More Energy, Less Emissions

Sustainability & Climate
2023 Progress Report

English version
March 2023

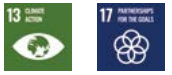
TotalEnergies

Sustainab'ALL

TOTALENERGIES' AMBITION IN SUPPORT OF SUSTAINABLE DEVELOPMENT

TotalEnergies' ambition to be a major player in the energy transition, on the road to net zero by 2050, together with society, will require the mobilization of our 100,000 employees.
More than 27,000 TotalEnergies employees took part in workshops during 2022, to develop ten objectives and indicators aligned with the United Nations Sustainable Development Goals (SDGs). In 2023, every TotalEnergies site, business unit and affiliate worldwide will adopt an action plan with targets to be met by 2025. Each plan is based on actions that are directly related to the entity's local operations in the field. These plans form our Sustainab'ALL program, in which TotalEnergies sets out its material contribution to sustainability.

10 KPIs COVERING THE PERIOD 2023-2025 IN SUPPORT OF OUR TRANSFORMATION

OUR KPIs	OUR CONTRIBUTION TO SDGs
TotalEnergies, becoming a global player in Sustainable Energy	
1 **Low-carbon energy produced, or low-carbon energy sold (in energy unit)**	
2 **Energy consumption (in energy unit) and low-carbon energy consumption (in energy unit)**	
3 **Number of suppliers with local sales over $10,000 with a climate commitment, i.e. having a plan with climate goals (in number and in % of total number of suppliers)**	
4 **Number of innovative solutions that help us use less and better energy, or produce and sell more low-carbon energy**	
Thanks to our commitment to a just transition for our people	
5 **The level of employee engagement measured once a year via TotalEnergies' engagement index**	
6 **Number of hours of training per employee per year**	
7 **Share of women among NP14+ (in %) and share of international staff among NP15+ (in %)**	
TotalEnergies saves natural resources	
8 **Sum of weight of recycled waste and recycled feedstock (in tons)**	
9 **Number of biodiversity plans being deployed**	
TotalEnergies creates shared value	
10 **Share of spending with local stakeholders as a % of total spending = local wages + local spend + societal spend/opex + capex (in %)**	

TotalEnergies has been a member of the UN Global Compact since 2016 and supports the United Nations Sustainable Development Goals. Each year we issue a special report[1] that details our progress in fulfilling the SDGs. That report supplements the Company's other voluntary reporting initiatives, including our GRI report[2] and the Global Compact Communication on Progress[3].

1. https://totalenergies.com/sites/g/files/nytnzq121/files/documents/2022-11/SDG_Report_2021-2022.pdf **2.** https://totalenergies.com/sustainability/reports-and-indicators/reporting-standards/gri
3. https://cop.unglobalcompact.org/view/8462

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More Energy, Less Emissions

PATRICK POUYANNÉ, MESSAGE FROM THE CHAIRMAN AND CEO

The year 2022 was a year of upheaval that will not soon be forgotten. War returned to Europe, sowing unacceptable horror in its path.

Among the multiple international impacts of this war started by Russia, this conflict has clearly revealed just how crucial energy is as a resource and how much the energy markets are making countries interdependent. The stakes of supply security and energy prices have become just as important as the urgent need to decarbonize energy.

In this environment, TotalEnergies did all it could to contribute to Europe's energy security and continue to serve its customers around the world.

The Company was able to do this because of its proactive, years-long strategy to develop an integrated LNG portfolio.

In 2022, TotalEnergies further accelerated its **LNG strategy** in response to Europe's supply challenges. This involved diversifying supply sources, notably from the United States; bringing new regasification capacity on stream in Germany and France with floating storage and regasification units (FSRUs); investing in new production capacity, for example in Qatar, to prepare the future; all while using technologies that make it possible to achieve ever larger reductions in CO_2 and methane emissions. Indeed, in electricity generation, natural gas offers the great advantage of emitting only half as much CO_2 as coal, an energy on which many countries are still too dependent. At the same time, we have continued to reduce our methane emissions while taking action to encourage the entire oil and gas industry to aim for zero methane emissions by 2030.

From a broader perspective, 2022 made it more obvious than ever that the world still needs the energies available today, of which fossil energies account for more than 80%. For this reason, **we will continue to invest in new oil projects.** Not to grow, but simply to meet still expanding global demand, notably in developing countries. And also to anticipate the natural decline in our current fields' output (4% per year) to ensure that our customers continue to have reliable access to energy at an affordable cost.

> **"The immediate focus must be on building the energy system of tomorrow while continuing to supply the energy the world needs today."**

Today's world also has a growing need for renewable electricity and new low-carbon energies to address the climate challenge. Events in 2022, among them heat waves, agricultural drought, melting glaciers and more frequent and intense hurricanes, reminded us that urgent action must be taken to decarbonize our economies. The immediate focus must be on building the energy system of tomorrow while continuing to supply the energy the world needs today.

This is why TotalEnergies chose to invest massively: close to **$4 billion** in 2022, or a quarter of our total capital expenditure, in **electricity and low-carbon molecules,** thereby lifting our gross production capacity for renewable electricity to 17 gigawatts, the equivalent of ››

6-7 nuclear reactors. **In 2023, we will invest around $5 billion** in low-carbon energies – more than our investments in new gas and oil projects – to move forward even faster.

We are resolutely building the future today, by leveraging our strengths. Our 2022 results show that we have made the right strategic choices. These include continuing to provide oil competitively as long as there is demand, developing in LNG (a segment in which we generated $10 billion operating cash flow) and investing profitably in electricity markets (we posted income of $1 billion for the first time in our history). In 2022, TotalEnergies recorded the highest growth in net cash flow per share and achieved the highest return on capital employed among its peers. These 2022 results prove that we can combine the strongest profitability of all the majors with the highest multi-energy investments among the majors to support and accelerate the transition.

Beyond these financial results, we are proud of the tangible progress in our low-carbon energy projects. We will meet our worldwide gross installed capacity goal for renewable electricity in 2025 and are already working on projects to achieve our objective of 100 GW by 2030.

> **“Beyond these financial results, we are proud of the tangible progress in our low-carbon energy projects.”**

OUR STRATEGY WAS CONFIRMED AND STRENGTHENED IN 2022

In 2023, we will be even more aggressive in reducing our **Scope 1 & 2 emissions** with a new target in absolute value of **38 Mt CO_2e by 2025.** That's two million tons lower than our previous target, while including our power activities that did not exist in 2015. This is possible thanks to the active involvement of all the Company's teams in a $1 billion program devoted to energy efficiency in 2023-2024. Fewer emissions, and lower energy costs as well.

We are also strenghtening our objective for reducing **Scope 3 emissions from our oil activities** from -30% to -40% by 2030 in relation to 2015, and **-30% by 2025.** In addition, our objective for lowering the **carbon intensity** of the energy mix sold to our customers has been strengthened from -20% to -25% by 2030 in relation to 2015, and **-15% by 2025.**

We are committed to ensuring that our businesses and projects create value and positive change. We are working towards that goal, in accordance with our Code of Conduct, in our interactions with all of our stakeholders: employees, customers and partners, host countries, local communities in our core territories, civil society, suppliers and shareholders.

Our progress report is designed to describe, transparently, the implementation of our ambition to get to net zero by 2050, together with society, and the tangible advances made every day in deploying initiatives to promote a sustainable transition. It responds to the controversies we encounter with solid proof of our transformation.

We cannot carry out this transformation alone, without the commitment of all our stakeholders. Our investments in the production and distribution of low-carbon energies will only make a difference if we all decide to change the way we use energy. That's the logic behind our approach of openness, discussion and exchange in our everyday interactions with our stakeholders.

We are embarking on a profound transformation that requires all our energies – society and citizens included.

Every step counts on the road to the energy transition. Let's take that road together. ■

Patrick Pouyanné

Delivering on Commitments

MESSAGE FROM MARIE-CHRISTINE COISNE-ROQUETTE,
LEAD INDEPENDENT DIRECTOR AND CHAIRWOMAN OF THE GOVERNANCE & ETHICS COMMITTEE.

TotalEnergies is solidly committed to making the transition to low carbon energy while continuing to supply the energy our customers need.

The 2022 invasion of Ukraine by Russia, which is the world's second largest producer of oil and natural gas, sparked a human crisis at the heart of Europe as well as a global energy crisis that has affected every economy in the world, from homes to businesses. In view of evolving sanctions, the Board of Directors was mobilized throughout 2022 to support the actions to be taken by the Company in line with European governments and with our values and strategy, in order in particular to help secure Europe's energy supply.

This crisis demonstrated our resilience and our steadfast ambition to transform into a multi-energy company, able to respond to the energy needs of today while preparing the decarbonized energy system of tomorrow.

In 2023, for the third consecutive year and keeping up with our commitment, the Board invites our shareholders to express themselves on the progress made in 2022, in the light of our objectives and our implementation of the Company's strategy. With additional financial resources, TotalEnergies is, moreover, accelerating its ambition for sustainability and the energy transition toward carbon neutrality.

This report is a live testimony on the Company's actions, undertaken in contribution to a transparent dialogue with shareholders and many other stakeholders.

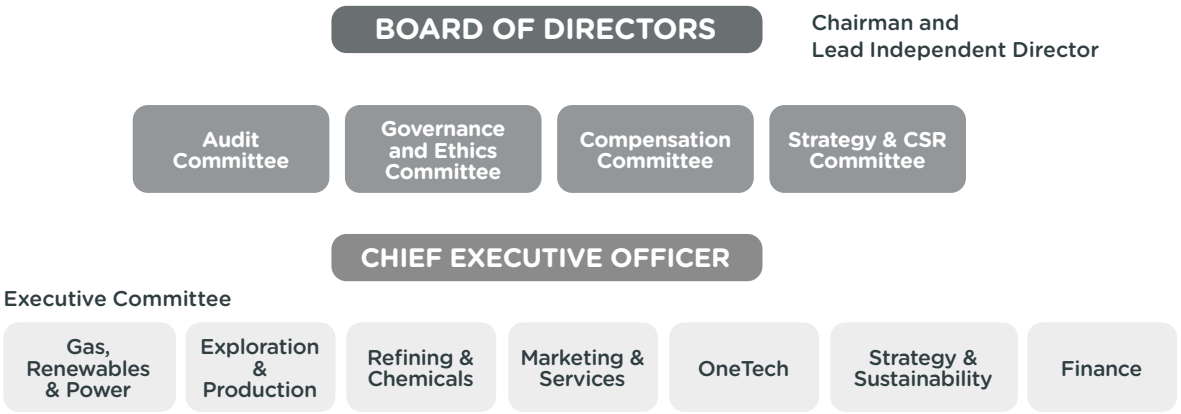
Every project submitted to the Board is examined from a financial perspective as well as an extra-financial perspective that includes the climate and CO_2 emissions. Large-scale operational projects are carefully reviewed for their impact on people and the environment, as was the case for the Company's project in Uganda.

To support our global transformation, the Board of Directors is strengthening our ranks by asking shareholders to approve the appointment of two new directors who will provide specific expertise in our growth drivers in electricity and renewables, as well as in today's energies, and further diversify the Board's international profile.

> **"This crisis demonstrated our resilience and our steadfast ambition to transform into a multi-energy company."**

We are proud to state that we are leading the field in our industry in the transformation toward a multi-energy model. ■

Governance



To define its strategy and take into account the challenges posed by climate change, TotalEnergies relies on a clearly defined organizational structure and governance. Climate issues are addressed at the highest levels of the organization, by both the Board of Directors and the Executive Committee.

Board of Directors

TotalEnergies' Board of Directors is dedicated to promoting long-term value creation. It defines the Company's strategic objectives and annually reviews opportunities and risks, such as financial, legal, operational, social and environmental risks, and the measures taken in response. It ensures that both the Company's strategy and the investment projects submitted for its consideration take account of climate concerns. To aid the Board in carrying out its duties, a continuous training program on climate was approved for the Directors in 2021. It includes a variety of modules on the following topics: energy, climate change and environmental risks, financial risks and opportunities. In 2022 the Directors took part in the Climate Fresk, a creative and collaborative scientific workshop designed to raise climate change awareness.

Strategy & CSR Committee

During their annual seminar in 2022, the members of the Strategy & CSR Committee met Larry Fink, Chairman & Chief Executive Officer of Blackrock, in addition to concrete work sessions on areas such as new energies for transport by 2030 (road, sea and air).

Compensation Committee

For the past several years, the Board of Directors has also incorporated climate issues into corporate pay structures *(see infographic)*.

The Audit Committee annually reviews the consolidated statement of non-financial performance, which includes information from the Company's climate and environmental reporting, the compliance and fairness of which is subject to a limited assurance review by an independent third party. ››

SPECIALIZED COMMITTEES FOR ADDRESSING OUR STRATEGIC PRIORITIES

9 meetings of the Board of Directors
98.4% attendance rate

1 executive session chaired by the Lead Independent Director

7 meetings of the Audit Committee
100% attendance rate

4 meetings of the Governance & Ethics Committee
94.4% attendance rate

3 meetings of the Compensation Committee
100% attendance rate

4 meetings of the Strategy & CSR Committee
100% attendance rate

The Executive Committee

The Chairman & Chief Executive Officer of TotalEnergies, assisted by the Executive Committee, ensures that climate issues are taken into account and built into operational roadmaps. The Executive Committee is responsible for identifying and analyzing risks that could prevent TotalEnergies from reaching its 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 *(see p. 17)*.

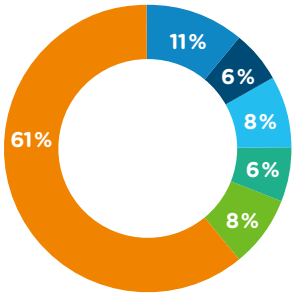
The Strategy & Sustainability Division coordinates the Company's activities through the entities in charge of strategy and markets analysis, sustainability and climate, and safety, health and environment, relations with public authorities and civil society, and internal audit. Its president also chairs the Risk Committee (CoRisk), which is in charge of the Company's investments .

