83,611*	239,885	–	683	16,950	–	–	–	257,518
Block 16	*60*	–	60	–	262	–	–	–	–	322
Block 17	*311,436*	–	311,436	–	5,700	2,000	–	769	1,535,189[a]	1,855,094
Block 17/06	*49*	–	49	–	101	–	–	–	–	150
Block 20	*17,910*	–	17,910	–	227	–	–	–	–	18,137
Block 21	–	–	–	–	209	–	–	–	–	209
Block 32	*138,028*	–	138,028	–	2,018	–	–	553	67,518[b]	208,117
Block 48	–	–	–	–	210	–	–	–	–	210
Total	***623,757***	***83,611***	**707,368**	–	**9,410**	**18,950**	–	**1,322**	**1,602,707**	**2,339,757**
Payments per Government										
Caixa do Tesouro Nacional	*623,757*	*83,611*	707,368	–	303	–	–	–	–	707,671
Ministério dos Recursos Minerais, Petróleo e Gás	–	–	–	–	9,107	–	–	–	–	9,107
ANPG - Agência Nacional de Petróleo, Gás e Biocombustíveis	–	–	–	–	–	18,950	–	1,322	1,602,707[c]	1,622,979
Total	***623,757***	***83,611***	**707,368**	–	**9,410**	**18,950**	–	**1,322**	**1,602,707**	**2,339,757**

(a) Corresponds to the valuation of 18,528 kboe at the weighted average fiscal price of the year.
(b) Corresponds to the valuation of 836 kboe at the weighted average fiscal price of the year.
(c) Corresponds to the valuation of 19,364 kboe at the weighted average fiscal price of the year.

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Argentina (paid in cash (kusd))										
Payments per Project										
Cuenca Argentina Norte - Block 111	–	–	–	–	92	–	–	–	–	92
Cuenca Argentina Norte - Block 113	–	–	–	–	96	–	–	–	–	96
Malvinas Ocidental - Block 123	–	–	–	–	42	–	–	–	–	42
Neuquen	–	*46,571*	46,571	–	532	–	–	–	–	47,103
Santa Cruz	–	–	–	–	483	–	–	–	–	483
Tierra del Fuego	–	*34,140*	34,140	–	6,230	–	–	–	–	40,370
Argentina (non-attributable)	*34,349*	–	34,349	–	–	–	–	–	–	34,349
Total	***34,349***	***80,711***	**115,060**	–	**7,475**	–	–	–	–	**122,535**
Payments per Government										
Administracion Federal de Ingresos Publicos	*34,349*	–	34,349	–	–	–	–	–	–	34,349
Secretaria de Energia, Republica Argentina	–	*24,908*	24,908	–	1,179	–	–	–	–	26,087
Provincia del Neuquen	–	*46,571*	46,571	–	532	–	–	–	–	47,103
Provincia de Tierra del Fuego	–	*9,232*	9,232	–	5,764	–	–	–	–	14,996
Total	***34,349***	***80,711***	**115,060**	–	**7,475**	–	–	–	–	**122,535**

Australia (paid in cash (kusd))

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Payments per Project										
GLNG	–	*34,036*	34,036	–	2,136	–	–	–	–	36,172
Ichthys LNG	–	*11,175*	11,175	–	–	–	–	–	–	11,175
Total	**–**	***45,211***	**45,211**	**–**	**2,136**	**–**	**–**	**–**	**–**	**47,347**
Payments per Government										
Queensland Government	–	–	–	–	2,136	–	–	–	–	2,136
Queensland Government, Queensland Revenue Office	–	*45,211*	45,211	–	–	–	–	–	–	45,211
Total	**–**	***45,211***	**45,211**	**–**	**2,136**	**–**	**–**	**–**	**–**	**47,347**

Azerbaijan (paid in cash (kusd))

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Payments per Project										
Absheron	–	–	–	–	–	20,833	–	–	–	20,833
Total	**–**	**–**	**–**	**–**	**–**	**20,833**	**–**	**–**	**–**	**20,833**
Payments per Government										
State Oil Company of the Azerbaijan Republic	–	–	–	–	–	20,833	–	–	–	20,833
Total	**–**	**–**	**–**	**–**	**–**	**20,833**	**–**	**–**	**–**	**20,833**

Azerbaijan (paid in kind (kboe))

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Payments per Project										
Absheron	–	–	–	–	–	–	–	–	640	640
Total	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**640**	**640**
Payments per Government										
State Oil Company of the Azerbaijan Republic	–	–	–	–	–	–	–	–	640	640
Total	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**640**	**640**

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

Azerbaijan (all payments (kusd) - including valuation of in-kind payments)

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Payments per Project										
Absheron	–	–	–	–	–	20,833	–	–	24,083[(a)]	44,916
Total	**–**	**–**	**–**	**–**	**–**	**20,833**	**–**	**–**	**24,083**	**44,916**
Payments per Government										
State Oil Company of the Azerbaijan Republic	–	–	–	–	–	20,833	–	–	24,083[(a)]	44,916
Total	**–**	**–**	**–**	**–**	**–**	**20,833**	**–**	**–**	**24,083**	**44,916**

(a) Corresponds to the valuation of 640 kboe for production entitlements at a fixed contractual price for gas and contractual net-back price for condensates.

Bolivia (paid in cash (kusd))

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Payments per Project										
Aquio	–	*22,195*	22,195	–	148	–	–	–	–	22,343
Azero	–	–	–	–	29	–	–	8	–	37
Ipatí	–	*103,053*	103,053	–	234	–	–	99	–	103,386
Itaú	–	*7,930*	7,930	–	127	–	–	–	–	8,057
San Alberto	–	*11,905*	11,905	–	33	–	–	–	–	11,938
San Antonio	–	*27,292*	27,292	–	65	–	–	–	–	27,357
Total	**–**	***172,375***	**172,375**	**–**	**636**	**–**	**–**	**107**	**–**	**173,118**
Payments per Government										
Yacimientos Petrolíferos Fiscales Bolivianos (YPFB)	–	–	–	–	636	–	–	–	–	636
Servicio de Impuestos Nacionales (SIN) c/o YPFB	–	*110,320*	110,320	–	–	–	–	–	–	110,320
Departamentos c/o YPFB	–	*62,055*	62,055	–	–	–	–	–	–	62,055
Fundesoc c/o Indigeneous Communities	–	–	–	–	–	–	–	107	–	107
Total	**–**	***172,375***	**172,375**	**–**	**636**	**–**	**–**	**107**	**–**	**173,118**

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Bolivia (paid in kind (kboe))										
Payments per Project										
Aquio	–	–	–	–	–	–	–	–	221	221
Azero	–	–	–	–	–	–	–	–	–	–
Ipatí	–	–	–	–	–	–	–	–	–	–
Itaú	–	–	–	–	–	–	–	–	–	–
San Alberto	–	–	–	–	–	–	–	–	129	129
San Antonio	–	–	–	–	–	–	–	–	820	820
Total	–	–	**–**	**–**	**–**	**–**	**–**	**–**	**1,170**	**1,170**
Payments per Government										
Yacimientos Petrolíferos Fiscales Bolivianos (YPFB)	–	–	–	–	–	–	–	–	1,170	1,170
Servicio de Impuestos Nacionales (SIN) c/o YPFB	–	–	–	–	–	–	–	–	–	–
Departamentos c/o YPFB	–	–	–	–	–	–	–	–	–	–
Fundesoc c/o Indigeneous Communities	–	–	–	–	–	–	–	–	–	–
Total	–	–	**–**	**–**	**–**	**–**	**–**	**–**	**1,170**	**1,170**

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Bolivia (all payments (kusd) - including valuation of in-kind payments)										
Payments per Project										
Aquio	–	*22,195*	22,195	–	148	–	–	–	5,088[(a)]	27,431
Azero	–	–	–	–	29	–	–	8	–	37
Ipatí	–	*103,053*	103,053	–	234	–	–	99	–	103,386
Itaú	–	*7,930*	7,930	–	127	–	–	–	–	8,057
San Alberto	–	*11,905*	11,905	–	33	–	–	–	4,117[(b)]	16,055
San Antonio	–	*27,292*	27,292	–	65	–	–	–	15,747[(c)]	43,104
Total	–	***172,375***	**172,375**	**–**	**636**	**–**	**–**	**107**	**24,952**	**198,070**
Payments per Government										
Yacimientos Petrolíferos Fiscales Bolivianos (YPFB)	–	–	–	–	636	–	–	–	24,952[(d)]	25,588
Servicio de Impuestos Nacionales (SIN) c/o YPFB	–	*110,320*	110,320	–	–	–	–	–	–	110,320
Departamentos c/o YPFB	–	*62,055*	62,055	–	–	–	–	–	–	62,055
Fundesoc c/o Indigeneous Communities	–	–	–	–	–	–	–	107	–	107
Total	–	***172,375***	**172,375**	**–**	**636**	**–**	**–**	**107**	**24,952**	**198,070**

(a) Corresponds to the valuation of 221 kboe for production entitlements at a fixed regulated price for condensates and on a net-back regulated price for gas.
(b) Corresponds to the valuation of 129 kboe for production entitlements at a fixed regulated price for condensates and on a net-back regulated price for gas.
(c) Corresponds to the valuation of 820 kboe for production entitlements at a fixed regulated price for condensates and on a net-back regulated price for gas.
(d) Corresponds to the valuation of 1,170 kboe for production entitlements at a fixed regulated price for condensates and on a net-back regulated price for gas.

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Brazil (paid in cash (kusd))										
Payments per Project										
Agua Marinha	–	–	–	–	–	3,770	–	–	–	3,770
Atapu	–	–	–	–	25	–	–	–	–	25
Atapu ToR Surplus	–	*73,623*	73,623	–	–	59,866	–	–	–	133,489
Barreirinhas	–	–	–	–	52	–	–	–	–	52
BM-S-54	–	–	–	–	64	–	–	–	–	64
C-M-541	–	–	–	–	718	–	–	–	–	718
Espirito Santo	–	–	–	–	7	–	–	–	–	7
Iara	–	*155,512*	155,512	–	288	–	–	–	–	155,800
Lapa	–	*69,406*	69,406	–	1,275	–	–	–	–	70,681
Libra	–	*189,573*	189,573	–	–	–	–	–	–	189,573
Sépia ToR Surplus	–	*125,113*	125,113	–	–	103,077	–	–	–	228,190
S-M-1711	–	–	–	–	12	–	–	–	–	12
S-M-1815	–	–	–	–	12	–	–	–	–	12
Xerelete	–	–	–	–	53	–	–	–	–	53
Brazil (non-attributable)	*211,216*	–	211,216	–	16,354	–	–	–	–	227,570
Total	***211,216***	***613,227***	**824,443**	**–**	**18,860**	**166,713**	**–**	**–**	**–**	**1,010,016**
Payments per Government										
Agencia National de Petroleo, Gas Natural e Biocombustiveis	–	–	–	–	16,354	–	–	–	–	16,354
Fundo de Compensação Ambiental (FCA)	–	–	–	–	825	–	–	–	–	825
Receita Federal	*211,216*	*613,227*	824,443	–	–	–	–	–	–	824,443
Petrobras	–	–	–	–	–	162,943	–	–	–	162,943
Pré-sal Petroleo (PPSA)	–	–	–	–	–	–	–	–	–	–
Secretaria do Tesouro Nacional	–	–	–	–	1,681	3,770	–	–	–	5,451
Total	***211,216***	***613,227***	**824,443**	**–**	**18,860**	**166,713**	**–**	**–**	**–**	**1,010,016**
Brazil (paid in kind (kboe))										
Payments per Project										
Agua Marinha	–	–	–	–	–	–	–	–	–	–
Atapu	–	–	–	–	–	–	–	–	–	–
Atapu ToR Surplus	–	–	–	–	–	–	–	–	106	106
Barreirinhas	–	–	–	–	–	–	–	–	–	–
BM-S-54	–	–	–	–	–	–	–	–	–	–
C-M-541	–	–	–	–	–	–	–	–	–	–
Espirito Santo	–	–	–	–	–	–	–	–	–	–
Iara	–	–	–	–	–	–	–	–	–	–
Lapa	–	–	–	–	–	–	–	–	–	–
Libra	–	–	–	–	–	–	–	–	2,227	2,227
Sépia ToR Surplus	–	–	–	–	–	–	–	–	215	215
S-M-1711	–	–	–	–	–	–	–	–	–	–
S-M-1815	–	–	–	–	–	–	–	–	–	–
Xerelete	–	–	–	–	–	–	–	–	–	–
Brazil (non-attributable)	–	–	–	–	–	–	–	–	–	–
Total	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**2,548**	**2,548**
Payments per Government										
Agencia National de Petroleo, Gas Natural e Biocombustiveis	–	–	–	–	–	–	–	–	–	–
Fundo de Compensação Ambiental (FCA)	–	–	–	–	–	–	–	–	–	–
Receita Federal	–	–	–	–	–	–	–	–	–	–
Petrobras	–	–	–	–	–	–	–	–	–	–
Pré-sal Petroleo (PPSA)	–	–	–	–	–	–	–	–	2,548	2,548
Secretaria do Tesouro Nacional	–	–	–	–	–	–	–	–	–	–
Total	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**2,548**	**2,548**

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes

Brazil (all payments (kusd) - including valuation of in-kind payments)

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Payments per Project										
Agua Marinha	–	–	–	–	–	3,770	–	–	–	3,770
Atapu	–	–	–	–	25	–	–	–	–	25
Atapu ToR Surplus	–	*73,623*	73,623	–	–	59,866[a]	–	–	7,746[b]	141,235
Barreirinhas	–	–	–	–	52	–	–	–	–	52
BM-S-54	–	–	–	–	64	–	–	–	–	64
C-M-541	–	–	–	–	718	–	–	–	–	718
Espirito Santo	–	–	–	–	7	–	–	–	–	7
Iara	–	*155,512*	155,512	–	288	–	–	–	–	155,800
Lapa	–	*69,406*	69,406	–	1,275	–	–	–	–	70,681
Libra	–	*189,573*	189,573	–	–	–	–	–	168,557[c]	358,130
Sépia ToR Surplus	–	*125,113*	125,113	–	–	103,077[d]	–	–	15,952[e]	244,142
S-M-1711	–	–	–	–	12	–	–	–	–	12
S-M-1815	–	–	–	–	12	–	–	–	–	12
Xerelete	–	–	–	–	53	–	–	–	–	53
Brazil (non-attributable)	*211,216*	–	211,216	–	16,354	–	–	–	–	227,570
Total	***211,216***	***613,227***	**824,443**	**–**	**18,860**	**166,713**	**–**	**–**	**192,255**	**1,202,271**
Payments per Government										
Agencia National de Petroleo, Gas Natural e Biocombustiveis	–	–	–	–	16,354	–	–	–	–	16,354
Fundo de Compensação Ambiental (FCA)	–	–	–	–	825	–	–	–	–	825
Receita Federal	*211,216*	*613,227*[f]	824,443	–	–	–	–	–	–	824,443
Petrobras	–	–	–	–	–	162,943[g]	–	–	–	162,943
Pré-sal Petroleo (PPSA)	–	–	–	–	–	–	–	–	192,255[h]	192,255
Secretaria do Tesouro Nacional	–	–	–	–	1,681	3,770	–	–	–	5,451
Total	***211,216***	***613,227***	**824,443**	**–**	**18,860**	**166,713**	**–**	**–**	**192,255**	**1,202,271**

(a) Corresponds to the complementary variable consideration (earn-out) linked to the asset transfer realized in 2022 with Petrobras.
(b) Corresponds to the valuation of 106 kboe at the fiscal reference price determined by ANP (Agencia National de Petroleo) for production entitlements.
(c) Corresponds to the valuation of 2,227 kboe at the fiscal reference price determined by ANP (Agencia National de Petroleo) for production entitlements.
(d) Corresponds to the complementary variable consideration (earn-out) linked to the asset transfer realized in 2022 with Petrobras.
(e) Corresponds to the valuation of 215 kboe at the fiscal reference price determined by ANP (Agencia National de Petroleo) for production entitlements.
(f) Includes 67 M$ of exceptional taxes (tax on crude oil exports applied from March to June 2023).
(g) Corresponds to the complementary variable consideration (earn-out) linked to the asset transfer realized in 2022 with Petrobras, majority controlled by the Brazilian State as of December 31, 2023.
(h) Corresponds to the valuation of 2,548 kboe at the fiscal reference price determined by ANP (Agencia National de Petroleo) for production entitlements.

Brunei (paid in cash (kusd))

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Payments per Project										
Block B	*66,446*	*7,852*	74,298	–	5	–	–	–	7,777[a]	82,080
Total	***66,446***	***7,852***	**74,298**	**–**	**5**	**–**	**–**	**–**	**7,777**	**82,080**
Payments per Government										
Brunei Government	*66,446*	*7,852*	74,298	–	5	–	–	–	7,777[a]	82,080
Total	***66,446***	***7,852***	**74,298**	**–**	**5**	**–**	**–**	**–**	**7,777**	**82,080**

(a) Corresponds to the payment related to Domestic Gas Supply Obligation.

Bulgaria (paid in cash (kusd))

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Payments per Project										
Khan Asparuh	–	–	–	–	217	–	–	–	–	217
Total	–	–	**–**	**–**	**217**	**–**	**–**	**–**	**–**	**217**
Payments per Government										
Ministry of Energy of Bulgaria	–	–	–	–	217	–	–	–	–	217
Total	–	–	**–**	**–**	**217**	**–**	**–**	**–**	**–**	**217**

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Canada (paid in cash (kusd))										
Payments per Project										
Deer Creek	–	–	–	–	1	–	–	–	–	1
Fort Hills	–	–	–	41,005	13,875	–	–	–	–	54,880
Northern Lights	–	–	–	–	138	–	–	–	–	138
Surmont	–	–	–	61,811	9,463	–	–	–	–	71,274
Other oil sands projects	–	–	–	–	2	–	–	–	–	2
Total	**–**	**–**	**–**	**102,816**	**23,479**	**–**	**–**	**–**	**–**	**126,295**
Payments per Government										
Province of Alberta	–	–	–	102,816	1,163	–	–	–	–	103,979
Municipality of Wood Buffalo (Alberta)	–	–	–	–	22,138	–	–	–	–	22,138
Fort McKay First Nations (FMFN)	–	–	–	–	178	–	–	–	–	178
Total	**–**	**–**	**–**	**102,816**	**23,479**	**–**	**–**	**–**	**–**	**126,295**
China (paid in cash (kusd))										
Payments per Project										
Sulige	*28,177*	*2,019*	30,196	–	–	–	–	–	–	30,196
Total	***28,177***	***2,019***	**30,196**	**–**	**–**	**–**	**–**	**–**	**–**	**30,196**
Payments per Government										
China National Petroleum Company	–	*2,019*	2,019	–	–	–	–	–	–	2,019
Etoke Tax Bureau	*13,843*	–	13,843	–	–	–	–	–	–	13,843
Guangzhou Offshore Oil Tax Bureau	*254*	–	254	–	–	–	–	–	–	254
Tianjin Offshore Oil Tax Bureau	*14,080*	–	14,080	–	–	–	–	–	–	14,080
Total	***28,177***	***2,019***	**30,196**	**–**	**–**	**–**	**–**	**–**	**–**	**30,196**
China (paid in kind (kboe))										
Payments per Project										
Sulige	–	*740*	740	–	–	–	–	–	953	1,694
Total	**–**	***740***	**740**	**–**	**–**	**–**	**–**	**–**	**953**	**1,694**
Payments per Government										
China National Petroleum Company	–	*740*	740	–	–	–	–	–	953	1,694
Etoke Tax Bureau	–	–	–	–	–	–	–	–	–	–
Guangzhou Offshore Oil Tax Bureau	–	–	–	–	–	–	–	–	–	–
Tianjin Offshore Oil Tax Bureau	–	–	–	–	–	–	–	–	–	–
Total	**–**	***740***	**740**	**–**	**–**	**–**	**–**	**–**	**953**	**1,694**

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
China (all payments (kusd) - including valuation of in-kind payments)										
Payments per Project										
Sulige	*28,177*	*24,751*[(a)]	52,928	–	–	–	–	–	27,062[(b)]	79,990
Total	***28,177***	***24,751***	**52,928**	**–**	**–**	**–**	**–**	**–**	**27,062**	**79,990**
Payments per Government										
China National Petroleum Company	–	*24,751*[(a)]	24,751	–	–	–	–	–	27,062[(b)]	51,813
Etoke Tax Bureau	*13,843*	–	13,843	–	–	–	–	–	–	13,843
Guangzhou Offshore Oil Tax Bureau	*254*	–	254	–	–	–	–	–	–	254
Tianjin Offshore Oil Tax Bureau	*14,080*	–	14,080	–	–	–	–	–	–	14,080
Total	***28,177***	***24,751***	**52,928**	**–**	**–**	**–**	**–**	**–**	**27,062**	**79,990**

(a) Includes the valuation for 22,732 k$ of 740 kboe for taxes of different natures.
(b) Corresponds to the valuation of 953 kboe for production entitlements.

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Cyprus (paid in cash (kusd))										
Payments per Project										
Block 2	–	–	–	–	69	–	–	–	–	69
Block 3	–	–	–	–	93	–	–	–	–	93
Block 6	–	–	–	–	163	–	–	–	–	163
Block 7	–	–	–	–	170	–	–	–	–	170
Block 8	–	–	–	–	168	–	–	–	–	168
Block 9	–	–	–	–	64	–	–	–	–	64
Block 11	–	–	–	–	235	–	–	–	–	235
Total	–	–	**–**	**–**	**962**	**–**	**–**	**–**	**–**	**962**
Payments per Government										
Ministry of Energy, Commerce, Industry and Tourism	–	–	–	–	962	–	–	–	–	962
Total	–	–	**–**	**–**	**962**	**–**	**–**	**–**	**–**	**962**

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Democratic Republic of the Congo (paid in cash (kusd))										
Payments per Project										
Block 3	–	–	–	–	500	–	–	–	–	500
Total	–	–	**–**	**–**	**500**	**–**	**–**	**–**	**–**	**500**
Payments per Government										
Ministère des Hydrocarbures C/O Caritas Congo ASBL	–	–	–	–	500	–	–	–	–	500
Total	–	–	**–**	**–**	**500**	**–**	**–**	**–**	**–**	**500**

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Denmark (paid in cash (kusd))										
Payments per Project										
Sole Concession Area	*128,474*[(a)]	*731*	129,205	–	6,369	–	–	–	–	135,574
Total	***128,474***	***731***	**129,205**	**–**	**6,369**	**–**	**–**	**–**	**–**	**135,574**
Payments per Government										
Arbejdstilsynet	–	–	–	–	267	–	–	–	–	267
Energistyrelsen	–	–	–	–	176	–	–	–	–	176
Dansk Teknisk Universitet	–	–	–	–	5,926	–	–	–	–	5,926
Skat	*128,474*[(a)]	*731*	129,205	–	–	–	–	–	–	129,205
Total	***128,474***	***731***	**129,205**	**–**	**6,369**	**–**	**–**	**–**	**–**	**135,574**

(a) Includes 41 M$ of windfall taxes (38 M$ concerning 3B Surplus and 3 M$ concerning European Solidarity Contribution).

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Gabon (paid in cash (kusd))										
Payments per Project										
Baudroie-Mérou CEPP	*6,000*	*8,275*	14,275	–	878	–	–	4,254	–	19,407
Concessions (périmètre Convention d'Etablissement)	*500*	*2,160*	2,660	–	2,404	–	–	11,137	–	16,201
Concession Anguille	–	*21,989*	21,989	–	–	–	–	–	–	21,989
Concession Torpille	–	*19,149*	19,149	–	–	–	–	–	–	19,149
Non-attributable	–	–	–	–	–	–	25,000	–	–	25,000
Total	***6,500***	***51,573***	**58,073**	**–**	**3,282**	**–**	**25,000**	**15,391**	**–**	**101,746**
Payments per Government										
Trésor Public Gabonais	*2,500*	*51,573*	54,073	–	3,282	–	–	–	–	57,355
République du Gabon	*4,000*	–	4,000	–	–	–	25,000	8,834	–	37,834
Ville de Libreville	–	–	–	–	–	–	–	506	–	506
Ville de Port-Gentil	–	–	–	–	–	–	–	5,654	–	5,654
Miscellaneous PID beneficiaries	–	–	–	–	–	–	–	201	–	201
Miscellaneous PIH beneficiaries	–	–	–	–	–	–	–	196	–	196
Total	***6,500***	***51,573***	**58,073**	**–**	**3,282**	**–**	**25,000**	**15,391**	**–**	**101,746**

	Income taxes	Other Taxes	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Gabon (paid in kind (kboe))										
Payments per Project										
Baudroie-Mérou CEPP	*339*	–	339	–	–	–	–	–	–	339
Concessions (périmètre Convention d'Etablissement)	–	–	–	–	–	–	–	–	–	–
Concession Anguille	–	–	–	–	–	–	–	–	–	–
Concession Torpille	–	–	–	–	–	–	–	–	–	–
Non-attributable	–	–	–	–	–	–	–	–	–	–
Total	***339***	**–**	**339**	**–**	**–**	**–**	**–**	**–**	**–**	**339**
Payments per Government										
Trésor Public Gabonais	–	–	–	–	–	–	–	–	–	–
République du Gabon	*339*	–	339	–	–	–	–	–	–	339
Ville de Libreville	–	–	–	–	–	–	–	–	–	–
Ville de Port-Gentil	–	–	–	–	–	–	–	–	–	–
Miscellaneous PID beneficiaries	–	–	–	–	–	–	–	–	–	–
Miscellaneous PIH beneficiaries	–	–	–	–	–	–	–	–	–	–
Total	***339***	**–**	**339**	**–**	**–**	**–**	**–**	**–**	**–**	**339**

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

	Income taxes	Other Taxes	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Gabon (all payments (kusd) - including valuation of in-kind payments)										
Payments per Project										
Baudroie-Mérou CEPP	*32,278*[(a)]	*8,275*	40,553	–	878	–	–	4,254[(b)]	–	45,685
Concessions (périmètre Convention d'Etablissement)	*500*	*2,160*	2,660	–	2,404	–	–	11,137[(c)]	–	16,201
Concession Anguille	–	*21,989*	21,989	–	–	–	–	-	–	21,989
Concession Torpille	–	*19,149*	19,149	–	–	–	–	–	–	19,149
Non-attributable	–	–	–	–	–	–	25,000	–	–	25,000
Total	***32,778***	***51,573***	**84,351**	**–**	**3,282**	**–**	**25,000**	**15,391**	**–**	**128,024**
Payments per Government										
Trésor Public Gabonais	*2,500*	*51,573*	54,073	–	3,282	–	–	–	–	57,355
République du Gabon	*30,278*[(a)]	–	30,278	–	–	–	25,000	8,834	–	64,112
Ville de Libreville	–	–	–	–	–	–	–	506	–	506
Ville de Port-Gentil	–	–	–	–	–	–	–	5,654	–	5,654
Miscellaneous PID beneficiaries	–	–	–	–	–	–	–	201	–	201
Miscellaneous PIH beneficiaries	–	–	–	–	–	–	–	196	–	196
Total	***32,778***	***51,573***	**84,351**	**–**	**3,282**	**–**	**25,000**	**15,391**	**–**	**128,024**

(a) Includes the valuation for 26,278 k$ of 339 kboe at the official selling price and applying the fiscal terms of the profit sharing agreements.
(b) Includes for 3,355 k$ of financing of projects (infrastructure, education, health) under joint control of the State and TotalEnergies within the framework of the *Provision pour Investissements Diversifiés* (PID - contribution to diversified investments) and of the *Provision pour Investissements dans les Hydrocarbures* (PIH - contribution to investments in hydrocarbons).
(c) Financing of projects (infrastructure, education, health) under joint control of the State and TotalEnergies within the framework of the *Provision pour Investissements Diversifiés* (PID - contribution to diversified investments) and of the *Provision pour Investissements dans les Hydrocarbures* (PIH - contribution to investments in hydrocarbons).

	Income taxes	Other Taxes	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Indonesia (paid in cash (kusd))										
Payments per Project										
Sebuku PSC	*2,740*	–	2,740	–	–	–	–	–	–	2,740
Total	***2,740***	**–**	**2,740**	**–**	**–**	**–**	**–**	**–**	**–**	**2,740**
Payments per Government										
Directorate General of Taxation, Ministry of Finance	*2,740*	–	2,740	–	–	–	–	–	–	2,740
Satuan Khusus Kegiatan Usaha Hulu Minyak dan Gas Bumi (SKK Migas)	–	–	–	–	–	–	–	–	–	–
Total	***2,740***	**–**	**2,740**	**–**	**–**	**–**	**–**	**–**	**–**	**2,740**

	Income taxes	Other Taxes	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Indonesia (paid in kind (kboe))										
Payments per Project										
Sebuku PSC	–	–	–	–	–	–	–	–	79	79
Total	–	–	–	–	–	–	–	–	**79**	**79**
Payments per Government										
Directorate General of Taxation, Ministry of Finance	–	–	–	–	–	–	–	–	–	–
Satuan Khusus Kegiatan Usaha Hulu Minyak dan Gas Bumi (SKK Migas)	–	–	–	–	–	–	–	–	79	79
Total	–	–	–	–	–	–	–	–	**79**	**79**

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

	Income taxes	Other Taxes	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Indonesia (all payments (kusd) - including valuation of in-kind payments)										
Payments per Project										
Sebuku PSC	*2,740*	–	2,740	–	–	–	–	–	2,750[a]	5,490
Total	***2,740***	–	**2,740**	–	–	–	–	–	**2,750**	**5,490**
Payments per Government										
Directorate General of Taxation, Ministry of Finance	*2,740*	–	2,740	–	–	–	–	–	–	2,740
Satuan Khusus Kegiatan Usaha Hulu Minyak dan Gas Bumi (SKK Migas)	–	–	–	–	–	–	–	–	2,750[a]	2,750
Total	***2,740***	–	**2,740**	–	–	–	–	–	**2,750**	**5,490**

(a) Corresponds to the valuation at net-back price of 79 kboe for production entitlements.

	Income taxes	Other Taxes	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Iraq (paid in cash (kusd))										
Payments per Project										
Halfaya	*12,125*	–	12,125	–	–	–	–	–	–	12,125
Total	***12,125***	–	**12,125**	–	–	–	–	–	–	**12,125**
Payments per Government										
Ministry of Finance, General Commission of Taxation	*12,125*	–	12,125	–	–	–	–	–	–	12,125
Total	***12,125***	–	**12,125**	–	–	–	–	–	–	**12,125**
Italy (paid in cash (kusd))										
Payments per Project										
Gorgoglione Unified License	*38,640*[a]	*56,578*[b]	95,218	–	2,086	–	–	–	–	97,304
Total	***38,640***	***56,578***	**95,218**	–	**2,086**	–	–	–	–	**97,304**
Payments per Government										
Regione Basilicata	–	*41,741*[b]	41,741	–	743	–	–	–	–	42,484
Agenzia del Demanio	–	–	–	–	16	–	–	–	–	16
Agenzia delle Entrate	*38,640*[a]	–	38,640	–	–	–	–	–	–	38,640
Comune Corleto Perticara	–	*3,334*	3,334	–	227	–	–	–	–	3,561
Comune Gorgoglione	–	*513*	513	–	4	–	–	–	–	517
Comune Guardia Perticara	–	–	–	–	18	–	–	–	–	18
Comune Taranto	–	–	–	–	708	–	–	–	–	708
Ministero dell'Economia e delle Finanze	–	–	–	–	370	–	–	–	–	370
Tesoreria dello Stato	–	*10,990*	10,990	–	–	–	–	–	–	10,990
Total	***38,640***	***56,578***	**95,218**	–	**2,086**	–	–	–	–	**97,304**

(a) Includes 33 M$ of windfall taxes (European Solidarity Contribution).
(b) Includes payment for the domestic gas supply obligation.

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Kazakhstan (paid in cash (kusd))										
Payments per Project										
Dunga	*18,226*	–	18,226	–	46	–	–	–	20,989	39,261
Kashagan	–	*63,260*	63,260	–	130	–	–	2,980	–	66,370
Total	***18,226***	***63,260***	**81,486**	**–**	**176**	**–**	**–**	**2,980**	**20,989**	**105,631**
Payments per Government										
Atyrau and Mangistau regions c/o North Caspian Operating Company b.v.	–	–	–	–	130	–	–	–	–	130
Atyrau region c/o North Caspian Operating Company b.v.	–	–	–	–	–	–	–	1,714	–	1,714
Mangistau region c/o North Caspian Operating Company b.v.	–	–	–	–	–	–	–	1,266	–	1,266
Ministry of Finance	*18,226*	*63,260*	81,486	–	46	–	–	–	20,989	102,521
Ministry of Energy	–	–	–	–	–	–	–	–	–	–
Total	***18,226***	***63,260***	**81,486**	**–**	**176**	**–**	**–**	**2,980**	**20,989**	**105,631**

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Kazakhstan (paid in kind (kboe))										
Payments per Project										
Dunga	–	–	–	–	–	–	–	–	–	–
Kashagan	–	–	–	–	–	–	–	–	587	587
Total	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**587**	**587**
Payments per Government										
Atyrau and Mangistau regions c/o North Caspian Operating Company b.v.	–	–	–	–	–	–	–	–	–	–
Atyrau region c/o North Caspian Operating Company b.v.	–	–	–	–	–	–	–	–	–	–
Mangistau region c/o North Caspian Operating Company b.v.	–	–	–	–	–	–	–	–	–	–
Ministry of Finance	–	–	–	–	–	–	–	–	–	–
Ministry of Energy	–	–	–	–	–	–	–	–	587	587
Total	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**587**	**587**

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Kazakhstan (all payments (kusd) - including valuation of in-kind payments)										
Payments per Project										
Dunga	*18,226*	–	18,226	–	46	–	–	–	20,989	39,261
Kashagan	–	*63,260*	63,260	–	130	–	–	2,980	35,126[a]	101,496
Total	***18,226***	***63,260***	**81,486**	**–**	**176**	**–**	**–**	**2,980**	**56,115**	**140,757**
Payments per Government										
Atyrau and Mangistau regions c/o North Caspian Operating Company b.v.	–	–	–	–	130	–	–	–	–	130
Atyrau region c/o North Caspian Operating Company b.v.	–	–	–	–	–	–	–	1,714	–	1,714
Mangistau region c/o North Caspian Operating Company b.v.	–	–	–	–	–	–	–	1,266	–	1,266
Ministry of Finance	*18,226*	*63,260*	81,486	–	46	–	–	–	20,989	102,521
Ministry of Energy	–	–	–	–	–	–	–	–	35,126[a]	35,126
Total	***18,226***	***63,260***	**81,486**	**–**	**176**	**–**	**–**	**2,980**	**56,115**	**140,757**

(a) Corresponds to the valuation of 587 kboe at average net-back prices for production entitlements.

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Kenya (paid in cash (kusd))										
Payments per Project										
10BA	–	–	–	–	38	–	–	–	–	38
10BB	–	–	–	–	223	–	–	–	–	223
13T	–	–	–	–	31	–	–	–	–	31
Total	**–**	**–**	**–**	**–**	**292**	**–**	**–**	**–**	**–**	**292**
Payments per Government										
Kenya Ministry of Energy	–	–	–	–	292	–	–	–	–	292
Total	**–**	**–**	**–**	**–**	**292**	**–**	**–**	**–**	**–**	**292**

	Income taxes	Other Taxes	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Lebanon (paid in cash (kusd))										
Payments per Project										
Block 4	–	–	–	–	103	–	–	–	–	103
Block 9	–	–	–	–	121	–	–	–	–	121
Total	–	–	–	–	**224**	–	–	–	–	**224**
Payments per Government										
Lebanese Petroleum Administration (LPA)	–	–	–	–	224	–	–	–	–	224
Total	–	–	–	–	**224**	–	–	–	–	**224**
Libya (paid in cash (kusd))										
Payments per Project										
Areas 15, 16 & 32 (Al Jurf)	–	–	–	–	–	–	–	–	–	–
Areas 129 & 130	–	–	–	–	–	–	–	–	–	–
Areas 130 & 131	–	–	–	–	–	–	–	–	–	–
Waha	–	*1,385,136*	1,385,136	–	82	–	–	909	–	1,386,127
Total	–	***1,385,136***	**1,385,136**	–	**82**	–	–	**909**	–	**1,386,127**
Payments per Government										
National Oil Corporation	–	–	–	–	–	–	–	909	–	909
Ministry of Finance c/o National Oil Corporation	–	–	–	–	–	–	–	–	–	–
Ministry of Oil and Gas	–	*1,385,136*	1,385,136	–	82	–	–	–	–	1,385,218
Total	–	***1,385,136***	**1,385,136**	–	**82**	–	–	**909**	–	**1,386,127**
Libya (paid in kind (kboe))										
Payments per Project										
Areas 15, 16 & 32 (Al Jurf)	*1,584*	*178*	1,762	–	–	–	–	–	1,911	3,673
Areas 129 & 130	*3,746*	*369*	4,115	–	–	–	–	–	11,949	16,064
Areas 130 & 131	*1,169*	*125*	1,295	–	–	–	–	–	4,676	5,970
Waha	–	–	–	–	–	–	–	–	–	–
Total	***6,499***	***673***	**7,172**	–	–	–	–	–	**18,535**	**25,707**
Payments per Government										
National Oil Corporation	–	–	–	–	–	–	–	–	18,535	18,535
Ministry of Finance c/o National Oil Corporation	*6,499*	*673*	7,172	–	–	–	–	–	–	7,172
Ministry of Oil and Gas	–	–	–	–	–	–	–	–	–	–
Total	***6,499***	***673***	**7,172**	–	–	–	–	–	**18,535**	**25,707**

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes

	Income taxes	Other Taxes	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Libya (all payments (kusd) - including valuation of in-kind payments)										
Payments per Project										
Areas 15, 16 & 32 (Al Jurf)	*126,957*[a]	*14,284*[b]	141,241	–	–	–	–	–	153,162[c]	294,403
Areas 129 & 130	*309,785*[d]	*30,516*[e]	340,301	–	–	–	–	–	988,137[f]	1,328,438
Areas 130 & 131	*96,942*[g]	*10,404*[h]	107,346	–	–	–	–	–	387,708[i]	495,054
Waha	–	*1,385,136*	1,385,136	–	82	–	–	909	–	1,386,127
Total	***533,684***	***1,440,340***	**1,974,024**	–	**82**	–	–	**909**	**1,529,007**	**3,504,022**
Payments per Government										
National Oil Corporation	–	–	–	–	–	–	–	909	1,529,007[j]	1,529,916
Ministry of Finance c/o National Oil Corporation	*533,684*[k]	*55,204*[l]	588,888	–	–	–	–	–	–	588,888
Ministry of Oil and Gas	–	*1,385,136*	1,385,136	–	82	–	–	–	–	1,385,218
Total	***533,684***	***1,440,340***	**1,974,024**	–	**82**	–	–	**909**	**1,529,007**	**3,504,022**

(a) Corresponds to the valuation of 1,584 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.
(b) Corresponds to the valuation of 178 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.
(c) Corresponds to the valuation of 1,911 kboe at official selling prices and applying the profit sharing agreements, including the share of National Oil Corporation, as partner.
(d) Corresponds to the valuation of 3,746 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.
(e) Corresponds to the valuation of 369 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.
(f) Corresponds to the valuation of 11,949 kboe at official selling prices and applying the profit sharing agreements, including the share of National Oil Corporation, as partner.
(g) Corresponds to the valuation of 1,169 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.
(h) Corresponds to the valuation of 125 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.
(i) Corresponds to the valuation of 4,676 kboe at official selling prices and applying the profit sharing agreements, including the share of National Oil Corporation, as partner.
(j) Corresponds to the valuation of 18,535 kboe at official selling prices and applying the profit sharing agreements, including the share of National Oil Corporation, as partner.
(k) Corresponds to the valuation of 6,499 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.
(l) Corresponds to the valuation of 673 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Mauritania (paid in cash (kusd))										
Payments per Project										
Block C15	–	–	–	–	560	–	–	–	–	560
Total	–	–	**–**	**–**	**560**	**–**	**–**	**–**	**–**	**560**
Payments per Government										
Trésor Public de Mauritanie	–	–	–	–	110	–	–	–	–	110
SMHPM (Société Mauritanienne des Hydrocarbures et du Patrimoine Minier)	–	–	–	–	250	–	–	–	–	250
Commission Environnementale	–	–	–	–	200	–	–	–	–	200
Total	–	–	**–**	**–**	**560**	**–**	**–**	**–**	**–**	**560**
Mexico (paid in cash (kusd))										
Payments per Project										
AS-CS-06 (B33)	–	*298*	298	–	388	–	–	–	–	686
Block 15	–	*634*	634	–	1,221	–	–	–	–	1,855
G-CS-02 (B32)	–	*374*	374	–	274	–	–	–	–	648
G-CS-03 (B34)	–	–	–	–	9,033	–	–	–	–	9,033
Salina 1	–	*271*	271	–	16,796	–	–	–	–	17,067
Total	–	***1,577***	**1,577**	**–**	**27,712**	**–**	**–**	**–**	**–**	**29,289**
Payments per Government										
Servicio de Administracion Tributaria	–	*1,577*	1,577	–	–	–	–	–	–	1,577
Fondo Mexicano del Petroleo	–	–	–	–	27,712	–	–	–	–	27,712
Total	–	***1,577***	**1,577**	**–**	**27,712**	**–**	**–**	**–**	**–**	**29,289**
Mozambique (paid in cash (kusd))										
Payments per Project										
Area 1 Golfino-Atum	–	–	–	–	2,120	–	–	2,810	–	4,930
Total	–	–	**–**	**–**	**2,120**	**–**	**–**	**2,810**	**–**	**4,930**
Payments per Government										
Instituto Nacional de Petroleo	–	–	–	–	2,120	–	–	–	–	2,120
Ministerio da Economia e Financas	–	–	–	–	–	–	–	2,810	–	2,810
Total	–	–	**–**	**–**	**2,120**	**–**	**–**	**2,810**	**–**	**4,930**
Namibia (paid in cash (kusd))										
Payments per Government										
Block 2912	–	–	–	–	185	–	–	–	–	185
Block 2913B	–	–	–	–	27	–	–	–	–	27
Total	–	–	**–**	**–**	**212**	**–**	**–**	**–**	**–**	**212**
Payments per Government										
Petrofund	–	–	–	–	212	–	–	–	–	212
Total	–	–	**–**	**–**	**212**	**–**	**–**	**–**	**–**	**212**
Netherlands (paid in cash (kusd))										
Payments per Project										
Offshore Blocks	–	–	–	–	698	–	–	–	–	698
Non-attributable	*288,815*	–	288,815	–	–	–	–	–	–	288,815
Total	***288,815***	–	**288,815**	**–**	**698**	**–**	**–**	**–**	**–**	**289,513**
Payments per Government										
Belastingdienst Nederland	*288,815*	–	288,815	–	698	–	–	–	–	289,513
Total	***288,815***	–	**288,815**	**–**	**698**	**–**	**–**	**–**	**–**	**289,513**

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Nigeria (paid in cash (kusd))										
Payments per Project										
OML58 (joint venture with NNPC, operated)	*43,382*	–	43,382	–	–	–	–	–	–	43,382
OML99 (joint venture with NNPC, operated)	*106,952*	–	106,952	–	–	–	–	–	–	106,952
OML100 (joint venture with NNPC, operated)	*20,519*	–	20,519	–	–	–	–	–	–	20,519
OML102 (joint venture with NNPC, operated)	*148,049*	–	148,049	–	–	–	–	–	–	148,049
OML118 (Bonga)	*7,094*	–	7,094	–	209	–	–	3,775	–	11,078
OML130 PSA (Akpo & Egina)	*446,226*	*63,624*	509,850	–	2,006	63,991	–	8,399	–	584,246
OML138 (Usan)	*6,077*	–	6,077	–	1,725	–	–	1,466	–	9,268
Joint ventures with NNPC, operated - Non-attributable	–	–	–	–	4,215	–	–	10,241	–	14,456
Joint ventures with NNPC, non operated - Non-attributable	*90,369*	–	90,369	–	1,926	–	–	10,273	–	102,568
Non-attributable	*251,528*	–	251,528	–	–	–	–	–	–	251,528
Total	***1,120,196***	***63,624***	**1,183,820**	**–**	**10,081**	**63,991**	**–**	**34,154**	**–**	**1,292,046**
Payments per Government										
Federal Inland Revenue Service	*710,925*	–	710,925	–	–	–	–	–	–	710,925
Niger Delta Development Commission	–	–	–	–	–	–	–	34,154	–	34,154
Nigerian Maritime Administration & Safety Agency, Federal Government of Nigeria	–	–	–	–	1,119	–	–	–	–	1,119
Nigerian National Petroleum Corporation	–	–	–	–	–	–	–	–	–	–
Nigerian Upstream Petroleum Regulatory Commission	*409,271*	*63,624*	472,895	–	8,962	63,991	–	–	–	545,848
Nigerian Upstream Petroleum Regulatory Commission c/o Nigerian National Petroleum Corporation Ltd	–	–	–	–	–	–	–	–	–	–
Federal Inland Revenue Service c/o Nigerian National Petroleum Corporation	–	–	–	–	–	–	–	–	–	–
Total	***1,120,196***	***63,624***	**1,183,820**	**–**	**10,081**	**63,991**	**–**	**34,154**	**–**	**1,292,046**

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Nigeria (paid in kind (kboe))										
Payments per Project										
OML58 (joint venture with NNPC, operated)	–	–	–	–	–	–	–	–	–	–
OML99 (joint venture with NNPC, operated)	–	–	–	–	–	–	–	–	–	–
OML100 (joint venture with NNPC, operated)	–	–	–	–	–	–	–	–	–	–
OML102 (joint venture with NNPC, operated)	–	–	–	–	–	–	–	–	–	–
OML118 (Bonga)	*801*	*667*	1,468	–	0	–	–	–	1,135	2,603
OML130 PSA (Akpo & Egina)	–	–	–	–	–	–	–	–	–	–
OML138 (Usan)	–	*305*	305	–	0	–	–	–	230	535
Joint ventures with NNPC, operated - Non-attributable	–	–	–	–	–	–	–	–	–	–
Joint ventures with NNPC, non operated - Non-attributable	–	–	–	–	–	–	–	–	–	–
Non-attributable	–	–	–	–	–	–	–	–	–	–
Total	***801***	***972***	**1,773**	**–**	**0**	**–**	**–**	**–**	**1,365**	**3,139**
Payments per Government										
Federal Inland Revenue Service	–	–	–	–	–	–	–	–	–	–
Niger Delta Development Commission	–	–	–	–	–	–	–	–	–	–
Nigerian Maritime Administration & Safety Agency, Federal Government of Nigeria	–	–	–	–	–	–	–	–	–	–
Nigerian National Petroleum Corporation	–	–	–	–	–	–	–	–	1,365	1,365
Nigerian Upstream Petroleum Regulatory Commission	–	–	–	–	–	–	–	–	–	–
Nigerian Upstream Petroleum Regulatory Commission c/o Nigerian National Petroleum Corporation Ltd	–	*972*	972	–	0	–	–	–	–	972
Federal Inland Revenue Service c/o Nigerian National Petroleum Corporation	*801*	–	801	–	–	–	–	–	–	801
Total	***801***	***972***	**1,773**	**–**	**0**	**–**	**–**	**–**	**1,365**	**3,139**

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes

Nigeria (all payments (kusd) - including valuation of in-kind payments)

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Payments per Project										
OML58 (joint venture with NNPC, operated)	*43,382*	–	43,382	–	–	–	–	–	–	43,382
OML99 (joint venture with NNPC, operated)	*106,952*	–	106,952	–	–	–	–	–	–	106,952
OML100 (joint venture with NNPC, operated)	*20,519*	–	20,519	–	–	–	–	–	–	20,519
OML102 (joint venture with NNPC, operated)	*148,049*	–	148,049	–	–	–	–	–	–	148,049
OML118 (Bonga)	*73,650*[(a)]	*55,335*[(b)]	128,985	–	217[(c)]	–	–	3,775	94,107[(d)]	227,084
OML130 PSA (Akpo & Egina)	*446,226*	*63,624*	509,850	–	2,006	63,991	–	8,399	–	584,246
OML138 (Usan)	*6,077*	*25,279*[(e)]	31,356	–	1,735[(f)]	–	–	1,466	19,115[(g)]	53,672
Joint ventures with NNPC, operated - Non-attributable	–	–	–	–	4,215	–	–	10,241	–	14,456
Joint ventures with NNPC, non operated - Non-attributable	*90,369*	–	90,369	–	1,926	–	–	10,273	–	102,568
Non-attributable	*251,528*[(h)]	–	251,528	–	–	–	–	–	–	251,528
Total	***1,186,752***	***144,238***	**1,330,990**	**–**	**10,099**	**63,991**	**–**	**34,154**	**113,222**	**1,552,456**
Payments per Government										
Federal Inland Revenue Service	*710,925*	–	710,925	–	–	–	–	–	–	710,925
Niger Delta Development Commission	–	–	–	–	–	–	–	34,154	–	34,154
Nigerian Maritime Administration & Safety Agency, Federal Government of Nigeria	–	–	–	–	1,119	–	–	–	–	1,119
Nigerian National Petroleum Corporation	–	–	–	–	–	–	–	–	113,222[(i)]	113,222
Nigerian Upstream Petroleum Regulatory Commission	*409,271*	*63,624*	472,895	–	8,962	63,991	–	–	–	545,848
Nigerian Upstream Petroleum Regulatory Commission c/o Nigerian National Petroleum Corporation Ltd	–	*80,614*[(j)]	80,614	–	18[(k)]	–	–	–	–	80,632
Federal Inland Revenue Service c/o Nigerian National Petroleum Corporation	*66,556*[(l)]	–	66,556	–	-	–	–	–	–	66,556
Total	***1,186,752***	***144,238***	**1,330,990**	**–**	**10,099**	**63,991**	**–**	**34,154**	**113,222**	**1,552,456**

(a) Includes the valuation for 66,556 k$ of 801 kboe at average entitlement price and applying the fiscal terms of the profit sharing agreements.
(b) Corresponds to the valuation for 667 kboe at average entitlement price and applying the terms of the profit sharing agreements.
(c) Includes the valuation for 8 k$ of 102 boe at average entitlement price of the period of barrels allocation and applying the terms of the profits sharing agreements.
(d) Corresponds to the valuation for 1,135 kboe at average entitlement price and applying the terms of the profit sharing agreements.
(e) Corresponds to the valuation for 305 kboe at average entitlement price and applying the terms of the profit sharing agreements.
(f) Includes the valuation for 10 k$ of 122 boe at average entitlement price of the period of barrels allocation and applying the terms of the profits sharing agreements.
(g) Corresponds to the valuation for 230 kboe at average entitlement price and applying the terms of the profit sharing agreements.
(h) This amount includes the tax implications of the provisions of the Modified Carry Agreement (MCA). Under the MCA, TotalEnergies EP Nigeria is entitled to recover 85% of the Carry Capital Cost through claims of capital allowance, described in the MCA as "Carry Tax Relief". The balance of 15% is to be recovered from NNPC's share of crude oil produced.
(i) Corresponds to the valuation for 1,365 kboe at average entitlement price and applying the terms of the profit sharing agreements.
(j) Corresponds to the valuation for 972 kboe at average entitlement price and applying the fiscal terms of the profit sharing agreements.
(k) Corresponds to the valuation for 224 boe at average entitlement price of the period of barrels allocation and applying the terms of the profits sharing agreements.
(l) Corresponds to the valuation for 801 kboe at average entitlement price and applying the fiscal terms of the profit sharing agreements.

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Norway (paid in cash (kusd))										
Payments per Project										
Åsgard area	–	*7,013*	7,013	–	754	–	–	–	–	7,767
Ekofisk area	–	*23,875*	23,875	–	1,553	–	–	–	–	25,428
Heimdal area	–	*357*	357	–	562	–	–	–	–	919
Johan Sverdrup	–	*24*	24	–	49	–	–	–	–	73
Oseberg area	–	*11,716*	11,716	–	544	–	–	–	–	12,260
PL018C	–	–	–	–	20	–	–	–	–	20
Snøhvit area	–	*13,326*	13,326	–	109	–	–	–	–	13,435
Troll area	–	*2,030*	2,030	–	5	–	–	–	–	2,035
Non-attributable	*4,900,631*	–	4,900,631	–	–	–	–	–	–	4,900,631
Total	***4,900,631***	***58,341***	**4,958,972**	**–**	**3,596**	**–**	**–**	**–**	**–**	**4,962,568**
Payments per Government										
Norwegian Tax Administration	*4,900,631*	*58,341*	4,958,972	–	–	–	–	–	–	4,958,972
Norwegian Petroleum Directorate	–	–	–	–	3,596	–	–	–	–	3,596
Total	***4,900,631***	***58,341***	**4,958,972**	**–**	**3,596**	**–**	**–**	**–**	**–**	**4,962,568**

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Oman (paid in cash (kusd))										
Payments per Project										
Block 6	–	*461,307*	461,307	–	–	–	–	–	–	461,307
Block 10	–	–	–	–	–	–	–	–	–	–
Block 12	–	–	–	–	275	–	–	–	–	275
Total	**–**	***461,307***	**461,307**	**–**	**275**	**–**	**–**	**–**	**–**	**461,582**
Payments per Government										
Oman Ministry of Finance	–	*461,307*	461,307	–	160	–	–	–	–	461,467
Ministry of Energy and Minerals	–	–	–	–	115	–	–	–	–	115
Total	**–**	***461,307***	**461,307**	**–**	**275**	**–**	**–**	**–**	**–**	**461,582**

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Oman (paid in kind (kboe))										
Payments per Project										
Block 6	–	–	–	–	–	–	–	–	–	–
Block 10	–	–	–	2,725	–	–	–	–	–	2,725
Block 12	–	–	–	–	–	–	–	–	–	–
Total	**–**	**–**	**–**	**2,725**	**–**	**–**	**–**	**–**	**–**	**2,725**
Payments per Government										
Oman Ministry of Finance	–	–	–	–	–	–	–	–	–	–
Ministry of Energy and Minerals	–	–	–	2,725	–	–	–	–	–	2,725
Total	**–**	**–**	**–**	**2,725**	**–**	**–**	**–**	**–**	**–**	**2,725**

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Oman (all payments (kusd) - including valuation of in-kind payments)										
Payments per Project										
Block 6	–	*461,307*	461,307	–	–	–	–	–	–	461,307
Block 10	–	–	–	132,797[a]	–	–	–	–	–	132,797
Block 12	–	–	–	–	275	–	–	–	–	275
Total	**–**	***461,307***	**461,307**	**132,797**	**275**	**–**	**–**	**–**	**–**	**594,379**
Payments per Government										
Oman Ministry of Finance	–	*461,307*	461,307	–	160	–	–	–	–	461,467
Ministry of Energy and Minerals	–	–	–	132,797[a]	115	–	–	–	–	132,912
Total	**–**	***461,307***	**461,307**	**132,797**	**275**	**–**	**–**	**–**	**–**	**594,379**

(a) Corresponds to the valuation for 2,725 kboe for royalties at the official selling price for condensates and at average price for gas.

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Papua New Guinea (paid in cash (kusd))										
Payments per Project										
PRL-15	–	–	–	–	234	–	–	–	–	234
Total	**–**	**–**	**–**	**–**	**234**	**–**	**–**	**–**	**–**	**234**
Payments per Government										
Conservation & Environment Protection Authority	–	–	–	–	234	–	–	–	–	234
Total	**–**	**–**	**–**	**–**	**234**	**–**	**–**	**–**	**–**	**234**

	Income taxes	Other Taxes	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Qatar (paid in cash (kusd))										
Payments per Project										
Al Khalij	*72,160*	*30,046*	102,206	–	–	–	–	–	–	102,206
Dolphin	–	–	–	–	–	–	–	–	–	–
Total	***72,160***	***30,046***	**102,206**	**–**	**–**	**–**	**–**	**–**	**–**	**102,206**
Payments per Government										
Qatar Energy	–	–	–	–	–	–	–	–	–	–
Qatar Ministry of Finance	*72,160*	*30,046*	102,206	–	–	–	–	–	–	102,206
Total	***72,160***	***30,046***	**102,206**	**–**	**–**	**–**	**–**	**–**	**–**	**102,206**

	Income taxes	Other Taxes	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Qatar (paid in kind (kboe))										
Payments per Project										
Al Khalij	–	–	–	–	–	–	–	–	–	–
Dolphin	*3,313*	–	3,313	–	–	–	–	–	30,386	33,699
Total	***3,313***	**–**	**3,313**	**–**	**–**	**–**	**–**	**–**	**30,386**	**33,699**
Payments per Government										
Qatar Energy	–	–	–	–	–	–	–	–	30,386	30,386
Qatar Ministry of Finance	*3,313*	–	3,313	–	–	–	–	–	–	3,313
Total	***3,313***	**–**	**3,313**	**–**	**–**	**–**	**–**	**–**	**30,386**	**33,699**

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

	Income taxes	Other Taxes	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Qatar (all payments (kusd) - including valuation of in-kind payments)										
Payments per Project										
Al Khalij	*72,160*	*30,046*	102,206	–	–	–	–	–	–	102,206
Dolphin	*78,342*[a]	–	78,342	–	–	–	–	–	718,729[b]	797,071
Total	***150,502***	***30,046***	**180,548**	**–**	**–**	**–**	**–**	**–**	**718,729**	**899,277**
Payments per Government										
Qatar Energy	–	–	–	–	–	–	–	–	718,729[b]	718,729
Qatar Ministry of Finance	*150,502*[c]	*30,046*	180,548	–	–	–	–	–	–	180,548
Total	***150,502***	***30,046***	**180,548**	**–**	**–**	**–**	**–**	**–**	**718,729**	**899,277**

(a) Corresponds to the valuation of 3,313 kboe based on the average price of production entitlements and as per the fiscal terms of the profit sharing agreements.
(b) Corresponds to the valuation of 30,386 kboe based on the average price of production entitlements.
(c) Includes the valuation for 78,342 k$ of 3,313 kboe based on the average price of production entitlements and as per the fiscal terms of the profit sharing agreements.

	Income taxes	Other Taxes	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Republic of the Congo (paid in cash (kusd))										
Payments per Project										
CPP Andromède (MTPS)	–	–	–	–	260	–	–	–	–	260
CPP Cassiopée (MTPS)	–	–	–	–	142	–	–	–	–	142
CPP Haute Mer - Zone A	–	*10,121*	10,121	–	811	–	–	–	–	10,932
CPP Haute Mer - Zone B	–	*2,931*	2,931	–	518	–	–	762	–	4,211
CPP Haute Mer - Zone D	–	–	–	–	16,031	–	–	1,968	–	17,999
CPP Persée (MTPS)	–	–	–	–	51	–	–	–	–	51
CPP Pointe Noire Grands Fonds (PNGF)	–	–	–	–	1,303	–	–	–	–	1,303
Kombi, Likalala & Libondo	–	–	–	–	20,000	–	–	–	–	20,000
Lianzi	*510*	–	510	–	–	–	–	–	–	510
Marine XX	–	–	–	–	300	–	–	–	–	300
Nanga	–	–	–	–	287	–	–	–	–	287
Pegase Nord (ex MTPS)	–	–	–	–	180	–	–	–	–	180
Total	***510***	***13,052***	**13,562**	**–**	**39,883**	**–**	**–**	**2,730**	**–**	**56,175**
Payments per Government										
Ministère des hydrocarbures	–	–	–	–	1,228	–	–	2,730	–	3,958
Trésor Public	–	*13,052*	13,052	–	38,655	–	–	–	–	51,707
Société Nationale des Pétroles Congolais	*510*	–	510	–	–	–	–	–	–	510
Total	***510***	***13,052***	**13,562**	**–**	**39,883**	**–**	**–**	**2,730**	**–**	**56,175**

	Income taxes	Other Taxes	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Republic of the Congo (paid in kind (kboe))										
Payments per Project										
CPP Andromède (MTPS)	–	–	–	–	–	–	–	–	–	–
CPP Cassiopée (MTPS)	–	–	–	–	–	–	–	–	–	–
CPP Haute Mer - Zone A	*133*	–	133	–	–	–	–	–	–	133
CPP Haute Mer - Zone B	*114*	–	114	–	–	–	–	–	–	114
CPP Haute Mer - Zone D	*981*	*2,802*	3,782	–	–	–	–	–	–	3,782
CPP Persée (MTPS)	–	–	–	–	–	–	–	–	–	–
CPP Pointe Noire Grands Fonds (PNGF)	*446*	*156*	602	–	–	–	–	–	–	602
Kombi, Likalala & Libondo	–	–	–	–	–	–	–	–	–	–
Lianzi	–	–	–	–	–	–	–	–	5	5
Marine XX	–	–	–	–	–	–	–	–	–	–
Nanga	–	–	–	–	–	–	–	–	–	–
Pegase Nord (ex MTPS)	–	–	–	–	–	–	–	–	–	–
Total	***1,674***	***2,958***	**4,632**	**–**	**–**	**–**	**–**	**–**	**5**	**4,638**
Payments per Government										
Ministère des hydrocarbures	*1,674*	*2,958*	4,632	–	–	–	–	–	–	4,632
Trésor Public	–	–	–	–	–	–	–	–	–	–
Société Nationale des Pétroles Congolais	–	–	–	–	–	–	–	–	5	5
Total	***1,674***	***2,958***	**4,632**	**–**	**–**	**–**	**–**	**–**	**5**	**4,638**

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes

	Income taxes	Other Taxes	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Republic of the Congo (all paiements (kusd) - including valuation of in-kind payments)										
Payments per Project										
CPP Andromède (MTPS)	–	–	–	–	260	–	–	–	–	260
CPP Cassiopée (MTPS)	–	–	–	–	142	–	–	–	–	142
CPP Haute Mer - Zone A	*8,152*[(a)]	*10,121*	18,273	–	811	–	–	–	–	19,084
CPP Haute Mer - Zone B	*9,123*[(b)]	*2,931*	12,054	–	518	–	–	762	–	13,334
CPP Haute Mer - Zone D	*69,505*[(c)]	*222,218*[(d)]	291,723	–	16,031	–	–	1,968	–	309,722
CPP Persée (MTPS)	–	–	–	–	51	–	–	–	–	51
CPP Pointe Noire Grands Fonds (PNGF)	*34,914*[(e)]	*12,344*[(f)]	47,258	–	1,303	–	–	–	–	48,561
Kombi, Likalala & Libondo	–	–	–	–	20,000	–	–	–	–	20,000
Lianzi	*510*	–	510	–	–	–	–	–	436[(g)]	946
Marine XX	–	–	–	–	300	–	–	–	–	300
Nanga	–	–	–	–	287	–	–	–	–	287
Pegase Nord (ex MTPS)	–	–	–	–	180	–	–	–	–	180
Total	***122,204***	***247,614***	**369,818**	**–**	**39,883**	**–**	**–**	**2,730**	**436**	**412,867**
Payments per Government										
Ministère des hydrocarbures	*121,694*[(h)]	*234,562*[(i)]	356,256	–	1,228	–	–	2,730	–	360,214
Trésor Public	–	*13,052*	13,052	–	38,655	–	–	–	–	51,707
Société Nationale des Pétroles Congolais	*510*	–	510	–	–	–	–	–	436[(g)]	946
Total	***122,204***	***247,614***	**369,818**	**–**	**39,883**	**–**	**–**	**2,730**	**436**	**412,867**

(a) Corresponds to the valuation of 133 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(b) Corresponds to the valuation of 114 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(c) Corresponds to the valuation of 981 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(d) Corresponds to the valuation of 2,802 kboe at official fiscal prices and applying the terms of the profit sharing agreements.
(e) Corresponds to the valuation of 446 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(f) Corresponds to the valuation of 156 kboe at official fiscal prices and applying the terms of the profit sharing agreements.
(g) Corresponds to the valuation of 5 kboe at official fiscal prices and applying the terms of the profit sharing agreements.
(h) Corresponds to the valuation of 1,674 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(i) Corresponds to the valuation of 2,958 kboe at official fiscal prices and applying the terms of the profit sharing agreements.