The Finance General Directorate ensures an ongoing dialogue with investors, analysts and non-financial rating agencies on climate challenges and Environmental, Social and Governance (ESG) issues more broadly. In all, more than 250 ESG meetings were held in France and worldwide in 2022. ■

VARIABLE COMPENSATION ALIGNED WITH THE COMPANY'S STRATEGIC OBJECTIVES

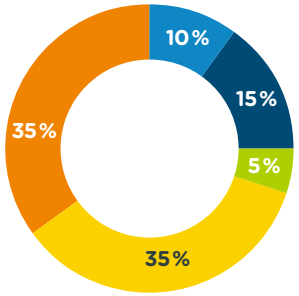
ANNUAL VARIABLE PORTION

Chairman & CEO criteria account for 39%



- Safety performance[1]
- GHG reduction[1]
- Supervision of the transformation strategy[1]
- Profitability of renewables[1]
- CSR performance[1]
- Financial performance[1]

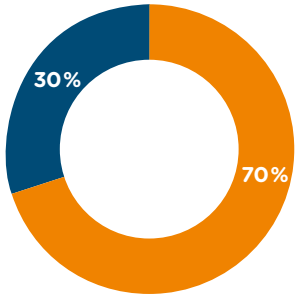
Senior Executives: criteria account for 30%



- Safety
- GHG reduction
- Diversity – **New** in 2022
- Individual performance[2]
- Financial performance

PERFORMANCE SHARE RECIPIENTS

From the Chairman and CEO to all beneficiary employees[3]: criteria account for 30%



- Financial performance
- GHG reduction

1. Maximum percentage. **2.** According to the role. **3.** More than 12,000 employees.

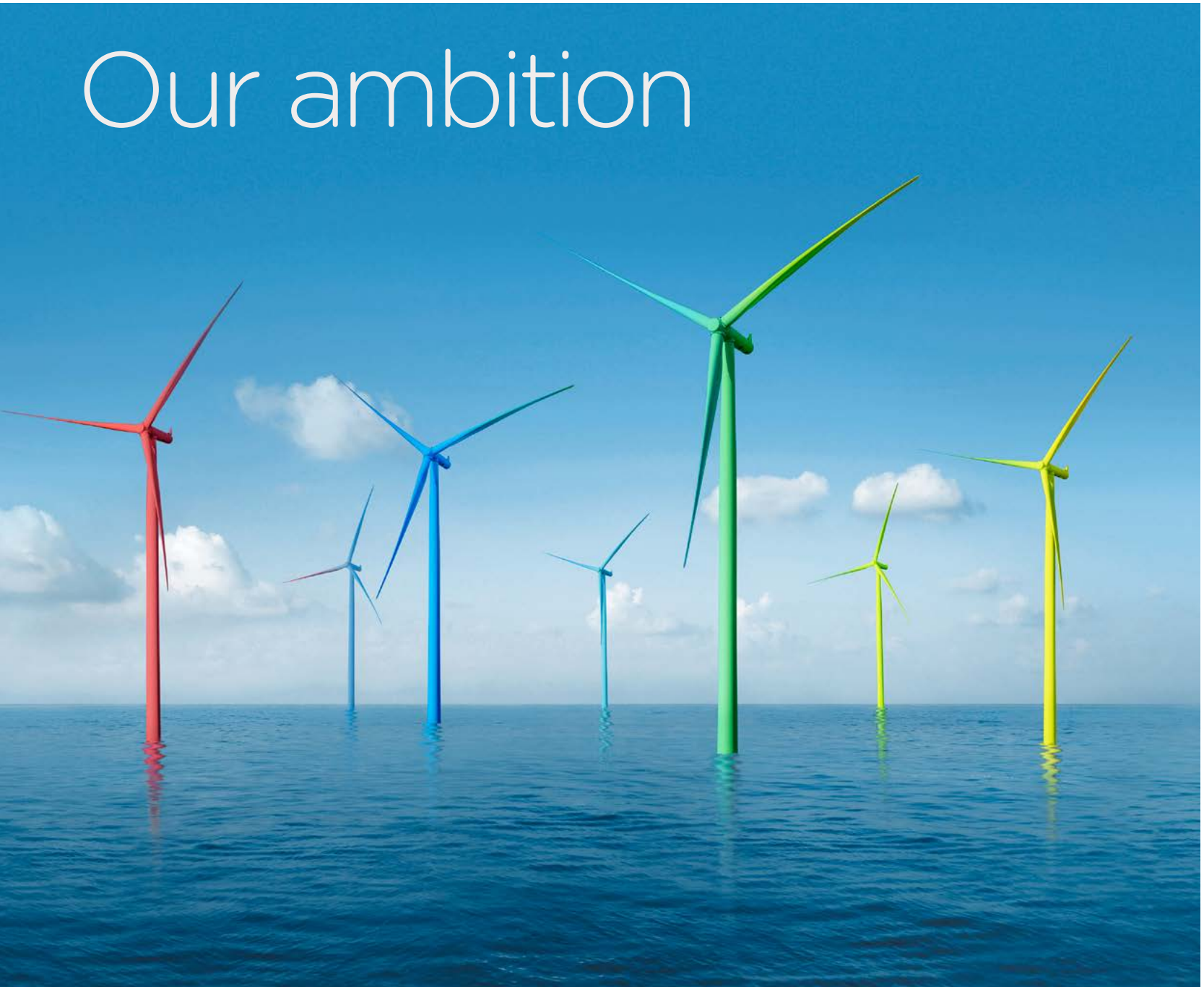
COMMITMENT

TOTALENERGIES' RESPONSIBLE AND GRADUAL WITHDRAWAL FROM OPERATIONS IN RUSSIA

In the wake of Russia's military aggression against Ukraine, TotalEnergies SE set out its principles of conduct in March 2022: ensuring strict compliance with EU sanctions, regardless of the impact on the management of its Russian assets; providing no further capital for the development of projects in Russia; taking no action that would subvert the goal of the sanctions by transferring value to Russian interests; helping to secure Europe's energy supply; and not entering into new contracts or renewals for the purchase of Russian oil or petroleum products, in order to discontinue all purchases by the end of 2022. In accordance with these principles, TotalEnergies has continued to supply Europe with LNG from its Yamal LNG plant under long-term contracts, and has sold several assets that were not contributing to this supply, including its minority interests in the Kharyaga and Termokarstovoye fields.

In December 2022, TotalEnergies decided to withdraw the Company's representatives from Novatek's board, and accordingly ceased to equity account for its stake in Novatek in its accounts. The Company recorded total Russian impairments and provisions of $14.8 billion in 2022.

Our ambition



OFFSHORE WIND FARM.

How Can We Respond to Current Energy Demand While Preparing for the Future?

The Monein solar power plant in Pyrénées-Atlantiques (France), developed by TotalEnergies Renewables.

The energy transition is well underway, but the world still uses fossil fuels to meet 81% of its energy needs. Keeping global warming well below 2°C, in line with the Paris Agreement, requires that we drastically reduce consumption of fossil fuels (coal, oil, gas) and make the world energy system evolve by building the new low-carbon energy system at a much faster pace. Our collective challenge – which became evident in 2022 – is to reconcile the energy transition with the need for energy security and concerns over its cost.

When the supply of oil or natural gas is restricted while demand continues to rise the social impact is immediate and very high, due to the resulting increase in energy prices and insecurity of supply.

To meet the challenge of the energy transition and still ensure that reliable energy is available in the short term at the lowest possible cost, the world needs to invest in two energy systems simultaneously so as to: ensure the current system continues to operate responsibly, and at the same time speed efforts to build a new system centered on low-carbon energies (renewable electricity, biofuels and biogas, clean hydrogen and synthetic fuels, CCS solutions to offset residual fossil-fuel emissions).

Two other levers will also deliver immedaite results: replacing coal in energy use whenever possible, and investing heavily to improve energy efficiency.
That, in a nutshell, is TotalEnergies' strategy: to continue providing the energy the world needs now, notably natural gas to replace coal, while responsibly and sustainably accelerating the transition to low carbon energy solutions. This is how, in concrete terms, we support the goals of the Paris Agreement, which calls for a reduction in 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.

The year 2022 has reinforced our confidence in our strategy. We are investing with discipline, at a time when our markets continue to evolve at an uncertain pace. Our portfolio of multi-energy businesses gives us the flexibility and optionality to position ourselves as a leader in the energy transition, regardless of its speed. »

"TotalEnergies, multi-energy company, supports the objectives of the 2015 Paris Agreement."

We Are Becoming a Multi-Energy Company

The energy transition depends, first on electrifying energy use, which will require a massive increase in green electricity. TotalEnergies is expanding across the entire electricity value chain (intermittent renewable production, flexible gas-fired power production, storage, trading, customer sales) in a profitable way.

Our goal is to build an Integrated Power business with a return on average capital employed higher than 10% and to rank among the world's top five providers of solar and wind energy by 2030, with gross capacity of 100 GW and an interim target of 35 GW by 2025 (17 GW reached as of year-end 2022).

Second, the energy transition depends on the development of new, low-carbon energies (biofuels and biogas, clean hydrogen and synthetic fuels combining hydrogen and carbon) that TotalEnergies has the core skills to produce. We are expanding into these new markets by focusing on circular resource management and deploying less mature technologies at our own sites to test their business viability.

For natural gas, a transition energy, TotalEnergies continues to expand across the liquefied natural gas (LNG) value chain to consolidate its position as the world's third-largest player. LNG plays a key role in the net-zero roadmaps of many coal-consuming countries. It's also a perfect partner for intermittent renewable energies given that flexible and dispatchable CCGT plants provide a secure electricity supply in the context of weather events and fluctuations in demand.

Regarding oil, the Company is highly selective and focuses its investments on projects with a low breakeven point and low emissions. This strategy enables us to take full advantage of global oil demand, which continues to grow but should begin to decline in the medium term, due to the electrification of transport; it ensures that our businesses will remain profitable and resilient over the long term.

As they evolve, the energy markets are becoming increasingly interconnected and interdependent, particularly since electricity – the energy at the center of the transition – is a secondary energy, meaning that it depends on other energies and markets.

Our integrated multi-energy strategy and our solid financial base are strengths that allow us to be a major player in the sustainable energy the world needs and make the most of current developments including the potential price volatility they may cause. ■

ENERGY TRANSITION

HOW IS NATURAL GAS KEY TO THE ENERGY TRANSITION?

Natural gas can replace coal for numerous applications (power generation, manufacturing, etc.), so it has an immediate positive impact, since its carbon emissions are half those of coal. That should be a global priority.

Flexible and easily dispatchable, natural gas is also an ideal partner for renewable energies, which are intermittent and seasonal by nature, for power generation.

In order for gas to live up to its potential for the energy transition, methane leaks need to be eliminated from the gas value chain. TotalEnergies has already reduced its emissions and is committed to zero methane emissions.

In addition, LNG has demonstrated its key role in connecting gas consuming countries with large natural gas resources available on a global scale.

For these reasons, gas is a core component of roadmaps for getting to net zero in many coal-consuming countries, including the UK, the US, Germany, Japan, South Korea, China and elsewhere.

Conversely, the crisis in the natural gas markets in 2022 has unfortunately triggered a boost in global demand for coal, which reached historic highs in 2022. The IEA reported in December 2022[1] that Europe's demand for coal, primarily for power generation, rose 6% against a backdrop of serious disruption in the European electricity markets.

1. IEA Oil Market Report, February 2023.

NEW ENERGIES

ACCELERATING THE MOVE TO RENEWABLES AND STRENGTHENING POWER GRIDS

Electrification of end-user demand thanks to clean power is one of the biggest drivers of the energy transition. Renewables, already the primary factor in decarbonizing the power mix, are experiencing accelerated growth. According to the International Energy Agency (IEA), solar and wind capacity increased threefold between 2015 and 2021 (by 85 GW and 246 GW respectively). But this is not enough. TotalEnergies shares that view.

As the penetration of intermittent renewable energies increases, massive investments to upgrade power transmission and distribution networks are also required, as well as storage solutions and flexible power plants. Global investments in renewables and power grids are already outpacing investment in oil and gas production by nearly 100%. Here too, we need to go further: we also share the IEA's belief that annual investment in low-carbon power must, at a minimum, double by 2030 to reach between $1.5 and $2 trillion, with half devoted to grids.

TotalEnergies aims to reach 100 GW in gross installed wind and solar capacity by 2030, and is among the ten major companies worldwide (including six Chinese firms) that are targeting triple-digit renewable energy generation over the course of the decade.

Electrification is gaining pace, which is in turn taking carbon out of a growing number of applications – especially transportation, the most oil-intensive industry.

A Net Zero Company by 2050, Together With Society

With regard to greenhouse-gas emissions, TotalEnergies is committed to lowering its carbon footprint from energy production, processing and delivery to our customers.

First of all, the Company is executing an ambitious action plan to reduce the greenhouse gas emissions for which we are directly responsible (Scope 1+2 emissions at our operated assets) to the strict minimum. We are further investing in carbon storage and sequestration projects so as to "neutralize" our residual emissions and be able to offer those CCS solutions to our major industrial customers.

Although the speed of the transition will depend on the pace of change in government policies, consumer behaviors and corresponding demand, TotalEnergies has embraced the need to offer our customers affordable, less carbon-intensive energy products, and to lend support to our partners and suppliers with their own low-carbon strategies.

Drawing on the actions already taken to evolve our energy offerings and reduce carbon emissions from our operations, in 2022 TotalEnergies published an outline of what our businesses might look like as we become a carbon-neutral energy company by 2050, together with society.

By 2050, TotalEnergies would produce:

• about 50% of our energy in the form of low-carbon electricity, with corresponding storage capacity, totaling about 500 TWh/year, on the premise that we develop about 400 GW of renewable capacity.

• about 25% of our energy, equivalent to 50 Mt/year of decarbonized fuels in the form of biogas, hydrogen, or synthetic liquid fuels from the circular reaction $H_2 + CO_2$ = e-fuels.

• about 1 Mb/day of oil and gas (about a quarter of the total in 2030, consistent with the decline envisaged in the IEA's 2021 Net Zero scenario), primarily liquefied natural gas (roughly 0.7 Mboe/day, 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.

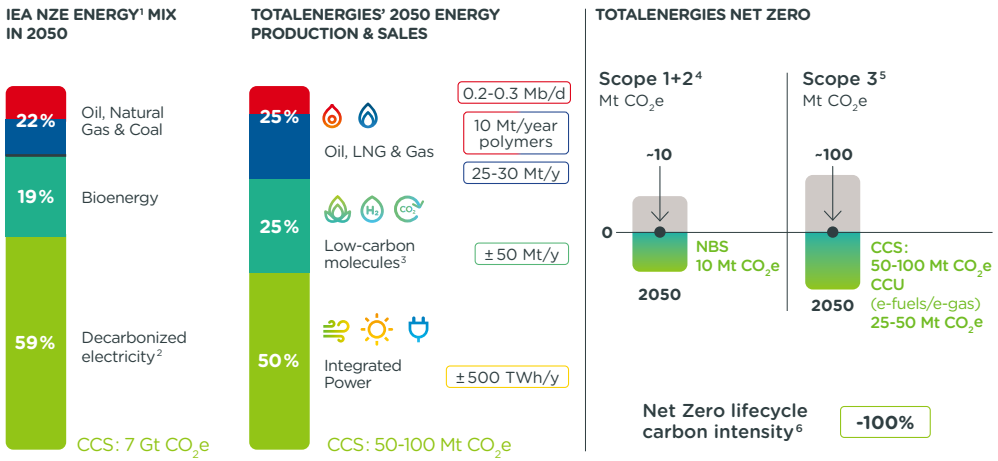
That oil and gas would represent:

• about 10 Mt of residual emissions annually, with methane emissions almost eliminated (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 emissions totaling about 100 Mt annually. To get to net zero together with society, TotalEnergies would help "eliminate" the equivalent of 100 Mt/year of CO_2 generated by our customers by developing:

- a carbon storage service for customers that would store 50 to 100 Mt/year of CO_2;
- an industrial e-fuels business that would prevent 25 to 50 million tons of CO_2 for our customers through production with 100% green hydrogen, while offsetting the intermittent nature of renewable energies to make them a viable replacement for fossil fuels. ■

TOTALENERGIES IN 2050: A VISION FOR A NET ZERO COMPANY



1. IEA WEO 2021 - NZE scenario. **2.** Hydro, solar, wind and nuclear. **3.** Biofuels, biogas, hydrogen and e-fuels/e-gas. **4.** From operated facilities. **5.** From energy products used by our customers (GHG Protocol Category 11). **6.** Average carbon intensity of energy products used by our customers worldwide (Scope 1+2+3).