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
São Tomé and Principe (paid in cash (kusd))										
Payments per Project										
Block 1	–	–	–	–	1,139	–	–	–	–	1,139
Total	**–**	**–**	**–**	**–**	**1,139**	**–**	**–**	**–**	**–**	**1,139**
Payments per Government										
Agenc. Nac. Petroleo de Sao Tome e Principe c/o Alliance Française	–	–	–	–	1,009	–	–	–	–	1,009
Agenc. Nac. Petroleo de Sao Tome e Principe c/o Universidade de STP	–	–	–	–	130	–	–	–	–	130
Total	**–**	**–**	**–**	**–**	**1,139**	**–**	**–**	**–**	**–**	**1,139**
Senegal (paid in cash (kusd))										
Payments per Project										
ROP	–	–	–	–	1,152	–	–	–	–	1,152
Total	**–**	**–**	**–**	**–**	**1,152**	**–**	**–**	**–**	**–**	**1,152**
Payments per Government										
Société des Pétroles du Sénégal	–	–	–	–	1,152	–	–	–	–	1,152
Total	**–**	**–**	**–**	**–**	**1,152**	**–**	**–**	**–**	**–**	**1,152**
South Africa (paid in cash (kusd))										
Payments per Project										
Block DOWB	–	–	–	–	103	–	–	–	–	103
Block South Outeniqua	–	–	–	–	165	–	–	–	–	165
Total	**–**	**–**	**–**	**–**	**268**	**–**	**–**	**–**	**–**	**268**
Payments per Government										
Petroleum Agency South Africa (PASA)	–	–	–	–	101	–	–	–	–	101
Upstream Training Trust (UTT)	–	–	–	–	167	–	–	–	–	167
Total	**–**	**–**	**–**	**–**	**268**	**–**	**–**	**–**	**–**	**268**
Surinam (paid in cash (kusd))										
Payments per Project										
Block 6	–	–	–	–	–	20,223	–	–	–	20,223
Block 8	–	–	–	–	–	20,223	–	–	–	20,223
Block 64	–	–	–	–	–	4,000	–	–	–	4,000
Total	**–**	**–**	**–**	**–**	**–**	**44,446**	**–**	**–**	**–**	**44,446**
Payments per Government										
Staatsolie	–	–	–	–	–	44,446	–	–	–	44,446
Total	**–**	**–**	**–**	**–**	**–**	**44,446**	**–**	**–**	**–**	**44,446**
Thailand (paid in cash (kusd))										
Payments per Project										
Bongkot	*221,430*	–	221,430	–	–	15,628	–	–	–	237,058
G12/48	*2,636*	*371*	3,007	–	–	–	–	–	–	3,007
Total	***224,066***	***371***	**224,437**	**–**	**–**	**15,628**	**–**	**–**	**–**	**240,065**
Payments per Government										
Revenue Department	*194,298*	–	194,298	–	–	–	–	–	–	194,298
Department of Mineral Fuels, Ministry Of Energy	*29,768*	*371*	30,139	–	–	–	–	–	–	30,139
Ministry Of Energy	–	–	–	–	–	15,628	–	–	–	15,628
Total	***224,066***	***371***	**224,437**	**–**	**–**	**15,628**	**–**	**–**	**–**	**240,065**

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
Uganda (paid in cash (kusd))										
Payments per Project										
Block CA-1	–	–	–	–	740	–	–	–	–	740
Block CA-3A	–	–	–	–	627	–	–	–	–	627
Block LA-2	–	–	–	–	342	–	–	–	–	342
Total	–	–	**–**	**–**	**1,709**	**–**	**–**	**–**	**–**	**1,709**
Payments per Government										
Ministry of Energy and Mineral Development	–	–	–	–	1,017	–	–	–	–	1,017
Ministry of Finance, Planning and Economic Development	–	–	–	–	117	–	–	–	–	117
Ministry of Water and Environment	–	–	–	–	575	–	–	–	–	575
Total	–	–	**–**	**–**	**1,709**	**–**	**–**	**–**	**–**	**1,709**
United Arab Emirates (paid in cash (kusd))										
Payments per Project										
ADNOC Gas Processing	–	*387,271*	387,271	–	2,344	–	–	–	–	389,615
ADNOC Onshore	–	*4,837,697*	4,837,697	–	5,700	–	–	–	–	4,843,397
Lower Zakum	–	*445,932*	445,932	–	543	–	–	–	–	446,475
Umm Lulu & SARB	–	*548,673*	548,673	–	–	350,000	–	–	–	898,673
Umm Shaif Nasr	–	*1,500,229*	1,500,229	–	2,087	–	–	–	–	1,502,316
Total	–	***7,719,802***	**7,719,802**	**–**	**10,674**	**350,000**	**–**	**–**	**–**	**8,080,476**
Payments per Government										
Abu Dhabi Fiscal Authorities	–	*7,398,541*	7,398,541	–	–	350,000	–	–	–	7,748,541
Abu Dhabi National Oil Company	–	*321,261*	321,261	–	10,674	–	–	–	–	331,935
Total	–	***7,719,802***	**7,719,802**	**–**	**10,674**	**350,000**	**–**	**–**	**–**	**8,080,476**
United Kingdom (paid in cash (kusd))										
Payments per Project										
Central Graben Area	–	–	–	–	512	–	–	–	–	512
Culzean	–	–	–	–	18	–	–	–	–	18
Eastern North Sea	–	–	–	–	944	–	–	–	–	944
Greater Laggan Area	–	–	–	–	1,093	–	–	–	–	1,093
Markham Area	–	–	–	–	101	–	–	–	–	101
Northern North Sea	–	–	–	–	2,565	–	–	–	–	2,565
Non-attributable	*2,349,352*[a]	–	2,349,352	–	128	–	–	–	–	2,349,480
Total	***2,349,352***	–	**2,349,352**	**–**	**5,361**	**–**	**–**	**–**	**–**	**2,354,713**
Payments per Government										
HM Revenue & Customs	*2,349,352*[a]	–	2,349,352	–	–	–	–	–	–	2,349,352
Crown Estate	–	–	–	–	128	–	–	–	–	128
North Sea Transition Authority	–	–	–	–	5,233	–	–	–	–	5,233
Total	***2,349,352***	–	**2,349,352**	**–**	**5,361**	**–**	**–**	**–**	**–**	**2,354,713**

(a) Includes 1,020 M$ of windfall taxes (Energy Profit Levy).

	Income taxes	*Other Taxes*	Taxes (Total)	Royalties	License fees	License bonuses	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
United States (paid in cash (kusd))										
Payments per Project										
Barnett Shale	–	*14,645*	14,645	14,234	75	–	–	–	–	28,954
Gulf of Mexico	–	–	–	–	1,106	–	–	–	–	1,106
Jack	–	–	–	24,407	–	–	–	–	–	24,407
Tahiti	–	–	–	39,164	–	–	–	–	–	39,164
Total	**–**	***14,645***	**14,645**	**77,805**	**1,181**	**–**	**–**	**–**	**–**	**93,631**
Payments per Government										
Office of Natural Resources Revenue	–	–	–	63,571	1,106	–	–	–	–	64,677
Johnson County Tax Assessor	–	*1,750*	1,750	–	–	–	–	–	–	1,750
Tarrant County Tax Assessor	–	*7,335*	7,335	–	–	–	–	–	–	7,335
Texas State Comptroller's Office	–	*5,488*	5,488	–	–	–	–	–	–	5,488
City of Fort Worth	–	–	–	3,986	65	–	–	–	–	4,051
Dallas/Fort Worth International Airport Board	–	–	–	3,604	–	–	–	–	–	3,604
City of Arlington	–	–	–	1,258	–	–	–	–	–	1,258
Tarrant Regional Water District	–	–	–	649	10	–	–	–	–	659
State of Texas	–	–	–	316	–	–	–	–	–	316
City of North Richland Hills	–	–	–	495	–	–	–	–	–	495
Fort Worth Independent School District	–	–	–	417	–	–	–	–	–	417
Burleson Independent School District	–	–	–	226	–	–	–	–	–	226
Arlington Independent School District	–	–	–	327	–	–	–	–	–	327
Birdville Independent School District	–	–	–	1,066	–	–	–	–	–	1,066
Tarrant County College	–	–	–	289	–	–	–	–	–	289
City of Grand Prairie	–	–	–	277	–	–	–	–	–	277
Kennedale Independent School District	–	–	–	184	–	–	–	–	–	184
Tarrant County AAAA	–	–	–	145	–	–	–	–	–	145
Grapevine-Colleyville Tax Office	–	*72*	72	–	–	–	–	–	–	72
City of Cleburne	–	–	–	240	–	–	–	–	–	240
City of Burleson	–	–	–	229	–	–	–	–	–	229
Mansfield Independent School District	–	–	–	184	–	–	–	–	–	184
Crowley Independent School District	–	–	–	119	–	–	–	–	–	119
City of Crowley	–	–	–	102	–	–	–	–	–	102
White Settlement Independent School District	–	–	–	121	–	–	–	–	–	121
Total	**–**	***14,645***	**14,645**	**77,805**	**1,181**	**–**	**–**	**–**	**–**	**93,631**

9.4 Reporting of payments to governments for purchases of oil, gas and minerals (EITI reporting)

PURPOSE OF THE REPORTING

In September 2020, the Extractive Industries Transparency Initiative, or EITI, published its "Reporting Guidelines for Companies Buying Oil, Gas and Minerals from Governments." Those Guidelines are intended for companies that purchase oil, gas and/or minerals from governments, to guide them for the disclosure of payments made to governments. They aim to ensure the consistent disclosure of payments made to the state or state-owned enterprises (SOEs)[1] where oil, gas or minerals are being sold on behalf of the state, where EITI requirements are applicable and relevant, or where there is commitment to transparency in commodity sales.

These reporting guidelines were developed by the EITI Working Group on Transparency in Commodity Trading, and documented by the discussions at the OECD Thematic Dialogue on Commodity Trading Transparency. They are part of the implementation of Requirement 4.2 of the 2019 EITI Standard, which aims to ensure transparency in how the state is selling oil, gas and minerals by requiring disclosures by SOEs and/or other relevant government agencies concerning the sale of the state's share of production or other revenues collected in kind. Correspondingly, the Standard encourages companies buying oil, gas and/or mineral resources from the state or SOEs to disclose information regarding the volumes received from the state or SOE and payments made for the purchase of oil, gas and mineral resources.

Companies that purchase these commodities disclose this data on a voluntary basis. The Guidelines aim to identify:

1. Who is buying the product.
2. Who is selling the product.
3. What product is being purchased.
4. What the buyer pays to the seller for the product.

DEFINITIONS

Applicable purchases: under the Guidelines, purchases of oil, petroleum products, metals and minerals should be reported. Oil and petroleum products may be categorized as "crude oil," "refined products" or "natural gas." For this 2023 reporting, TotalEnergies is disclosing its purchases of oil and petroleum products made during fiscal year 2023 by TotalEnergies SE's fully consolidated companies.

Selling entities and purchases to be covered: EITI recommends that the disclosures cover:

- purchases of the state's share of production and other in-kind revenues from EITI countries where the selling entity is a government agency or SOE or a third party appointed to sell on their behalf (i.e., where EITI Requirement 4.2 is applicable),
- purchases from SOEs in non-EITI countries that have explicitly or publicly stated their support to the initiative.

REPORTING PRINCIPLES

TotalEnergies reporting follows the EITI recommendations mentioned hereabove.

From the reporting models suggested by EITI regarding the level of disaggregation, TotalEnergies has chosen model 1, in which disclosures of both volumes and values (amounts paid) are aggregated by individual seller (where the seller is any company that is wholly or majority owned by the state) for purchases of commodities delivered in 2023.

TotalEnergies follows the EITI recommendation with regards to obtaining the prior consent of the concerned countries before the publication of the procurement data concerning them. Therefore, TotalEnergies discloses under the category "Other Countries", aggregate data on its purchases from (i) SOEs in EITI countries that have not given such consent or to which Requirement 4.2 is not applicable by virtue of the systematic transparency implemented by their governments (Norway) and (ii) in non-EITI Countries, whether those countries have supported the transparency initiative or not (Abu Dhabi, Algeria, Angola, Azerbaijan, Bahrain, Belgium, Brazil, Chile, China, Côte d'Ivoire, Denmark, Egypt, Finland, France, India, Italy, Kuwait, Libya, Malaysia, the Netherlands, Oman, Poland, Qatar, Saudi Arabia, Singapore, South Korea, Taiwan, Tunisia, United Arab Emirates, Vietnam).

(1) For the purpose of EITI implementation, a "state-owned enterprise (SOE) is a wholly or majority government-owned company that is engaged in extractives activities on behalf of the government." EITI Requirement 2.6.a.i.

DISCLOSURE OF VOLUMES AND VALUE BY INDIVIDUAL SELLER

Crude oil – Refined products

1. Who is selling the product			2. Who is buying the product		3. What product is being bought		4. What does the buyer pay to the seller for the product
Core Information		Additional Information	Core Information	Additional Information	Core Information		Core Information
Name of Country of Seller of Government Share of Production	Name of SOE or seller of the state share of production	Counterparty state owned %	Buying Entity	Beneficial Ownership	Product Type	Volumes Purchased (barrel)	Amounts paid (kUSD)
Iraq	SOMO	100	TOTSA TotalEnergies Trading SA	TotalEnergies SE	Crude oil	4,062,275	285,798
Mexico	PMI Comercio Internacional SA de CV	100	Atlantic Trading & Marketing Inc	TotalEnergies SE	Crude oil	6,150,246	423,209
Nigeria	NNPC	100	TOTSA TotalEnergies Trading SA	TotalEnergies SE	Crude oil	948,328	82,537
Other Countries		100	TOTSA TotalEnergies Trading SA	TotalEnergies SE	Crude oil	77,850,815	6,342,549
Other Countries		100	TotalEnergies Trading Asia Pte Ltd	TotalEnergies SE	Crude oil	37,796,913	3,163,580
Colombia	Refineria de Cartagena	100	Atlantic Trading & Marketing Inc	TotalEnergies SE	Refined products	290,236	29,198
Other Countries		100	TOTSA TotalEnergies Trading SA	TotalEnergies SE	Refined products	75,929,197	7,246,020
Other Countries		100	TotalEnergies Trading Asia Pte Ltd	TotalEnergies SE	Refined products	32,196,718	3,178,342

Natural Gas – LNG – Sulphur – Petcoke

1. Who is selling the product			2. Who is buying the product		3. What product is being bought			4. What does the buyer pay to the seller for the product
Core Information		Additional Information	Core Information	Additional Information	Core Information			Core Information
Name of Country of Seller of Government Share of Production	Name of SOE or seller of the state share of production	Counterparty state owned %	Buying Entity	Beneficial Ownership	Product Type	Volumes Purchased (Mbtu)	Volumes Purchased (ton)	Amounts paid (kUSD)
Germany	Uniper Global Commodities SE	100	TotalEnergies Gas & Power Limited	TotalEnergies SE	LNG	8,492,000		129,542
Germany	Uniper Global Commodities SE	100	TotalEnergies Gas & Power Limited	TotalEnergies SE	Natural gas	7,375,000		109,951
Germany	VNG Handel & Vertrieb GmbH	74.2	TotalEnergies Gas & Power Limited	TotalEnergies SE	Natural gas	30,000		331
Germany	EnBW Baden-Wurttemberg AG	93.5	TotalEnergies Gas & Power Limited	TotalEnergies SE	Natural gas	149,000		934
Germany	EnBW Baden-Wurttemberg AG	93.5	TotalEnergies Gas & Power Asia Pte Ltd	TotalEnergies SE	LNG	3,213,000		30,855
Indonesia	PT Pertamina (Persero)	100	TotalEnergies Gas & Power Asia Pte Ltd	TotalEnergies SE	LNG	71,814,000		733,738
Other Countries			TotalEnergies Gas & Power Limited	TotalEnergies SE	LNG	425,366,000		5,238,490
Other Countries			TotalEnergies Gas & Power Limited	TotalEnergies SE	Natural gas	14,890,000		265,270
Other Countries			TotalEnergies Gas & Power Limited	TotalEnergies SE	Petcoke		933,000	107,961
Other Countries			TotalEnergies Gas & Power Asia Pte Ltd	TotalEnergies SE	LNG	39,061,000		567,952
Other Countries			TotalEnergies Gas & Power Asia Pte Ltd	TotalEnergies SE	Sulphur		11,000	1,349
Other Countries			TotalEnergies Gas & Power Asia Pte Ltd	TotalEnergies SE	Petcoke		23,000	2,630

LPG

1. Who is selling the product		2. Who is buying the product		3. What product is being bought		4. What does the buyer pay to the seller for the product
Core Information	Additional Information	Core Information	Additional Information	Core Information		Core Information
Name of Country of Seller of Government Share of Production	Counterparty state owned %	Buying Entity	Beneficial Ownership	Product Type	Volumes Purchased (barrel)	Amounts paid (kUSD)
Other Countries		TOTSA TotalEnergies Trading SA	TotalEnergies SE	LPG	4,646,817	230,451

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Additional reporting information

TotalEnergies considers transparency as a principle of action to provide a clear picture to investors, regulators and the public at large.

TotalEnergies also supports the World Economic Forum's initiative to propose common extra-financial metrics for all companies (see the white paper titled "Measuring Stakeholder Capitalism – Towards common metrics and consistent reporting" published in September 2020) and started to report on the WEF's proposed core metrics in 2020.

Furthermore, the Company has proposed an additional reporting according to the SASB standard, EM-EP Oil & Gas Exploration & Production since 2020.

11.1 World Economic Forum Core extra-financial metrics

The following table uses the core metrics proposed by the World Economic Forum in the white paper titled "Measuring Stakeholder Capitalism – Towards common metrics and consistent reporting" published in September 2020.

Sub-items, proposed metrics and disclosures	Reported	TotalEnergies' disclosures (2023)
PRINCIPLES OF GOVERNANCE		
Governing Purpose		
Setting purpose The company's stated purpose, as the expression of the means by which a business proposes solutions to economic, environmental and social issues. Corporate purpose should create value for all stakeholders, including shareholders.	Yes	TotalEnergies is a global integrated energy company that produces and markets energies: oil and biofuels, natural gas and green gases, renewables and electricity. Our more than 100,000 employees are committed to provide as many people as possible with energy that is more reliable, more affordable and more sustainable. Active in about 120 countries, TotalEnergies places sustainability at the heart of its strategy, its projects and its operations. (Source: 2023 URD, §1.1.1) To achieve its 2050 Net Zero Ambition, together with society, the Company affirms its purpose: to provide as many people as possible with energy that is more reliable, more affordable and more sustainable, and has placed Sustainability at the heart of its strategy, its projects and its operations. (Source: 2023 URD, § 5.1)
Quality of Governing Body		
Board composition Composition of the highest governance body and its committees by: competencies relating to economic, environmental and social topics; executive or non-executive; independence; tenure on the governance body; number of each individual's other significant positions and commitments, and the nature of the commitments; gender; membership of under-represented social groups; stakeholder representation.	Partially	**1.8.1 A fully committed Board of Directors** The Board of Directors defines TotalEnergies' strategic vision and supervises its implementation in accordance with the corporate interest of the Corporation, by taking into consideration the social and environmental challenges of its business activities. It approves investments or divestments for amounts greater than 3% of shareholders' equity and it is informed of those greater than 1%. The Board may address any issue related to the Company's operations. It monitors the management of both financial and extra-financial matters and ensures the quality of the information provided to shareholders and financial markets. The Board of Directors is assisted by the four committees it has created: the Audit Committee, the Governance and Ethics Committee, the Compensation Committee, and the Strategy & CSR Committee. The duties of the Board of Directors and of the Committees are described in point 4.1.2 of chapter 4. The composition of the Board of Directors reflects the diversity and complementary of experience, skills, nationalities and cultures that are critical to addressing the interests of all of the Company's shareholders and stakeholders. Refer to the URD Chapter 4.1: " Administration and management bodies". Information provided on gender only, no details on other under-represented social groups. (Source: 2023 URD, §1.8.1 and 4.1)
Stakeholder Engagement		
Material issues impacting stakeholders A list of the topics that are material to key stakeholders and the company, how the topics were identified and how the stakeholders were engaged.	Partially	The answer is provided in chapter 5.1 summarizing our dialogue with stakeholders. But the Corporation hasn't disclosed a detailed materiality analysis. (Source: 2023 URD, §5.1 and 5.3 to 5.10)

Sub-items, proposed metrics and disclosures	Reported	TotalEnergies' disclosures (2023)
Ethical Behaviour		
Anti-corruption 1. Total percentage of governance body members, employees and business partners who have received training on the organization's anti-corruption policies and procedures, broken down by region a) Total number and nature of incidents of corruption confirmed during the current year, but related to previous years; and b) Total number and nature of incidents of corruption confirmed during the current year, related to this year. 2. Discussion of initiatives and stakeholder engagement to improve the broader operating environment and culture, in order to combat corruption.	Partially	To prevent risks of corruption, TotalEnergies has implemented a robust and regularly updated anti-corruption compliance program. The aim of this program is to promote a culture of compliance and transparency, which is key in ensuring the sustainability of the Company's activities. Failure to comply with such legislation such as the U.S. Foreign Corrupt Practices Act and the French law on transparency, the fight against corruption and the modernization of the economy, is likely to expose the Company to a high criminal, financial and reputation risk, as well as the enforcement of measures such as the review and reinforcement of the compliance program under the supervision of an independent third party. The commitment of the entire Company and the efforts undertaken are unrelenting in order to ensure the sustainability and continuous improvement of the anti-corruption compliance program, which the U.S. authorities deemed to be appropriate in 2016, thus putting an end to the monitorship that was introduced in 2013. In June 2022, the Company received the final report prepared by the French Anti-Corruption Agency (AFA) following the control initiated by the Agency late 2020. This report, which confirmed for the Company the overall quality of the Company's program and its maturity, also made recommendations for its improvement. The Company has drew up a dedicated action plan to respond to the recommendations of the AFA, the implementation of which was finalized in 2023. Its implementation is subject to a continuous monitoring and control process.[…] The constant high level of commitment by the General Management is reflected by the principle of zero tolerance for corruption that is clearly set out in the Company's Code of Conduct. Managers have a duty to lead by example and are responsible for promoting a culture of integrity and dialogue. This commitment is also expressed in regular statements made by the Chairman and Chief Executive Officer on this subject, as well as through large-scale communication actions, such as the annual Business Ethics Day organized on the occasion of the U.N.'s International Anti-Corruption Day and Human Rights Day. In December 2023 the ninth Ethics Day was devoted to "Speak-up" and the description of the procedure for handling alerts. An online presentation was made by the General Manager of the Marketing & Services segment, and a round-table discussion was organized with the Chairwoman of the Ethics Committee, the Company's Chief Compliance Officer and the Vice President of the Human Rights Department. The Ethics Day was preceded by a poster campaign aimed at reiterating the importance of this whistleblowing system and its use by the employees of the Company. The commitment of the management bodies is also expressed externally by TotalEnergies' joining anti-corruption initiatives and supporting collaborative and multi-party approaches. TotalEnergies joined the Partnering Against Corruption Initiative (PACI)(1) in 2016, thereby adhering to the PACI Principles for Countering Corruption. The Chairman and Chief Executive Officer of TotalEnergies SE became a member of the PACI Board in 2018 and subsequently Co-Chairman of the initiative at year-end 2019. TotalEnergies is also a member of other initiatives that contribute to the global effort against corruption, such as the U.N. Global Compact since 2002 and the Extractive Industries Transparency Initiative (EITI)(2) since its launch in 2002.[…] Following the online training on anti-corruption in 2011 (season 1), then in 2015 (season 2), which enabled more than 82,000 employees to be trained by the end of 2022, the Company launched a new online training course in mid-2022 (season 3). This training course, which was mandatory for the target populations (approximately 37,000 employees), replaced the two previous seasons. This new training course is based on the assignment of a profile specific to each learner (from beginners to experts), which is determined on the basis of their answers to the questions asked in the introduction to the training course. The profile specific to each learner then allows them to follow the modules best suited to their needs. At the beginning of 2022, the Executive Committee reviewed all of the online training courses available, particularly in the field of anti-corruption and anti-fraud compliance, and determined the functions deemed to be the most exposed (such as Purchasing and Human Resources) to the risk of corruption. For these populations, more targeted training is provided, either by the Compliance teams of the Company or the segments or by the Compliance Officers. In 2023, trainings via webinars were provided to the populations within the eight business functions identified by the Executive Committee as the most exposed to the risk of corruption. These training courses, concerning around 18,000 identified employees, are scheduled to run until the end of 2024. Regarding the anti-corruption and anti-fraud Compliance network, several online and on-site training sessions are organized each year for the Compliance Officers. The Branch Compliance Officers also benefit from annual training days on specific topics. [...] In 2023, the Company recorded around 200 integrity incidents (covering fraud, corruption or influence peddling) which led -where established and one or more Company employees were involved- to nearly 130 sanctions, up to and including dismissal. (Source: 2023 URD, §5.8.1)

(1) Launched in 2004 within the World Economic Forum, PACI now numbers approximately 90 major corporations and forms a platform for discussion for business leaders and governmental and non-governmental organizations, allowing them to share their experiences and ideas and develop best practices.
(2) The EITI brings together representatives of the governments of the member countries as well as representatives of civil society and business in order to strengthen transparency and governance with regard to income from oil, gas and mineral resources.

Sub-items, proposed metrics and disclosures	Reported	TotalEnergies' disclosures (2023)
Ethical Behaviour		
Protected ethics advice and reporting mechanisms A description of internal and external mechanisms for: 1. seeking advice about ethical and lawful behaviour, and organizational integrity; 2. reporting concerns about unethical or unlawful behaviour, and organizational integrity.	Yes	**3.6.3.1** TotalEnergies has a three-tier organization: Corporate, business segments and operational entities. Each tier is involved in and accountable for identifying and implementing measures in the Vigilance Plan deemed appropriate within the scope of the entity in question. The Action Principles are driven by the **Executive Committee**. The **Ethics Committee** is the guarantor of the implementation of the Code of Conduct. Its chairman, who reports to the Chairman and Chief Executive Officer of TotalEnergies SE, presents an annual ethics report to the Governance and Ethics Committee of the Board of Directors. **5.7** The Ethics Committee, on which representatives of all TotalEnergies' business segments sit plays a key role is one of listening and support. Employees, but also people from outside the Company, can contact the committee at the address ethics@totalenergies.com. The Committee protects the confidentiality of the complaints, which can only be lifted with the agreement of the complainant. The Chairwoman of the Ethics Committee presents an annual Ethics report to the Governance and Ethics Committee of the Board of Directors. **5.8.1.5** In addition, TotalEnergies takes actions in order to develop a speak-up culture and asks its employees to report any situations that they consider to be contrary to the Code of Conduct. This culture is encouraged by regular communication on the rule adopted in late 2020, which formalized the procedure for collecting integrity alerts (corruption, fraud and influence peddling). This rule expressly provides that no disciplinary sanction, nor any direct or indirect discriminatory retaliatory measure, may be taken against the whistleblower, as long as it is made in good faith, and this even in the facts subsequently turn out to be inaccurate or unfounded, and/or not to give rise to any proceedings or sanctions. This rule, combined with the one also adopted in 2020 and revised in 2023 by the Ethics Committee concerning the collection and processing of reports, covers all situations or behaviors likely to be contrary to the Company's Code of Conduct and highlights the enhanced protection granted to whistleblowers. In this respect, echoing this Code, the rule adopted at the end of 2020 by the Anti-Corruption Compliance recalls the various existing alert channels: each employee can therefore contact any manager, Human Resources, the Compliance Officers or Ethics Officers, or the Ethics Committee, depending on what seems most appropriate. The Ethics Committee is responsible for ensuring compliance with the Code of Conduct. Its Chairperson, who reports to the Chairman and Chief Executive Officer of TotalEnergies SE, presents an annual report on Ethics to the Governance and Ethics Committee of the Board of Directors. Both employees and third parties can refer to this Committee by writing to ethics@totalenergies.com. TotalEnergies does not tolerate any retaliation measures or discrimination toward anyone submitting a report in good faith and undertakes to respect confidentiality. (Source: 2023 URD, §3.6.3.1, 5.7 and 5.8.1.5)
Risk and Opportunity Oversight		
Integrating risk and opportunity into business process Company risk factor and opportunity disclosures that clearly identify the principal material risks and opportunities facing the company specifically (as opposed to generic sector risks), the company appetite in respect of these risks, how these risks and opportunities have moved over time and the response to those changes. These opportunities and risks should integrate material economic, environmental and social issues, including climate change and data stewardship.	Yes	Information disclosed in the chapters 3 and 5. (Source: 2023 URD, §3.1 and 5)

Sub-items, proposed metrics and disclosures	Reported	TotalEnergies' disclosures (2023)

PLANET

Climate change

Greenhouse Gas (GHG) emissions

For all relevant greenhouse gases (e.g. carbon dioxide, methane, nitrous oxide, F gases etc.), report in metric tonnes of carbon dioxide equivalent (tCO_2e) GHG Protocol Scope 1 & Scope 2 emissions.

Estimate and report material upstream and downstream (GHG Protocol Scope 3) emissions where appropriate.

Yes

Indicators related to climate change[1]

GHG emissions - Scope 1+2		Operated domain 2023	2022	2021	2015	Equity interest domain 2023	2022	2021	2015
Scope 1 Direct GHG emissions	**Mt CO_2e**	**32**	**37**	**34* (33)**	**42**	**45**	**51**	**49**	**50**
Breakdown by segment									
Upstream oil & gas activities	Mt CO_2e	12	14	14	19	19	22	23	22
Integrated LNG, excluding upstream gas operations	Mt CO_2e	<1	<1	<1	–	1	1	1	–
Integrated Power		6	9	5	–	6	9	5	–
Refining & Chemicals	Mt CO_2e	14	15	15* (14)	22	18	20	19	27
Marketing & Services	Mt CO_2e	<1	<1	<1	<1	<1	<1	<1	1
Breakdown by geography									
Europe: EU 27 + Norway + UK + Switzerland	Mt CO_2e	19	23	20* (19)	22	18	21	18	22
Eurasia (incl. Russia)/Oceania	Mt CO_2e	<1	<1	1	5	12	15	17	13
Africa	Mt CO_2e	8	9	9	12	7	7	7	9
Americas	Mt CO_2e	5	5	5	4	7	8	7	5
Breakdown by type of gas									
CO_2	Mt CO_2e	31	36	32	39	43	50	47	
CH_4	Mt CO_2e	1	1	1	2	1	1	1	
N_2O	Mt CO_2e	<1	<1	<1	<1	<1	<1	<1	
Scope 2 - Indirect emissions from energy use	**Mt CO_2e**	**2**	**2**	**2* (2)**	**4**	**4**	**5**	**5**	
of which Europe: EU 27+ Norway + UK + Switzerland	*Mt CO_2e*	*1*	*1*	*1* (1)*	*2*	*2*	*2*	*2*	
Scope 1+2	**Mt CO_2e**	**35**	**40**	**37* (36)**	**46**	**49**	**56**	**54**	
of which oil & gas facilities	*Mt CO_2e*	*30*	*33*	*33* (32)*	*46*	*44*	*48*	*49*	
of which CCGT	*Mt CO_2e*	*4*	*7*	*4*	*–*	*5*	*8*	*5*	
Direct emissions of biogenic CO_2[a]	Mt CO_2e	0.1	0.1			0.1	0.1		

* Excluding the COVID-19.
(a) Biogenic CO_2 emissions from the Company's biogas assets. In accordance with the GHG Protocol these emissions are not included in Scope 1.

GHG emissions - methane		Operated domain 2023	2022	2021	2015	Equity interest domain 2023	2022	2021
Methane emissions[a]	kt CH_4	34	42	49	94	40	47	51
Breakdown by segment								
Upstream oil & gas activities	kt CH_4	33	41	48	92	36	43	48
Integrated LNG, excluding upstream gas operations	kt CH_4	<1	0	<1	0	2	3	2
Integrated Power		<1	1	<1	0	<1	1	<1
Refining & Chemicals	kt CH_4	1	1	1	1	1	1	1
Marketing & Services	kt CH_4	0	0	0	0	0	0	0
Breakdown by geography								
Europe: EU 27 + Norway + UK + Switzerland	kt CH_4	5	7	7	9	4	5	5
Eurasia (incl. Russia)/Oceania	kt CH_4	1	1	1	33	11	15	16
Africa	kt CH_4	18	23	23	49	19	17	18
Americas	kt CH_4	9	12	18	3	7	10	12

(a) Excluding biogenic methane emissions, equal to less than 1 kt CH_4 in 2023. Biogenic methane is nevertheless included in the calculation of Scope 1.

(1) Refer to point 5.11 of the chapter 5 for the scope of reporting.

Sub-items, proposed metrics and disclosures	Reported	TotalEnergies' disclosures (2023)
Climate change		

Other indirect GHG emissions		2023	2022	2021	2015
Scope 3[a]	**Mt CO_2e**	**355**	**389* (381)**	**400* (370)**	**410**
of which Europe: EU 27 + Norway + UK + Switzerland	*Mt CO_2e*	*216*	*191* (187)*	*220* (202)*	*256*
Breakdown by products					
Oil	Mt CO_2e	227	254* (246)	285* (255)	350
Biofuels	Mt CO_2e	4	4	–	–
Gas	Mt CO_2e	124	130	115	60

* Excluding the COVID-19 effect for emissions data from first half 2020 through first half 2022 including.
(a) GHG Protocol - Category 11 (refer to the glossary or to point 5.11.4 of chapter 5 for further details). Oil products including bulk refining sales; biofuels; natural gas excluding minority stakes in public companies.

Greenhouse Gas (GHG) emissions

For all relevant greenhouse gases (e.g. carbon dioxide, methane, nitrous oxide, F gases etc.), report in metric tonnes of carbon dioxide equivalent (tCO_2e) GHG Protocol Scope 1 & Scope 2 emissions.

Estimate and report material upstream and downstream (GHG Protocol Scope 3) emissions where appropriate.

Reported: Yes

Intensity indicators		2023	2022	2021	2015
Lifecycle carbon intensity[a] of energy products used by the customers (73 g CO_2e/MJ in 2015)	**Base 100 in 2015**	**87**	**88**	**90* (89)**	**100[b]**
Intensity of GHG emissions (Scope 1+2) of operated Upstream oil & gas activities[c]	kg CO_2e/boe	17	17	17	21
Intensity of GHG emissions (Scope 1+2) of Upstream oil & gas activities[c] on equity basis	kg CO_2e/boe	18	19	19	–
Intensity of methane emissions from operated oil & gas facilities (Upstream)	%	0.11	0.11	0.13	0.23
Intensity of methane emissions from operated gas facilities (Upstream)	%	<0.1	<0.1	<0.1	<0.1

* Valuation of these indicators excluding the COVID-19 effect.
(a) Lifecycle carbon intensity of energy products sold (refer to the glossary or to point 5.11.4 of chapter 5 for further details).
(b) Indicator developed in 2018, with 2015 as the baseline year.
(c) This indicator doesn't include integrated LNG assets in its perimeter.

Other indicators		2023	2022	2021	2015
Net primary energy consumption (operated scope)	TWh	157	166	148	153
Renewable energy consumption (operated scope)	TWh	2	1	–	–
Global energy efficiency indicator (GEEI)	Base 100 in 2010	86.4	85.1	87.0	90.8
Flared gas[a] (Upstream oil & gas activities operated scope)	Mm^3/d	2.5	3.3	3.6	7.2
of which routine flaring	*Mm^3/d*	*0.3*	*0.5*	*0.7*	*2.3[b]*

(a) This indicator includes safety flaring, routine flaring and non-routine flaring.
(b) Volumes estimated upon historical data.

(Source: 2023 URD, §5.4.4)

TCFD implementation

Fully implement the recommendations of the Task Force on Climate related Financial Disclosures (TCFD). If necessary, disclose a timeline of at most three years for full implementation. Disclose whether you have set, or have committed to set, GHG emissions targets that are in line with the goals of the Paris Agreement – to limit global warming to well below 2 °C above pre-industrial levels and pursue efforts to limit warming to 1.5 °C – and to achieve net zero emissions before 2050.

Reported: Yes

Extra-financial performance statement aligned with TCFD recommendations, the climate report responds to TCFD recommendations.

(Source: 2023 URD, §5.4)

Sub-items, proposed metrics and disclosures	Reported	TotalEnergies' disclosures (2023)
Nature Loss		
Land use and ecological sensitivity		
Report the number and area (in hectares) of sites owned, leased or managed in or adjacent to protected areas and/or key biodiversity areas (KBA).	Yes	177 sites operated by the Company representing 8,124 hectares are located in or close to protected areas or key areas for biodiversity(1).
Fresh Water Availability		
Water consumption and withdrawal in water stressed areas Report for operations where material: megalitres of water withdrawn, megalitres of water consumed and the percentage of each in regions with high or extremely high baseline water stress, according to WRI Aqueduct water risk atlas tool. Estimate and report the same information for the full value chain (upstream and downstream) where appropriate.	Yes	In order to identify its facilities exposed to the risk of water stress, TotalEnergies records the withdrawal of water on all of its operated sites significant for this indicator and assesses these volumes on the basis of the current and future water stress indicators of the WRI(2) Aqueduct tool. In 2023, the Company's sites withdrew 102 Mcm of fresh water, with net consumption of 76 Mcm. The decrease in freshwater withdrawal in 2023 is essentially linked to a decrease in the activity of gas-fired power plants. 49% of this volume was withdrawn in areas of water stress according to the WRI definition, i.e. areas where human demand for water exceeds 40% of resources available. These are mainly highly populated urban areas, such as urban areas in Northern Europe. These withdrawals represent 4% of the Company's overall water withdrawals (including brackish water and open loop seawater use). For priority sites, defined as those located in water stress areas and withdrawing more than 500,000 m^3 per year (notably in the drainage basins of the Maas and the Scheldt in Belgium, the Seine and the West and South Coasts of France, the Elbe in Germany, the Ebro in Spain and the U.S. Gulf Coast), TotalEnergies assesses water resource risk levels using, in particular, the Global Environmental Management Initiative (GEMI's) Local Water Tool (LWT) for Oil & Gas. This tool also helps guide the actions taken to mitigate the risks and to make optimal use of water resources on the sites when necessary. This risk assessment establishes that the activities of the sites operated by the Company only expose the other users of the water to a relatively low risk of water shortage. The risk mainly concerns TotalEnergies sites for which the water supply could be cut in order to maintain access to water for priority users. (Source: 2023 URD, §5.5.3)
PEOPLE		
Dignity and Equality		
Diversity and inclusion Percentage of employees per employee category, by age group, gender and other indicators of diversity (e.g. ethnicity).	Yes	Throughout its activities, diversity is integral to TotalEnergies' identity and key to its success. The Company has long been committed to promoting equal opportunity and diversity, and strives to promote an inclusive corporate culture and an environment that allows every employee to express and develop his or her potential. The diversity of its employees and management is crucial to the Company's competitiveness, appeal, acceptability and capacity for innovation. TotalEnergies aims to develop its employees' skills and careers by implementing an inclusive Human Resources policy, while excluding any discrimination related to national, ethnic or social origins, gender, sexual orientation or gender identity, marital or parental status, disability, state of health, age or affiliation with a political, labor or religious organization, or membership in a minority group. This policy is supported at the highest levels and promoted by the Diversity and Inclusion Council, which is chaired by a member of the Company's Executive Committee. The Diversity and Inclusion Council is also charged with making specific recommendations on issues identified each year by the Executive Committee. (Source: 2023 URD, § 5.6.3.1) N.B. Tables of employees available in § 5.6.1.1: – Breakdown by employment contract, – Breakdown by age group, – Total number of managers. Details of the data, as well as other breakdowns, are available with a five-year history on the TotalEnergies website, in the Indicators section of the Sustainability page Breakdown by gender available in § 5.6.3.1: – Among all employees, – Among managers (first levels, middle, senior and senior executive), – Breakdown by gender and age group.

(1) In accordance with the GRI reference framework.
(2) World Resources Institute. The freshwater withdrawal values in water stress areas are re-evaluated, including years 2021 and 2022 from the Projected Basic Water Stress 2030 V4.0 from August 2023. The watershed of Carling - St Avold sites in France is excluded from these calculations since the withdrawal of groundwater is administratively imposed there for environmental reasons.

Sub-items, proposed metrics and disclosures	Reported	TotalEnergies' disclosures (2023)
Dignity and Equality		
Diversity and inclusion Percentage of employees per employee category, by age group, gender and other indicators of diversity (e.g. ethnicity).	Yes	Breakdown by nationality available in § 5.6.3.1: – Among all employees, – Among managers (senior and senior executive), – Among managers (first levels, middle, senior and senior executive), – Breakdown by gender and age group.
Pay equality Ratio of the basic salary and remuneration for each employee category by significant locations of operation for priority areas of equality: women to men, minor to major ethnic groups, and other relevant equality areas.	Partially	The Company's compensation policy applies to all companies in which TotalEnergies SE holds the majority of voting rights. That policy has several aims: to ensure external competitiveness and internal fairness, reinforce the link to individual performance, increase employee share ownership and implement the Company's corporate social responsibility commitments. [...] The Company's compensation policy is designed to offer competitive, fair, transparent and responsible compensation. In particular, it stipulates that compensation levels must be equivalent internally for positions with the same level of responsibility in a given environment (activity, country). Fair treatment is ensured within the Company through the widespread use of weighting for management positions (JL ≥ 10) via the Hay method. Performance reviews for Company employees, covering actual versus targeted results, skills assessment and overall job performance, are conducted during an annual individual review and formally issued in accordance with the same principles and guidelines across the entire Company. The compensation structure for the Company's employees is based on the following components, depending on the country: – **a base salary**, which is subject to individual and/or general salary-raise campaigns each year. The salary-raise campaigns are intended to reflect market adjustment, employee's proficiency in the position and individual potential; – **an individual variable compensation** starting at a certain level of responsibility. This is intended to compensate individual performance (quantitative and qualitative attainment of previously set targets), managerial practices, if applicable, and the employee's contribution to collective performance evaluated on the basis of HSE targets set for each business segment, which represents up to 10% of the variable portion. In 2023, 84% of the Company's entities included HSE criteria in the variable compensation. In particular, HSE criteria include greenhouse gas reduction targets. (Source: 2023 URD, §5.6.1.2) **In terms of compensation**, TotalEnergies has been adopting specific measures to prevent and compensate for discriminatory wage differentials in several countries. Regular checks are carried out during salary-raise campaigns to ensure equal pay among men and women holding positions with the same level of responsibility. Since 2019, consistent with French Act 2018-771 of September 5, 2018, on the freedom to choose one's professional future, the Company has published an index in France for its three units of economic and employee interest (UESs) on wage differentials and the steps taken to eliminate them. That index, based on a score of 100, reflects five indicators: wage differentials, pay raise differentials excluding promotions, promotion rate differentials, percentage of female employees who received a pay raise in the year they returned from maternity leave, number of employees of the under-represented gender among the ten employees who received the highest compensation. (Source: refer to 2023 URD, §5.6.3.1) N.B. The index table is available in point 5.6.3.1

Sub-items, proposed metrics and disclosures	Reported	TotalEnergies' disclosures (2023)
Dignity and Equality		
Wage level 1. Ratios of standard entry level wage by gender compared to local minimum wage. 2. Ratio of the annual total compensation of the CEO to the median of the annual total compensation of all its employees, except the CEO.	Yes	Since 2021, TotalEnergies assesses any discrepancies between direct remuneration and the **living wage**[1] in all its subsidiaries[2]. The result of the studies carried out show that, since the end of 2022, the Company had reached its target, as 100% of employees received direct remuneration at least equal to the living wage in the country or region in which they work. A living wage is defined as an income that allows employees: – to provide a decent life for their family, – for standard working hours, – to cover their essential expenses (food, water, electricity, housing, education, health, clothing, etc.), – the ability to cope with some of life's uncertainties. (Source: refer to 2023 URD, §5.6.1.2) The Company's policy consists of providing levels of compensation that are higher than the minimum level observed locally, through regular benchmarks, in countries where legislation guaranteeing a minimum wage is lacking. (Source: refer to 2023 URD, §5.6.1.2) At the global level, a verification of compliance with the minimum wage guaranteed by local legislation is also carried out on the base salary. In order to ensure equal pay for men and women, the Company plans to implement an annual review in all countries and a corrective action plan if necessary. (Source: refer to 2023 URD, §5.6.3.1) N.B. 1. Ratio of the lowest base salary by gender to the minimum salary guaranteed by local legislation, aggregated by geographical area, available in point 5.6.3.1 2. Chairman and Chief Executive Officer compensation ratio available in point 4.3.2.1
Risk for incidents of child, forced or compulsory labor An explanation of the operations and suppliers considered to have significant risk for incidents of child labour, forced or compulsory labour. Such risks could emerge in relation to: a) type of operation (such as manufacturing plant) and type of supplier; and b) countries or geographic areas with operations and suppliers.	Yes	Forced and child labor have been identified as risks of severe negative impacts of the Company's activities on human rights, notably in the supply chain, and mentioned as such in the Extra-financial performance statement – Human rights section. The supplier pre-qualification process is presented in the Extra-financial performance statement – Procurement section. (Source: 2023 URD, §5.7.1 and 5.10)
Health and well being		
Health and safety 1. The number and rate of fatalities as a result of work related injury; high consequence work related injuries (excluding fatalities); recordable work related injuries; main types of work related injury; and the number of hours worked. 2. An explanation of how the organization facilitates workers' access to non-occupational medical and healthcare services, and the scope of access provided for employees and workers.	Yes	**1. Indicators:** Number of fatalities as a result of work related injury: **2** Rate of fatalities as a result of work related injury (per 100 million hours worked): **0.50** High consequence work related injuries (excluding fatalities): **7** Recordable work related injuries (per 100 million hours worked): **0.63** Main types of work related injury: In 2023, out of the 252 occupational accidents reported, 248 related to accidents at the workplace. 72% of these occurred, in decreasing order of the number accidents, when walking, handling loads or objects, using portable tools or working with powered systems. Number of hours worked: **400 million** (Source: 2023 URD, §5.3.2) **2. Explanations:** The Company has a **policy for the prevention of occupational accidents** which applies to all employees of subsidiaries and of contractors working on a site operated by one of these subsidiaries. The safety results are monitored with the same attention for all. This policy is described in the One MAESTRO reference framework. The Company has a policy for the prevention of occupational accidents which applies to all employees of subsidiaries and of contractors working on a site operated by one of these subsidiaries. The safety results are monitored with the same attention for all. This policy is described in the One MAESTRO reference framework. The indicators monitored by TotalEnergies include work-related accidents whether they occur at workplace, during transportation within the framework of long-term contracts, or during an industrial accident. In addition to its aim of zero fatalities in the exercise of its activities, TotalEnergies has set itself the target of continuously reducing the TRIR indicator and, for 2024, of reducing it below 0.62 for all personnel of the Company and its contractors. The 2023 target was 0.65. (Source: 2023 URD, §5.3.2)

(1) TotalEnergies relies on the global database provided by the Fairwage Network, which assesses the living wage for a given country or region, based on the typical family size (number of children) and the average number of workers (between one and two per household).
(2) It applies to the so called "périmètre de gestion" i.e., all subsidiaries controlled at more than 50.00%.

Sub-items, proposed metrics and disclosures	Reported	TotalEnergies' disclosures (2023)
Health and well being		
Health and safety 1. The number and rate of fatalities as a result of work related injury; high consequence work related injuries (excluding fatalities); recordable work related injuries; main types of work related injury; and the number of hours worked. 2. An explanation of how the organization facilitates workers' access to non occupational medical and healthcare services, and the scope of access provided for employees and workers.	Yes	In 2018, the Company structured its organization by appointing a medical coordinator in charge of the health policy. They organize active monitoring and promote health issues by regularly participating in discussions between peers, particularly as part of the *Association of medical coordinators* in major international groups. In addition, they can call on a Medical Advisory Committee that meets regularly to discuss key health issues relating to the Company's activities. This Committee decides whether there is a need for additional health protection strategies to be implemented. It consists of external scientific experts and the Company's senior executives and stakeholders concerned by these issues. The medical coordinator also leads the Health Steering Committee, a health governance body, which brings together the health officers of the Company's various business segments on a quarterly basis. The Company has set itself the objective that 100% of sites within the WHRS scope have a health representative (mental and physical health). This objective was achieved in 2023. Furthermore, in view of its activities and exposure, TotalEnergies has an international medical department that designs, coordinates and supervises operational medical logistics abroad. It is the decision-making level in terms of medical safety of expatriate and national employees. For foreign subsidiaries, it coordinates the organization of health services, employee aptitude assessments, medical monitoring and support for employees and expatriates' families, and medical evacuations. It also conducts audits of medical facilities in countries where TotalEnergies is present and issues recommendations. [...] In terms of **medical monitoring**, the "Internal Control Essentials" Directive provides that each subsidiary offers its employees a medical checkup at least every two years (unless there are different regulations or specific local context) and sets out a formal medical monitoring procedure taking into account the requirements under local law (frequency, type of examination, etc.) and the level of exposure of its personnel to the various risks. Medical monitoring of employees is conducted at a health department, which may be internal (occupational health departments in France, clinics in five countries in Africa) or external. At the end of 2023, 69% of subsidiaries offered a health check every two years. On a broader level, TotalEnergies also supports the **promotion of individual and collective health** programs in the countries where it operates, including vaccination campaigns and screening programs for certain diseases (COVID-19, AIDS, cancer, malaria, etc.) for employees, their families and local communities. It is also developing social protection schemes (see section 5.6.1.2 of chapter 5). Actions to raise awareness of health-related risks (participation in the Pink October campaign to raise awareness of breast cancer, prevention actions on cardiovascular risk as part of World Heart Day, etc.) are also implemented regularly. (Source: 2023 URD, §5.3.4) The Company provides **pension and employee benefit programs** (health and death) that meet the needs of the subsidiaries, as well as the Company's standards, designed to ensure that each employee can: – in case of illness, receive coverage that is at least equal to the median amount for the national industrial market, – participate in a savings or supplementary retirement plan, – organize the protection of the family in the event of the death of the employee. To this end, TotalEnergies is deploying a number of commitments and mechanisms worldwide. Each entity is requested to: – where appropriate, set up a pension and health insurance plan, in addition to the legal plans in force, – propose to employees a health check at least every two years, excepting specific local regulations or contexts (refer to point 5.3.4 of chapter 5), – set up a death benefit plan, whatever the cause, at least equivalent to two years' gross reference salary. At the end of 2023, nearly 90% of the Company's permanent employees were covered worldwide. [...] These programs, which are regularly reviewed and, if necessary, adjusted, are administered by the subsidiaries and supplement any programs provided under local law. (Source: 2023 URD, §5.6.1.2)

TotalEnergies

Sub-items, proposed metrics and disclosures	Reported	TotalEnergies' disclosures (2023)
Health and well being		
Health and safety 1. The number and rate of fatalities as a result of work related injury; high consequence work related injuries (excluding fatalities); recordable work related injuries; main types of work related injury; and the number of hours worked. 2. An explanation of how the organization facilitates workers' access to non occupational medical and healthcare services, and the scope of access provided for employees and workers.	Yes	As part of its health policy, the Company has implemented a policy to prevent mental health risks (MHR), the aim of which is to protect the mental health of employees and has developed a global program to enable all exposed employees to receive support, wherever they are in the world (refer to point 5.3.4 of chapter 5). Each entity must guarantee the implementation of a mental health protection system, using the system proposed by the Company or an equivalent local system. A specific deployment adapted to the various populations is being implemented to facilitate the adoption and appropriation of the system by all. Trade unions and workers' representatives are informed of this policy and have been involved in the development of the prevention system. In this context, the Company offers a listening and support service that is available to all employees with psychologists trained to advise them precisely about their concerns. (Source: 2023 URD, §5.6.3.2) N.B. Tables available in point 5.3.4: – Percentage of employees with specific occupational risks benefiting from regular medical monitoring, – Number of occupational illnesses recorded in the year.
Skills for the future		
Training provided 1. Average hours of training per person that the organization's employees have undertaken during the reporting period, by gender and employee category (total number of trainings provided to employees divided by the number of employees). 2. Average training and development expenditure per full time employee (total cost of training provided to employees divided by the number of employees).	Yes	The Company's **training** policy is structured around five major areas: – sharing TotalEnergies' basic corporate values, particularly with respect to HSE, the climate, ethics, compliance, leadership, innovation and digital technology, – supporting the development of existing activities and creating new ones in order to achieve the Company's ambitions, – strengthening key skills in all the Company's business areas to maintain a high level of operating performance in the workforce, – promoting employees' integration and career development through training designed to teach employees about the Company, management skills and personal development, – supporting the policy of mobility, diversity and inclusion within TotalEnergies through language and intercultural training. At the end of 2022, the Executive Committee decided to make all employees active players in their professional training strategy, consistent with the Better Together people ambition. The objective is for every employee to devote at least 5 days a year to professional training. This objective is deployed and monitored worldwide. Among those 5 days, in addition to the mandatory training programs required for the job, since January 1, 2023, every employee has the option of enrolling for up to 3 days of training of their choice each year, in fields that they consider to be important for their development, among the training programs offered by the Company. The number of training days per employee per year is also one of the 10 Sustainab'ALL indicators that TotalEnergies has adopted as part of its transition strategy (refer to point 5.1 of chapter 5). In 2023, nearly 250 of the Company's most important sites, business units, divisions and subsidiaries[1], representing 94.4% of employees, defined a local action plan built around 10 sustainable development indicators with objectives to be achieved within their own scope by 2025, in particular the increase in the number of training days. The Company's training catalog offers nearly 5,000 training contents (onsite and remote) covering all technical, business and cross-functional fields, including behavioral soft skills.[...] 97.7% of employees followed at least one training course during the year. The average number of training days per employee stood at 5 including on-the-job training, one of the skills development levers. Excluding on-the-job training, the average number of training days per employee stood at 3.7 in 2023, representing an increase relative to 2022. This was reflected in the increase in training expenses, which were around €200 million in 2023, compared with €163 million in 2022. (Source: 2023 URD, §5.6.2.1) N.B. Tables available in point 5.6.2.1: – Average number of training days/year per employee, – Breakdown by gender, – Average training cost per employee.

(1) Excluding Hutchinson.

Sub-items, proposed metrics and disclosures	Reported	TotalEnergies' disclosures (2023)
PROSPERITY		
Employment and Wealth Generation		
Absolute number and rate of employment 1. Total number and rate of new employee hires during the reporting period, by age group, gender, other indicators of diversity and region. 2. Total number and rate of employee turnover during the reporting period, by age group, gender, other indicators of diversity and region.	Yes	Attracting and retaining the diverse talents that the Company needs is one of the key factors in driving TotalEnergies' transition strategy into an integrated-energy company. Facing those challenges, TotalEnergies carefully manages its hires and departures. (Source: 2023 URD, §5.6.1) N.B. Tables available in point 5.6.1.1: Total number hired on permanent contracts (CDI) – Managers / non managers breakdown, – Breakdown by age group, – Breakdown by region. Total departures – Breakdown by gender, – Breakdown by region. N.B. Tables available in point 5.6.3.1: – Hires breakdown by gender, – Hires breakdown by nationality. Details of the data, as well as other breakdowns, are available with a five-year history on the TotalEnergies website, in the Indicators section of the Sustainability page.
Economic Contribution 1. Direct economic value generated and distributed (EVG&D), on an accruals basis, covering the basic components for the organization's global operations, ideally split out by: – Revenues – Operating costs – Employee wages and benefits – Payments to providers of capital – Payments to government – Community investment. 2. Financial assistance received from the government: total monetary value of financial assistance received by the organization from any government during the reporting period.	Partially	Calculation of EVG&G not done as such, but some elements are available. (Source: 2023 URD, §1.1.3, 1.9, 8.2 and 8.7)
Financial investment contribution Total capital expenditures (CapEx) minus depreciation, supported by narrative to describe the company's investment strategy. Share buybacks plus dividend payments, supported by narrative to describe the company's strategy for returns of capital to shareholders.	Yes	Information provided in the URD. (Source: 2023 URD, §1.5.1, 1.9, 5.4.6, 8.6 and 8.7)
Innovation in better products and services		
Total R&D expenses Total costs related to research and development.	Yes	To prepare for the future, the Company has allocated more than $1 billion in R&D, industrial innovation and digitalization in 2023. The Company invested $774 million in 2023 in its own and its subsidaries' R&D (compared to $762 million in 2022 and $849 million in 2021) with a dedicated workforce of more than 3,500 researchers. In support of its transition strategy, TotalEnergies has significantly reoriented its R&D in recent years. Compared to 28% in 2017, TotalEnergies has decided to devote 65% of the 2024 R&D budget to low-carbon energies (renewables, biomass, batteries, etc.) and to reducing the environmental footprint through CCUS and sustainable development programs. (Source: 2023 URD, §1.6.2)

Sub-items, proposed metrics and disclosures	Reported	TotalEnergies' disclosures (2023)
Community and social vitality		
Total tax paid Total tax paid by the group, including corporate income taxes, property taxes, non creditable VAT and other sales taxes, employer paid payroll taxes, and other taxes that constitute costs to the company, by category of taxes.	Yes	The Company publishes, every year, a tax transparency report, which provides detailed information on the taxes paid in its main countries of operations on a country-by-country basis and on the total tax contribution, broken down by category of tax and by region. (Source: TotalEnergies' website) TotalEnergies also publishes in its URD an annual report covering the payments made by its extractive affiliates to governments, per country and per project, among which tax payments, with a specific breakdown on corporate income tax payments. (Source: 2023 URD, §9.3)

11.2 SASB Report

The reporting below presents a set of sustainable development indicators at Company level, based on the American SASB EM-EP standard (Oil & Gas – Exploration & Production). This report includes some of the elements of the consolidated extra-financial performance statement (chapter 5), whose scope and reporting methodologies are presented in point 5.11 of chapter 5.

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Greenhouse Gas Emissions			
EM-EP-110a.1	Gross global Scope 1 emissions	Yes	**32 Mt CO_2e (operated) / 45 Mt CO_2e (equity interest share)** (Source: 2023 URD, §5.4.4)
	Scope 1, percentage of methane	Yes	**0.9 Mt CO_2e, *i.e.*, 3% (operated) / 1.0 Mt CO_2e, *i.e.*, 3% (equity interest share)** 34 kt CH_4 (operated) / 40 kt CH_4 (equity interest share) (Source: 2023 URD, §5.4.4)
	Scope 1, percentage covered under emissions-limiting regulations	Yes	**19 Mt CO_2e, *i.e.*, 60% (operated) / 18 Mt CO_2e, *i.e.*, 40% (equity interest share** (Source: 2023 URD, §5.4.4, Europe perimeter)
EM-EP-110a.2	Amount of gross global Scope 1 emissions from flared hydrocarbons	Yes	**3.0 Mt CO_2e**
	Amount of gross global Scope 1 emissions from other combustion	Yes	**25 Mt CO_2e**
	Amount of gross global Scope 1 emissions from process emissions	Yes	**4.0 Mt CO_2e**
	Amount of gross global Scope 1 emissions from other vented emissions	Yes	**0.5 Mt CO_2e**
	Amount of gross global Scope 1 emissions from fugitive emissions	Yes	**<0.1 Mt CO_2e**
EM-EP-110a.3	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Yes	TotalEnergies has set targets and introduced a number of indicators to steer its performance (refer to points 5.4.4 and 5.13 of chapter 5). (Source: 2023 URD, §5.4.4 and 5.13)

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Air Quality			
EM-EP-120a.1	Air emissions of the following pollutants: NO_X (excluding N_2O)	Yes	**60 kt** (Source: 2023 URD, §5.5.3)
	Air emissions of the following pollutants: SO_X	Yes	SO_2: **12 kt** (Source: 2023 URD, §5.5.3)
	Air emissions of the following pollutants: volatile organic compounds (VOCs)	Yes	NMVOCs: **43 kt** (Source: 2023 URD, §5.5.3)
	Air emissions of the following pollutants: particulate matter (PM_{10})	Yes	**4.1 kt** of total particulate matter (Source: 2023 URD, §5.13)
Water Management			
EM-EP-140a.1	Total fresh water withdrawn	Yes	**102,019 megaliters** (Source: 2023 URD, §5.5.3)
	Percentage of fresh water withdrawn in regions with High or Extremely High Baseline Water Stress	Yes	**49%** (Source: 2023 URD, §5.5.3)
	Total fresh water consumed	Yes	**76,324 megaliters** (Source: 2023 URD, §5.5.3)
	Percentage of fresh water consumed in regions with High or Extremely High Baseline Water Stress	Yes	**54%**
EM-EP-140a.2	Volume of produced water and flowback generated	Yes	**129,086 megaliters** (indicator for EP segment only)
	Percentage discharged	Yes	**53%** (indicator for EP segment only)
	Percentage injected	Yes	**47%** (indicator for EP segment only)
	Percentage recycled	Yes	**0%** (indicator for EP segment only)
	Hydrocarbon content in discharged water	Yes	**6.0 mg/l** **Offshore: 11.6 mg/l** **Onshore: 1.9 mg/l** (Source: 2023 URD, §5.5.3)
EM-EP-140a.3	Percentage of hydraulically fractured wells for which there is public disclosure of all fracturing fluid chemicals used	Yes	**100%**
EM-EP-140a.4	Percentage of hydraulic fracturing sites where ground or surface water quality deteriorated compared to a baseline	Yes	**0%**

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Biodiversity Impacts			
EM-EP-160a.1	Description of environmental management policies and practices for active sites	Yes	Aware of the need to preserve biodiversity and protect nature, TotalEnergies ensures that this is taken into account in all its activities by applying the Avoid, Minimize/Restore, Offset mitigation hierarchy. In 2016, the Company pledged to contribute to the achievement of the United Nations' Sustainable Development Goals (SDGs), including those relating to biodiversity. In 2018, TotalEnergies joined to the Act4Nature initiative, now the Act4Nature International, promoted by the French Association of Enterprises for the Environment. This biodiversity ambition of TotalEnergies constitutes a contribution to the Global Biodiversity Framework (GBF) adopted at COP15 in 2022, whose mission is "to halt and reverse biodiversity loss and put nature on the path to recovery for the benefit of people and the planet." The Company thus intends to contribute to this ambitious framework and its national versions, such as the French National Strategy for Biodiversity (SNB) adopted in 2023, in a concrete manner through conservation and restoration measures for nature on its sites and in the regions where it is established. This ambition is based on four core principles: (1) voluntary exclusion zones, (2) biodiversity management in projects, (3) biodiversity management at existing and abandoned sites and (4) promoting biodiversity. This ambition has been incorporated into the Company's One MAESTRO framework. An annual communication plan has been developed and deployed in the Company's various segments and in R&D. A series of webinars are open to all of the Company's HSE personnel to raise awareness of this ambition. A number of specific meetings were held to present this ambition to the Company's partners and allow their viewpoints and recommendations to be heard. [...] An overview of the steps already taken under the four main areas of the biodiversity ambition is provided in the following paragraphs.
			Biodiversity Ambition
EM-EP-160a.1	Description of environmental management policies and practices for active sites	Yes	**1. Voluntary exclusion zones** The Company recognizes the universal value of UNESCO natural world heritage areas by not conducting any oil and gas exploration or production activity in these areas.This commitment is fulfilled (based on UNESCO sites listed at the end of 2023 which represents 531 million ha). TotalEnergies has also made a commitment not to conduct any exploration activity in oil fields under the Arctic sea ice. As in previous years, in 2023 the Company did not conduct any exploration activity in oil fields under the Arctic sea ice. The list of its licenses in the Arctic zone is available on the Company's website. **2. New projects** The Company has made a commitment to develop a biodiversity action plan (BAP) for any new site located in an area of interest for biodiversity, that is IUCN (International Union for Conservation of Nature) Protected areas I to IV or Ramsar areas. In addition, for each new project located in an IUCN Protected area I or II or a Ramsar area, the Company commits to implementing measures to produce a net positive impact (gain) in biodiversity. A biodiversity action plan has been put in place for all operated production projects and sites located in the most sensitive protected areas, corresponding to the IUCN I to IV and Ramsar areas, some of which have a target of a net gain. In 2023, eight sites or projects are concerned, five of which have a net biodiversity gain objective. These are: – The BAP for the Djeno oil terminal in Djeno (Republic of Congo), located in a Ramsar area, was developed in 2015 and updated in 2023. It provides for actions on site (marking of priority areas) and at landscape level (help with structuring and financial and technical support for the implementation of Ramsar zone management plans). Its deployment continues in particular by contributing to the monitoring of the marine turtle nesting zone adjoining the site with a partner NGO. – The BAP for the Tempa Rossa onshore petroleum production site in Italy, the concession for which partly overlaps an IUCN II area, was developed in 2019 and updated in 2023. Targeted restoration actions through re-vegetation with species native to areas impacted by the project are underway, as well as measures to protect species such as the emblematic black stork. – The net gain BAP of the Tilenga oil project (Uganda), partly located in an IUCN II area, has 100% completed its design phase and its implementation is engaged with the launch of the five programs of the net gain plan. By way of illustration, the conservation support program for the Murchison Falls National Park in collaboration with the UWA (Uganda Wildlife Authority) and the international NGO WCS (Wildlife Conservation Society) allowed strengthening the fight against poaching (removal of snares and traps, arrests of poachers) with targeted actions in the park territory and awareness actions with communities of Pakwach and Nebbi. The program should continue in 2024 with the training of additional eco-guards and the increase of the area of the park covered by the conservation program. This BAP is designed to be aligned with the International Finance Corporation (IFC) performance standards.