Why Continue to Invest in Oil?

In May 2021, the International Energy Agency (IEA) published its Net Zero Emissions (NZE) scenario outlining changes in world energy demand that would be compatible with a 1.5°C scenario "without overshooting the related carbon budget." The strict assumptions used for the evolution in energy demand between now and 2030 prompted the IEA to assert that the world had no need for new oil and gas projects. Indeed, under that "normative" scenario, demand for oil between 2020 and 2030 declines at the same rate as the natural depletion of fields, i.e about 4% a year.

This scenario does not claim to forecast actual changes in energy demand, and since its publication the IEA has released several demand forecasts that reveal the extent to which the world is deviating from that normative outlook. Demand for oil is by no means declining in line with the depletion of existing fields; in fact, demand is rising. In February of this year, the IEA projected that demand in 2023 would exceed 2019 levels, rising to 102 Mb/d – (whereas the NZE scenario published in 2021 projected falling demand from 2019, to 93.5 Mb/d in 2023).

Tungsten Explorer, Moho North project (The Republic of the Congo).

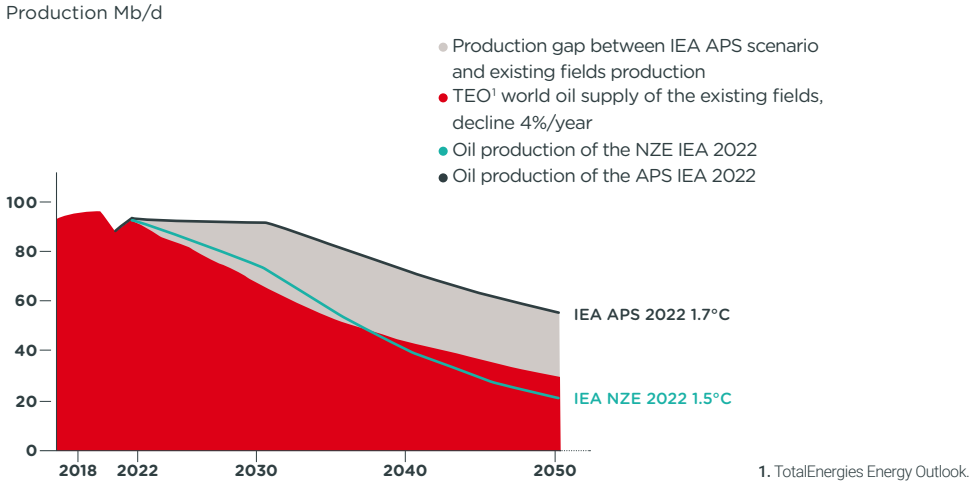
The IEA's forecasts for short-term oil demand are in line with TotalEnergies' analyses: although we concur with the NZE scenario regarding oil demand in 2050, the demand curve for 2020-2030 put forward to achieve it is clearly very far from observed market trends.

The IEA updated its scenarios in the World Energy Outlook published in October 2022. In the wake of the 2022 energy crisis, it acknowledged the importance of balancing supply and demand for the energies currently used throughout the world. Under its Announced Pledges Scenario (APS), which is compatible with the Paris Agreement, global oil demand would peak in 2030 and then subside, but at a slower pace than the natural rate of oil field decline. So new oil projects will be necessary. The chart below compares oil production in the APS scenario to the production capacity of existing fields (TotalEnergies' assessment shown in red in the chart). The gray area indicates the shortfall in available production, meaning new projects that will need to be launched, even under the 1.7°C scenario.

That is why TotalEnergies believes new oil projects are needed to meet continued strong demand, maintain prices at an acceptable level and create the conditions for a "just" transition that gives people time to change their energy practices. ■

1. IEA Oil Market Report of February 2023.

WORLD OIL PRODUCTION FORECAST COMPARED TO IEA NZE AND APS SCENARIOS



1. TotalEnergies Energy Outlook.

2020-2030, A Decade of Transformation for Now and the Future

The vision of our potential transformation by 2050 is backed by an investment policy designed to accelerate low-carbon solutions (electricity and renewable energies, biogas and biofuels, low-carbon fuels, CCS) while we continue to meet the world's current energy demand.

The world's population continues to grow and the inhabitants of emerging nations have legitimate aspirations to higher living standards, comparable to those of Western countries. The years 2020 to 2030 will mark TotalEnergies' transformation into a true multi-energy company.

In practical terms, over the current decade 2030, TotalEnergies plans to:

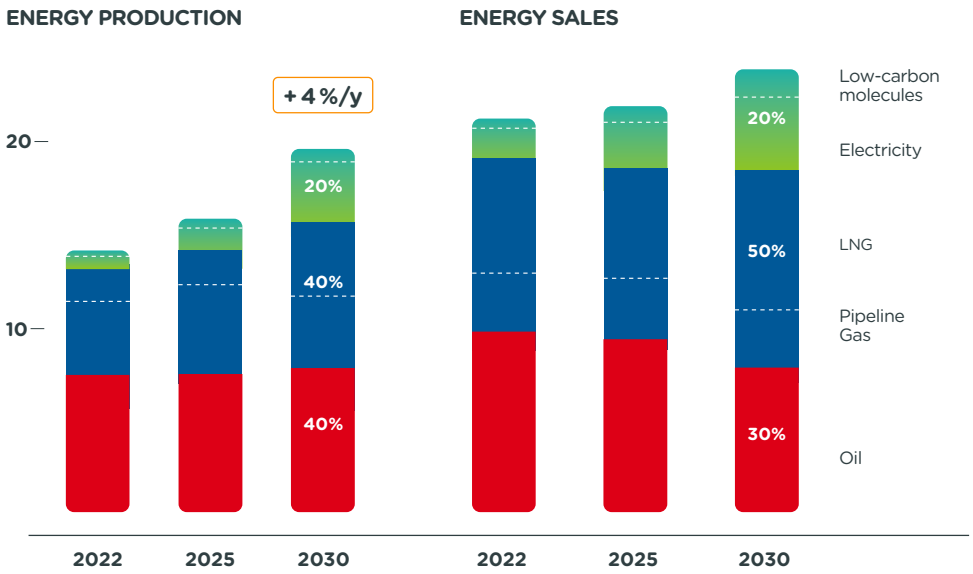
• Increase our energy production from 14 PJ/day to 20 PJ/day to meet growing demand. Electricity (primarily renewable power) would account for half that increase, with target power generation of about 130 TWh, and liquefied natural gas would make up the balance, while oil production by 2030 will remain stable;

• Pursue efforts to decarbonize the energy products offered to end customers, by decreasing our sales of petroleum products by more than 30% to align those sales with a production of about 1.4 Mb/day. That reduction is consistent with our strategy of integration across value chains, and reflects the anticipated decline in fuel demand in Europe, where the shift to electric road transportation is well underway. As a result, oil will account for no more than approximately 30% of our total sales, compared to 55% in 2019.

This expected evolution in our activities in 2030 underpins TotalEnergies' carbon emissions commitments over that same period, which are described in the section on Climate and sustainable energy. ■

ENERGY PRODUCTION AND SALES

PJ/d (excluding Russia)



Oil
- Maintaining the cash flow engine
- Aligning sales to demand and production

Gas
- Growing LNG production
- Integration along the LNG value chain

Integrated Power
- Creating value from integration in electricity
- Renewables: 100 GW by 2030, ROE > 10%

Low-carbon molecules
- Growing biofuels (SAF), biogas, CCS business
- Developing low-carbon H_2 for our refineries

Investments Aligned With Our Multi-Energy Strategy

Seagreen (Scotland) offshore wind farm under construction.

The challenge posed by the energy transition is to move as quickly as possible from the current energy system (which is more than 80% based on fossil fuels) to a decarbonized system. For a company like TotalEnergies, that means continuing to supply our customers with the energy they need now, while accelerating our investment in the low-carbon energies that will dominate in the future: **we must invest in both systems simultaneously and strike the right balance to ensure a just transition** *(see p. 9)*.

In 2022 our investments totaled $16.3 billion, including $4 billion in low-carbon energies. In 2023, we expect that figure to increase to $5 billion. That sum exceeds our projected capital expenditure for new oil & gas projects ($4.5 billion). In the coming years, investments in low-carbon energies will represent 1/3 of our investments, more than new oil&gas projects (30%).

Consistent with our commitment to build a multi-energy company, we have decided to publish financial indicators for the Integrated Power segment as of the first quarter of 2023 to demonstrate our ability to combine profitable growth and sustainable development while generating value for our shareholders.

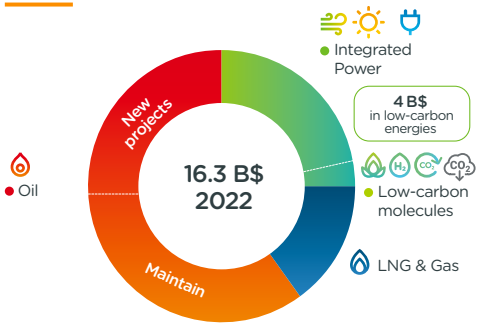
Continuing to invest with discipline: our decision criteria

In a global economic context marked by inflation, it is essential to maintain our investment criteria to ensure the profitability and resilience of our portfolio.

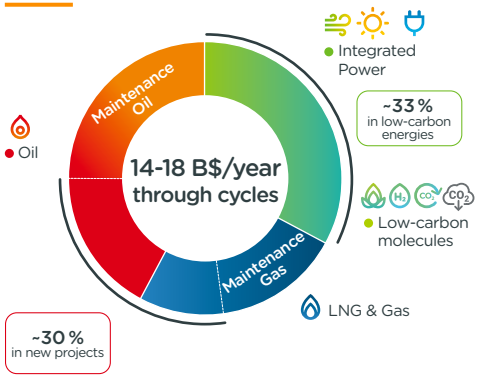
Each material investment project is evaluated in relation to the Paris Agreement's objectives and on the basis of the following criteria:

- **Project profitability** is analyzed in a hydrocarbon price scenario compatible with the Paris Agreement (Brent at $50 per barrel according to the IEA APS scenario limiting global warming to 1.7°C, and Henry Hub at $3 per MMBtu) and with a carbon price of $100 per ton (or the current price if higher in a given country). ››

2022 CAPITAL EXPENDITURE



OUTLOOK 2030



- **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 upstream production assets or that of various downstream units (LNG plants, refineries) of the Company. As of 2023, the threshold has been lowered for Upstream projects to 19 kilograms of CO_2e/boe, versus 20 kilograms of CO_2e/boe previously – evidence of the effectiveness of our 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 energies and technologies** (biofuels, biogas, CCS, etc.), GHG emissions reductions are assessed based on the amount by which they will reduce the Company's emissions.

Our investment decisions in 2022

In 2022, after an evaluation based on these criteria, 43 investments were approved. The most significant by category are as follows:

- **Upstream Oil & Gas:** expansion of the CLOV field and development of the Begonia oil field and Quiluma and Maboqueiro gas fields in Angola; the Snøhvit compression project and development of Eldfisk North in Norway; the launch of Ballymore in the United States; the Fenix gas project in Argentina; Lapa South-West in Brazil.
- **Liquefied Natural Gas:** Acquisition of an interest in NorthField East LNG and NorthField South LNG in Qatar for Upstream and two FSRUs in France and Germany.
- **Petrochemicals:** the Amiral project in Saudi Arabia.
- **Integrated Power:** a variety of solar, wind and BESS projects gained from the acquisition of Clearway Energy in the United States; acquisition of CoreSolar; the ACC gigafactory in France.
- **Low carbon molecules:** Hydrogen: a network of hydrogen stations for trucks in Europe; biogas: South Fork in the United States, acquisition of PGB in Poland; SAF: new unit at Grandpuits, France (Galaxie project).
- **Natural Carbon Sinks:** Maya in Guatemala and Tambopata in Peru.
- **CCS:** acquisition of a storage licenses in Denmark and for Ichthys in Australia.

For projects greenlighted in 2022:

- Profitability exceeds the internally defined threshold, in a scenario compatible with the **Paris Agreement's objectives,** with the exception of natural carbon sink projects, which are evaluated on the basis of the actual cost of a ton of CO_2 .
- **The Scope 1+2 greenhouse gas** intensity is below the average intensity of their category for new oil and gas projects and reduced for brownfield projects, additional measures to control emissions will be needed since the emissions intensity of certain upstream projects increases over time as production declines.

Upstream gives precedence to value creation and cash generation over volume and puts a priority on developing low-cost (typically below $20/boe for operating and investment costs) or low-breakeven and low-emissions projects (typically below $20/b for operating and investment costs) or low-breakeven (typically less than $30/b including tax) and low-emissions (typically less than 19 kg CO_2/b) projects.

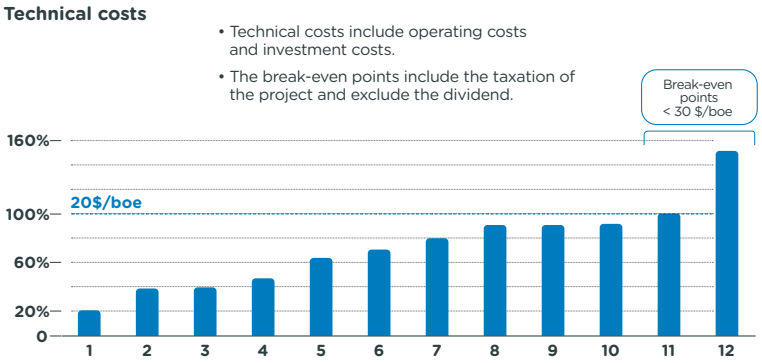
In accordance with the Company's new biodiversity ambition *(see p. 75)*, all new investment projects must also meet the **zero net deforestation** criterion.

Our divestments in 2022

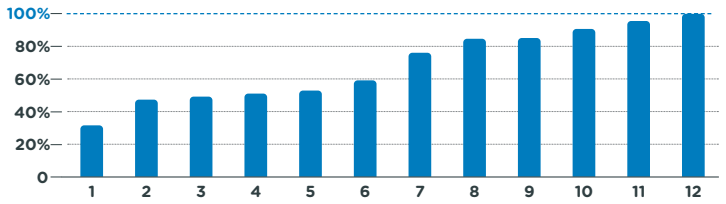
Divestments in 2022 totaled $1.4 billion, and most were connected with our policy of partial disposal of renewable assets once they have been commissioned, the sale of our interest in Block 14 in Angola, the sale of shares by SunPower, the partial sale of the Landivisiau CCGT plant and the sale of the Sarsang field in Iraq. ■

2022 APPROVED OIL & GAS PROJECTS

Technical costs



GHG emission intensity
% vs. portfolio average



Just Transition: A Prerequisite for a Successful Energy Transition

How can we move to a sustainable development model that meets the vital needs of the planet's 8 billion current inhabitants today, and over 8.5 billion by 2030[1], without compromising the ability of future generations to meet their own needs? As the effects of global warming become more visible, nations are now faced with the essential task of a large-scale transformation, particularly of their energy systems.

Beyond the technological and financial challenges it will pose, this transition process must be just if it is to succeed. It must provide the least developed countries with the clean, reliable and affordable energy they need for their growing populations aspiring to a higher standard of living. The most developed nations, in turn, will need to assist those who could be adversely affected by that transition, should for example their job disappear or the cost of this transition put them in energy poverty.

TotalEnergies is a major player in the energy transition. We are mindful of the issues related to a just transition raised by our activities and our own transformation to achieve net-zero emissions by 2050, together with society, and we are providing concrete answers *(see table)*.

We are particularly sensitive to the need to enhance our employees' skills, guarantee decent wages and maintain social dialogue, in the spirit of the International Labour Organization's guiding principles on just transition and the Paris Agreement. ■

(1) Source un.org

A JUST TRANSITION FOR ALL OUR STAKEHOLDERS

THE EXPECTATIONS — Our answers

Our employees

ENSURE EMPLOYABILITY, EQUAL OPPORTUNITY, SOCIAL PROTECTION AND ATTRACTIVE JOBS

- Guarantee decent jobs around the world
- Anticipate changes in disciplines by adapting and developing skills
- Our Care Program (health, social protection, ways of working, family sphere)
- Diversity and inclusion
- Social dialogue

See p. 68 to 72

Our suppliers

PROMOTE DECARBONIZATION AND SUPPORT THE VALUE CHAIN'S TRANSITION

- Train our buyers in sustainability
- Raise awareness and train our suppliers
- Strengthen sustainability requirements in our procurement and audit processes
- Share and promote best practices
- Collaborate with players in the value chain

See p. 92

Our customers

SUPPORT THE TRANSITION TOWARDS LOW CARBON, AFFORDABLE ENERGY CONSUMPTION

- Provide access to affordable energy
- Contribute to decarbonization of mobility
- Support B2B customers in decarbonizing their industrial and commercial operations
- Promote responsible energy use

See p. 41 to 60 and 89

Our communities

CONTRIBUTE TO THEIR RESILIENCE AND TO SUSTAINABLE SOCIO-ECONOMIC DEVELOPMENT

- Protect natural resources and biodiversity
- Respect the rights of affected communities
- Manage the negative impacts of our activities
- Contribute to sustainable local development by cooperating with communities and civil society

See p. 65 to 67 and 73 to 95

Our host countries

PARTICIPATE IN ENERGY PROJECTS THAT ADDRESS HOST COUNTRIES' CHALLENGES

- Deploy a multi-energy offering
- Promote transparent, responsible taxation and the fight against corruption
- Advocate and collaborate internationally and with other companies on the transition's challenges in host countries

See p. 21 and 83 to 95

Our Climate-Related Risks

Effects of drought on a reservoir.

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 opposite table, 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. ■

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 risk	Market risk	Reputation risk	Acute risk	Chronic risk
Pace of the energy transition deployment, evolution of the demand	✓	✓	✓			
Financing of oil and 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		✓	✓			

A Resilient Portfolio

TotalEnergies has succeeded in creating a more resilient portfolio through very active portfolio management in recent years: the upstream portfolio has seen a 50% change since 2015, for an oil reserves replacement ratio above 100% over 2015-2021 (excluding Russia). Our portfolio has a low breakeven point, in line with the Company's objective of keeping below $30/b (in 2022 the pre-dividend organic cash breakeven point stood at $23.2/b), which ensures that its resources remain competitive. For its operated upstream oil and gas activities in 2022, TotalEnergies had the lowest production cost per barrel and the lowest greenhouse gas emissions intensity (Scope 1+2) among its peers, at around $5/boe and 17 kg CO_2e/boe respectively. The average life of the Company's proved and probable oil and gas reserves is 17 years and the discounted value of its upstream Oil and Gas assets beyond 2040 represents less than 15% of their total value.

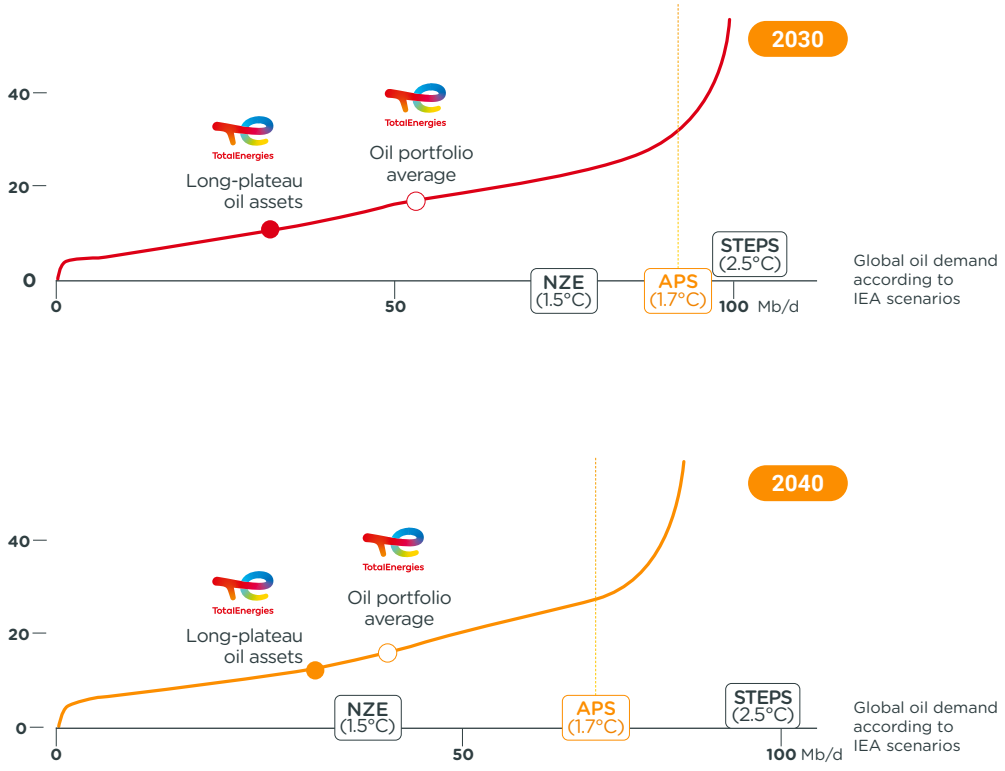
Risks of stranded assets

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 decided to consider only proved reserves for the impairment tests on these two assets – contrary to the general practice which includes both proved and probable reserves – and not to approve any new capacity expansion project on these Canadian oil sands assets.
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 and gas materialize faster than estimated as a result of stricter global environmental regulations and constraints and the changes in consumer preferences that would follow. ››

MERIT CURVE OF GLOBAL OIL PRODUCTION COST[1]

Technical cost, $/b



→ **As shown in the attached merit order curve of production costs up to 2030 and 2040, compared to the demand expected under various IEA scenarios, TotalEnergies' portfolio presents an average technical cost among the cheapest 50 Mb/d in these timeframes, thanks largely to long plateau and low-costs oil assets.**

1. Source: Rystad, IEA WEO 2022 scenarios (rise in global average temperature in 2100).

Oil and gas sensitivity to carbon prices

TotalEnergies assesses its portfolio's resilience, including for new material investments, on the basis of relevant scenarios and sensitivity tests.

Each material investment – including in the exploration, acquisition or development of oil and 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 *(see p.14)*.

Even if carbon pricing is not currently used in all of the Company's host countries, TotalEnergies includes, as a base case, a minimum carbon price of $100/t in its investment criteria (or the current price in a given country, if higher); beyond 2028, it applies an annual increase of 2%.

• **Assuming a carbon price of $200/ton** with an annual increase of 2% beyond 2028 (i.e. a $100/t increase from the base scenario beginning in 2023), TotalEnergies estimates a **negative impact of around 15%** on the discounted present value of its assets (Upstream and Downstream).

1. World Energy Outlook 2022, Table 2.2 Fossil fuel prices by scenario (p. 110).

• In relation to the scenario used to review investments (Brent at $50/b), **application of the IEA's NZE price**[1] scenario would lower the discounted present value of all of the Company's Upstream and Downstream **assets by around 15%.**

Impairment of upstream assets

In addition, to ensure robust accounting of its assets in the balance sheet, the Company uses an oil price trajectory to calculate impairment of its upstream assets. That trajectory is stable until 2030, then decreases linearly to 50_{2022}/b by 2040; from 2040 it decreases to the price retained for 2050 in the IEA's NZE scenario (25_{2022}/b). The prices retained for gas in Europe and Asia decrease before stabilizing as of 2027 and until 2040 at lower levels than today, with the Henry Hub remaining at 3_{2022}/MMBtu over that period. Thereafter, those prices all converge with the prices in the NZE scenario in 2050.

Adaptation to physical risks

We take climate risk into account in the design of our facilities and in the evaluation of our sites in operation. Climate change potentially has multiple consequences, including rising sea levels and increased extreme weather events, that can negatively impact our operations.

We have issued recommendations for addressing the anticipated changes in the climate system and its components in our facility design bases (metocean criteria).

Similarly, we evaluate the vulnerability of our 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. ■

ULTRA-DEEP OFFSHORE

ULTRA-DEEP OFFSHORE IS HELPING TO MEET TODAY'S DEMAND

Technological advances in subsea engineering have enabled oil and gas exploration and production from increasingly deep waters since the late 1990s. "Ultra-deep" offshore is defined as water depths over 1,500 meters, which in the early 2000s represented the technical limit for drilling rigs and production facilities, largely exceeded since.

Today, the evolution of these technologies no longer justifies distinguishing between, for example, developments at 1,200 m or 1,800 m of water. This water depth threshold does not make these reservoirs 'unconventional', because all fields are developed with facilities that use a continuum of conventional technologies.

In addition, ultra-deep offshore projects develop large-scale fields, benefiting from the latest technologies that allow them to achieve very competive CO_2 emission intensities (~13 kg CO_2e/boe on average). Also, the design of the necessary floating installations guarantees minimal impact on biodiversity. These greater water depths alone are not inevitably synonymous with higher safety risks. Ultra-deep offshore wells generally target reservoirs buried at shallow depths; the pressure and temperature within those reservoirs are well within the capacity of proven drilling technology.

It is the combination of high-pressure reservoirs and significant water depths that can heighten the level of risk. TotalEnergies is no longer seeking to develop assets of that kind.

Ultra-deep offshore projects call for technology that only a limited number of major multinationals have mastered. All of those companies share a very high standard of performance, as TotalEnergies does with Petrobras in Brazil on the recent Mero, Lapa, Sepia and Atapu developments. Those projects also help to diversify – and thereby secure – the world's oil supply.

2022 Taxonomy:
A Company in Transition

Pursuant to European Union regulations, the tables below show the proportion of eligible activities and aligned activities in the turnover and CapEx[1] indicators, across the scope of the entities controlled by TotalEnergies, as well as a proportional view, proposed by the delegated regulation of July 6, 2021. This proportional view includes the contribution of joint ventures and companies in which TotalEnergies has significant influence, accounted for by the equity method.

Controlled scope – Proportional view

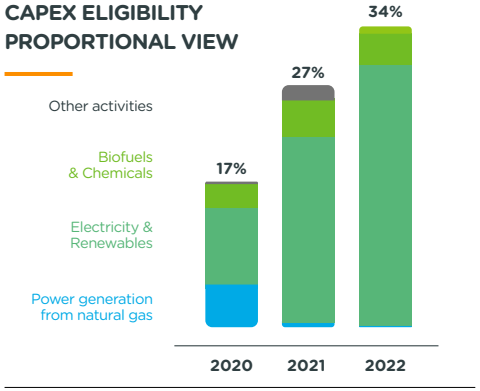
Given the size of the Company and its partnership-based development model across the integrated electricity value chain, the proportional view is more relevant than the controlled scope. Eligible or aligned capex represented more than 30% of the Company's investment in 2022 in the proportional view – confirmation of the growth dynamic underway since 2020.

Eligible activities – Aligned activities

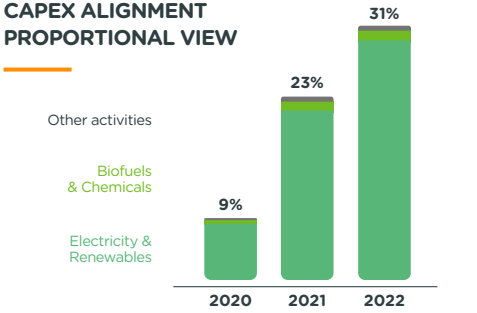
An eligible activity[2] is an activity that falls into one of the following categories on the list established by the European Commission: low-carbon, transitional[3] or enabling[4].

An aligned activity is an eligible activity that also meets a sustainability criterion; in other words, it contributes to one of the climate objectives[5] without adversely affecting the other environmental objectives[6] and meets minimum social standards.