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Biodiversity Impacts			
EM-EP-160a.1	Description of environmental management policies and practices for active sites	Yes	– The EACOP pipeline project (Tanzania), which runs along an IUCN III area, includes a net gain BAPs with a land component and a marine component. In 2023, EACOP initiated and directly contributed to the creation of the Tanzania Environmental Sensitivities Trust fund (subject to a final stage of formal validation by the competent Tanzanian authorities). This fund constitutes a biodiversity compensation financing instrument for residual impacts on natural and critical habitats, according to the IFC definition. It operates independently of EACOP and can also facilitate other conservation projects in Tanzania by attracting funding from different donors. Memoranda of understanding have been concluded with the relevant government entities for the selection and deployment of restoration and compensation measures for sensitive areas affected along the pipeline. For example, EACOP borders a chimpanzee habitat area and committed, in collaboration with the Tilenga project, to implement a specific action plan to contribute to the conservation of this species. This BAP is designed to be aligned with the IFC performance standards. – The BAP with net gain of the Mozambique LNG Project has been completed for the design phase. The implementation of measures related to construction is suspended due to force majeure. However, measures in favor of biodiversity were carried out in 2023, notably the planting of more than 700 hectares of mangrove for a total of 1,200 ha at the end of 2023 and the creation of 370 jobs for workers from local communities with the support of a partner NGO. This BAP is designed to be aligned with the IFC performance standards. – The design of the net gain BAP of the Papua LNG project (Papua New Guinea) is continuing and Avoid, Minimize/Restore, Offset mitigation hierarchy measures related to the pre-construction activities were deployed in 2023. They include carrying out additional biodiversity surveys in clearing areas as well as the construction of a forest restoration program nursery. Several meetings of the independent biodiversity and societal committee took place (panel made up of international NGOs including WCS, the Missouri Botanical Garden (MBG) and national and international academics) and made it possible to advise the project on the progress of its biodiversity program. The update of the biodiversity and nature strategy was finalized in 2023. The project does not cross any IUCN or Ramsar protected areas. This BAP is designed to be aligned with the IFC performance standards. – The BAP of the existing mixed onshore wind/solar site Eole/Helio La Perrière (La Réunion Island, France) continues as part of the redevelopment of the site including activities of translocation of the Gecko of Bourbon (Highland green lizard endemic to La Réunion) towards natural refuge habitats and monitoring the reintroduction of individuals for three years after the work. The BAP also includes a collaboration with the SEOR (Société d'Etudes Ornithologique de La Réunion) for the National Action Plan (PNA) of Papangue (Busard of Maillard endemic to La Réunion). – The design of the net gain BAP of the Ratawi gas-photovoltaic hybrid project (Iraq) is completed. The project's Biodiversity policy has been finalized. The project partially encroaches on a Ramsar wetland. Options for compensation actions are being studied, such as measures to restore, enrich and improve the ecological connectivity of partially degraded wetlands (East Hammar Marsh, West Hammar Marsh, Central Marsh and Hawizeh Marsh) in the project area. Actions to protect terrestrial and aquatic fauna threatened by over-exploitation (fishing and hunting) are also being studied. **3. Existing Sites** It is the Company's intention that a biodiversity action plan be defined by 2025 at the latest and deployed by 2030 at the latest on every existing environmentally significant ISO14001 certified operated site (E&P production sites, refineries, petrochemicals sites, gas-fired power stations). TotalEnergies will report on implementation to the various stakeholders.

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Biodiversity Impacts			
EM-EP-160a.1	Description of environmental management policies and practices for active sites	Yes	In 2023, biodiversity assessments were carried out on 26 sites that are important for the environment. Since 2021, 70 of the 77 sites important to the environment have been diagnosed, i.e. 90% of the 2025 target. The remaining seven diagnostics are scheduled to take place by the end of 2024. The BAPs resulting from these diagnostics are currently being prepared or deployed. The BAPs consist of the implementation of Avoid, Minimize, Restore, Offset mitigation hierarchy measures which include the protection of natural habitats (pasture area of interest, Pont-sur- Sambre CCGT), taking into account seasonality (ground nesting of the Little Ringed Plover, Zeeland refinery), differentiated management of green spaces, solutions based on nature (reedbeds for rainwater treatment), rescue of sensitive species (Bourbon Gecko, La Réunion), the elimination of ecological traps (fences, collisions), the management of invasive species (Japanese knotweed), the restoration of ecological connectivity at the landscape/territorial scale (forest corridors in Feluy), the enrichment of existing habitats, the creation of natural habitat (amphibians), etc. These measures are supplemented by Additional Conservation Actions (ACA) such as the sharing of biodiversity data on the Global Biodiversity Information Facility (GBIF) platform by the Donges refinery, and the scientific publication of new species discovered in Argentina (lizard) and Papua New Guinea (frog) by teams from the Exploration & Production segment, and internal awareness actions such as the promotion of biodiversity among employees with a biodiversity course at the Bougival training center (France). The distribution of mitigation actions is established as follows: 4% of the actions are Avoidance actions (as these actions concern existing sites it is logical that their number is reduced), 33% of the actions concern Reduction practices, 16% are Restoration actions, 17% of the actions lead to Compensation and the remaining 30% are dedicated to ACA. In the ranking of the 10 action levers most used by its sites we note: 1) the reduction of noise and light pollution, 2) the implementation of monitoring indicators and the acquisition of new biodiversity data, 3) The implementation of internal awareness actions, 4) The implementation of measures to combat invasive species, 5) The development of partnerships or sponsorship in connection with key local stakeholders for biodiversity, 6) measures to eliminate ecological traps, 7) The establishment of differentiated management of green spaces, 8) The creation of nest boxes for avifauna, 9) The establishment of measures to promote ecological connectivity to the landscape/territorial scale and 10) The restoration of meadow areas. Finally, RETIA, the company in charge of the rehabilitation of the Company's industrial sites, is continuing its biodiversity diagnostics on 12 candidate industrial sites and deploying biodiversity action plans on two sites: Jarry in Guadeloupe, with a public biodiversity trail, and Villers-St- Paul in France with the development of a wetland in addition to partial solarization of the area. **4. Promotion of biodiversity** As part of the Climate, Coastlines and Oceans component of its Foundation's program, TotalEnergies wishes to support awareness raising and educational actions for young persons on biodiversity and research actions. In 2023, 10 projects were supported by the TotalEnergies Corporate Foundation on the theme of Climate, coastlines and oceans linked to Biodiversity, including five awareness projects, one Research project (in progress since 2022, which should be completed in 2024), and four projects supported by the ONF (National Forestry Office) *Agir pour la Forêt* ("Acting for the Forest") Endowment Fund: 1/ renovation of the decking of the Sylvathèque de Gourbeyre to maintain its awareness-raising activities and preservation of Guadeloupe's biodiversity; 2/ raising awareness among middle school students about the preservation of the mangroves and swamp forests of Guadeloupe, through activity days; 3/ improvement of knowledge about dune beetles in the national forest of Olonne (France) and raising awareness of young people by involving them in field missions, 4/ experimental site to reconstitute a dune cordon at the level of forest areas burned in the national forest near La Teste de Buch (France). TotalEnergies also commits to sharing biodiversity data collected as part of environmental studies on Company projects with the scientific community and the general public. In order to continue sharing its biodiversity data and tools with the scientific community, the Company has joined the international Global Biodiversity Information Facility (GBIF). In 2023, the data loaded concerns the Company's projects in Namibia, Brazil and Papua New Guinea. The data published by TotalEnergies now constitutes 36,475 occurrences in the database and have been the subject of 119 citations in scientific publications. Furthermore, the marine LEFT (Local Ecological Footprint Tool), designed with the Long-Term Ecology Laboratory of the University of Oxford, UK and Equinor to develop a large-scale mapping tool for the sensitivities of marine biodiversity, was finalized in 2020 and is available online for manufacturers, the public sector and NGOs.

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Biodiversity Impacts			
EM-EP-160a.1	Description of environmental management policies and practices for active sites	Yes	In 2023, TotalEnergies continued work on developing a biodiversity footprint measurement methodology called BFIS (Biodiversity Footprint Indicator for Sites) which will allow local measurement at the level of a site and consolidation at the Company level. A Marine STAR GIS database was developed in this context to enable footprint measurements in the marine environment. An independent critical review committee composed of representatives of international institutions and NGOs (IUCN, UNEP-WCMC, WCS) supports the Company in carrying out its work. It is planned to make this tool public when it is finalized; advances have been presented publicly to other companies and at international events such as the UNEP-WCMC PROTEUS Program Annual Meeting. Finally, in 2023, TotalEnergies R&D continued the development of its environmental DNA program on the Manas site, which provides input to the Company's initial state impact and biodiversity monitoring studies. (Source: 2023 URD, §5.5.4)
EM-EP-160a.2	Number of hydrocarbon spills	Yes	**27** (Source: 2023 URD, §5.5.2)
	Volume of hydrocarbon spills	Yes	**1,700 m^3 (10,700 barrels)** (Source: 2023 URD, §5.5.2)
	Spills: volume in Arctic	Yes	**0 m^3**
	Volume impacting shorelines with ESI rankings 8-10	Yes	**0 m^3**
	Volume recovered	Yes	**40 m^3 (250 barrels)** (Source: 2023 URD, §5.5.2)
EM-EP-160a.3	Percentage of (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat	Yes	**10.2%** of proved reserves are operated reserves located in or near sites with protected conservation status or endangered species habitat

<table>
<tr><th>SASB code</th><th>Metrics</th><th>Reported</th><th>TotalEnergies' disclosures (2023)</th></tr>
<tr><td colspan="4">Security, Human Rights & Rights of Indigenous Peoples</td></tr>
<tr><td>EM-EP-210a.1</td><td>Percentage of
(1) proved and
(2) probable reserves in or near areas of conflict</td><td>Yes</td><td>13.0%
(proved reserves)</td></tr>
<tr><td>EM-EP-210a.2</td><td>Percentage of
(1) proved and
(2) probable reserves in or near indigenous land</td><td>Yes</td><td>2.0%
of proved reserves are operated reserves located in or near indigenous land</td></tr>
<tr><td>EM-EP-210a.3</td><td>Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict</td><td>Yes</td><td>
The main challenges associated with the effects of the Company's activities in terms of respect for human rights have been identified using the methodology set out in the United Nations Guiding Principles on business and human rights (UNGP) Reporting Framework relating to the "salient issues", i.e., the human rights at risk of the most severe negative impact through the Company's activities or business relationships.
On this basis, the Company identified six salient risks subdivided across three key areas:

human rights in the workplace of TotalEnergies' employees as well as of the employees of its suppliers and other business partners:
forced labor and child labor,
discrimination,
just and favorable conditions of work and safety.
human rights and local communities:
access to land,
the right to health and an adequate standard of living.
respect for human rights in security-related activities:
the risk of misuse of force.

Strong commitments
TotalEnergies' human rights approach is based on strong and formalized commitments. It is supported by a dedicated organization, and embedded in an awareness-raising and training program, as well as evaluation and follow-up mechanisms aiming at measuring the effectiveness of the Company's actions.
TotalEnergies is committed in particular to respecting internationally recognized human rights and standards, wherever the Company operates, in particular the Universal Declaration of Human Rights, the Fundamental Conventions of the International Labour Organization (ILO), the U.N. Guiding Principles on Business and Human Rights, the OECD guidelines for multinational enterprises and the Voluntary Principles on Security and Human Rights (VPSHR).
The Company published a Human Rights Briefing Paper, updated in 2018, in accordance with the recommendations of the United Nations Guiding Principles Reporting Framework, which is available on its website. TotalEnergies was then the first company in the oil and gas industry to do this. The third edition of this Briefing Paper was released in January 2024.
(Source: 2023 URD, §5.7)
</td></tr>
</table>

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Community Relations			
EM-EP-210b.1	Discussion of process to manage risks and opportunities associated with community rights and interests	Yes	**Recruiting local people and supporting the development and creation of local businesses in host countries** In addition to contributing directly to job creation in the countries where the Company operates (refer to point 5.6 of chapter 5), TotalEnergies is committed to recruiting local people and subcontractors whenever its operational constraints so permit. For each industrial project presented to the Executive Committee in accordance with the investment thresholds, TotalEnergies sets itself the target of maximizing local employment and value creation for the host country through procurement, manufacturing and the development of local capacity and skills. New renewable energy projects, in particular offshore wind projects, are gradually integrating this methodology in order to contribute to the development of new industrial sectors and local employment. The methodology involves **an analysis of the local context** in terms of regulations, stakeholder expectations and local economic and industrial capacities. Based on this analysis, depending on the needs of the project and future operations, existing local capacities, those requiring development support and those not available are determined. The analysis is complemented by working sessions with key suppliers to gather their views on how to mobilize and develop local content. This approach makes it possible to define a strategy for developing local content during the construction phase of the project and in operation. During the construction phase, the strategy incorporates objectives and actions relating to vocational training and support for local businesses. During the construction phase and in operation, key suppliers and their subcontractors are selected if they meet or exceed the local content targets set in the tenders. In order to monitor the achievement of the targets, suppliers and their subcontractors are required to submit a detailed report on their achievements (employment, use of local subcontractors, investments and initiatives in skills development and support to local businesses), which serves as the basis for calculating the impact on employment and local value created. This approach was notably deployed for the Tilenga projects in Uganda and EACOP in Tanzania. The following results are expected from this approach on the Tilenga project: – the creation of approximately 7,800 direct local jobs during the construction phase, of which 60% technicians, 25% workers and 15% managers and engineers, stabilizing at around 3,000 during the operational phase; – the creation of approximately 14,000 indirect local jobs during the construction phase, then approximately 5,000 during the operational phase. A significant portion of these indirect jobs are expected to be created in the project area (Buliisa); – the delivery of 1.1 million hours of training by the Company and its contractors; – spending of approximately $700 million with local suppliers during the construction phase, which is expected to generate up to $1.2 billion in additional national economic wealth. During the operational phase, the site is expected to spend approximately $60 million per year with its suppliers, which is expected to generate approximately $100 million in national economic wealth. At end 2023, the projects employ more than 1,200 Uganda and 3,200 Tanzania nationals. Since their inception, the cumulated man-hours by nationals (Uganda and Tanzanian) have reached 11.3 millions, or 92% of the total man-hours on these projects. This approach is being developed, for the Ratawi project in Iraq and the PNG project in Papua New Guinea. Since the validation of the new Sustainable Procurement program in January 2022, the management of local content and the sharing of value with the host countries in which TotalEnergies' projects are carried out has been at the heart of the Company's Responsible Purchasing approach (refer to point 5.10 of chapter 5). In this context, a local content roadmap has been deployed and should make it possible to harmonize and strengthen the local content strategies of TotalEnergies' projects and subsidiaries.

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Community Relations			
EM-EP-210b.1	Discussion of process to manage risks and opportunities associated with community rights and interests	Yes	**Anchoring our transition strategy with regional players and with a view of just transition** In France, TotalEnergies shares the ambitions of its transition strategy with its local public and private stakeholders, builds links with them, encourages dialogue focused on the territories, forms partnerships with the regions and conurbations, integrates itself into the territories by participating in certain regional bodies as close as possible to regional decision-makers and supporting its transition by involving the Company's segments. The challenge is above all to establish a territorial dialogue on the issues of energy, economic development, heritage and the integration of young people. In each region, since 2022, think tanks enable dialogue with stakeholders on regional issues linked to energy and the energy transition (acceptability of renewable energies, skills, sobriety, technological issues, energy choices, just transition, etc.). The meetings held in 2022 and 2023 brought together more than 500 participants and produced recommendations and actions which were published by region and shared with stakeholders. Several declarations of cooperation have been signed with conurbations such as those of Nice Côte d'Azur in 2021, Toulouse in 2022 and with the Grand Est Region in 2023 in order to share the challenges of these territories in their energy transition and their economic development. In 2023, two partnership agreements were also signed with Régions de France, the association representing all French regions, and with ACCD'OM, the Association of Overseas Communes and Communities. TotalEnergies has also entered into a partnership with the FNSEA (umbrella organization representing local agricultural unions and regional federations) to move forward together for the decarbonization of the agricultural world. Supporting the reconversion of the Company's industrial sites with a view of just transition and support for the energy transition is another aspect of its responsible anchoring in the territories. This reconversion takes into account market developments in order to restore, in the long term, competitiveness to industrial sites and is part of the energy transition. Thus, the subcontractors of these sites are supported in setting up training and repositioning the skills of their employees in particular toward the new specialties of the energy transition. Support can be offered to employees in their personal business creation projects. Projects led by other industrialists can be supported and subsidized in order to facilitate the establishment of new industrial units. A Voluntary Agreement for Economic and Social Development (CVDES) is implemented to support the site and its ecosystem (subcontractors, stakeholders, etc.) during this period of change. In this way, TotalEnergies reaffirms its responsibility toward the employment basins in which the Company operates as well as its commitment to maintaining a strong and lasting industrial presence. – On the Carling industrial platform, the CVDES (Voluntary Agreement for Economic and On the Carling industrial platform, the CVDES (Voluntary Agreement for Economic and Social Development) relating to the shutting down of Social Development) relating to the shutting down of the second steam cracker was ended in 2018 with a final commitment of €12 million in grants from TotalEnergies for four industrial projects representing €125 million of investment and 143 jobs planned. – The reconversion of the La Mède refinery has been completed, with the start-up of an 8-MW solar power plant in 2018 and the biorefinery in July 2019. The La Mède CVDES closed in March 2021 with support for 8 industrial projects and 3 industrial demonstrators representing 300 planned jobs. – On the Lacq platform, a specific unit of TotalEnergies researches and examines third-party industrial projects that could join the platform in partnership with the Nouvelle-Aquitaine region, the Pau-Béarn Chamber of Commerce and Industry (CCI), the Chemparc public interest grouping, the Lacq-Orthez district authority and Sobegi. The green chemistry unit of Alpha Chitin (investment of €14 million and 20 jobs created for the first phase) is operational. At the end of 2021, the Caremag project for the recycling of rare earths from permanent magnets present in electric motors and the separation of heavy rare earths announced its establishment in the Lacq area. Caremag now plans to invest €170 million and create more than 90 jobs. In 2023, Elyse Energy confirmed its decision to implement its e-methanol project in the Lacq area and plans to invest €400 million and create 60 jobs. The coordinated resources of local players, including TotalEnergies, have enabled the creation of new sectors of the future linked to the energy transition on the site. – On the Grandpuits platform, TotalEnergies is supporting the project to convert the site into a "zero-oil" platform as announced in September 2020 and representing a planned investment of €500 million. The Grandpuits platform will have four major activities: SAF, biomethane, the mechanical and chemical recycling of plastic waste and the production of photovoltaic energy and its storage in batteries. The CVDES between the public authorities and TotalEnergies has a budget of nearly €5 million dedicated to supporting the Grandpuits and Gargenville employment areas and, in particular, subcontractors and the creation of new industrial jobs, as well as economic support for regional SMEs with a view to a just transition.

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Community Relations			

EM-EP-210b.1	Discussion of process to manage risks and opportunities associated with community rights and interests	Yes	Finally, TotalEnergies supports the creation or maintenance of sustainable jobs in France by granting loans to SMEs, particularly those with projects that contribute to the ecological and energy transition. Between 2021 and 2023, loans were granted to 383 SME projects, amounting to a total of €14.7 million, and over 10,000 jobs were supported.
			(Source: 2023 URD, §5.9.1)
			Dialogue and local stakeholder involvement
			TotalEnergies promotes dialogue with local stakeholders to develop constructive and transparent relationships with them. To this end, TotalEnergies' One MAESTRO framework requires subsidiaries to engage in a structured, regular dialogue with their stakeholders to inform them, listen to them and take their concerns and expectations into account. It also requires subsidiaries to report on actions to avoid, reduce or offset negative impacts, and to measure stakeholder satisfaction and identify areas for improvement. TotalEnergies acknowledges the specificities of the rights of Indigenous and tribal peoples (International Labor Organization Convention No. 169) and has developed a framework which defines principles to be followed with these communities. It encourages the use of experts in order to identify and understand these peoples' expectations and specificities, to consult them and to contribute to their socio-economic development. This initiative is also consistent with the United Nations Guiding Principles on Business and Human Rights.
			In the Refining & Chemicals segment, refineries and petrochemical sites put consultation with stakeholders at the heart of their ongoing improvement strategy and are all ISO 14001 certified. Local structures for dialogue have been set up, such as Community Advisory Panels in the United States and specific local committees for certain European platforms (e.g. Feyzin neighbors' conference, La Mède neighbors' meetings and Donges residential committee).
			Marketing & Services has developed stakeholder engagement tools which are adapted to the diversity of its businesses (industrial sites, commercial activities, road transportation and service stations) which can be easily adapted in a wide variety of contexts and regions.
			For Exploration & Production projects, dialogue is initiated from the exploration phase, even when TotalEnergies does not have permanent teams on site. Each subsidiary or project develops an engagement plan with stakeholders describing a process for transparent dialogue, as well as the timetable and means of ensuring its implementation. A network of Community Liaison Officers (CLOs) has been rolled out on the ground covering most of the projects to provide information to and consult with neighboring communities, authorities and other local stakeholders, with a particular focus being paid to vulnerable groups. Employed by TotalEnergies, they speak the local languages and understand local customs. Their role is crucial for establishing good relations between TotalEnergies and its stakeholders.
			In the Integrated Power segment, a voluntary consultation and agreement process is implemented for new projects. For sites already in operation, educational visits are organized with key stakeholders, such as elected officials, farm owners and students from schools in the regions where the operations are located.
			For example, in 2023:
			– Integrated Power
			  – in France, TotalEnergies Renouvelables France regularly carried out consultation actions as part of its projects. In November 2023, the Rembercourt wind farm won the Participation and Consultation trophy, an event organized since 2016 by the "Decide Together" organization and the Gazette des Communes. The 36 MW Rembercourt wind farm was created thanks to a process of information and close consultation with elected officials with the production of a docu-drama film and an educational tour retracing the history of the site and the battle.
			  – in Angola, where the Quilemba solar energy project (35 MW) is being developed, a public consultation process was carried out as part of the environmental and social impact assessment studies, as well as for the involuntary relocation action plan.
			– Marketing & Services
			  – on the African continent, Marketing & Services deploys the SRM+ (Stakeholder Relationship Management) methodology, adapting it to the specific features of the network of service stations in order to further anchor TotalEnergies in the life of the surrounding community. Based on the recommendations of a panel of managers and the expectations of their stakeholders, initiatives are rolled out at all a country's service stations, promoting the economic development of local residents: for example, support for local SMEs by listing their products in shops, local recruitment and solidarity initiatives.

<table>
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<tr><td colspan="4">Community Relations</td></tr>
<tr><td>EM-EP-210b.1</td><td>Discussion of process to manage risks and opportunities associated with community rights and interests</td><td>Yes</td><td>– in France, TotalEnergies Marketing France tested the relevance of its sustainable development approach by interacting with around forty key stakeholders to identify their expectations and capture their opinions on the 12 areas of work developed by the subsidiary.
– Exploration & Production
– in Argentina, as part of the dialogue plan for the Offshore Fénix project including a wind farm in Tierra del Fuego, 31 meetings were held to explain the project, the impact study and the planning of activities, including site visits, workshops and consultations (online and public) to obtain feedback from stakeholders.
– in Angola, the societal team of the Exploration & Production subsidiary carried out a mapping of the coastal populations and fishing communities of the North coast, with the help of external experts. The objective of this study was to initiate a dialogue with these communities who may be impacted by its operations to make them aware of the risk of fishing in the areas of our operations. Another aspect was to collect socio-economic data to understand their livelihoods and the impact related to access restrictions to certain maritime areas.
– in Papua New Guinea, the Exploration & Production subsidiary maintains an intense dialogue, with more than 2,595 meetings held in 2023, mainly with communities and traditional authorities neighboring its operations.
– Refining & Chemicals
– in Belgium, the Antwerp platform (Refining & Chemicals segment) deployed the SRM+ methodology. In this context, the Antwerp platform consulted 21 of its main local stakeholders: authorities, suppliers, professional organizations and civil society. Stakeholder interviews took place in June and July 2023. The main conclusions of this exercise were shared with the platform's stakeholders and an action plan was identified around three main themes: fluidity of the relationship with stakeholders, information and communication and spirit of initiative.
– in France, in the context of its transformation into a zero oil platform, the Grandpuits platform regularly organizes school and university visits. In 2023, 21 events and 45 site visits were organized. In particular, the platform welcomed students from the University of Delft (Netherlands) in January, engineering students from the Ecole Nationale Supérieure de Techniques Avancées (Paris) in April and 3 classes of middle school students in November as part of the carbon neutrality Forum organized by the town of Provins. On the program for these visits: discussions on the transformation of the Company and its multi-energy strategy, and visit to the Grandpuits platform, symbol of this transformation.
(Source: 2023 URD, §5.9.2)</td></tr>
<tr><td>EM-EP-210b.2</td><td>Number and duration of non-technical delays</td><td>No</td><td>Not aggregated at Company level.</td></tr>
<tr><td colspan="4">Health & Safety for everyone</td></tr>
<tr><td>EM-EP-320a.1</td><td>Total recordable incident rate (TRIR)</td><td>Yes</td><td><table><tr><td>TRIR: number of recorded injuries per million hours worked – All Personnel</td><td>0.63</td></tr><tr><td>Company employees</td><td>0.51</td></tr><tr><td>Contractors' personnel</td><td>0.77</td></tr></table>
which corresponds to:
TRIR All personnel: 0.13 (per 200,000 hours worked)
TRIR Company employees: 0.10 (per 200,000 hours worked)
TRIR Contractors' employees: 0.15 (per 200,000 hours worked)
Note: these rates do not include work-related illnesses
(Source: 2023 URD, §5.3.2)
Number of occupational illnesses recorded in 2023 for Company employees: 107
(Source: 2023 URD, §5.3.4)</td></tr>
<tr><td></td><td>Fatality rate</td><td>Yes</td><td>0.50 (per 100 million hours worked)
which corresponds to: 0.0010 (per 200,000 hours worked)
(Source: 2023 URD, §5.3.2)</td></tr>
</table>

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Health & Safety for everyone			
EM-EP-320a.2	Near miss frequency rate (NMFR)	Yes	Number of near miss and anomalies reported: close to 1,150,000 Number of hours worked: 400 million Which correspond to a NMFR (per 200,000 hours worked) of around: 575 (Source: 2023 URD, §5.3.2)
	Average hours of health, safety, and emergency response training for full-time employees	Yes	Number of average training days per employee: **3.7** (excluding on the job training) Percentage of training dedicated to HSE: **25%** (Source: 2023 URD, §5.6.2)
	Average hours of health, safety, and emergency response training for contract employees	No	Not available. We don't define training needs by individual contract status and categories of employees.
	Average hours of health, safety, and emergency response training for short-service employees	No	Not available. We don't define training needs by individual contract status and categories of employees.
	Discussion of management systems used to integrate a culture of safety throughout the exploration and production lifecycle	Yes	As part of the policy for preventing workplace accidents, TotalEnergies has defined rules and guidelines for HSE training, personal protective equipment and high-risk operations for Company employees and contractors working on sites operated by the Company. In order to continually move its practices forward, TotalEnergies also **implements a process for analyzing accidents**, irrespective of their nature, with the method used and the level of detail involved depending on the actual or potential level of severity of the event. By way of example, a near miss with a high severity potential is treated as a severe accident, and its analysis is considered an essential factor of progress. Depending on its relevance to other Company entities, it will trigger a safety alert and, depending on the circumstances, the circulation of lessons learned and updating of the reference framework. The reporting of anomalies and near misses (nearly 1,150,000 in 2023, up 53% compared to 2022) is strongly encouraged and is monitored. The involvement of each employee in identifying anomalies and dangerous situations is an indicator of employees' vigilance in accident prevention and reflects the safety culture within the Company. The Company's HSE division includes a department of specialists in high-risk operations (work at height, lifting, electricity, confined spaces, etc.), whose purpose is to consolidate in-house knowledge and relations with contractors, and to issue the relevant One MAESTRO rules. The HSE division also includes a division aimed at providing support for subsidiaries in their own voluntary approach to strengthen their safety culture. This division also develops and disseminates tools to improve human performance by identifying the Organizational and Human Factors (OHF) of a work situation and defining appropriate measures. Since 2020, a digital platform has hosted these different tools, as well as examples of how to apply them, fact sheets and information about the fundamental concepts of OHF. This platform includes the principles covered by two guides of the One MAESTRO standard, dealing respectively with OHF and Integrated Safety Culture approaches. The implementation of these principles is promoted within the Company through dedicated modules integrated into the training programs for different populations, or through specific training programs at the request of subsidiaries. In addition to its One MAESTRO reference framework, the Company has applied 12 Golden Rules for safety at work since 2010. These simple Golden Rules, which can be memorized by everyone and are representative of a high number of accidents in the workplace, must be strictly obeyed by all personnel, both employees and contractors, in all countries and in all the Company's activities. The purpose of the Golden Rules is to protect day-to-day safety in operations and on sites with a common objective: "Zero fatal accidents".

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Health & Safety for everyone			
EM-EP-320a.2	Discussion of management systems used to integrate a culture of safety throughout the exploration and production lifecycle	Yes	In 2022, TotalEnergies reviewed the drafting of its Golden Rules to make them more readily understandable by player on site and to facilitate their appropriation. These Golden Rules were widely distributed to both employees and contactors accompanied by a wide range of communication support to anchor these Golden Rules, enable them to be discussed and adopted by the teams in the subsidiaries. In addition, the Stop Card system that is in place enables any employee of the Company or of a contractor to intervene if, for example, any of the Golden Rules is not complied with. Starting in 2019, the Company also rolled out the *Our lives first* program, which introduced joint safety tours with contractors (10,000 carried out in 2023 on the Company's sites), the establishment, in the work permit process, of a pre-work routine on all operated sites concerned (*Safety Green Light*); and a tool (*Life Saving Checks*) to intensify checks in the field and measure compliance with safety rules for at least the five high-risk activities: work at height, lifting operations, work on energy-powered systems, work in confined spaces, hot work (*Life Saving Checks* - more than 182,000 compliance checks were carried out in this context in 2023 on the Company's sites). The correct implementation of the One MAESTRO reference framework, and more generally, of all the Company's occupational safety programs, is verified with site visits and **audits**. Verification of the HSE commitment of contractors involves a **rigorous qualification process**. The reference framework states that for a contractor to be authorized to carry out high risk work on a site operated by a Company subsidiary, its HSE management system needs to be certified by a recognized third-party body or be inspected for compliance. Finally, the contract award process is also based on a **selection** phase allowing verification that specific HSE criteria are fully respected. As indicated previously, a program of **controls** is also put in place to verify the proper execution of contracts from a HSE point of view. For contractors with a high number of hours worked, a Safety Contract Owner can be appointed from among the senior executives of Company segments or members of executive committees of Company subsidiaries to initiate high-level dialogue with the contractor's management and increase the level of commitment and visibility on HSE issues. Whatever the nature of the health, safety and environmental risks, preventive actions require all employees to adhere to the Company's HSE policy. To this end, TotalEnergies provides **training intended for the various groups** (new arrivals, managers, senior executives and directors) in order to establish a broad-based, consistent body of knowledge that is shared by everyone: – *Safety Pass*: these safety induction courses were started on January 1, 2018, for new arrivals. Various courses exist depending on the position and cover the Company's main HSE risks, the risks linked to the site activities as well as those linked to the workplace. The theoretical content is supplemented by practical life-saving actions training sessions; – *HSE for Managers* is aimed at current or future operational or functional managers within one of the Company's entities. This training was delivered in virtual classroom mode as well as face-to-face in 10 sessions in 2023, in which about 230 managers took part; – *Safety Leadership for Executives* is intended for the Company's senior executives. Its objective is to give senior executives the tools allowing them to communicate and develop a safety culture within their organization. Four sessions were held in 2023 to train approximately 40 Company's senior executives. In order to provide and reinforce knowledge of the reference framework, a knowledge evaluation tool containing over 3,000 multiple-choice questions was developed in 2018 for use by the HSE managers of subsidiaries, operated sites and their teams. This tool can also be used to determine a suitable training plan, if necessary. Around twenty evaluations were carried out in 2023. In addition to training measures, the HSE division hosts regular events on HSE-related topics, with experts and specialists communicating a set of rules and good practices, internal and external, each month. The annual World Day for Safety is another key event. Its theme in 2023 was "Technological risks: Everyone's involved, Everyone has a role!". In addition, TotalEnergies encourages and promotes its subsidiaries' safety initiatives. Each year, the Company recognizes and awards a trophy to the best HSE initiative carried out in a subsidiary. Finally, safety, as a value of TotalEnergies, is taken into account in the **employee compensation policy** (refer to point 5.6.1.2 of chapter 5).

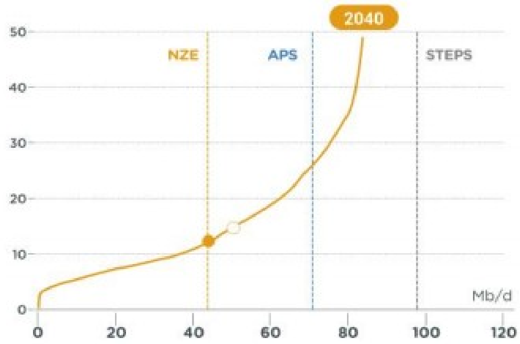
SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Health & Safety for everyone			
EM-EP-320a.2	Discussion of management systems used to integrate a culture of safety throughout the exploration and production lifecycle	Yes	In terms of **security**, the Company's policy aims to protect the Company's people and property from malicious intent or acts. To achieve this, TotalEnergies relies on its Security department, which develops the Company's reference framework and oversees the security situation in the countries in which it operates in order to determine general security measures to be adopted (such as authorization to travel). It also provides support to subsidiaries, particularly in the event of a crisis. The Company's security reference framework applies to all subsidiaries controlled by TotalEnergies. It provides that the security management system for subsidiaries must include the following stages: analysis of the threat, risk assessment, choice of a security posture, implementation of preventive or protective measures, control and reporting and then regular reviews. It must also comply with the requirements of local regulations. The framework requires each subsidiary to develop a security plan, operating procedures and an action plan. Within the framework of developing new activities, the Company's Security department recommends the organization and resources to be deployed in connection with the business segments. In each country in which TotalEnergies operates, the Country Chair is responsible for the security of operations in the country. The Country Chair ensures the deployment of measures and resources, with the support of a Country Security Officer. Subsidiaries' management systems and security plans are checked on a regular basis by the Company's Security department or the Country Chair. Awareness raising and training programs and a centralized system for reporting security events are organized by the Company's Security department. (Source: 2023 URD, §5.3.2)
Reserves Valuation & Capital Expenditures			
EM-EP-420a.1	Sensitivity of hydrocarbon reserve levels to future price projection scenarios that account for a price on carbon emissions	Yes	**Resilience of the organization's strategy** TotalEnergies has strengthened the resilience of its portfolio through very active portfolio management in recent years: the Upstream portfolio has seen a 50% portfolio change since 2015, ensuring an oil reserves replacement ratio above 100% over 2015-2023. Our portfolio has a low breakeven point, in line with the Company's objective of keeping it below \$30/b (the Company's organic cash breakeven point before dividends is \$22.2/b in 2023), which ensures the competitiveness of its resources. For its Upstream Oil & Gas activities in 2023, TotalEnergies has the lowest production cost per barrel of around \$5.5/boe among its peers[1] and its GHG emissions intensity (Scope 1+2) is falling to 18 kg CO_2e/boe in 2023 (compared with 19 in 2022)[2]. [REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.] **Risks of stranded assets** In June 2020, TotalEnergies determined that among its Upstream assets, only the Fort Hills and Surmont oil sands projects in Canada could be classified as stranded assets, meaning assets with reserves beyond 20 years and high production costs, whose overall reserves might therefore not be produced by 2050. TotalEnergies has sold these assets in 2023. This portfolio management approach allows TotalEnergies to mitigate the risk of stranded assets in the future if the risks of a structural decline in demand for Oil & Gas materialize faster than estimated as a result of stricter global environmental regulations and constraints and the resulting changes in consumer preferences. As shown in the cost merit order curve of production costs for 2040, compared to the demand expected under various IEA scenarios, TotalEnergies' portfolio of Upstream Oil & Gas projects has an average technical cost that places it among the 50 Mb/d lowest-cost for these horizons, thanks in particular to long plateau oil assets with low production costs.

(1) Peers: BP, Chevron, ExxonMobil, Shell.
(2) Equity Oil & Gas Upstream intensity is calculated excluding integrated LNG assets.

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Reserves Valuation & Capital Expenditures			
EM-EP-420a.1	Sensitivity of hydrocarbon reserve levels to future price projection scenarios that account for a price on carbon emissions	Yes	

Merit Curve of Global Oil Production Costs[1]

Technical costs, *$/b*



Global oil demand, according to IEA scenarios
● TotalEnergies - Long-plateau oil assets
○ TotalEnergies - Oil portfolio average

Sensitivity to CO_2, Oil & Gas prices

TotalEnergies assesses the robustness of its portfolio, including new material investments, based on relevant scenarios and sensitivity tests.

Each material investment, including in the exploration, acquisition or development of Oil & Gas resources, as well as in other energies and technologies, is reviewed in relation to the objectives set out in the Paris Agreement, so that every new investment enhances the resilience of the Company's portfolio.

Even though CO_2 pricing does not currently apply in all the countries where the Company operates, TotalEnergies includes, as a base case, a minimum CO_2 price of $100/ton in its investment criteria (or the prevailing price in a given country, if higher); beyond 2029, the CO_2 price is increased by 2%/year.

- Assuming a CO_2 price of $200/ton from 2024 and an annual increase of 2% beyond 2029, i.e. an increase of $100/ton compared to the base case scenario from that date onwards, TotalEnergies estimates a negative impact of around 15% on the discounted present value of all its assets (Upstream and Downstream).
- Compared with the reference scenario used to evaluate investments (Brent at $50/b), the use of the IEA's[2] NZE price scenario would lead to a present value of all the Company's assets (Upstream and Downstream) that is around 10% lower.

Impairment of Upstream assets

In addition, to ensure robust accounting of its assets in the balance sheet, the Company calculates the impairment of its Upstream assets on the basis of an oil price trajectory that stabilises until 2030, then decreases linearly to reach 50 $\$_{2023}$/b in 2040, and then decreases from 2040 onwards to the price adopted in 2050 by the IEA's NZE scenario, i.e. 25.5 $\$_{2023}$/b. Gas prices in Europe and Asia decline and stabilize from 2027 until 2040 at levels lower than current prices, with the Henry Hub remaining at $3 $\$_{2023}$/MMBtu over this period. They then all converge towards the prices in the IEA's NZE scenario in 2050.

Unconventional Oil & Gas

Unconventional Oil & Gas are defined by the EIA[3] as hydrocarbons that are "*produced by means that do not meet the criteria for conventional production*" ie "*by a well drilled into a geologic formation in which the reservoir and fluid characteristics permit the oil and natural gas to readily flow to the wellbore.*" According to UNFC[4], "*examples include CBM, low permeability deposits such as tight gas (including shale gas) and tight oil (including shale oil), gas hydrates and natural bitumen*".

(1) Source: Rystad, IEA WEO 2023 scenarios.
(2) World Energy Outlook 2023, Table 2.2 Fossil fuel prices by scenario (p. 96).
(3) See definition by the Energy Information Administration, a federal agency within the U.S. Department of Energy.
(4) See United Nations Framework Classification for Resources to Petroleum, "Supplementary Specifications for the application of the United Nations Framework Classification for Resources to Petroleum" pages 8 and 22, points 9, 102, 103, 104.

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Reserves Valuation & Capital Expenditures			
EM-EP-420a.1	Sensitivity of hydrocarbon reserve levels to future price projection scenarios that account for a price on carbon emissions	Yes	In 2023, these non-conventional hydrocarbons accounted for 9.7% of our production and less than 5% of our consolidated turnover. In addition, TotalEnergies no longer produces oil from tar sands since the divestment of its Surmont and Fort Hills Canadian assets at the end of 2023. The Company also exited its extra-heavy oil development projects in Venezuela's Orinoco Belt in 2021. Ultra-deep offshore, defined as water depths in excess of 1,500 m, which in the 2000s represented the technical limit for drilling and production facilities (since then largely exceeded), does not fall into the category of non-conventional hydrocarbons: in fact, reservoirs located in these areas are developed using facilities that employ a continuum of conventional technologies. It is the combination of very high-pressure reservoirs and very deep-water depths that can present increased risks. TotalEnergies does not intend to develop this type of asset. Similarly, the mere fact that an oil or a gas field is located in an Arctic zone is not sufficient to qualify it as unconventional, if it is operated using conventional technologies. However, the Company recognizes the particular environmental sensitivity of certain Arctic zones. For this reason, in 2012 we undertook not to explore any oil fields in Arctic sea ice; a list of our licenses in Arctic zones is available on the Company's website. (Source: 2023 URD, §5.4.2)
EM-EP-420a.2	Estimated carbon dioxide emissions embedded in proved hydrocarbon reserves	Yes	**3.6 Gt CO_2e**
Reserves Valuation & Capital Expenditures			
EM-EP-420a.3	Amount invested in renewable energy, revenue generated by renewable energy sales	Yes	Data are available in chapter 5.4.6.3 of 2023 URD for the three financial indicators: turnover ("Turnover"), capital expenditures ("CapEx") and operating expenditures ("OpEx"), within the meaning of the Taxonomy regulation, on the scope of entities exclusively controlled and consolidated by TotalEnergies SE, for the year 2023. Renewable energy related activities are considered to be the following: – renewable electricity generation (using solar photovoltaic technology / from wind power / from hydropower / storage): 4.1, 4.3, 4.5, 4.10, – manufacture of biogas/biofuels for use in transport, and of bioliquids: 4.13, – anaerobic digestion of bio-waste: 5.7, – installation, maintenance and repair of renewable energy tech.: 7.6. Definition of financial indicators is given in chapter 5.4.6.1 of 2023 URD. (Source: 2023 URD, §5.4.6.1 and 5.4.6.3)
EM-EP-420a.4	Discussion of how price and demand for hydrocarbons and/or climate regulation influence the capital expenditure strategy for exploration, acquisition, and development of assets	Yes	Refer to **EM-EP-420a.1** and to the above developments related to the resilience of the organization strategy (Source: 2023 URD, §5.4.2)
Business Ethics & Transparency			
EM-EP-510a.1	Percentage of (1) proved and (2) probable reserves in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	Yes	**7.3%** (proved reserves)

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Business Ethics & Transparency			
EM-EP-510a.2	Description of the management system for prevention of corruption and bribery throughout the value chain	Yes	TotalEnergies is a major player in the energy sector, where public authorities regularly play a role and where the amounts invested may be very high. In addition, the Company is present in about 120 countries, some of which have a high perceived level of corruption according to the index drawn up by Transparency International. Aware that it is highly exposed to the risk of corruption, TotalEnergies applies a principle of zero tolerance. To prevent risks of corruption, TotalEnergies has implemented a robust and regularly updated anti-corruption compliance program. The aim of this program is to promote a culture of compliance and transparency, which is key in ensuring the sustainability of the Company's activities. Failure to comply with such legislation such as the U.S. Foreign Corrupt Practices Act and the French law on transparency, the fight against corruption and the modernization of the economy, is likely to expose the Company to a high criminal, financial and reputation risk, as well as the enforcement of measures such as the review and reinforcement of the compliance program under the supervision of an independent third party. The commitment of the entire Company and the efforts undertaken are unrelenting in order to ensure the sustainability and continuous improvement of the anti-corruption compliance program, which the U.S. authorities deemed to be appropriate in 2016, thus putting an end to the monitorship that was introduced in 2013. In June 2022, the Company received the final report prepared by the French Anti-Corruption Agency (AFA) following the control initiated by the Agency late 2020. This report, which confirmed for the Company the overall quality of the Company's program and its maturity, also made recommendations for its improvement. The Company drew up a dedicated action plan to respond to the recommendations of the AFA, the implementation of which was finalized in 2023. Its implementation is subject to a continuous monitoring and control process. This compliance program is drawn up by a dedicated organization acting at the Company and business segment levels, namely the Compliance and Legal Risk Management Department, headed by the Chief Compliance Officer, and the Branch Compliance Officers. They coordinate a network of approximately 370 Compliance Officers in charge of rolling out and running the program at the subsidiaries level. This structured organization lies in close proximity to operational activities while having its own dedicated reporting line. TotalEnergies' anti-corruption compliance program is based primarily on the following seven pillars: management commitment or "tone at the top", risk assessment, adoption of internal standards, awareness raising and training of employees, feedback of information, including the whistle-blowing system, mechanisms for assessing and monitoring implementation of the program, and imposition of disciplinary sanctions in the event of misconduct. **5.8.1.1 Management commitment** The constant high level of commitment by the General Management is reflected by the principle of zero tolerance for corruption that is clearly set out in the Company's Code of Conduct. Managers have a duty to lead by example and are responsible for promoting a culture of integrity and dialogue. This commitment is also expressed in regular statements made by the Chairman and Chief Executive Officer on this subject, as well as through large-scale communication actions, such as the annual Business Ethics Day organized on the occasion of the U.N.'s International Anti-Corruption Day and Human Rights Day. In December 2023 the ninth Ethics Day was devoted to "Speak-up" and the description of the procedure for handling alerts. An online presentation was made by the General Manager of the Marketing & Services segment, and a roundtable discussion was organized with the Chairwoman of the Ethics Committee, the Company's Chief Compliance Officer and the Vice President of the Human Rights Department. The Ethics Day was preceded by a poster campaign aimed at reiterating the importance of this whistleblowing system and its use by the employees of the Company. The commitment of the management bodies is also expressed externally by TotalEnergies' joining anti-corruption initiatives and supporting collaborative and multi-party approaches. TotalEnergies joined the Partnering Against Corruption Initiative (PACI)[(1)] in 2016, thereby adhering to the PACI Principles for Countering Corruption. The Chairman and Chief Executive Officer of TotalEnergies SE became a member of the PACI Board in 2018 and subsequently Co-Chairman of the initiative at year-end 2019. TotalEnergies is also a member of other initiatives that contribute to the global effort against corruption, such as the U.N. Global Compact since 2002 and the Extractive Industries Transparency Initiative (EITI)[(2)] since its launch in 2002.

(1) Launched in 2004 within the World Economic Forum, PACI now numbers approximately 90 major corporations and forms a platform for discussion for business leaders and governmental and non-governmental organizations, allowing them to share their experiences and ideas and develop best practices.
(2) The EITI brings together representatives of the governments of the member countries as well as representatives of civil society and business in order to strengthen transparency and governance with regard to income from oil, gas and mineral resources.

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Business Ethics & Transparency			
EM-EP-510a.2	Description of the management system for prevention of corruption and bribery throughout the value chain	Yes	**5.8.1.2 Risk assessment** To regularly adapt the compliance program to the risks to which TotalEnergies is exposed, these must first be identified and assessed. In addition to the Company's risk mapping, which includes the risk of corruption, specific corruption risk mapping is produced on the basis of a methodology formalized in a rule adopted in early 2020. This rule provides for two-tier mapping: that of entities coordinated by the Compliance Officer and that of business segments coordinated by the Branch Compliance Officers. At the business segment level, the assessment needs to examine the main types of risk (purchasing, sales, conflicts of interest, gifts and hospitality, human resources, representatives dealing with public officials, mergers and acquisitions, joint ventures, donations and sponsoring, and influence peddling). This two-tier analysis is aimed at establishing action plans that are appropriate to the risks identified and the realities on the ground. In addition, on the occasion of the assessment of the risks of corruption, tools are made available to employees to help them identify these risks more easily,and produce the corresponding mapping, such as the Typology Guide to risks of corruption and the Methodology Guide to the mapping out of the risks of corruption and influence peddling, published for the latter at the end of 2022. To manage the risks identified during the creation of the risk maps, measures are then put in place and specific rules regularly adopted and incorporated into the Company's reference framework. In accordance with the rules in place, the Chief Compliance Officer presented a summary of the mapping of the various business segments to the TotalEnergies Risk Management Committee (TRMC) for the first time in 2021. The same presentation was provided by the Chief Compliance Officer to the Executive Committee in October 2021. In application of this same rule, all business segments have relaunched this mapping exercise from the end of 2022. In 2023, the current risk maps for all segments were reviewed. A synthesis of these mappings was presented by the Chief Compliance Officer to the TRMC in December 2023. **5.8.1.3 Internal standards** As an essential element of the Company's reference framework, the Code of Conduct sets out the behavior to be adopted, in particular with regard to the question of integrity. It prohibits corruption, including influence peddling, and advocates zero tolerance in this area. In 2022, it contained even more specific examples of the risks of corruption to which the Company's employees may be exposed. The Code of Conduct is complemented by a regularly updated set of anti-corruption standards. This set applies to all companies controlled by the Company in accordance with their respective decision-making rules and subject to the legal and regulatory provisions applicable locally. The Anti-Corruption Compliance Directive recaps the main principles and organizes the roll-out of the anti-corruption program. It deals, among others, with commitment, training and awareness raising, accounting and bookkeeping, the assessment system and whistle-blowing mechanisms. This directive is complemented by rules that deal with more specific subjects in order to prevent the various risks identified. In terms of anti-corruption due diligence, the deployment of the computerized supplier prequalification tool, which includes the due diligence process resulting from the single rule adopted in 2020, is continuing. A complementary tool was introduced in 2023 to strengthen the supplier assessment process. Due diligence involves collecting information, identifying any risks of corruption and taking the appropriate mitigation measures. This process is performed by the relevant business people with support from their Compliance Officer, who may call on the Branch Compliance Officer. Particular attention is paid to representatives (agents or others) dealing with public officials for whom the applicable internal rule specifically provides for mandatory due diligence and monitoring by operational staff of contractual relationship with such third parties, which may include the verification of invoices, the control of activity reports or the organization of audits. In addition, the Company has an internal governance system that allows the various business segments to manage, in a uniform and cross-functional manner, the specific case of third parties that would be rejected after due diligence. Following the adoption in 2020 of a rule to address the recording and accounting of expenses covered by anti-corruption compliance rules, two guides were published in the summer of 2021 for the accounting and compliance functions. Other standards deal with high-risk areas, such as gifts and hospitality, which have to be registered and approved by the line manager above given thresholds; conflicts of interest, which must be reported to the line manager and addressed; anti-corruption measures implemented within joint ventures; and human resources-related processes such as recruitment which, at the end of 2023, led to a new specific rule formalizing minimum requirements for the implementation of Anti-Corruption Compliance Programs by human resources functions.

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Business Ethics & Transparency			
EM-EP-510a.2	Description of the management system for prevention of corruption and bribery throughout the value chain	Yes	In general, internal standards are amended to take the regulatory and legislative changes applicable to TotalEnergies into account. **5.8.1.4 Awareness raising and training** Awareness raising actions are carried out toward all employees. The TotalEnergies intranet contains a section on the fight against corruption which provides employees with various media, e.g. the internal standards and guides such as the booklet entitled "Prevention and fight against corruption". A new poster campaign of the key messages in high-risk areas (such as gifts and invitations, accounting controls and third-party assessments) was organized in 2022. Following the online training on anti-corruption in 2011 (season 1), then in 2015 (season 2), which enabled more than 82,000 employees to be trained by the end of 2022, the Company launched a new online training course in mid-2022 (season 3). This training course, which is mandatory for the target populations (approximately 37,000 employees), replaced the two previous seasons. This new training course is based on the assignment of a profile specific to each learner (from beginners to experts), which is determined on the basis of their answers to the questions asked in the introduction to the training course. The profile specific to each learner then allows them to follow the modules best suited to their needs. At the beginning of 2022, the Executive Committee reviewed all of the online training courses available, particularly in the field of anti-corruption and anti-fraud compliance, and determined the functions deemed to be the most exposed (such as Purchasing and Human Resources) to the risk of corruption. For these populations, more targeted training is provided, either by the Compliance teams of the Company or the segments or by the Compliance Officers. In 2023, trainings via webinars were provided to the populations within the eight business functions identified by the Executive Committee as the most exposed to the risk of corruption. These training courses, concerning around 18,000 identified employees, are scheduled to run until the end of 2024. Regarding the anti-corruption and anti-fraud Compliance network, several online and on-site training sessions are organized each year for the Compliance Officers. The Branch Compliance Officers also benefit from annual training days on specific topics. **5.8.1.5 Feedback of information** Information is mainly escalated as part of an annual reporting process, for which the Company deployed a new dedicated internal tool in 2022. This is performed by the Compliance Officers, reviewed by their Branch Compliance Officer and sent to the Chief Compliance Officer. This reporting helps monitor the roll-out and implementation of the anti-corruption program, through quantitative indicators on key elements of the program, such as the number of training courses or due diligences performed. The consolidated data resulting from this reporting, which reflects the results of the implemented policies, is presented once a year to the Executive Committee and the Board of Directors via the Governance and Ethics Committee. This presentation provides an opportunity to report the results of the actions undertaken at the very highest level and to review the road map aligned with the identified areas of improvement. In addition, TotalEnergies takes actions in order to develop a speak-up culture and asks its employees to report any situations that they consider to be contrary to the Code of Conduct. This culture is encouraged by regular communication on the rule adopted in late 2020, which formalized the procedure for collecting integrity alerts (corruption, fraud and influence peddling). This rule expressly provides that no disciplinary sanction, nor any direct or indirect discriminatory retaliatory measure, may be taken against the whistleblower, as long as it is made in good faith, and this even in the facts subsequently turn out to be inaccurate or unfounded, and/or not to give rise to any proceedings or sanctions. This rule, combined with the one also adopted in 2020 and revised in 2023 by the Ethics Committee concerning the collection and processing of reports, covers all situations or behaviors likely to be contrary to the Company's Code of Conduct and highlights the enhanced protection granted to whistleblowers. In this respect, echoing this Code, the rule adopted at the end of 2020 by the Anti-Corruption Compliance recalls the various existing alert channels: each employee can therefore contact any manager, Human Resources, the Compliance Officers or Ethics Officers, or the Ethics Committee, depending on what seems most appropriate. The Ethics Committee is responsible for ensuring compliance with the Code of Conduct. Its Chairperson, who reports to the Chairman and Chief Executive Officer of TotalEnergies SE, presents an annual report on Ethics to the Governance and Ethics Committee of the Board of Directors. Both employees and third parties can refer to this Committee by writing to ethics@totalenergies.com. TotalEnergies does not tolerate any retaliation measures or discrimination toward anyone submitting a report in good faith and undertakes to respect confidentiality.

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Business Ethics & Transparency			
EM-EP-510a.2	Description of the management system for prevention of corruption and bribery throughout the value chain	Yes	**5.8.1.6 Assessment and monitoring** The anti-corruption program is monitored at the first level by business people, as well as their line managers and the Compliance Officers who are in charge of ensuring the day-to-day implementation of the rules. At the second level, controls are performed by the Compliance function, in particular through assessment missions (referred to as compliance reviews) that are undertaken by a dedicated team within the TotalEnergies Compliance and Legal Risk Management Department. These second-level assessment missions are carried out by an internal team reporting to the Chief Compliance Officer, accompanied by lawyers and external service providers specializing in financial and accounting data analysis. Each year, around twenty of these missions are carried out on the subsidiaries deemed to be most exposed to the risk of corruption on a multi-criteria basis (Transparency International index, date of the last assessment mission, possible incidents in particular). In addition, the Audit and Internal Control Division performs an annual off-site inspection to verify the quality of the reporting performed by the Compliance Officers, as well as missions to check the self-assessment by the entities subject to the Sarbanes-Oxley regulations of their internal control framework. At the third level, this division also helps monitor the anti-corruption program through audits called "assurance audits" performed in particular according to a framework that includes compliance topics. The controls performed in this context by the Audit and Internal Control division are selected on the basis of the results of the risk analysis it carries out prior to each assignment. The controls carried out may relate in particular to the assessment of third parties, the mapping of corruption risks or the disciplinary system. This system is described in full in a guide on control of implementation of the anti-corruption program published in late 2020, which requires the adoption of an "Anti-Corruption Control Plan" (ACCP) within each business segment. This guide was reviewed at the end of 2022 and published at the beginning of 2023, in particular to supplement the examples of tests that may be carried out as part of the ACCP. **5.8.1.7 Disciplinary action** In line with the principle of zero tolerance and in application of the Code of Conduct and the Anti-Corruption Directive, any infringement of the anti-corruption standards must give rise to disciplinary action, up to dismissal. TotalEnergies' resolve in this matter is repeated in communication media intended for employees as well as on the intranet. This resolve, which results from management commitment, contributes, with the other pillars described above, to the robustness of the anti-corruption compliance program. In 2023 the Company recorded around 200 integrity incidents (covering fraud - excluding attempts -, corruption or influence peddling) which led -where established and one or more Company employees were involved- to nearly 130 sanctions, up to and including dismissal. (Source: 2023 URD, §5.8.1)
Management of the Legal & Regulatory Environment			
EM-EP-530a.1	Discussion of corporate positions related to government regulations and/ or policy proposals that address environmental and social factors affecting the industry	Partially	**Advocacy and sector initiatives in support of the energy transition** A successful energy transition requires closer collaboration between all the players involved. **Support for government action and climate sectorial initiatives and disclosures** TotalEnergies supports the pledges made by nations worldwide to combat global warming as part of the Paris Agreement and publishes its positions on its corporate website (heading sustainability/stakeholder-relationships-advocacy/advocacy-principles). **At COP28**, we supported the goal of tripling renewable energy capacity and doubling energy efficiency measures by 2030. We also joined the Oil and Gas Decarbonization Charter (OGDC). **In Europe**, TotalEnergies supports the "Fit-for-55" package and specifically some of its key components, such as the broader use of carbon pricing, the largescale expansion of renewable energies, deployment of infrastructure and the development of fuels and renewables for the transportation industry. Our responses to the European Commission's public consultations on climate are public and may be viewed online. **In France**, TotalEnergies, along with 60 other major companies, signed the Entreprises Pour l'Environnement (EpE) association's statement calling for an acceleration of the ecological transition, ahead of COP28.

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<table>
<tr><th>SASB code</th><th>Metrics</th><th>Reported</th><th>TotalEnergies' disclosures (2023)</th></tr>
<tr><td colspan="4">Management of the Legal & Regulatory Environment</td></tr>
<tr><td>EM-EP-530a.1</td><td>Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry</td><td>Partially</td><td>
Collective initiative initiatives supported by TotalEnergies
<table>
<tr><th>Axes</th><th>Name of the initiative</th><th>Perimeter</th></tr>
<tr><td>ENERGY & CLIMATE</td><td>3x Renewables</td><td>Worldwide</td></tr>
<tr><td></td><td>Oil and Gas Decarbonization Charter</td><td>Worldwide</td></tr>
<tr><td></td><td>OGMP 2.0</td><td>Worldwide</td></tr>
<tr><td></td><td>Aiming For Zero Methane</td><td>Worldwide</td></tr>
<tr><td></td><td>TCFD</td><td>Worldwide</td></tr>
<tr><td></td><td>UAE-France Bilateral Climate Investment Platform</td><td>UAE and France</td></tr>
<tr><td>ACTING FOR THE WELL-BEING OF EMPLOYEES</td><td>Global Deal</td><td>Worldwide</td></tr>
<tr><td></td><td>Women's Empowerment Principles - Equality Means Business (UNGP)</td><td>Worldwide</td></tr>
<tr><td></td><td>Closing the gender gap - a call to action (WEF)</td><td>Worldwide</td></tr>
<tr><td></td><td>ILO Global Business and Disability Network Charter</td><td>Worldwide</td></tr>
<tr><td></td><td>The Valuable 500</td><td>Worldwide</td></tr>
<tr><td></td><td>Manifesto for the inclusion of people with disabilities in economic life</td><td>France</td></tr>
<tr><td></td><td>Inclusion and Diversity Pledge (ERT)</td><td>Europe</td></tr>
<tr><td></td><td>LGBT Commitment charter + de l'Autre Cercle (signed again in 2023)</td><td>France</td></tr>
<tr><td></td><td>Elles bougent</td><td>France</td></tr>
<tr><td>CARING FOR THE ENVIRONMENT</td><td>Act4Nature International</td><td>Worldwide</td></tr>
<tr><td></td><td>CEO Water Mandate</td><td>Worldwide</td></tr>
<tr><td></td><td>Circular economy commitment AFEP</td><td>Worldwide</td></tr>
<tr><td></td><td>UN Global Compact Ocean Stewardship Coalition</td><td>Worldwide</td></tr>
<tr><td>HAVING A POSITIVE IMPACT FOR STAKEHOLDERS</td><td>The Voluntary Principles on Security and Human Rights (VPSHR)</td><td>Worldwide</td></tr>
<tr><td></td><td>The United Nations Guiding Principles on Business and Human Rights as endorsed by the UN Human Rights Council in 2011</td><td>Worldwide</td></tr>
<tr><td></td><td>The United Nations Global Compact Principles</td><td>Worldwide</td></tr>
<tr><td></td><td>The B Team Responsible Tax Principles</td><td>Worldwide</td></tr>
<tr><td></td><td>Partnering Against Corruption Initiative (PACI)</td><td>Worldwide</td></tr>
<tr><td></td><td>Extractive Industries Transparency Initiative (EITI)</td><td>Worldwide</td></tr>
</table>
Review of affiliations
TotalEnergies has published a list of its industry affiliations on its website since 2016.
The Company typically cooperates with these organizations on technical subjects, but some take public stances on other issues, such as climate. Since 2019, TotalEnergies has conducted a biannual assessment of the public positions on climate and other issues of the main industry organizations of which it is a member. The Company examines whether those positions are aligned with its own, based on the six principles from its Advocacy Directive. A new review was carried out in 2023. In 2023, most of new associations in the energy field joined by our entities is related to renewable energies and low-carbon technologies.
Review of affiliations – 6 key principles
Scientific position
TotalEnergies recognizes the link established by science between human activities, in particular the use of fossil fuels, and climate change.
The Paris Agreement
TotalEnergies recognizes the Paris Agreement as a major step forward in the fight against global warming and supports the initiatives of the implementing States to fulfill its aims.
Carbon pricing
TotalEnergies supports the implementation of carbon pricing.
</td></tr>
</table>

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)

The development of renewable energies

TotalEnergies supports policies, initiatives and technologies aimed at promoting the development of renewable energies and sustainable bioenergies (biofuels, biogas) as well as energies and technologies aimed at decarbonizing industrial processes transportation, such as hydrogen, carbon capture and electric vehicles.

The role of natural gas

TotalEnergies promotes the role of natural gas as a transition fuel, in particular as a replacement for coal. TotalEnergies supports policies aimed at measuring and reducing methane emissions aiming for zero methane emissions. TotalEnergies promotes a policy of reducing greenhouse gas emissions: avoid; reduce by using the best available technologies; offset the minimized residual emissions.

Carbon offsetting

TotalEnergies supports the carbon offset mechanisms necessary to achieve carbon neutrality, through organized and certified markets ensuring the quality and sustainability of carbon credits.

(Source: 2023 URD, §1.4)

Critical Incident Risk Management

SASB code	Metrics	Reported
EM-EP-540a.1	Process Safety Event (PSE) rates for Loss of Primary Containment (LOPC) of greater consequence (Tier 1)	Yes

	2023	2022	2021
Loss of primary containment (Tier 1)	19	11	29
Million of hours worked – All Personnel	400	392	389

Tier 1 Process Safety Event rate per 200,000 hours worked is then equal to **0.010**.

(Source: 2023 URD, §5.3.1 and 5.3.2)

SASB code	Metrics	Reported
EM-EP-540a.2	Description of management systems used to identify and mitigate catastrophic and tail-end risks	Yes

To prevent the occurrence of a major industrial accident such as an explosion, fire, leakage of hazardous products or mass leakage that might cause death, physical injury, large-scale pollution or pollution at an environmentally sensitive site, or important damage to property, TotalEnergies implements suitable risk management policies and measures which apply to the operated activities. The Major Risks division of the HSE division provides support in the application of this policy.

At year-end 2023, in addition to its drilling and pipeline transportation operations, TotalEnergies had 177 operated sites and zones exposed to these risks. These correspond to all activities relating to hydrocarbon production, whether offshore or onshore, as well as Seveso-classified industrial sites (upper and lower threshold) and their equivalents outside the European Union (185 sites at the end of 2022 and 181 at the end of 2021).

The Company's policy for the management of major industrial accident risks applies from the facilities design stage, and throughout their lifespan, in order to minimize the potential impacts associated with its activities. The policy is described in the One MAESTRO reference framework. It provides for the analysis of the risks related to the Company's industrial operations at each operated site subject to these risks, based on incident scenarios for which the probability of occurrence and the severity of the consequences are assessed. Based on these parameters, a prioritization matrix is used to determine whether further measures are needed. These mainly concern measures to prevent accidents but also include mitigation measures. They are technical and organizational. These analyses are updated periodically, at least every five years, or when facilities are modified. Training on major accident risks is organized at head office and at subsidiary sites for operating staff.

The Company is actively represented in international associations in the field of major accident risk management (EPSC -European Process Safety Centre, CCPS-Chemical Center for Process Safety, FABIG-Fire and Blast Information Group, IOGP - International Oil & Gas Producers...) to exchange good practices in controlling major accident risks.