CAPEX ELIGIBILITY PROPORTIONAL VIEW



CAPEX ALIGNMENT PROPORTIONAL VIEW



Our main eligible activities at TotalEnergies

- **In electricity and renewables:**
  - Activities related to renewable energies (wind, solar, bioenergy and hydropower), as well as battery production.
  - Activities related to new energy infrastructure for low carbon mobility (charge points for electric vehicles, hydrogen filling stations).
  - Electricity generation from natural gas (combined-cycle gas turbine power plants).
- **In biofuels and chemistry:** Activities related to the manufacture of biofuels for use in transportation and certain petrochemical activities, including biopolymer production and mechanical or chemical recycling of plastics.
- **The Company's other main eligible activities** are the manufacture of biogas via anaerobic digestion of biowaste and activities related to carbon sinks (carbon capture and storage, natural carbon sinks). ■

Controlled perimeter (in %)	ELIGIBLE ACTIVITIES				ALIGNED ACTIVITIES			
	Turnover		CapEx		Turnover		CapEx	
	2021	2022	2021	2022	2021	2022	2021	2022
Electricity and renewables	2.4	3.0	8.9	13.7	1.3	1.1	8.0	13.3
incl. Electricity generation from natural gas	*1.1*	*1.8*	*0.9*	*0.3*	*0.0*	*0.0*	*0.0*	*0.0*
Biofuels and chemicals	7.4	4.4	2.7	3.1	0.1	0.1	0.3	0.6
Other eligible activities	0.1	0.1	1.8	0.6	0.1	0.1	1.8	0.6
TOTAL	**9.9**	**7.5**	**13.4**	**17.4**	**1.5**	**1.3**	**10.1**	**14.5**

Proportional view (in %)	ELIGIBLE ACTIVITIES				ALIGNED ACTIVITIES			
	Turnover		CapEx		Turnover		CapEx	
	2021	2022	2021	2022	2021	2022	2021	2022
Electricity and renewables	2.6	3.2	21.7	29.8	1.6	1.4	21.1	29.5
incl. Electricity generation from natural gas	*1.0*	*1.6*	*0.6*	*0.2*	*0.0*	*0.0*	*0.0*	*0.0*
Biofuels and chemicals	8.5	5.5	4.1	3.5	0.2	0.1	0.5	0.6
Other eligible activities	0.1	0.2	1.6	0.7	0.1	0.2	1.6	0.7
TOTAL	**11.2**	**8.9**	**27.4**	**34.0**	**1.9**	**1.7**	**23.2**	**30.8**

1. Capex refers to the taxonomy standard. A reconciliation table is provided in the 2022 Universal Registration Document, Section 5.4.6. **2.** Described in Delegated Regulation (EU) 2021/2139 of June 4, 2021. **3.** Activities for which there is currently no economically or technologically viable low-carbon alternative. **4.** Activities that enable other activities to contribute to the achievement of one of six environmental objectives. **5.** The Taxonomy regulation includes two climate objectives: (1) mitigation of climate change, and (2) adaptation to climate change. **6.** Relating to the sustainable use and protection of water and marine resources; the transition to a circular economy; pollution prevention and control; and the protection and restoration of biodiversity and ecosystems.

Making the Case for the Energy Transformation

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 (see sidebar below). A partial review is conducted in the intervening years. This monitoring and evaluation of industry organizations continued in 2022: a complete review began at the end of the year and will be completed in mid-2023. In 2022, most of the new organizations our entities joined were involved in the energy transition and low carbon energies.

Support for government action and climate 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[1].

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 large-scale expansion of renewable energies, deployment of infrastructure (charge points, hydrogen) and the development of low-carbon fuels and renewables for the transportation industry. Our responses to the European Commission's public consultations on climate in 2022 are public and may be viewed online. They address the measurement of emissions from transportation, certification of carbon sinks and renewable energy and solar energy projects. TotalEnergies has expressed its support for the European Union's carbon border adjustment mechanism as part of the EU emissions trading system, and has indicated its backing for a European energy union to the President of France and Germany's Chancellor. TotalEnergies also supports the digital action plan of the European Round Table of Industrialists (ERT) in favour of the energy transition.

In the United States, TotalEnergies supports the implementation of the Inflation Reduction Act and plans to capitalize on that legislation to accelerate the deployment of its activities in renewable energies.

In France, TotalEnergies has joined the Eco-Watt initiative led by RTE, the operator of the country's electrical grid, to encourage responsible energy consumption.

Consistent with its commitment to transparency, in 2022 TotalEnergies lent its backing to new climate reporting standards proposed by the US Securities and Exchange Commission (SEC) and the International Sustainability Standards Board (ISSB). The Company is also cooperating with the Science Based Targets initiative that aims to develop standards applicable to its industry in order to identify criteria for compatibility with the goals of the Paris Agreement. ■

1. Website link: https://totalenergies.com/info/our-advocacy-efforts-carried-out-addressing-climate-issues

REVIEW OF AFFILIATIONS

BASED ON SIX 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 and 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 to move toward the ambition of zero methane emissions.
- **Carbon offsetting:** TotalEnergies promotes a policy of reducing greenhouse gas emissions: avoid; reduce by using the best available technologies; offset the minimized residual emissions. TotalEnergies supports the carbon offset mechanisms necessary to achieve carbon neutrality, through organized and certified markets ensuring the quality and sustainability of carbon credits.

Transforming Ourselves to Reinvent Energy

PARKING SHADES IN RIVESALTES (FRANCE).

Highlights

2022: A YEAR OF ACTION AND PROGRESS

Our offering

	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
ELECTRICITY	– **Awarded a concession** to develop an offshore wind farm with a capacity of more than 3 GW in the United States – **Awarded a concession for a 2 GW offshore wind farm** in Scotland with GIG and RIDG – **Launched TotalEnergies On,** a start-up accelerator for France's electricity and renewables sector – **Acquired SunPower's industrial and commercial solar power businesses** in the United States	– **Acquired a 50% stake in Clearway,** a major renewable energy firm in the United States – **Awarded a concession** for a 1 GW offshore wind farm in the US state of North Carolina – **Acquired Core Solar** and its portfolio of 4 GW of solar and energy storage projects in the United States	– **Announced first power at Scotland's largest offshore wind farm,** 51% owned by TotalEnergies – **Established an Excellence Center** of Clean Energy with DTU in Denmark – **Awarded a contract in Flanders** to install 4,400 electric vehicle charging points on Belgium's public roadways and operate them for twelve years – **Signed an agreement with Veolia** to build the largest solar power plant for a desalination plant in Oman	– **Started production at the 800 MW Al Kharsaah solar power plant** in Qatar – **Acquired a 34% stake in a 12 GW solar and wind power portfolio** and established a joint venture with Casa dos Ventos in Brazil – **Reached the milestone of 500 MW of solar generation capacity** at the Company's B2B customer sites worldwide – **New electricity rates:** created a consumption bonus to reward residential customers in France who reduce their power consumption
GAS	– **Strengthened our strategic alliance with Sempra** to develop the Vista Pacífico LNG project in Mexico and jointly develop several renewables projects in North America – Conducted the **first ship-to-containership LNG bunkering operation** at the Port of Marseille in France	– **Selected by QatarEnergy** as its first partner in the North Field East LNG project in Qatar – **Began detailed design studies** for the Cameron LNG expansion project in the United States – **Signed a long-term LNG sale** and purchase agreement with South Korea's Hanwha Corporation – **Launched a campaign to detect methane emissions** at more than 100 operated sites worldwide using drones	– **Launched the Upstream engineering studies (FEED)** for the Papua LNG project – **Launched the Fenix offshore gas project** in Argentina – **Chosen by QatarEnergy** as its first partner in the North Field South LNG project in Qatar	– **Launched the Amiral project,** a giant petrochemical complex for the production of higher-added-value chemicals in Saudi Arabia
OIL	– **Launched the Tilenga and EACOP projects** in Uganda and Tanzania and signed a memorandum of understanding for the development of renewables in Uganda	– **Launched the Ballymore development** in the US Gulf of Mexico – **Started oil production from the first phase of Brazil's Mero field,** a low-cost, low-emissions project	– **Implemented multi-energy strategy in Angola** with three new projects in oil, gas and solar power	– **Increased by 4%** in our stake in Libya's Waha oil concessions and a project to reduce gas flaring in the country

Highlights

2022: A YEAR OF ACTION AND PROGRESS

Our offering

DECARBONIZED MOLECULES

FIRST QUARTER

- **Signed an agreement with Veolia** to produce biomethane from waste and wastewater treatment facilities in more than 15 countries
- **Signed an agreement with Honeywell** to promote advanced plastic recycling in Europe
- **Signed an agreement with Plastic Energy** to promote technology for advanced plastic recycling in Spain
- **Began SAF production by coprocessing** at the Normandy platform in France
- **Signed a collaboration agreement with Masdar and Siemens Energy** to develop a green hydrogen project and produce SAF in the United Arab Emirates

SECOND QUARTER

- **Signed an agreement with New Hope Energy** for a chemical advanced plastic recycling project in the United States
- **Supplied 100% renewable fuel** used by all cars in competition at the 2022 Le Mans 24 Hours race in France
- **Signed an agreement with ENEOS** to develop sustainable aviation fuel production in Japan

THIRD QUARTER

- **Signed an agreement with Saria** to secure feedstock for the production of sustainable aviation fuel at the zero-crude Grandpuits complex in France

FOURTH QUARTER

- **Partnered with Air Liquide** to produce renewable, low-carbon hydrogen at the zero-crude Grandpuits complex in France
- **Signed an agreement** to supply sustainable aviation fuel to Air France-KLM for ten years

Emissions

CARBON SINKS

FIRST QUARTER

- **Invested in the fund managed by New Forests** for certified plantations and native forest conservation projects in various countries across Southeast Asia that will generate carbon credits

SECOND QUARTER

- **Signed an agreement with Compagnie des Bois du Gabon** to develop a new model for forest management that combines sustainable harvesting with biodiversity preservation, generating carbon credits for Gabon
- **Signed an agreement to develop a CCS project** to decarbonize production at Cameron LNG in the United States

THIRD QUARTER

- **Joined forces with INPEX and Woodside** to develop a major offshore CCS project in Australia
- **Signing by Northern Lights and Yara** of an innovative commercial agreement for cross-border transport and CO_2 sequestration in the North Sea.

FOURTH QUARTER

- **Signed an agreement with Holcim** to develop the first zero carbon cement production facility in Belgium

Low-Carbon Electricity: Growth and Profitability

The low-carbon electrification of energy demand is at the heart of the roadmaps of countries committed to carbon neutrality by 2050. As a result, electricity is a fast-expanding market in which we are experiencing profitable growth. Our objective is to reach gross capacity for renewable electricity of 35 GW by 2025 and 100 GW by 2030, a level that would put us among the world's top five producers of renewable electricity (solar and wind).

Our levers for growth with a return on average capital employed of over 10% are selectivity in our choice of projects; integration across the entire electricity value chain (generation, storage and trading, B2B and B2C sales); 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.

Executing our roadmap in renewables

Our gross installed capacity for renewables rose from 10 GW in 2021 to 17 GW in 2022. Our 2025 objective for gross installed capacity (worldwide) is secured; we are now working on projects to achieve our 2030 objective of 100 GW. The move to gain 100% control of TotalEren in 2023 and its integration within the Company will help us meet that goal.

Renewables | Flexible generation | Storage | Trading | Customers

Creating value by integrating across the electricity value chain

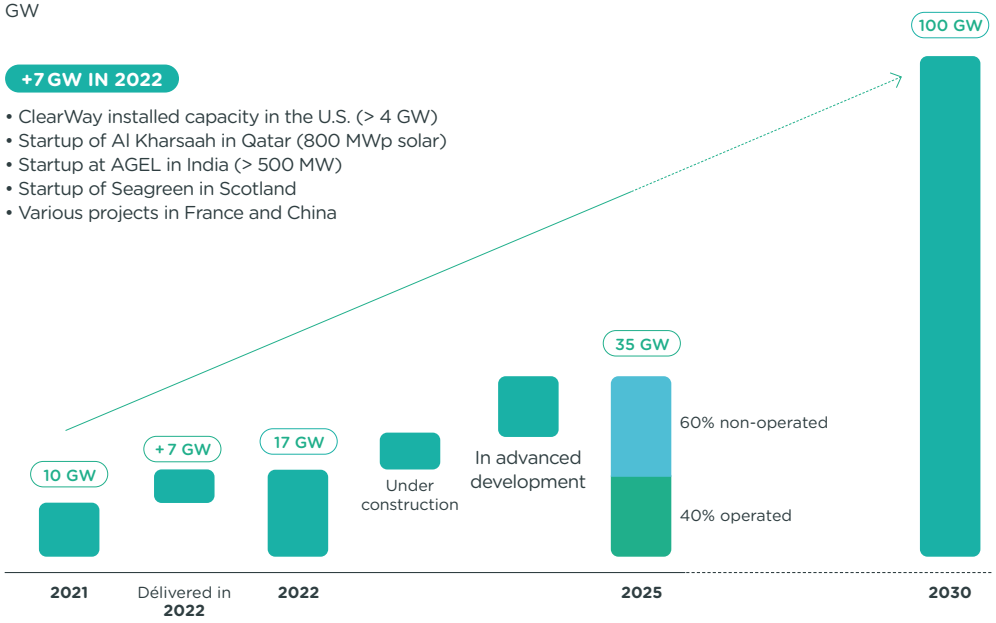
• Developing flexible generation and storage capacities

The intermittence of solar and wind projects creates a need for flexible generation and storage capacity to ensure supply meets demand at all times and to guarantee grid stability.

Flexible generation: We began building a **dispatchable power generation** portfolio in 2015 consisting of combined-cycle gas turbine (CCGT) plants. This portfolio's capacity reached 5.6 GW[1] in 2022 with the March 2022 commissioning of the CCGT in Landivisiau, France. With production of around 23 TWh in 2022 versus 8.4 TWh in 2021, these units helped offset the impact of weather events and the reduced availability of France's nuclear power plants. Ultimately, the CCGT units are targeted for decarbonization, either by changing their feedstock (biomethane or hydrogen) or by sequestering their emissions through carbon capture and storage (CCS). ››

1. From nine CCGT plants, two co-processing units and one gas-fired power and desalination plant.

GROSS INSTALLED CAPACITY FOR RENEWABLE ELECTRICITY



Storage: We are leveraging the technological expertise at SAFT, which is also making the most of this fast-growing market. In 2022, TotalEnergies commissioned a 25 MWh battery energy storage system (BESS) at the Carling complex and SAFT won significant contracts in New Zealand (100 MW BESS to enhance the stability of the national grid, which takes up a growing share of renewable energies) and Côte d'Ivoire (10 MW ESS to facilitate grid integration of the country's first large-scale photovoltaic solar plant).
New objective for 2030: 5 GW of storage capacity deployed worldwide.

• Diversifying our market exposure
We aim to build a portfolio with a good balance between regulated markets (mainly emerging countries) and deregulated markets (primarily OECD countries and Brazil). In the latter, which are often more competitive, we see electricity prices trending upward over the long term. We rely on a combination of long-term contracts (PPA[2] and corporate PPA) and exposure to wholesale markets of up to 30% to make the most of the value created by price fluctuations. In 2022, we developed our electricity trading capacity, which is both crucial for managing this exposure and a competitive advantage for optimizing the value of our projects.

• Developing our customer portfolio
Our integration across the electricity value chain goes all the way to sales to end customers, with packages tailored to consumers and businesses. In 2030, our objective is to serve nearly 10 million consumers in Europe and to sell **130 TWh.** We also aim to reach **150,000 electric vehicle charge points** in operations. For our industrial customers, we offer long-term corporate purchase power agreements (CPPAs) from our solar and wind farms, as well as distributed solar generation solutions.