With regard to the design and construction of facilities, technical standards include applicable regulatory requirements and refer to industry best practices. The construction of the Company's facilities is entrusted to qualified contractors who undergo a demanding internal selection process and who are monitored. In the event of a modification to a facility, the Company's rules define the management process to be adopted.

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Critical Incident Risk Management			
EM-EP-540a.2	Description of management systems used to identify and mitigate catastrophic and tail-end risks	Yes	**With regard to the management of operations and integrity of facilities** operated by the Company, formal rules have been set out to prevent specific risks that have been identified either by means of risk analyses or from internal and industry feedback. For specific works, the preliminary risk analysis may lead to the establishment of a permit to work, the process of which, from preparation through to closure, is defined. The Company's reference framework also provides a process to manage the integrity of facilities, which includes, for example, preventive maintenance, facility inspections, identification of safety critical equipment for special monitoring, management of anomalies and downgraded situations, and regular audits. All these rules are part of the One MAESTRO reference framework. Operations teams receive regular training in the management of operations in the form of companionship or in-person trainings. For example, in order to control the integrity of **pipelines** operated by the Company, they are subject to periodic surveys such as cathodic protection checks, ground or aerial surveillance or in line inspections. These actions are planned as part of the pipeline monitoring and maintenance programs. These controls and their frequency are reinforced in areas with high human or environmental risks identified by the risk analysis. (Source: 2023 URD, §5.3.1) In order to deal effectively with the consequences of a major industrial accident, TotalEnergies has for several years implemented **a global crisis management system** that is based on the following elements: an on-call system available 24/7 in all the Company's entities (subsidiaries, branches and head office), a process for rating incidents and triggering alerts, an emergency management system deployed in each subsidiary which includes regular training (individual courses and annual training sessions), dedicated equipment or equipment that can be quickly mobilized. At head office, a dedicated crisis management area can handle two major crises simultaneously, if necessary. Teams are trained to intervene in each function of the crisis unit. The standards clearly stipulate that subsidiaries must have response plans and procedures in place in the event of accidents such as leaks, fires, explosions, or transport accidents. Large-scale exercises are organized by subsidiaries to train and test their crisis management systems. The context of the COVID-19 pandemic demonstrated the capacity for resilience of the Company, which used, in various formats its procedures and methodologies in various formats to organize crisis management exercises in person, remotely or in a hybrid format. This was made possible in particular through the continuous deployment of digital crisis units for the head office, segments and subsidiaries, and the deployment of the associated training. The intervention teams at subsidiaries and at head office practice their crisis management activities regularly on the basis of scenarios identified by the risk analyses. These personnel may follow dedicated training depending on their specific functions. In 2023, around 650 individuals were thus trained in crisis management in subsidiaries and at head office. TotalEnergies also continued to roll out its Incident Management System (IMS) in subsidiaries operating liquid hydrocarbon or natural gas exploration or production sites in the Exploration & Production, Integrated LNG and Integrated Power segments. The IMS is a harmonized system for the management of emergency situations described by a good practices guide of the International Petroleum Industry Environmental Conservation Association (IPIECA) and increasingly being adopted by the major operators. In 2023, 275 employees were trained in the IMS and 7 Exploration & Production subsidiaries carried out a large-scale application exercise, bringing the total number of trained employees to 1,055 and the number of subsidiaries where the IMS is deployed to 23. Lastly, in 2023, TotalEnergies continued to strengthen its business continuity system which includes a Company reference framework, onsite and remote training and a network of correspondents in all entities. (Source: 2023 URD, §5.3.1) For the transport of oil and gas by sea and river, TotalEnergies maintains a rigorous safety policy rooted primarily in the strict selection of chartered vessels that meet the highest international standards. The vetting of vessels and barges is based in particular on the regulations, best practices and recommendations of the OCIMF(1) and, in Europe, on those of the European Barge Inspection Scheme (EBIS). Tankers and barges are vetted by a single centralized Company entity. The average age of the TotalEnergies time-chartered oil tanker fleet in 2023 is seven years.

(1) Oil Companies International Marine Forum (OCIMF): An industry forum including the leading international oil companies. This organization manages the Ship Inspection Report (SIRE) Program, which holds and provides access to tanker and river barge inspection reports (Barge Inspection Questionnaire – BIQ).

SASB code	Metrics	Reported	TotalEnergies' disclosures (2023)
Critical Incident Risk Management			
EM-EP-540a.2	Description of management systems used to identify and mitigate catastrophic and tail-end risks	Yes	The Company's operated marine terminals have completed the consolidation of their physical characteristics in the global database that forms part of the OCIMF's Marine Terminal Information System (MTIS), which will make it easier to assess ships' compatibility with ports of call. Additionally, TotalEnergies encourages all operated terminals to use the Marine Terminal Management and Self-Assessment (MTMSA), the framework recommended by the industry to terminal operators to continuously improve the safety of their operations. Training on SSSCL (Ship Shore Safety Check List) and cargo transfer operations for operating terminals staff is available and is one of the requirements of the One MAESTRO reference framework. In order to manage a major accidental spill efficiently, TotalEnergies has implemented a global crisis management system described on point 5.3.1 of chapter 5. For the sites operated by the Company exposed to the risk of accidental spills that reach the surface water, this system is supplemented by requirements of the One MAESTRO reference framework. These requirements demand that the oil spill contingency plans be regularly reviewed and tested in exercises. These plans are specific to each site and are adapted to their structure, activities and environment while complying with Company recommendations. The TotalEnergies companies can call on in-house human and material resources (Fast Oil Spill Team, FOST) and benefit from assistance agreements with the main third-party organizations specialized in the management of hydrocarbonspills. Thus, in 2022, TotalEnergies contributed to a large-scale European exercise "DOMINO", organized by the French authorities and involving various civil security organizations from several countries as well as different industrial sites (35,000 people mobilized). The La Mède site simulated a vegetable oil leak scenario. TotalEnergies mobilized the various levels of response for this: – on site with the Crisis Management Unit and the support of the FOST (Fast Oil Spill Team) backed up by the Marseille Naval Fire Battallion, – at the Company's headquarters with the Refining & Chemicals segment Crisis Support Unit and the support of the in-house pollution expertise unit. For the oil and gas exploration and production activities, since 2014, subsea capping and subsea containment equipment that can be transported by air or sea has been positioned at various points of the world (South Africa, Brazil, Norway and Singapore). This equipment provides access to solutions that are more readily available in the event of oil or gas blowout in deep offshore drilling operations. From these locations, the equipment can benefit TotalEnergies' operations worldwide. This equipment was developed by a group of nine oil companies, including TotalEnergies, and is managed by Oil Spill Response Ltd (OSRL), a cooperative dedicated to the response to marine pollution by hydrocarbons. Since 2018, equipment to facilitate shallow water capping operations, Offset Installation Equipment (OIE), has been positioned in Trieste, Italy. Managed by OSRL, it can be transported by air or boat to anywhere in the world as necessary. In 2022, a preparation and pre-mobilization exercise to the quay (ready to be loaded on a ship) was carried out by TotalEnergies with the aim of continuous improvement of the procedures for mobilizing the means of response in the event of a well incident. TotalEnergies has also designed and developed its own capping system ("Subsea Emergency Response System") to stop potential blow-out in drilling or production operations as quickly as possible. Since 2015, equipment has been installed in Angola and the Republic of the Congo, covering the entire Gulf of Guinea region. In 2023, training and a specific exercise were organized for TotalEnergies' Sea Transport activities, based in Singapore, Geneva and Paris, with the involvement of the Singapore center of Oil Spill Response Ltd. (Source: 2023 URD, §5.5.2)
Activity Metrics			
EM-EP-000.A	Production of oil	Yes	**1,388 kb/d** (Source: 2023 URD, §2.1)
	Production of natural gas	Yes	**1,095 kboe/d** (Source: 2023 URD, §2.1)
	Production of synthetic oil	Yes	**0 boe/d**
	Production of synthetic gas	Yes	**0 boe/d**
EM-EP-000.B	Number of offshore sites	Yes	**61** (Assets with entitled production in 2023)
EM-EP-000.C	Number of terrestrial sites	Yes	**37** (Assets with entitled production in 2023)

Glossary

ABBREVIATIONS

€:	euro	**FSRU:**	floating storage and regasification unit
$ or dollar:	US dollar	**GHG:**	greenhouse gas
ADR:	American depositary receipt (evidencing an ADS)	**HSE:**	health, safety and the environment
ADS:	American depositary share (representing a share of a company)	**IEA:**	International Energy Agency
AMF:	*Autorité des marchés financiers* (French Financial Markets Authority)	**IFRS:**	International Financial Reporting Standards
API:	American Petroleum Institute	**IPIECA:**	International Petroleum Industry Environmental Conservation Association
CCS:	carbon capture and storage	**LNG:**	liquefied natural gas
CCUS:	carbon capture utilization and storage (refer to the definition of carbon capture and storage below)	**LPG:**	liquefied petroleum gas
CFFO	cash flow from operations excluding working capital	**NGL:**	natural gas liquids
CNG:	compressed natural gas	**NGV:**	natural gas vehicle
CO_2:	carbon dioxide	**OML:**	oil mining lease
CO_2e:	equivalent CO_2	**PPA:**	Power Purchase Agreement (refer to the definition below)
CSR:	corporate and social responsibility	**ROACE:**	return on average capital employed
DACF:	debt adjusted cash flow (refer to the definition of debt adjusted cash flow below)	**ROE:**	return on equity
ERM:	indicator of European Refining Margin	**SDG:**	Sustainable development goal
EV:	electric vehicle	**SEC:**	United States Securities and Exchange Commission
FLNG:	floating liquefied natural gas	**TCFD:**	task force on climate-related financial disclosures
FPSO:	floating production, storage and offloading	**WHRS:**	Worldwide Human Resources Survey (refer to section 5.11 of chapter 5 for the definition)

UNITS OF MEASUREMENT

b =	barrel[(1)]	**m =**	meter
B =	billion	**m^3 =**	cubic meter[(1)]
Bcm =	billion of cubic meters	**M =**	million
boe =	barrel of oil equivalent	**Mtpa =**	million ton per annum
btu =	British thermal unit	**MW =**	megawatt
cf =	cubic feet	**PJ =**	petajoule
/d =	per day	**t =**	(Metric) ton
Gt CO_2 =	billion of CO_2 tons	**toe=**	ton of oil equivalent
GW =	gigawatt	**TWh =**	terawatt hour
GWac =	AC gigawatt	**W =**	watt
GWh =	gigawatt hour	**Wac =**	AC (alternating current) watt
k =	thousand	**Wp =**	watt-peak or watt of peak power
km =	kilometer	**/y =**	per year

CONVERSION TABLE

1 acre ≈	0.405 hectares	**1 m^3 ≈**	35.3 cf
1 b =	42 US gallons ≈ 159 liters	**1 Mt of LNG ≈**	48 Bcf of gas
1 b/d of crude oil ≈	50 t/y of crude oil	**1 Mt/y of LNG ≈**	131 Mcf/d of gas
1 Bcm/y ≈	0.1 Bcf/d	**1 t of oil ≈**	7.5 b of oil (assuming a specific gravity of 37° API)
1 km ≈	0.62 mile	**1 boe = 1 b of crude oil ≈**	5,419 cf of gas in 2023[(2)] (5,387 cf in 2022 and 5,378 cf in 2021)

(1) Liquid and gas volumes are reported at international standard metric conditions (15 °C and 1 atm).
(2) Natural gas is converted to barrels of oil equivalent using a ratio of cubic feet of natural gas per one barrel. This ratio is based on the actual average equivalent energy content of natural gas reserves during the applicable periods and is subject to change. The tabular conversion rate is applicable to TotalEnergies' natural gas reserves on a Company-wide basis.

A

AC watt (Wac)

Refers to the output power of alternative current achieved by a solar module on the grid. Generally equals to the watt of peak power multiplied by the DC/AC inverter efficiency.

adjusted EBITDA (Earnings Before Interest, Tax, Depreciation and Amortization)

Adjusted EBITDA is a non-GAAP financial measure and its most directly comparable IFRS measure is Net Income. It refers to the adjusted earnings before depreciation, depletion and impairment of tangible and intangible assets and mineral interests, income tax expense and cost of net debt, i.e., all operating income and contribution of equity affiliates to net income. This indicator can be a valuable tool for decision makers, analysts and shareholders alike to measure and compare the Company's profitability with utility companies (energy sector).

adjusted net income (TotalEnergies share)

Adjusted net income (TotalEnergies share) is a non-GAAP financial measure and its most directly comparable IFRS measure is Net Income (TotalEnergies share). Adjusted Net Income (TotalEnergies share) refers to Net Income (TotalEnergies share) less adjustment items to Net Income (TotalEnergies share). Adjustment items are inventory valuation effect, effect of changes in fair value, and special items. This indicator can be a valuable tool for decision makers, analysts and shareholders alike to evaluate the Company's operating results and to understand its operating trends by removing the impact of non-operational results and special items.

adjusted net operating income

Adjusted net operating income is a non-GAAP financial measure and its most directly comparable IFRS measure is Net Income. Adjusted Net Operating Income refers to Net Income before net cost of net debt, i.e., cost of net debt net of its tax effects, less adjustment items. Adjustment items are inventory valuation effect, effect of changes in fair value, and special items. Adjusted Net Operating Income can be a valuable tool for decision makers, analysts and shareholders alike to evaluate the Company's operating results and understanding its operating trends, by removing the impact of non-operational results and special items and is used to evaluate the Return on Average Capital Employed (ROACE) as explained below.

adjusted results

Results using replacement cost, adjusted for special items, excluding the effect of changes in fair value.

aggregator

A company that aggregates different types of electricity production. In concrete terms, an aggregator buys volumes of renewable electricity from various small producers who do not have sufficient resources to market it.

API degree

Scale established by the American Petroleum Institute (API) to measure oil density. A high API degree indicates light oil from which a high yield of gasoline can be refined.

appraisal (delineation)

Work performed after a discovery for the purpose of determining the boundaries or extent of an oil or gas field or assessing its reserves and production potential.

aromatics

Base chemical products, derived from oil, used in the manufacture of polymers. Main aromatics are benzene, toluene and xylene.

asset retirement (site restitution)

Companies may have obligations related to well-abandonment, dismantlement of facilities, decommissioning of plants or restoration of the environment. These obligations generally result from international conventions, local regulations or contractual obligations.

associated gas

Gas released during oil production.

association/consortium/joint venture

Terms used to generally describe a project in which two or more entities participate. For the principles and methods of consolidation applicable to different types of joint arrangements according to IFRS, refer to note 1 to the Consolidated Financial Statements.

B

barrel

Unit of measurement of volume of crude oil equal to 42 US gallons or 159 liters.

barrel of oil equivalent (boe)

Conventional unit for measuring the energy released by a quantity of fuel by relating it to the energy released by the combustion of a barrel of oil.

biochemical conversion

Conversion of carbonaceous resources through biological transformation (reactions involving living organisms). Fermentation of sugar into ethanol is an example.

biofuel

Liquid or gaseous fuel that can be used for transport, produced from biomass, and meeting criteria of reducing GHG compared to the fossil reference.

biogas

Renewable gas produced locally by the fermentation of organic matter from vegetable or animal origin. It can be use in cogeneration to produce combined heat and power. It can be purified to produce biomethane, which has the same properties as natural gas and it can therefore be injected into distribution networks or used as an alternative fuel for mobility (bioCNG or bioLNG).

bioNGV

NGV composed of biomethane, available in bioCNG and bioLNG.

biogas (power generation from)

Combustion of gas produced by the fermentation of non-fossil organic matter (biomass).

biomass

All organic matter from vegetal or animal sources.

biomethane

Purified biogas, with the same characteristics as natural gas, that can be injected into the transport networks.

bitumen

Petroleum in a solid or semi-solid state in natural deposits. It usually contains sulfur, heavy metals, and other non-hydrocarbons compounds. Unable to flow naturally in the reservoir because of its high viscosity (typically greater than 10,000 centipoise), its production requires unconventional extraction technologies.

In reference to marketing, bitumen is produced from the refining of crude oil and is used in the construction industry in particular as a component of asphalt pavements, e.g. for roads, airfields, cycle paths, etc. It is a visco-elastic, adhesive and waterproof material particularly suited to the needs of construction and road sealing products[1].

C

capacity of treatment

Annual crude oil treatment capacity of the atmospheric distillation units of a refinery.

capital employed

Capital employed is a non-GAAP financial measure. They are calculated at replacement cost and refer to capital employed (balance sheet) less inventory valuations effect. Capital employed (balance sheet) refers to the sum of the following items: (i) Property, plant and equipment, intangible assets, net, (ii) Investments & loans in equity affiliates, (iii) Other non-current assets, (iv) Working capital which is the sum of: Inventories, net, Accounts receivable, net, other current assets, Accounts payable, Other creditors and accrued liabilities, (v) Provisions and other non-current liabilities and (vi) Assets and liabilities classified as held for sale. Capital Employed can be a valuable tool for decision makers, analysts and shareholders alike to provide insight on the amount of capital investment used by the Company or its business segments to operate. Capital Employed is used to calculate the Return on Average Capital Employed (ROACE).

carbon capture, use and storage or CCUS

Technologies designed to reduce GHG emissions by capturing (C) CO_2 and then compressing and transporting it either to use (U) it for various industrial processes (e.g., enhanced recovery of oil or gas, production of chemical products), or to permanently store (S) it in deep geological formations.

carbon sinks

Natural reservoir (e.g. vegetation, oceans) or artificial reservoir (e.g. CCUS) that stores carbon in different forms.

cash flow from operations excluding working capital (CFFO)

CFFO is a non-GAAP financial measure and its most directly comparable IFRS measure is Cash flow from operating activities. Cash Flow From Operations excluding working capital is defined as cash flow from operating activities before changes in working capital at replacement cost, excluding the mark-to-market effect of Integrated LNG and Integrated Power contracts, including capital gain from renewable projects sales and including organic loan repayments from equity affiliates. This indicator can be a valuable tool for decision makers, analysts and shareholders alike to help understand changes in cash flow from operating activities, excluding the impact of working capital changes across periods on a consistent basis and with the performance of peer companies in a manner that, when viewed in combination with the Company's results prepared in accordance with IFRS, provides a more complete understanding of the factors and trends affecting the Company's business and performance. This performance indicator is used by the Company as a base for its cash flow allocation and notably to guide on the share of its cash flow to be allocated to the distribution to shareholders.

catalysts

Substances that increase a chemical reaction speed. During the refining processes, they are used in conversion units (reformer, hydrocracker, catalytic cracker) and desulphurization units. Principal catalysts are precious metals (platinum) or other less noble metals such as nickel and cobalt.

block

Area delimited geographically by a country on its territory, offshore or onshore, in the view to exploring for and /or producing hydrocarbons.

Brent

Quality of crude oil (38° API) produced in the North Sea, from Brent and neighboring fields.

brownfield project

Project concerning developed existing fields.

charger (for an electric vehicle)

Electric vehicles (100% electric or hybrid) are supplied with electricity through batteries. A charger is a fixed equipment dedicated to recharging these batteries, through a cable linking the vehicle to a charging point. A charger can include one or two charging points, each adjacent to a dedicated parking stall (and allow for two vehicles to be charged simultaneously according to the power the charger is capable of delivering). The charger is always equipped with an electricity metering system and communication, control and payment systems can be added.

charging point (for an electric vehicle)

Equipment from the charger supplying electricity to recharge the battery of a single electric vehicle at once, attached to a parking stall. The charging point can be equipped with a cable with a connector, to link the vehicle to the charger. In some instances, the cable isn't provided. The charging point then materializes through a socket (for a plug), that the driver can use to plug a charging cable. The terms charging point and recharging point can be used interchangeably.

CNG (compressed natural gas)

Natural gas compressed between 200 and 300 bars in gaseous form and which can be stored at ambient temperature.

cogeneration

Simultaneous generation of electrical and thermal energies from a combustible source (gas, fuel oil or coal).

coker (deep conversion unit)

Unit that produces light products (gas, gasoline, diesel) and coke through the cracking of distillation residues.

Combined Cycle with Gas Turbine - CCGT

Thermal power plant that combines two types of turbines: a combustion turbine and a steam turbine. This technology makes it possible to produce up to 50% more electricity from the same amount of fuel compared to a traditional single-cycle plant.

commercial gas

Gas produced by the upstream facilities and sent directly or indirectly to the gas market.

concession contract

Exploration and production contract under which a host country grants to an oil and gas company (or a consortium) the right to explore a geographic area and develop and produce potential reserves. The oil and gas company (or consortium) undertakes the execution and financing, at its own risk, of all operations. In return, it is entitled to the entire production.

condensates

Light hydrocarbon products produced with natural gas that exist – either in a gaseous phase or in solution – in the oil and gas under the initial pressure and temperature conditions in the reservoir, and which are recovered in a liquid state in separators, on-site facilities or gas treatment units.

(1) Partial source: Eurobitume.

condensate splitter

Unit that distillates condensates upstream of refining or petrochemical units.

consortium

Refer to the definition above of "association/consortium/joint venture".

conversion

Refining operation aiming at transforming heavy products (heavy fuel oil) into lighter or less viscous products (e.g., gasoline, jet fuels).

co-processing

Refers to the simultaneous conversion of biogenic residues and intermediate petroleum distillates in existing petroleum refineries to produce renewable hydrocarbon fuels. In contrast to the blending of biofuels into the finished petroleum product, co-processing makes use of biomass within the processing of petroleum. Suitable feedstocks for co-processing are biogenic feedstocks, such as wood pyrolysis oil or triglycerides such as vegetable oils, used cooking oils etc.

D

debottlenecking

Change made to a facility to increase its production capacity.

debt adjusted cash flow (DACF)

DACF is a non-GAAP financial measure and its most directly comparable IFRS measure is Cash flow from operating activities. DACF is defined as Cash Flow From Operations excluding working capital (CFFO) without financial charges. This indicator can be a valuable tool for decision makers, analysts and shareholders alike because it corresponds to the funds theoretically available to the Company for investments, debt repayment and distribution to shareholders, and therefore facilitates comparison of the Company's results of operations with those of other registrants, independent of their capital structure and working capital requirements.

E

e-fuels (or synthetic carbonaceous fuels)

Fuels, compatible with combustion engines, obtained from the combination of green hydrogen and CO_2 captured from factories or air emissions. Where there were two uses that emitted CO_2 (the power plant, the transport that burns the fossil fuel in its engine), there is now only one use that emits CO_2 to the atmosphere (the transport that burns the synthetic fuel in its engine while emitting CO_2), that is to say a global reduction of 50%.

effective tax rate

(Tax on adjusted net operating income)/(adjusted net operating income – income from equity affiliates – dividends received from investments – impairment of goodwill + tax on adjusted net operating income).

effect of changes in fair value

The effect of changes in fair value presented as an adjustment item reflects, for some transactions, differences between internal measures of performance used by TotalEnergies' Executive Committee and the accounting for these transactions under IFRS. IFRS requires that trading inventories be recorded at their fair value using period-end spot prices. In order to best reflect the management of economic exposure through derivative transactions, internal indicators used to measure performance include valuations of trading inventories based on forward prices. Furthermore, TotalEnergies, in its trading activities, enters into storage contracts, the future effects of which are recorded at fair value in the

cost oil/gas

In a production sharing contract, the portion of the oil and gas production made available to the contractor (contracting group) and contractually reserved for reimbursement of exploration, development, operation and site restitution costs ("recoverable" costs). The reimbursement may be capped by a contractual cost stop that corresponds to the maximum share of production that may be allocated to the reimbursement of costs.

cracking

Refining process that entails converting the molecules of large, complex, heavy hydrocarbons into simpler, lighter molecules using heat, pressure and, in some cases, a catalyst. A distinction is made between catalytic cracking and steam cracking, which uses heat instead of a catalyst. Cracking then produces ethylene and propylene, in particular.

crude oil

A mixture of compounds (mainly pentanes and heavier hydrocarbons) that exists in a liquid phase at original reservoir temperature and pressure and remains liquid at atmospheric pressure and ambient temperature.

desulphurization unit

Unit in which sulphur and sulphur compounds are eliminated from mixtures of gaseous or liquid hydrocarbons.

development

Operations carried out to access the proved reserves and set up the technical facilities for extraction, processing, transportation and storage of the oil and gas: drilling of development or injection wells, platforms, pipelines, etc.

distillates

Products obtained through the atmospheric distillation of crude oil or through vacuum distillation. Includes medium distillate such as aviation fuel, diesel fuel and heating oil.

Company's internal economic performance. IFRS precludes recognition of this fair value effect.

Furthermore, TotalEnergies enters into derivative instruments to risk manage certain operational contracts or assets. Under IFRS, these derivatives are recorded at fair value while the underlying operational transactions are recorded as they occur. Internal indicators defer the fair value on derivatives to match with the transaction occurrence.

energy mix

The various energy sources used to meet the demand for energy.

ethane

A colorless, odorless combustible gas of the alkanes class composed of two carbon atoms found in natural gas and petroleum gas.

ethanol

Also commonly called ethyl alcohol or alcohol, ethanol is obtained through the fermentation of sugar (beetroot, sugarcane) or starch (grains). Ethanol has numerous food, chemical and energy (biofuel) applications.

ethylene/propylene

Petrochemical products derived from cracking naphtha or light hydrocarbons and used mainly in the production of polyethylene and polypropylene, two plastics frequently used in packaging, the automotive industry, household appliances, healthcare and textiles.

F

fair value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in a transaction under normal conditions between market participants at the measurement date.

farmdown

Partial sale to a third party of an interest in an asset.

farm-in (or farm-out)

Acquisition (or sale) of all or part of a participating interest in an oil and gas mining property by way of an assignment of rights and obligations in the corresponding permit or license and related contracts.

farnesene

A hydrocarbon molecule containing 15 carbon atoms, which can be used to produce fuel or chemical compounds.

FEED studies (front-end engineering design)

Studies aimed at defining the project and preparing for its execution. In the TotalEnergies' process, this covers the pre-project and basic engineering phases.

FLNG (floating liquefied natural gas)

Floating unit permitting the liquefaction of natural gas and the storage of LNG.

fossil energies

Energies produced from oil, natural gas and coal.

FPSO (floating production, storage and offloading)

Floating integrated offshore unit comprising the equipment used to produce, process and store hydrocarbons and offload them directly to an offshore oil tanker.

free cash flow after organic investments

Free cash flow after organic investments is a non-GAAP financial measure and its most directly comparable IFRS measure is Cash flow from operating activities. Free cash flow after Organic Investments, refers to Cash Flow From Operations excluding working capital minus Organic Investments. Organic Investments refer to Net Investments excluding acquisitions, asset sales and other transactions with non-controlling interests. This indicator can be a valuable tool for decision makers, analysts and shareholders alike because it illustrates operating cash flow generated by the business post allocation of cash for Organic Investments.

FSRU (floating storage and regasification unit)

Floating unit permitting the storage of LNG and the regasification.

G

gearing

Gearing is a non-GAAP financial measure and its most directly comparable IFRS measure is the ratio of total financial liabilities to total equity. Gearing is a Net-debt-to-capital ratio, which is calculated as the ratio of Net debt excluding leases to (Equity + Net debt excluding leases). This indicator can be a valuable tool for decision makers, analysts and shareholders alike to assess the strength of the Company's balance sheet.

gearing ratio excluding leases commitments

Net debt excluding leases commitments/(Net debt excluding leases commitments + shareholders equity Company share + Non-controlling interests).

GHG

The six greenhouse gases in the Kyoto protocol, namely CO_2, CH_4, N_2O, HFCs, PFCs and SF_6, with their respective GWP (Global Warming Potential) as described in the 2007 IPCC report. HFCs, PFCs and SF_6 are virtually absent from the Company's emissions or are considered as non-material, and are therefore no longer counted with effect from 2018.

GHGs based on the Company's equity interest

Greenhouse gases emitted by the sites and activities that are part of the Company's "equity interest domain" (refer to point 5.11.2, "Scopes"). They are calculated on a pro rata basis according to the Company's share in the entity or the production (in the case of the Company's upstream oil & gas activities).

green electricity

Electricity produced from renewable sources

greenfield project

Project concerning fields that have never been developed.

gross capacity

Capacity expressed on a 100% basis regardless of the ownership share in the asset.

gross investments

Investments including acquisitions and increases in non-current loans.

H

hydraulic fracturing

Technique that involves fracturing rock to improve its permeability.

hydrocarbons

Mixture of molecules composed principally of carbon and hydrogen atoms. They can be solid such as asphalt, liquid such as crude oil or gaseous such as natural gas. They may include compounds with sulphur, nitrogen, metals, etc.

hydrocracker

A refinery unit that uses catalysts and extraordinarily high pressure, in the presence of surplus hydrogen, to convert heavy oils into lighter fractions.

I

Infill well

Operating well added to the existing productive wells in order to accelerate and/or improve hydrocarbon recovery.

inventory valuation effect

The adjusted results of the Refining & Chemicals and Marketing & Services segments are presented according to the replacement cost method. This method is used to assess the segments' performance and facilitate the comparability of the segments' performance with those of its main competitors. In the replacement cost method, which approximates the Last-In, First-Out (LIFO) method, the variation of inventory values in the statement of income is, depending on the nature of the inventory, determined using either the month-end price differentials between one period and another or the average prices of the period rather than the historical value. The inventory valuation effect is the difference between the results under the First-In, First-Out (FIFO) and the replacement cost methods.

J

joint venture

Refer to the definition above of "association/consortium/joint venture".

L

Lifecycle carbon intensity of energy products sold

This indicator measures the average GHG emissions of a unit of energy products used by the Company's customers across its lifecycle (i.e., Scope 1+2+3), from production to end use by customers. This indicator is calculated as a division which takes into account:

- for the numerator:
  - emissions connected to the production and conversion of energy products used by the customers of the Company,
  - emissions connected to the end use of energy products sold to the Company's customers. For each product, stoichiometric emission factors[(1)] are applied to these sales to obtain an emission volume. Non-energy use products (bitumen, lubricants, plastics, etc.) are not taken into account,
  - less the CO_2 sequestered by Carbon Capture and Storage (CCS) and natural carbon sinks.
- for the denominator: the quantity of energy sold. Electricity is placed on an equal footing with fossil fuels, taking into account average capacity factors and average efficiency ratios.

The carbon intensity indicator therefore corresponds to the average emissions associated with each unit of energy used by customers. To track changes in the indicator , it is expressed in base 100 compared to 2015.

lignocellulose

Lignocellulose is the main component of the wall of plant cells. It can be sourced from agricultural and farming wastes or by-products of wood transformation as well as dedicated plantations and constitutes the most abundant renewable carbon source on the planet. This abundance and its composition (very rich in polymerized sugars) makes it an excellent choice to produce biofuels. As a result, its conversion, whether by thermochemical (e.g., gasification) or biochemical techniques, is widely studied.

liquids

Liquids consist of crude oil, bitumen, condensates and NGL.

LNG (liquefied natural gas)

Natural gas which has been liquefied by cooling to a temperature of approximately -160 °C which allows its volume to be reduced by a factor of almost 600 in order to transport it.

LNG bunkering

Specific type of operation where the LNG is transferred from a determined distribution source (e.g., bunkering ship, LNG terminal) to an LNG-fueled vessel.

LNG production capacity

LNG production average capacity expressed in Mt/y on a 100% basis, taking into account temperature variations over the year and without considering facilities availability. The **nameplate capacity** which corresponds to the facilities design, defined in project phase is different from the **actual capacity** which corresponds to capacity tests on existing facilities.

LNG train

Installation forming part of a liquefaction plant and allowing the separation of natural gas from other gases such as acid gases and LPG, to then liquefy it and finally store it, before loading on to the LNG carriers.

LNG carrier

Vessel specially designed for the transport of LNG and equipped with tanks which enable to minimize thermal losses in order to maintain the LNG in a liquid state.

low-carbon hydrogen

Hydrogen produced from non renewable resources but with greenhouse gas emissions below a maximum threshold. For example, the hydrogen produced from natural gas via the steam reforming process associated with a capture and storage (CCS) process. In Europe, the maximum threshold of greenhouse gas emission for low-carbon hydrogen is the same as that for renewable hydrogen, *i.e.* 3.38 kg CO_2e/kg H_2 according to the European Directive 2018/2001 named RED II. In common language, low-carbon hydrogen is often considered to include renewable hydrogen.

LPG (liquefied petroleum gas)

Light hydrocarbons (comprised of butane and propane, belonging to the alkanes class and composed of three and four carbon atoms respectively) that are gaseous under normal temperature and pressure conditions and that are kept in liquid state by increasing the pressure or reducing the temperature. LPG is included in NGL.