In France, TotalEnergies is the market leader in solar power on buildings, having been awarded projects totaling more than 250 MW in the French Energy Regulatory Commission's CRE4 call for tenders since 2017 *(see p. 55)*. ■

GROSS INSTALLED CAPACITY FOR RENEWABLES AT END-2022

In MW

	Wind turbines	Photovoltaic	Other[3]	TOTAL
Europe	1,936	991	134	3,061
Oceania	20	325	8	354
Americas	2,426	3,307	62	5,796
Asia	492	6,871	0	7,363
Africa	0	239	15	254
Total	**4,875**	**11,734**	**219**	**16,829**

2. Power Purchase Agreement. **3.** Batteries, hydro, etc.

FOCUS

OUR ACQUISITIONS IN 2022

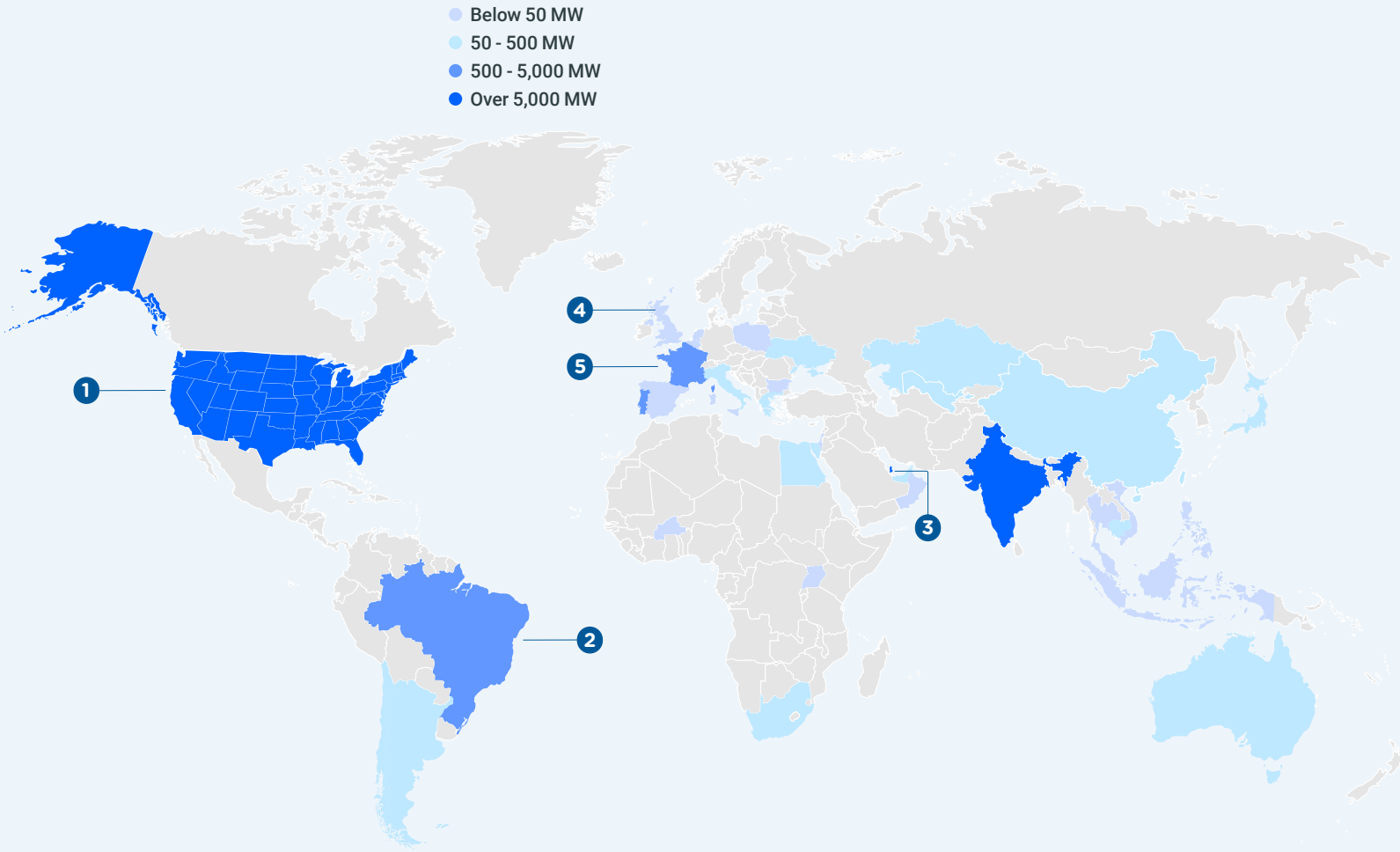
United States: TotalEnergies acquired 50% of Clearway Energy, the country's fifth largest player in solar and wind. The acquisition lifted our renewables portfolio in the United States to more than 25 GW and added to our positions in solar (8 GW of projects with SunChase and Core Solar) and offshore wind (4 GW of projects off the coast of New York and North Carolina).

Brazil: TotalEnergies created a joint venture with Casa dos Ventos, Brazil's leading renewable energy company, to develop a 12 GW renewable energy portfolio that includes 6 GW already in operation, under construction or in an advanced stage of development (start-up within five years).

Maintenance operations on the Champagne Conlinoise wind farm (France).

OUR MAIN ELECTRICITY PROJECTS IN 2022

Gross installed capacity of renewable power at end-2022 by country (in MW)



Major acquisitions in 2022

1. CLEARWAY ENERGY

- 5th largest renewable energies company in the U.S., 25 GW non-operated portfolio

2. CASA DOS VENTOS

- Major player in renewables in Brazil, partnership for 12 GW

Startup of large renewable projects

3. AL KHARSAAH

- First large-scale solar power plant in Qatar, 800 MWp non-operated

4. SEAGREEN

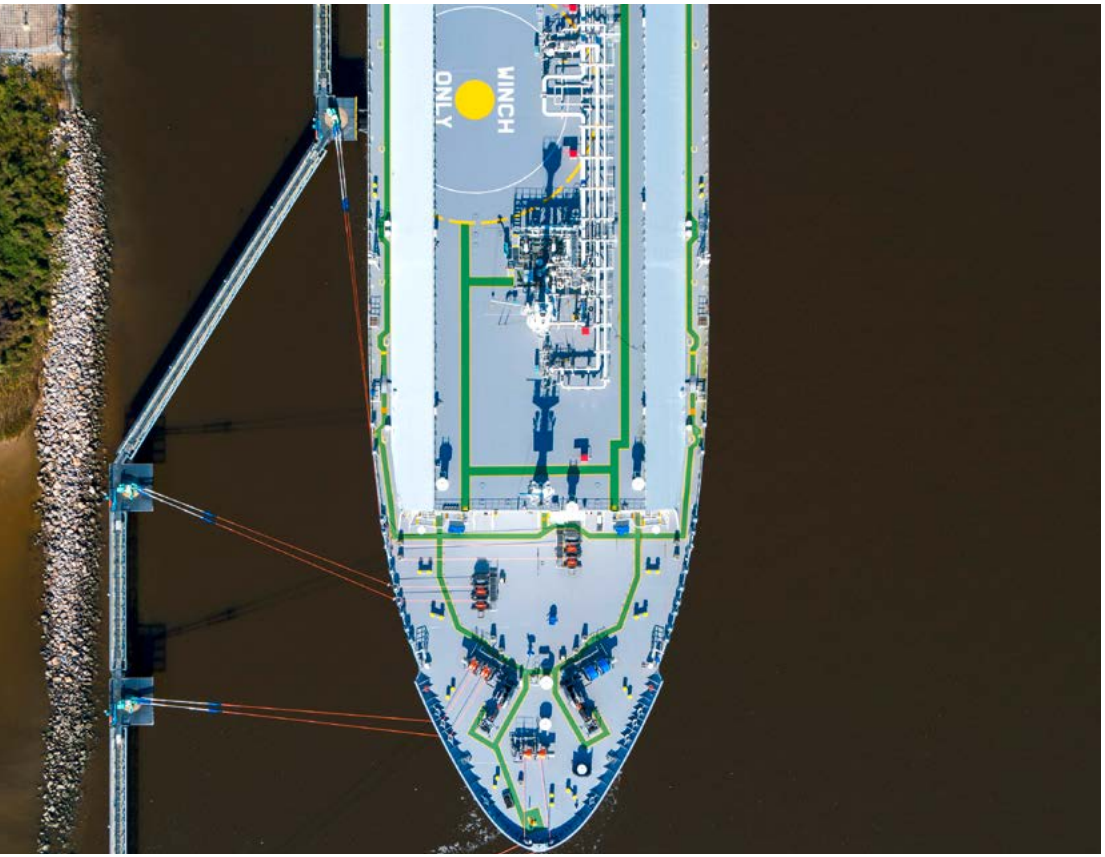
- United Kingdom, fixed-bottom wind farm, 1.1 GW operated

CCGT startup

5. LANDIVISIAU

- Combined cycle gas turbine plant 446 MW in France

Natural Gas: A Key Fuel for the Energy Transition



1st loading of Enterprise LNG at the Cameron LNG liquefaction terminal in Louisiana (US).

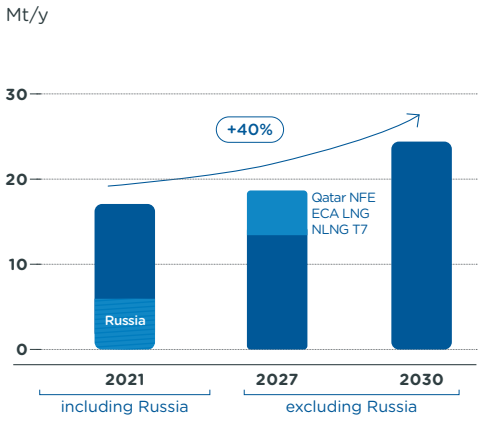
Pursuing our growth in LNG

In the gas markets, TotalEnergies focuses on Liquefied Natural Gas (LNG), which can be shipped everywhere in the world. LNG accounts for around 11% of the total gas market and saw strong growth in 2022 (up 6%) due to interrupted Russian pipe gas imports to Europe. The imbalance between LNG supply and demand led to a sharp price increase, from which we benefited.

On the flip side, certain consumers have reduced their demand: Pakistan, for example, announced in February 2023 that it intended to build new power plants using coal rather than gas to meet future electricity demand. For LNG to fully play its role in the energy transition, it must remain affordable and the associated greenhouse gas emissions must be controlled across the value chain. We are working on that.

With 48 Mt sold in 2022, TotalEnergies has strengthened its position as the world's third largest LNG company. 99% of these LNG sales went to countries committed to net zero emissions by the mid-century, giving them an alternative to coal and fuel oil *(see p. 53)*.

LNG PRODUCTION



LNG: Contributing to Europe's energy security in 2022

We are the leader in regasification in Europe. We fully leveraged our capacities to offset the reduced deliveries from Russian gas pipelines by increasing the utilization rate from 50% in 2021 to 86% in 2022. The connection of our assets of two additional Floating Storage and Regasification Units (FSRUs) in Lubmin, Germany (late 2022) and Le Havre, France (planned for Q3 2023) will increase our total regasification capacity to more than 20 Mt in 2023. To supply these terminals, TotalEnergies is relying in particular on its position as the leading exporter of U.S. LNG to Europe (more than 10 Mt in 2022). ■

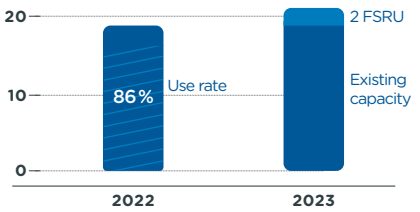
FOCUS ON

Qatar: TotalEnergies selected as partner on NFE projects in June and NFS in September (3.5 Mt/y).

North America: Launch of Cameron Phase 2 FEED.

Papua New Guinea: Launch of integrated FEED.

GROWING LNG REGAS CAPACITY IN EUROPE



- **FSRU in Lubmin,** Germany, since end-2022
- **FSRU in Le Havre,** France, planned for 3Q23

FOCUS ON

REDUCING OUR LNG VALUE CHAIN'S EMISSIONS INTENSITY

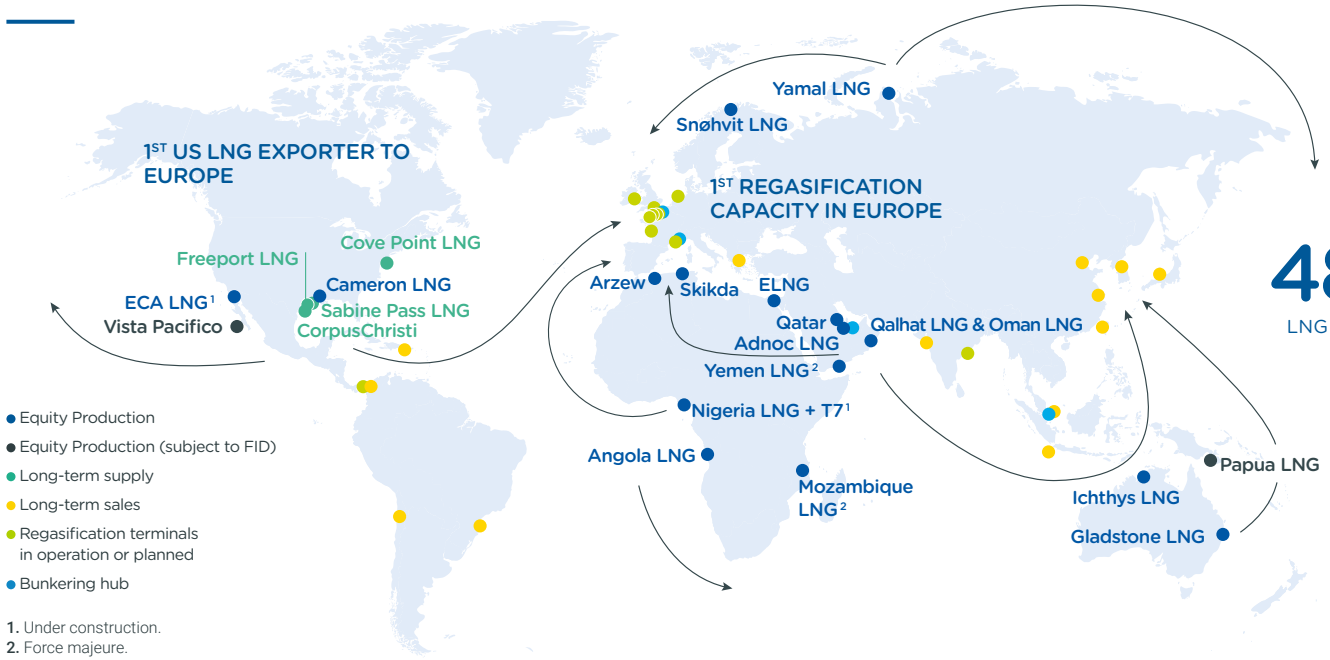
Our LNG growth strategy requires an exemplary approach to GHG emissions across the value chain. Our priority is to eliminate methane emissions *(see p. 30)*. For example, the concept chosen for the integrated FEED launched for Papua LNG is based on four electric liquefaction trains (e-trains) and re-injection of the native CO_2 produced into the reservoirs.

QATAR

TWO MAJOR SUCCESSES IN QATAR IN 2022 FOR TOTALENERGIES

Twice in 2022, Qatar chose TotalEnergies as its first partner for LNG production projects: North Field East and North Field South. These extension projects will provide the Company with additional LNG production of 3.5 Mt/y and significantly enhance the global supply. In line with our strategy, they are among the most competitive in the world in terms of cost and will apply the highest standards to reduce GHG emissions intensity (including methane). Solutions include capturing and storing native CO_2 and connecting to Qatar's power grid, which is supplied with an increasing share of renewable electricity, thanks in part to the 800 MW Al Kharsaah solar power plant commissioned in 2022, in which TotalEnergies is a partner.

A GLOBAL AND INTEGRATED LNG TOP PLAYER



48 Mt
LNG sales in 2022

1. Under construction.
2. Force majeure.

Ras Laffan liquefaction terminal, Doha (Qatar).

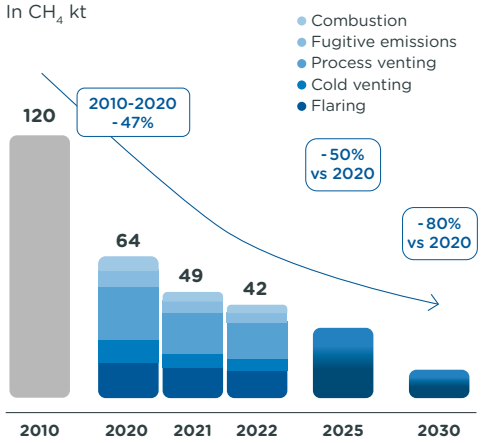
Eliminating Our Methane Emissions

Analysis with the AUSEA drone at the Lapa Field (Brazil).

Methane is a greenhouse gas with a global warming potential 28 times higher than that of CO_2 and a much shorter atmospheric lifetime[1]. This makes reducing methane emissions a priority in efforts to mitigate global warming. To date, 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 from energy, waste and agriculture. Around 25%[2] come from the oil and gas industry. TotalEnergies believes that it is the industry's responsibility to reduce methane emissions to near zero by 2030. We are working towards this goal through the Oil & Gas Climate Initiative (OGCI) and want our conduct to be exemplary.

METHANE EMISSIONS (OPERATED)



We have been working on this issue for many years and we have already halved our methane emissions between 2010 and 2020.

A clear ambition: Zero methane and tangible objectives

In early 2022, we set very ambitious, specific targets for the decade ahead that call for a **50% reduction from 2020 levels by 2025 and 80% by 2030[3].** These targets cover all of the Company's operated assets and go beyond the 75% reduction in methane emissions from coal, oil and gas between 2020 and 2030 outlined in the IEA's Net Zero Emissions by 2050 scenario.

The Company has also maintained its methane intensity target[4] of below 0.1% for its operated gas facilities. In 2022, our methane emissions reached 42 kt, a 34% reduction compared to 2020 levels.

In addition, TotalEnergies is working with its partners to implement best practices at its non-operated assets.

Deployment of AUSEA drones: From estimating to measuring methane emissions

Methane emissions have many dispersed sources. TotalEnergies is a pioneer in detecting and quantifying emissions in real-life conditions, thanks to the AUSEA (Airborne Ultralight Spectrometer for Environmental Application) drones deployed across >>

1. Around 12 years compared with centuries for CO_2. Global Warming Potential of 80 over 20 years and 28 over 100 years (Source: IPCC 6th Assessment Report). **2.** IEA Global Methane Tracker 2023. **3.** Excluding biogenic methane. **4.** Methane emissions intensity in relation to commercial gas produced.

almost all our upstream operated sites worldwide. In 2022, a campaign to detect and measure emissions on site in real-life conditions covered **95% of operated sites**[5] in the upstream sector. More than 1,200 AUSEA flights were carried out in eight countries to cover 125 sites.

AUSEA detection technology, which consists of an ultra-light CO_2 and CH_4 sensor mounted on a drone, was developed in cooperation with the French National Center for Scientific Research (CNRS) and Université de Reims Champagne Ardennes. It is at the cutting edge of scientific research for detecting and quantifying methane emissions on site, with a high level of accuracy (>1kg/h).

TotalEnergies is in advanced discussions with some operators of its non-operated assets to make this technology available to them and to carry out targeted detection campaigns on these assets.

Targeted actions for each methane source, asset by asset

Emissions reduction is a direct result of an action program at our facilities targeting each specific source of methane (venting, flaring, fugitive emissions and incomplete combustion) and adapted to the specific features of each asset.

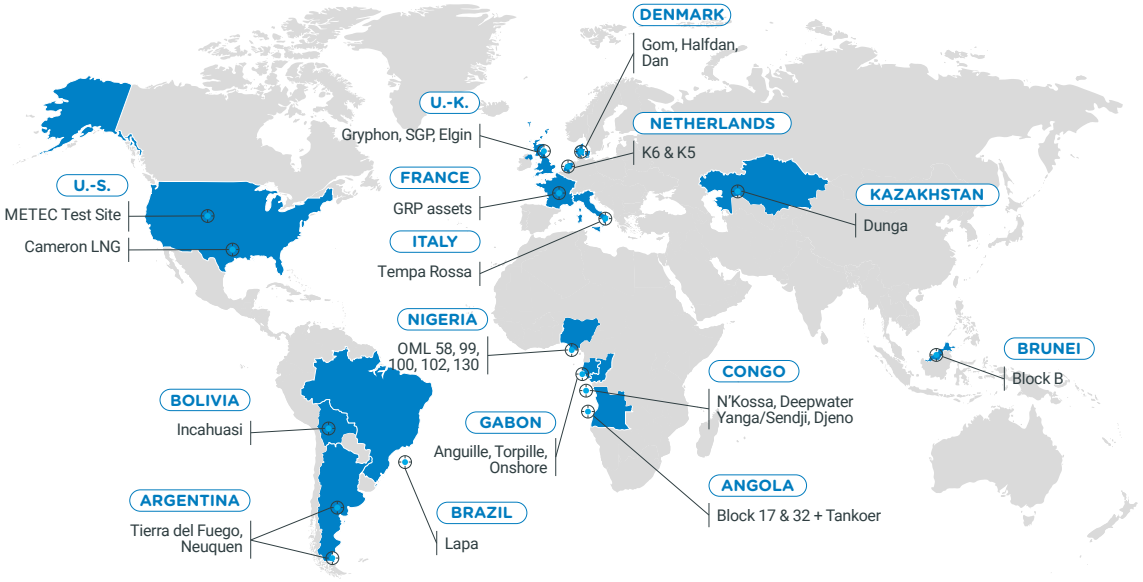
Leading the industry through OGMP 2.0

In its "An Eye on Methane" report for 2022, the United Nations Environment Programme (UNEP)[6] confirmed TotalEnergies' Gold Standard status. 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. We are doing just that. ■

5. Calculated as a percentage of 100% operated production. **6.** 2nd International Methane Emissions Observatory report.

DEPLOYMENT OF DRONES

E&P Op. assets coverage (op. production %)	2022
DRONE MISSIONS	**95%**



GOLD STANDARD

2021 **2022**

COP 27

PATRICK POUYANNÉ'S CALL TO THE OIL & GAS INDUSTRY TO REDUCE METHANE EMISSIONS AT COP 27

Invited by the Egyptian presidency of the COP 27 climate conference to a discussion on implementing the Global Methane Pledge, Patrick Pouyanné called on all Oil & Gas companies, national and international, to join the OGMP 2.0 and work toward zero methane emissions.

FOCUS ON

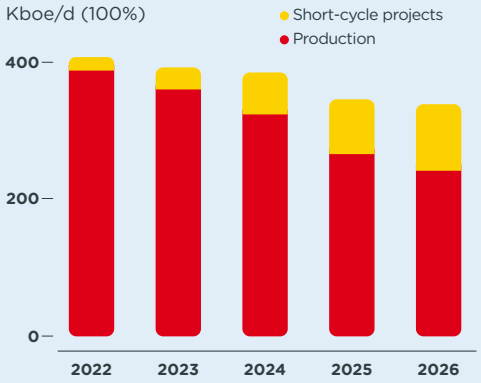
Investments in Low-Cost, Low-Carbon Assets

FPSO Block 17 (Angola).

In light of global demand and the stakes of a just transition, our ambition is to maintain our oil production by 2030. This requires launching new projects to offset the natural decline in field output *(see p. 12)*. We approve projects on the basis of performance criteria, notably technical costs and carbon intensity *(see p. 14)*. We operate our fields in accordance with strict requirements concerning safety, emissions reduction and environmental impact. The cash flow generated by these activities helps to accelerate our investments in renewable energies.

In Angola, several additional wells were drilled and brought on stream in 2022. These short-cycle projects make it possible to maintain the level of production of naturally declining fields. They include phases 2 and 3 of Clov and the start-up of Begonia on Block 17. At the same time, emissions-reduction projects are being carried out on these assets to keep carbon intensity below 18kgCO_2e/boe.

PRODUCTION FROM ANGOLA B17



In Brazil, we pursued our strategy of investing in low-cost, low-carbon assets with the Mero field. A first floating production storage and offloading vessel (FPSO) was commissioned in May 2022, to be followed by three others through 2025. We are also expanding our offshore presence in the **Atapu** and **Sépia** fields, with their low-cost, low-emissions reserves.

In the United Arab Emirates, an agreement was signed in March 2023 to acquire a 20% interest in an offshore concession covering two major fields with a long production plateau (SARB and Umm Lulu) that also meet our low-cost, low-emissions criteria.

In Uganda, the Tilenga and EACOP projects were launched in 2022 with a low technical cost and low carbon intensity. A large-scale program to support the neighboring population and preserve biodiversity has also been rolled out *(see p. 39)*.

TotalEnergies focuses its **exploration** investments on oil prospects with low technical costs, low greenhouse gas emissions and short lead times. In particular, it continued to assess discoveries made in 2020 on **Suriname's** Block 58. In 2022, TotalEnergies made a significant discovery of light oil with associated gas in the Orange Basin offshore **Namibia.** In 2023, the Company is working on appraisal so it can quickly make a decision on production development. ■

Anticipating Changes in Demand by Adapting our Petroleum Product Sales

With its Green Deal and Fit for 55 legislative package, the European Union has taken practical steps toward achieving its ambition to become the first carbon-neutral continent, promoting the development of low carbon vehicles. These major trends are prompting us to pursue our strategy of reducing our sales of petroleum products by 40% by 2030, **so that we do not sell or refine more fuel than we produce oil.**

On the flip side, this strategy is leading us to develop actively in new mobilities: in low-carbon molecules, we have initiated the conversion of refineries into biorefineries in Europe. In electric mobility, we are accelerating our growth with a plan to deploy charging points on major roadways 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.

In Europe, we continued to transform our service stations network into multi-energy hubs (with high-power charge points and hydrogen, *see p. 51)* and were more selective in our petroleum product sales. In March 2023, we announced the sale of our service station networks in Germany and the Netherlands and the creation of a joint-venture with Couche-Tard to operate our networks in Belgium and Luxembourg.

In France, TotalEnergies was the most active player in 2022 for deploying high-power charge points on motorways to meet both government and motorist expectations. The Company confirmed that it will stop selling fuel oil for power generation by 2025.

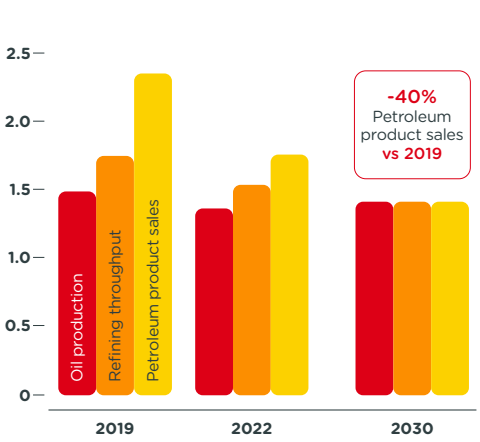
Developing non-energy uses of oil that emit less greenhouse gas

In addition to their use as fuel to produce energy, petroleum products are also used as materials or components.

The share of non-energy and low-emitting uses (petrochemicals and lubricants) in oil consumption will increase as mobility turns to decarbonized solutions such as electricity. This is why we are pursuing our growth strategy in petrochemicals by focusing on integrated complexes with favorable conditions for access to feedstock.

2022: Start-up of a new ethane cracker in Port-Arthur in the United States, with a production capacity of 1 Mt/y. ■

OIL PRODUCTION, REFINERY THROUGHPUT AND PETROLEUM PRODUCT SALES



AMIRAL

A WORLDCLASS INTEGRATED PETROCHEMICALS PROJECT IN PARTNERSHIP WITH SAUDI ARAMCO

In December 2022, TotalEnergies and Saudi Aramco announced that they intended to jointly invest $11 billion (of which $4 billion in equity, 37.5% financed by TotalEnergies and 62.5% by Saudi Aramco) to develop Amiral, a petrochemicals complex in Saudi Arabia with an ethylene production capacity of 1.65 Mt/y. The project will integrate a steam cracker downstream of the SATORP refinery in Jubail, in which TotalEnergies holds a 37.5% interest alongside Saudi Aramco.
It will capitalize on an existing asset that is both profitable and sustainable (first refinery in the region to obtain ISCC+[1] certification) by making it possible to convert products from Saudi crude into high value-added polymers at the Jubail industrial park. Reducing the site's environmental footprint is a central aspect of the project, with the goal of capping greenhouse gas emissions by 2030 and building a wastewater treatment plant that will save up to 8 million cubic meters of water per year.

1. International Sustainability and Carbon Certification. ISCC+ certification indicates that traceability is ensured from collection of inputs (biomass or waste and residue) to the conversion process, in compliance with the ISCC standard.

New Low-Carbon Energies

Electrification alone will not be able to meet all decarbonization needs, notably in aviation and heavy industry. The energy transition also requires the development of low carbon energies based on the conversion of biomass and waste or the production of e-fuels using renewable hydrogen and captured CO_2. We are developing these new energies (biofuels, biogas, hydrogen and e-fuels).

Biofuels

Over their lifecycle, biofuels emit 50% less CO2e than their fossil equivalents, making them a decarbonization pathway for liquid fuels. Because demand is strong, this is a high-margin market, but access to feedstock (plants, residues, sugar, etc.) is hampering growth. Among biofuels, TotalEnergies is putting a priority on producing sustainable aviation fuel (SAF) to decarbonize the aviation industry. Other decarbonization options besides biodiesel are available for road transportation, notably electricity.