(1) The emission factors used are taken from a technical note of the CDP: *Guidance methodology for estimation of scope 3 category 11 emissions for oil and gas companies.*

M

microgrid
Small power grids designed to provide a reliable and better-quality power supply to a small number of consumers. They combine multiple local and diffuse production facilities (micro-turbines, fuel cells, small diesel generators, photovoltaic panels, wind turbines, small hydropower), consumption facilities, storage facilities, and supervision and monitoring tools to manage demand.

mining interests
Rights to explore for and/or produce oil and gas in a specific area for a fixed period. Covers the concepts of "permit", "license", "title", etc.

N

naphtha
Heavy gasoline used as a base in petrochemicals.

natural gas
Mixture of light gaseous hydrocarbons extracted from underground reservoirs. It is mainly composed of methane, but can also contain ethane up to 10%, molecules with one or two carbon atoms, and other compounds in small quantities.

natural gas liquids (NGL)
A mixture of light hydrocarbons that exist in the gaseous phase at room temperature and pressure and are recovered as liquid in gas processing plants. NGL include ethane, propane and butane.

natural gas for vehicles (NGV)
Natural gas used as vehicle fuel, mainly in the form of LNG or CNG.

nature-based solutions
Sustainable management and use of nature for tackling socio-environmental challenges. Solutions are inspired and supported by nature, cost-effective, provide environmental, social and economic benefits, and help build resilience to environmental challenges.

net acquisitions
Net acquisition is a non-GAAP financial measure and its most directly comparable IFRS measure is Cash flow used in investing activities. Net Acquisitions refer to acquisitions minus assets sales (including other operations with non-controlling interests). This indicator can be a valuable tool for decision makers, analysts and shareholders alike because it illustrates the allocation of cash flow used for growing the Company's asset base via external growth opportunities.

net cash flow
Net cash flow is a non-GAAP financial measure and its most directly comparable IFRS measure is Cash flow from operating activities. Net cash flow refers to Cash Flow From Operations excluding working capital minus Net Investments. Net cash flow can be a valuable tool for decision makers, analysts and shareholders alike because it illustrates cash flow generated by the operations of the Company post allocation of cash for Organic Investments and Net Acquisitions (acquisitions - assets sales - other operations with non-controlling interests). This performance indicator corresponds to the cash flow available to repay debt and allocate cash to shareholder distribution or share buybacks.

net financial debts
Non-current financial debts, including current portion, current borrowings, other current financial liabilities less cash and cash equivalents and other current financial assets.

net investments
Net investments is a non-GAAP financial measure and its most directly comparable IFRS measure is Cash flow used in investing activities. Net Investments refer to Cash flow used in investing activities including other transactions with non-controlling interests, including change in debt from renewable projects financing, including expenditures related to carbon credits, including capex linked to capitalized leasing contracts and excluding organic loan repayment from equity affiliates. This indicator can be a valuable tool for decision makers, analysts and shareholders alike to illustrate the cash directed to growth opportunities, both internal and external, thereby showing, when combined with the Company's cash flow statement prepared under IFRS, how cash is generated and allocated for uses within the organization. Net Investments are the sum of Organic Investments and Net Acquisitions.

net zero emissions
A balance between greenhouse gas emissions and anthropogenic removals in the form of greenhouse gas sinks and reservoirs, such as forests and CO_2 capture and storage facilities.

O

offshore wind
Wind turbine installed offshore rather than inland. Operating on the same model as land-based models, offshore wind turbines capture more sustained and steady winds, and thus produce more electricity.

oil
In the Upstream hydrocarbons activities, generic term designating crude oil, condensates and natural gas liquids.

oil and gas
Generic term which includes all hydrocarbons (e.g., crude oil, condensates, NGL, bitumen and natural gas).

oil and gas acreage
Areas in which mining rights are exercised.

oil sands
Sandstones containing natural bitumen.

olefins
Group of products (gas) obtained after cracking of petroleum streams. Olefins are ethylene, propylene and butadiene. These products are used in the production of large plastics (polyethylene, polypropylene, PVC, etc.), in the production of elastomers (polybutadiene, etc.) or in the production of large chemical intermediates.

OPEC
Organization of the Petroleum Exporting Countries.

oil & gas facilities
Company's facilities, excluding combined-cycle natural gas power plants.

operated charging point (for an electric vehicle)
A charging point is said to be operated when it communicates with a supervision platform, when the Company supplies electricity, and when it issues the charging session's invoice, or any other potential related services (reservation, membership...).

operated production
Total quantity of oil and gas produced on fields operated by the Company.

operator

Partner of an oil and gas joint venture in charge of carrying out the operations on a specific area on behalf of the partners within a joint venture. A refinery is also said to be operated by a specific partner when the operations are carried out by the partner on behalf of the joint venture that owns the refinery.

organic investments

Organic investments is a non-GAAP financial measure and its most directly comparable IFRS measure is Cash flow used in investing activities. Organic investments refers to Net Investments, excluding acquisitions, asset sales and other operations with non-controlling interests. Organic Investments can be a valuable tool for decision makers, analysts and shareholders alike because it illustrates cash flow used by the Company to grow its asset base, excluding sources of external growth.

P

payout

Payout is a non-GAAP financial measure. Payout is defined as the ratio of the dividends and share buybacks to the Cash Flow From Operations excluding working capital. This indicator can be a valuable tool for decision makers, analysts and shareholders as it provides the portion of the Cash Flow From Operations excluding working capital distributed to the shareholder.

permit

Area contractually granted to an oil and gas company (or a consortium) by the host country for a defined period to carry out exploration work or to exploit a field.

petcoke (or petroleum coke)

Residual product remaining after the improvement of very heavy petroleum cuts. This solid black product consists mainly of carbon and can be used as fuel.

polymers

Molecule composed of monomers bonded together by covalent bonds, such as polyolefins obtained from olefins or starch and proteins produced naturally.

Power Purchase Agreement (PPA)

Long-term agreement for the supply of electricity produced from renewable sources.

pre-dividend organic cash breakeven

Brent price for which the operating cash flow before working capital changes covers the organic investments.

price effect

The impact of changing hydrocarbon prices on entitlement volumes from production sharing contracts and on economic limit dates.

production costs

Costs related to the production of hydrocarbons in accordance with FASB ASC 932-360-25-15.

production plateau

Expected average stabilized level of production for a field following the production build-up.

production sharing contract/agreement (PSC/PSA)

Exploration and production contract under which a host country or, more frequently, its national company, transfers to an oil and gas company (the contractor) or a consortium (the contracting group) the right to explore a geographic area and develop the fields discovered. The contractor (or contracting group) undertakes the execution and financing, at its own risk, of all operations. In return, it is entitled to a portion of the production, called cost oil/gas, to recover its expenditures and investments. The remaining production, called profit oil/gas, is then shared between the contractor (contracting group), and the national company and/or host country.

project

As used in this document, "project" may encompass different meanings, such as properties, agreements, investments, developments, phases, activities or components, each of which may also informally be described as a "project". Such use is for convenience only and is not intended as a precise description of the term "project" as it relates to any specific governmental law or regulation.

proved permit

Permit for which there are proved reserves.

proved reserves (1P reserves)

Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with a reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations, prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation.

proved developed reserves

Proved developed oil and gas reserves are proved reserves that can be expected to be recovered (i) through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and (ii) through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.

proved undeveloped reserves

Proved undeveloped oil and gas reserves are proved reserves that are expected to be recovered with new investments (new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion, surface facilities).

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

R

refining

The various processes used to produce petroleum products from crude oil (e.g., distillation, reforming, desulphurization, cracking).

regasification

Before the gas is transported from the terminal to the distribution networks, the LNG is regasified: its temperature is raised from -160 °C to 0 °C under high pressure.

renewable diesel

Refers to diesel fuel made from 100% renewable raw materials, such as vegetable oils or materials from the circular economy (animal fats, used cooking oils, etc.). Thanks to its hydrotreatment production process, renewable diesel has a chemical composition identical to that of fossil diesel and can therefore be used without any limit on its incorporation into diesel, without damaging the operation of engines. Using renewable diesel reduces greenhouse gas emissions by more than 50% compared with its fossil equivalent, and also helps to improve air quality (by reducing particle and nitrogen oxide emissions).

renewable/renewable energy

An energy source the inventories of which can be renewed or are inexhaustible, such as solar, wind, hydraulic, biomass and geothermal energy.

renewable hydrogen

Hydrogen produced from renewable resources, such as wind, solar, geothermal, hydraulic, biomass, biogas energy etc. Green hydrogen is a renewable hydrogen specifically produced from renewable electricity via the water electrolysis process. In Europe, the maximum threshold of greenhouse gas emission for renewable hydrogen is 3.38 kg CO_2e/kg H_2 according to the European Directive 2018/2001 named RED II.

reserve life

Synthetic indicator calculated from data published under ASC 932. Ratio of the proved reserves at the end of the period to the production of the past year.

reserves

Estimated remaining quantities of oil and gas and related substances expected to be economically producible, as of a given date, by application of development projects to known accumulations.

reservoirs

Porous, permeable underground rock formation that contains oil or natural gas.

resource acquisitions

Acquisition of a participating interest in an oil and gas mining property by way of an assignment of rights and obligations in the corresponding permit or license and related contracts, with a view to producing the recoverable oil and gas.

return on average capital employed (ROACE)

ROACE is a non-GAAP financial measure. ROACE is the ratio of Adjusted Net Operating Income to average Capital Employed at replacement cost between the beginning and the end of the period. This indicator can be a valuable tool for decision makers, analysts and shareholders alike to measure the profitability of the Company's average Capital Employed in its business operations and is used by the Company to benchmark its performance internally and externally with its peers.

return on equity (ROE)

Ratio of adjusted consolidated net income to average adjusted shareholders' equity (after distribution) between the beginning and the end of the period. Adjusted shareholders' equity for a given period is calculated after distribution of the dividend (subject to approval by the Shareholders' Meeting).

Risked service contract

Service contract where the contractor bears the investments and the risks. The contractor usually receives a portion of the production to cover the refund of the investments and the related interests, and a monetary remuneration linked to the performance of the field.

S

Scope 1 GHG emissions

direct emissions of greenhouse gases from sites or activities that are included in the scope of reporting for climate change-related indicators. Direct biogenic CO_2 emissions are excluded from Scope 1 and reported separately.

Scope 2 GHG emissions

indirect emissions attributable to brought-in energy (electricity, heat, steam), net from potential energy sales, excluding purchased industrial gases (H_2). If not stated otherwise, TotalEnergies reports Scope 2 GHG emissions according to the market-based method defined by the GHG Protocol.

Scope 3 GHG emissions

other indirect emissions. If not stated otherwise, TotalEnergies reports Scope 3 GHG emissions, category 11, which correspond to indirect GHG emissions related to the use of energy products by customers, i.e. from their combustion to obtain energy. The Company follows the oil & gas industry reporting guidelines published by IPIECA, which comply with the GHG Protocol methodologies. In order to avoid double counting, this methodology accounts for the largest volume in the oil, biofuels and gas value chains, i.e. the higher of the two production volumes or sales for end use. For TotalEnergies, in 2023, the calculation of Scope 3 GHG emissions for the oil and biofuels[1] value chains considers products sales (higher than production) and for the gas value chain, gas sales either as LNG or as part of direct sales to B2B/B2C customers. A stoichiometric emission (oxidation of molecules to carbon dioxide) factor is applied to these sales or production to obtain an emission volume.

seismic

Method of exploring the subsoil that entails methodically sending vibration or sound waves and recording their reflections to assess the type, size, shape and depth of subsurface layers.

seismic acquisition

Field campaign consisting of acquiring geophysical data, offshore or onshore, with a view to imaging the subsurface and implanting exploration, development or production wells.

(1) The abatement rates applied to the emissions of biofuels compared to equivalent fossil fuels are in line with the minimums required by European regulations (RED II). An average value of approximately -55% is used in the calculation of the carbon intensity indicator.

shale gas

Natural gas in a source rock that has not migrated to a reservoir.

shale oil

Oil in a source rock that has not migrated to a reservoir.

shipping

Transport by sea. LNG is carried out on board LNG carriers (see definition).

sidetrack

Well drilled from a portion of an existing well (and not by starting from the surface). It is used to get around an obstruction in the original well or resume drilling in a new direction or to explore a nearby geological area.

silicon

The most abundant element in Earth's crust after oxygen. It does not exist in a free state but in the form of compounds such as silica, which has long been used as an essential element of glass. Polysilicon (or crystalline silicon), which is obtained by purifying silicon and consists of metal-like crystals, is used in the construction of photovoltaic solar panels, but other minerals or alloys may be used.

special items

Due to their unusual nature or particular significance, certain transactions qualifying as "special items" are excluded from the business segment figures. In general, special items relate to transactions that are significant, infrequent or unusual. In certain instances, transactions such as restructuring costs or asset disposals, which are not considered to be representative of the normal course of business, may qualify as special items although they may have occurred in prior years or are likely to recur in following years.

special fluids

Extremely purified, high-tech petroleum products, used in such diverse applications as paint, mastics, drilling fluids, cosmetics, water treatment and crop protection, print inks as well as tires and vaccines.

steam cracker

A petrochemical plant that turns naphtha and light hydrocarbons into ethylene, propylene, and other chemical raw materials.

supervised charging point (for an electric vehicle)

A charging point is said to be supervised when it communicates with a supervision platform.

sustainable aviation fuel (SAF)

Molecules aiming to be incorporated into conventional fossil-based aviation fuel.

It can be made through different technologies and from different feedstocks:

- biomass, e.g. waste and residues sourced from the circular economy such as used cooking oils (pursuant to regulations applicable in the various countries) via a mature technology available at industrial scale;
- green hydrogen and CO_2 (named e-fuels or synthetic fuels), via a technology still under development

As of today, SAF is not used pure, but is incorporated in varying proportions up to 50% into conventional fossil-based aviation fuel. Incorporation rates vary depending on airlines requests and/or regulations applicable in the different countries. For instance, in France, since 2022, the regulation requires the incorporation of SAF and the regulation ReFuelEU Aviation (EU) 2023/2405 expects the incorporation of SAF in Europe at a minimum rate of: 2% starting from 2025, 6% (including 1.2% of synthetic fuel) starting from 2030 and 70% (including 35% of synthetic fuel) starting from 2050.

SAF may allow a reduction of up to 90% CO_2 emissions over its full lifecycle, compared with its fossil equivalent (pursuant to European directive (EU) 2023/2413 of October 18, 2023 on the promotion of the use of energy from renewable sources, named RED III).

T

technical costs

Ratio (Production costs* + exploration expenses + DD&A*)/production of the year. *Excluding non-recurrent items.

thermochemical conversion

Conversion of carbonaceous resources (gas, coal, biomass, waste, CO_2) through thermal transformation (chemical reactions controlled by the combined action of temperature, pressure and often of a catalyst). Gasification is an example.

tight gas

Natural gas trapped in very low-permeable reservoir.

turnaround

Temporary shutdown of a facility for maintenance, overhaul and upgrading.

U

unconventional hydrocarbons

Unconventional Oil & Gas are defined by the U.S. Energy Information Administration (EIA) as hydrocarbons that are "produced by means that do not meet the criteria for conventional production" i.e. "by a well drilled into a geologic formation in which the reservoir and fluid characteristics permit the oil and natural gas to readily flow to the wellbore." According to United Nations Framework Classification for Resources (UNFC), "examples include CBM (Coal-Bed Methane), low permeability deposits such as tight gas (including shale gas) and tight oil (including shale oil), gas hydrates and natural bitumen".

unitization

Creation of a new joint venture and appointment of a single operator for the development and production as single unit of an oil or gas field involving several permits/licenses or countries.

unproved permit

Permit for which there are no proved reserves.

Upstream oil and gas activities

The Company Upstream hydrocarbons activities include the oil and gas exploration and production activities of the Exploration & Production and the Integrated LNG segments. They do not include power generation facilities based on renewable sources or natural gas such as combined-cycle natural gas power plants.

V

variable cost margin, Refining Europe

This indicator represents the average margin on variable costs realized by TotalEnergies' European refining business. It is equal to the difference between the sales of refined products realized by TotalEnergies' European refining and the crude purchases as well as associated variable costs, divided by refinery throughput in tons.

The previous ERMI indicator was intended to represent the margin after variable costs for a hypothetical complex refinery located around Rotterdam in Northern Europe that processes a mix of crude oil and other inputs commonly supplied to this region to produce and market the main refined products at prevailing prices in this region.

W

watt-peak or watt of peak power (Wp)

Refers to the output power achieved by a solar module under full solar radiation (under Standard Test Conditions).

Disclaimer

Unless otherwise stated, the terms "TotalEnergies", "TotalEnergies company" and "Company" in this document are used to designate TotalEnergies SE and the consolidated entities directly or indirectly controlled by TotalEnergies SE. Likewise, the words "we", "us" and "our" may also be used to refer to these entities or their employees. The entities in which TotalEnergies SE directly or indirectly owns a shareholding are separate and independent legal entities. The term "Corporation" as used in this document exclusively refers to TotalEnergies SE, which is the parent company of the Company.

This document contains references to websites (including the TotalEnergies website) and the Sustainability & Climate – 2024 Progress Report. These references are for the readers' convenience only. TotalEnergies is not incorporating by reference into this document any information posted on any website mentioned or in the Sustainability & Climate - 2024 Progress Report, unless otherwise stated.

This document may contain forward-looking statements (including forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995), notably with respect to the financial condition, results of operations, business activities and strategy of TotalEnergies. This document may also contain statements regarding the perspectives, objectives, areas of improvement and goals of TotalEnergies, including with respect to climate change and carbon neutrality (net zero emissions). An ambition expresses an outcome desired by TotalEnergies, it being specified that the means to be deployed do not depend solely on TotalEnergies. These forward-looking statements may generally be identified by the use of the future or conditional tense or forward-looking words such as "will", "should", "could", "would", "may", "likely", "might", "envisions", "intends", "anticipates", "believes", "considers", "plans", "expects", "thinks" "targets", "aims" or similar terminology. Such forward-looking statements included in this document are based on economic data, estimates and assumptions prepared in a given economic, competitive and regulatory environment and considered to be reasonable by TotalEnergies as of the date of this document.

These forward-looking statements are not historical data and should not be interpreted as assurances that the perspectives, objectives or goals announced will be achieved. They may prove to be inaccurate in the future, and may evolve or be modified with a significant difference between the actual results and those initially estimated, due to the uncertainties notably related to the economic, financial, competitive and regulatory environment, or due to the occurrence of risk factors, such as, notably, the price fluctuations in crude oil and natural gas, the evolution of the demand and price of petroleum products, the changes in production results and reserves estimates, the ability to achieve cost reductions and operating efficiencies without unduly disrupting business operations, changes in laws and regulations including those related to the environment and climate, currency fluctuations, technological innovations, meteorological conditions and events, as well as socio-demographic, economic and political developments, changes in market conditions, loss of market share and changes in consumer preferences, or pandemics such as the COVID-19 pandemic. Additionally, certain financial information is based on estimates particularly in the assessment of the recoverable value of assets and potential impairments of assets relating thereto.

Readers are cautioned not to consider forward-looking statements as accurate, but as an expression of the Company's views only as of the date this document is published. TotalEnergies SE and its subsidiaries have no obligation, make no commitment and expressly disclaim any responsibility to investors or any stakeholder to update or revise, particularly as a result of new information or future events, any forward-looking information or statement, objectives or trends contained in this document. In addition, the Company has not verified, and is under no obligation to verify any third-party data contained in this document or used in the estimates and assumptions or, more generally, forward-looking statements published in this document.

The information on risk factors that could have a significant adverse effect on TotalEnergies' business, financial condition, including its operating income and cash flow, reputation, outlook or the value of financial instruments issued by TotalEnergies, is provided in this document (chapter 3).

Additionally, the developments of environmental and climate change-related issues in this document are based on various frameworks and the interests of various stakeholders which are subject to evolve independently of our will. Moreover, our disclosures on such issues, including climate-related disclosures, may include information that is not necessarily "material" under US securities laws for SEC reporting purposes or under applicable securities law.

Financial information by business segment is reported in accordance with the internal reporting system and shows internal segment information that is used to manage and measure the performance of TotalEnergies. In addition to IFRS measures, certain alternative performance indicators are presented, such as performance indicators excluding the adjustment items described below (adjusted operating income, adjusted net operating income, adjusted net income), return on equity (ROE), return on average capital employed (ROACE), gearing ratio, operating cash flow before working capital changes, the shareholder rate of return. These indicators are meant to facilitate the analysis of the financial performance of TotalEnergies and the comparison of income between periods. They allow investors to track the measures used internally to manage and measure the performance of TotalEnergies.

These adjustment items include:

(i) Special items

Due to their unusual nature or particular significance, certain transactions qualifying as "special items" are excluded from the business segment figures. In general, special items relate to transactions that are significant, infrequent or unusual. However, in certain instances, transactions such as restructuring costs or assets disposals, which are not considered to be representative of the normal course of business, may qualify as special items although they may have occurred in prior years or are likely to occur in following years.

(ii) The inventory valuation effect

In accordance with IAS 2, TotalEnergies values inventories of petroleum products in its financial statements according to the First-In, First-Out (FIFO) method and other inventories using the weighted-average cost method. Under the FIFO method, the cost of inventory is based on the historic cost of acquisition or manufacture rather than the current replacement cost. In volatile energy markets, this can have a significant distorting effect on the reported income. Accordingly, the adjusted results of the Refining & Chemicals and Marketing & Services segments are presented according to the replacement cost method. This method is used to assess the segments' performance and facilitate the comparability of the segments' performance with those of its main competitors.

In the replacement cost method, which approximates the Last-In, First-Out (LIFO) method, the variation of inventory values in the statement of income is, depending on the nature of the inventory, determined using either the month-end prices differential between one period and another or the average prices of the period rather than the historical value. The inventory valuation effect is the difference between the results under the FIFO and the replacement cost methods.

(iii) Effect of changes in fair value

The effect of changes in fair value presented as an adjustment item reflects, for trading inventories and storage contracts, differences between internal measures of performance used by TotalEnergies' Executive Committee and the accounting for these transactions under IFRS.

IFRS requires that trading inventories be recorded at their fair value using period-end spot prices. In order to best reflect the management of economic exposure through derivative transactions, internal indicators used to measure performance include valuations of trading inventories based on forward prices.

TotalEnergies, in its trading activities, enters into storage contracts, whose future effects are recorded at fair value in TotalEnergies' internal economic performance. IFRS precludes recognition of this fair value effect.

Furthermore, TotalEnergies uses into derivative instruments to risk manage certain operational contracts or assets. Under IFRS, these derivatives are recorded at fair value while the underlying operational transactions are recorded as they occur. Internal indicators defer the fair value on derivatives to match with the transaction occurrence.

The adjusted results (adjusted operating income, adjusted net operating income, adjusted net income) are defined as replacement cost results, adjusted for special items, excluding the effect of changes in fair value.

Euro amounts presented for the fully adjusted-diluted earnings per share represent dollar amounts converted at the average euro-dollar (€-$) exchange rate for the applicable period and are not the result of financial statements prepared in euros.

Cautionary Note to US Investors – The SEC permits oil and gas companies, in their filings with the SEC, to separately disclose proved, probable and possible reserves that a company has determined in accordance with SEC rules. We may use certain terms in this document, such as "potential reserves" or "resources", that the SEC's guidelines strictly prohibit us from including in filings with the SEC. US investors are urged to consider closely the disclosure in the Form 20-F of TotalEnergies SE, File N° 1-10888, available from us at 2, place Jean Millier – Arche Nord Coupole/Regnault – 92078 Paris-La Défense Cedex, France, or at the Company website totalenergies.com. You can also obtain this form from the SEC by calling 1-800-SEC-0330 or on the SEC's website sec.gov.

EXHIBIT 15.2

TotalEnergies SE

Consent of Independent Registered Public Accounting Firms

We hereby consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statements on Form F-3 (File Nos. 333-255641, 333-255641-01, 333-255641-02 and 333-255641-03) of TotalEnergies SE (formerly Total SE), TotalEnergies Capital International (formerly Total Capital International), TotalEnergies Capital Canada Ltd. (formerly Total Capital Canada Ltd.) and TotalEnergies Capital (formerly Total Capital), and

(2) Registration Statement on Form S-8 (File No. 333-271464) of TotalEnergies SE pertaining to the TotalEnergies Holdings USA, Inc. 2023 Employee Shareholder Plan.

of our reports dated March 28, 2024, with respect to the consolidated financial statements of TotalEnergies SE and subsidiaries and the effectiveness of internal control over financial reporting of TotalEnergies SE and subsidiaries, included in this Annual Report (Form 20-F) of TotalEnergies SE for the year ended December 31, 2023.

Neuilly-sur-Seine and Paris-La Défense, France
March 29, 2024

/s/ PricewaterhouseCoopers Audit	/s/ ERNST & YOUNG Audit
PricewaterhouseCoopers Audit	ERNST & YOUNG Audit

EXHIBIT 15.3

<table>
<tr>
<td align="center">KPMG S.A.

Tour EQHO
2 avenue Gambetta
CS 60055
92066 Paris La Défense Cedex
S.A. au capital de €5 497 100
775 726 417 R.C.S. Nanterre

Commissaire aux Comptes
Membre de la compagnie
régionale de Versailles et du Centre</td>
<td align="center">ERNST & YOUNG Audit
Tour First
TSA 14444
92037 Paris-La Défense cedex
France
S.A.S à capital variable
344 366 315 R.C.S Nanterre

Commissaire aux comptes
Membre de la compagnie
régionale de Versailles et du Centre</td>
</tr>
</table>

TotalEnergies SE

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(2) Registration Statement on Form S-8 (File No. 333-271464) pertaining to the TotalEnergies Holdings USA, Inc. 2023 Employee Shareholder Plan.

of our report dated March 16, 2022, with respect to the consolidated financial statements of TotalEnergies SE and subsidiaries as of and for the year ended December 31, 2021, before the effects of the adjustments to retrospectively reflect the change in segment composition, and present the details of the adjustment items to net operating income, as described in Note 3, included in this Annual Report (Form 20-F) of TotalEnergies SE for the year ended December 31, 2023.

Paris-La Défense, March 28, 2024

<table>
<tr>
<td align="center">KPMG S.A.

Represented by

/s/ Pierre, Antoine Duffaud
Pierre, Antoine Duffaud
Partner

/s/ Bertrand, Auguste, Hélen, Marie de Nucé de Lamothe
Bertrand, Auguste, Hélen, Marie de Nucé de Lamothe
Partner</td>
<td align="center">ERNST & YOUNG Audit

/s/ ERNST & YOUNG Audit</td>
</tr>
</table>

Exhibit 97

TOTALENERGIES SE

CLAWBACK POLICY

1. BACKGROUND AND PURPOSE

As required pursuant to the listing standards of the New York Stock Exchange LLC (the "***Stock Exchange***"), Section 10D of the U.S. Securities Exchange Act of 1934, as amended (the "***Exchange Act***"), and Rule 10D-1 under the Exchange Act, the Board of Directors (the "***Board***") of TotalEnergies SE (the "***Company***") has adopted a compensation recovery policy (the "***Policy***") to provide for the Company's recovery of Covered Compensation (as defined below) that is erroneously paid, vested or awarded to an executive officer in the event of a restatement of the financial statements (as defined below). Certain capitalized terms in the Policy are defined below in Section 3.

2. POLICY

In the event of a restatement of the financial statements, the Company will require, within the framework and limits of applicable law, the recovery within a reasonable period of time of the variable compensation (in cash and/or equity) paid or awarded to the executive officers, or otherwise vested in them ("***Incentive Compensation***"), during the three financial years preceding the decision to make such a restatement, in the amount of the portion of such compensation that should not have been paid, vested or awarded on the basis of the restated financial statements.

3. DEFINITIONS

For the purposes of the Policy:

- "***Code***" means the U.S. Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder.
- "***Covered Compensation***" shall be interpreted to mean the amount of Incentive Compensation Received by an executive officer during the three financial years preceding the decision to make such a restatement that exceeds the amount of Incentive Compensation that otherwise would have been Received during such three financial years preceding the decision to make such a restatement had it been determined based on the relevant restated amounts, and computed without regard to any taxes paid.

  Incentive Compensation received by an executive officer will only qualify as Covered Compensation if: (i) it is Received on or after the Effective Date; (ii) it is received after such executive officer begins service as an executive officer; (iii) such executive officer served as an executive officer at any time during the performance period for such Incentive Compensation; and (iv) it is received while the Company has a class of securities listed on a national securities exchange or a national securities association.
- "***Effective Date***" means October 2, 2023.
- Paid, vested or awarded is deemed "***Received***" in the Company's financial year during which the measure specified in the Incentive Compensation award is attained, even if the payment or grant of the Incentive Compensation occurs after the end of that period.
- "***Restatement of the financial statements***" means a restatement of the Company's financial statements giving rise to a recovery obligation pursuant to Section 10D-1 of the Exchange Act, the

final listing standards adopted by the Stock Exchange as so amended to include new Section 303A.14 (the "***Listing Standards***") and any applicable U.S. Securities and Exchange Commission (the "***SEC***")or Stock Exchange guidance or interpretations issued from time to time regarding such Covered Compensation recovery requirements (the "***Final Guidance***").

- The term "***three financial years preceding the decision to make such a restatement***" means a recovery period of the three completed financial years and, if applicable, any transition period resulting from a change in the Company's fiscal year within or immediately following those three completed fiscal years (provided, however, that if a transition period between the last day of the Company's previous fiscal year end and the first day of its new fiscal year comprises a period of nine to 12 months, such period would be deemed to be a completed fiscal year), immediately preceding the earlier to occur of: (i) the date that the Board, applicable Board committee, or officers authorized to take action if Board action is not required, concludes, or reasonably should have concluded, that the Company is required to prepare a restatement of the financial statements or (ii) the date a court, regulator, or other legally authorized body directs the Company to prepare a restatement of the financial statements.

- The term "***variable compensation***" means any compensation that is granted, earned, or vested based wholly or in part upon the attainment of a measure that is determined and presented in accordance with the accounting principles used in preparing the Company's financial statements, and any measures that are derived wholly or in part from such measures, as well as stock price and total shareholder return.

4. RECOVERY

(a) *Clawback Exceptions*. The Company is required to recover all Covered Compensation Received by an executive officer in the event of a restatement of the financial statements unless (i) one of the conditions described below are met and (ii) the Board (including at least a majority of the independent directors serving on the Board) upon the recommendation of the Compensation Committee has made a determination that recovery would be impracticable in accordance with Rule 10D-1 under the Exchange Act. Under such circumstances, a "***Clawback Exception***" applies. The conditions are:

- the direct expense paid to a third party to assist in enforcing this Policy would exceed the amount to be recovered and the Company has already made a reasonable attempt to recover such erroneously awarded Covered Compensation from such executive officer, has documented such reasonable attempt(s) to recover, and has provided such documentation to the Stock Exchange;

- recovery would violate home country law that was adopted prior to November 28, 2022 and the Company has already obtained an opinion of home country counsel, acceptable to the Stock Exchange, that recovery would result in such a violation, and provided such opinion to the Stock Exchange; or

- recovery would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees of the Company, to fail to meet the requirements of Section 401(a)(13) or Section 411(a) of the Code and regulations thereunder.

5. ADMINISTRATION AND INTERPRETATION

(a) This Policy shall be administered by the Compensation Committee, (the "***Administrator***") and any determinations made by the Administrator shall be final and binding on all affected individuals.

(b) The Administrator is authorized to interpret and construe this Policy and to make all determinations necessary, appropriate, or advisable for the administration of this Policy and for the Company's compliance with Section 10D, Rule 10D-1 and any other applicable law, regulation, rule or interpretation of the SEC promulgated or issued in connection therewith, the Listing Rules, the Final Guidance, and the laws of any other jurisdiction which apply to the Company, including further to employment agreements governing employment of the executive officers (together, the "***Applicable Rules***").

(c) The Policy shall not preclude any other compensation recovery or clawback policies, arrangements or provisions of the Company.

(d) The Company is prohibited from paying or reimbursing the cost of insurance for, or indemnifying, any executive officer against the loss of erroneously awarded Covered Compensation.

6. DISCLOSURE

The Policy, and any recovery of Covered Compensation by the Company pursuant to the Policy that is required to be disclosed in the Company's filings with the SEC, will be disclosed as required by the U.S. Securities Act of 1933, as amended, the Exchange Act, and related rules and regulations, including the Applicable Rules.

* * *

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totalenergies.com

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