Refuelling truck on the tarmac at Le Bourget (France).

To avoid competition for arable land, TotalEnergies is developing solutions based primarily on food industry waste and residues. The agricultural feedstock used to make these products complies with sustainability and traceability requirements concerning carbon footprint, non-deforestation and land use.

We stopped sourcing palm oil and its byproducts in 2022 and have set a new target that **raises the share of circular feedstock (used oil and animal fat) to more than 75% as from 2024.** In 2022, we signed an agreement with **SARIA** to supply the future Grandpuits biorefinery with this type of feedstock *(see p. 36)*.

Biogas

Biogas, produced from the decomposition of organic waste, is a renewable gas consisting primarily of methane. Compatible with existing transportation and storage infrastructure, it has a key role to play in decarbonizing the use of gas products (for power generation and heating). As with biofuels, the roadblocks to development are the cost and local availability of feedstock.
We are rapidly ramping up in this market, which is essentially local. After acquiring Fonroche Biogaz in France and creating a joint venture with Clean Energy in the United States in 2021, our biomethane production doubled in 2022 to 0.5 TWh. The BioBéarn biogas plant came on stream in January 2023 with a planned capacity of 160 GWh per year, making it the largest in France.

Our objective is to have 2 TWh/y of biomethane capacity by 2025 and 20 TWh/y by 2030 worldwide.
To get there, we are forming strategic partnerships with the agricultural and wastewater treatment sectors to develop growth hubs in France and United States. The acquisition of Poland's leading biogas producer PGB, announced in March 2023, should increase TotalEnergies' capacity to 1.1 TWh/y, making it Europe's second largest biogas producer. *(see p. 51).* ››

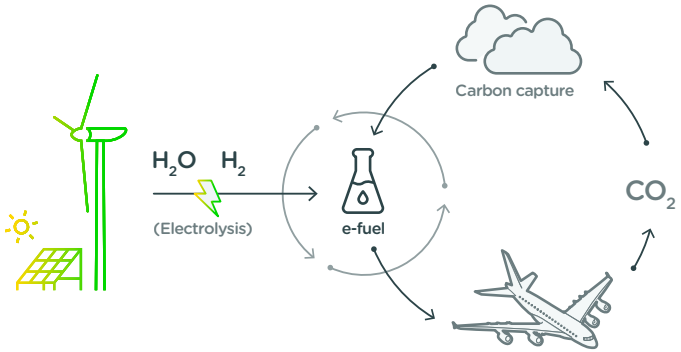
Hydrogen and e-fuels

Hydrogen. TotalEnergies focuses on decarbonizing the hydrogen used in its European refineries, a move that should reduce CO_2 emissions by 3 Mt per year by 2030. In addition to our partnership launched in 2021 at the Normandy refinery, TotalEnergies and Air Liquide signed a partnership agreement in November 2022 to build an innovative, circular system at the Grandpuits biorefinery to produce and harness renewable hydrogen *(see p. 52)*. At La Mède, the Masshylia project to produce hydrogen in partnership with Engie is advancing.

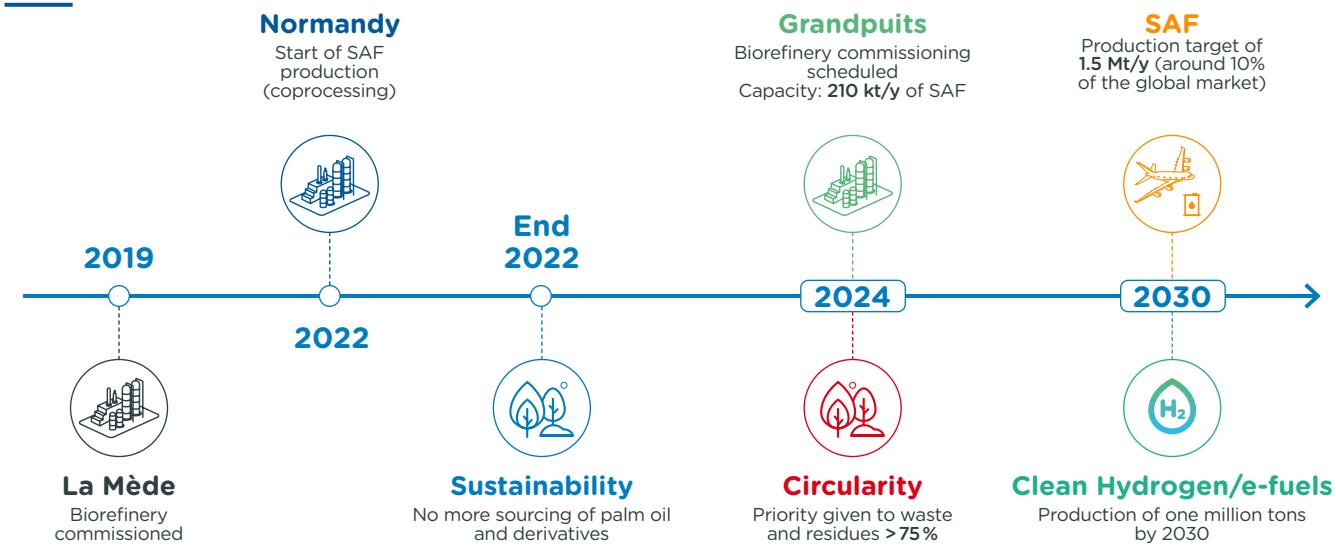
E-fuels. Soon, the use of CO_2 as a feedstock will make it possible to decarbonize certain transportation sub-sectors even more broadly. Captured CO_2 can be combined with green hydrogen to produce synthetic fuel or gas. TotalEnergies is staking out a position in this market. In early 2022, in the United Arab Emirates, the Company joined the initiative of Masdar and Siemens Energy to build a pilot renewable hydrogen plant that will be used to convert CO_2 into sustainable aviation fuel (SAF). TotalEnergies is also developing pilot facilities near its Leuna refinery in Germany to use renewable hydrogen and captured CO_2 to make inputs for sustainable aviation fuel. ■

Operator at the Grandpuits zero crude platform.

GREEN HYDROGEN PRODUCTION TO MAKE SUSTAINABLE AVIATION FUEL



THE TRANSFORMATION OF OUR INDUSTRIAL SITES FOR THE PRODUCTION OF NEW, LOW-CARBON ENERGIES



FOCUS

Grandpuits, an Example of Circularity

Through its conversion into a zero-crude complex, Grandpuits is positioning itself as a forefront example of circularity by integrating several exemplary processes. These include:

• **A biorefinery that will process more than 75% waste and residue** for a second life as biofuel – SAF in particular.

- **In 2022, TotalEnergies and Air Liquide signed a partnership agreement to create a hydrogen production unit** with a capacity of more than 20,000 t/y, partially renewable thanks to recycling of residual biogas from the biorefinery, which will replace the natural gas traditionally used in the process. The unit will also be delivered with carbon capture technology that will help reduce the facility's carbon footprint by capturing more than 110 kt of CO_2 a year for reuse in food and industrial applications. The renewable, low carbon hydrogen produced will primarily be used by the biorefinery itself to produce sustainable aviation fuel. The hydrogen could also be used to support sustainable mobility in the Ile-de-France region.

- **In September 2022, TotalEnergies also signed a partnership agreement with SARIA, a European leader in the collection and conversion of organic waste into sustainable products.** This partnership is a major step in securing the supply of used cooking oil and animal fat for SAF production. It will increase the site's SAF production capacity to 210,000 tons per year, or 25% more than forecast when the initial project was announced in 2020.

• **An advanced plastics recycling unit** in partnership with Plastic Energy that will produce feedstock for making polymers and contribute to the Company's objective of producing 1 Mt of circular polymers by 2030.

• **A unit to produce polylactic acid (PLA), a biodegradable and recyclable bioplastic that also avoids the use of fossil-based inputs.** ■

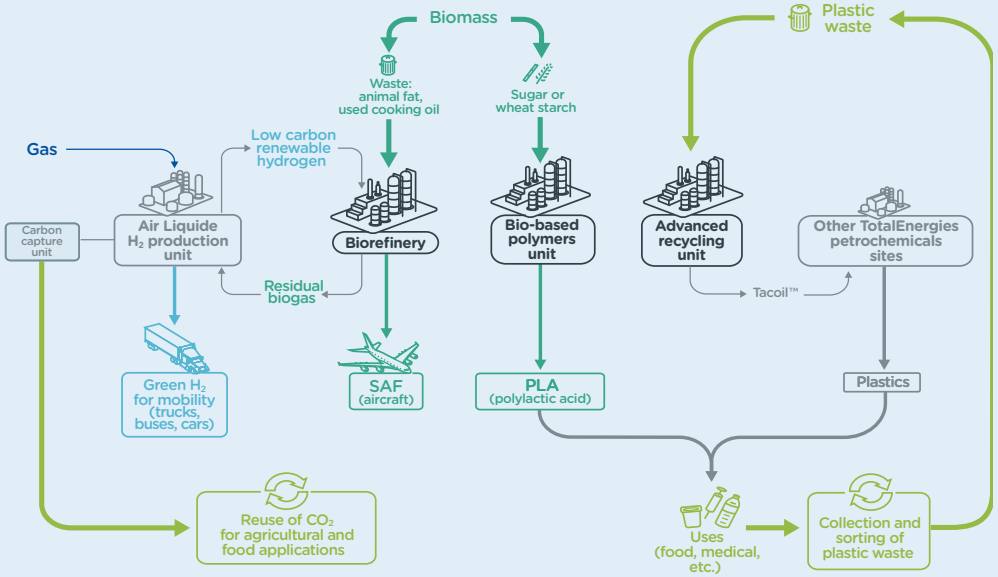
Operators in the western sector of the Grandpuits refinery.

FOCUS ON

INDUSTRIAL SYMBIOSIS

Industrial symbiosis is an inter-company organizational method based on exchanging or pooling resources. It refers to voluntary collective approaches in a given area to use resources such as water, energy and waste more sustainably or productively.

THE GRANDPUITS BIOREFINERY GOES ZERO CRUDE



Innovating to Accelerate the Energy Transition

One Tech experts.

Each year, TotalEnergies devotes around $1 billion to R&D and innovation and mobilizes more than 3,500 employees.

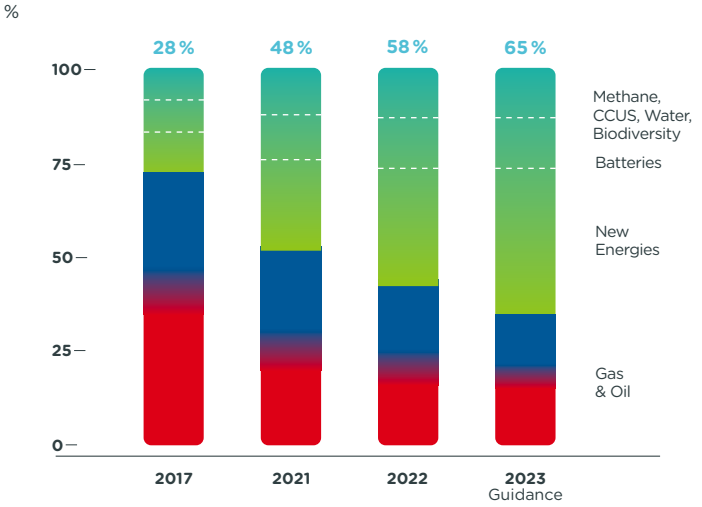
R&D at TotalEnergies

In 2022, 58% of our R&D focused on new energies (renewable electricity, new molecules), batteries and reducing our environmental footprint (methane, CCUS, water, biodiversity etc.) compared to less than 30% in 2017. The figure stands at 65% in the 2023 budget. This realignment of our research and innovation towards new energies points to the Company's future.

Innovating via OneTech

One of the missions of our OneTech segment, 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, all the way through to R&D, reinforced by the development, testing and deployment of innovative external solutions at our assets to the problems raised in our operations. ››

R&D ALLOCATION[1]



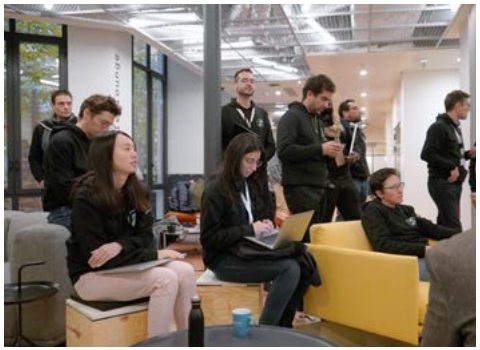
1. Budget excluding Hutchinson.

Leveraging digital technology to reduce our emissions

TotalEnergies' Digital Factory brings together around 300 developers, data scientists and other digital specialists to develop digital solutions to optimize our industrial resources (environmental impact, availability and costs) and offer new services to customers .

For example, the "E²" digital solution provides a real-time estimation of energy consumption by the different equipment in a drilling rig, along with the related greenhouse gas emissions. The solution was deployed on the Maersk Voyager[1] in 2020, resulting in fuel savings of around 7% and 1,000 tons of reduced CO_2 emissions over one year. E² was deployed on two additional rigs in 2022. ■

1. Deepwater drillship.



Teamwork at The TotalEnergies' Digital Factory.

THREE FLAGSHIP R&D PROJECTS

IMPROVING BATTERY RELIABILITY

Rapid charging for electric vehicles, used notably when traveling over long distances, heats the battery cells, thereby creating a potential safety risk. To remove this roadblock to widespread EV adoption, our Solaize R&D team developed a fluid with SAFT that improves ultra-rapid charging and overall safety of the battery pack. The innovation tapped into our long-standing expertise in lubricants, using products that were modified to produce a cooling effect in contact with electrochemical cells and to withstand temperatures exceeding 400°C. These eco-designed fluids are non-toxic, biodegradable and more energy efficient than traditional products. This patented solution is already being tested by a worldclass automotive parts manufacturer and gives us a substantial competitive advantage.

Manufacturing batteries at Saft Bordeaux (France).

Fuel Department Laboratory - CRES (France).

OPTIMIZING BIOREFINERY EFFICIENCY

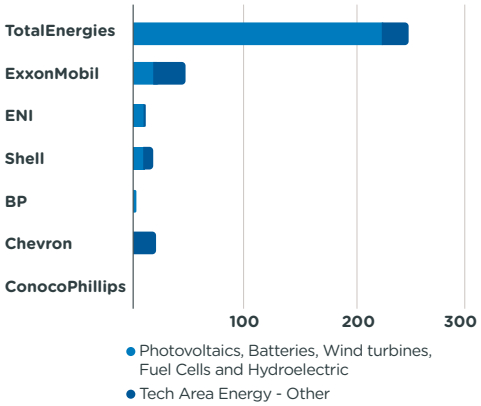
To close the gap between tight production and very dynamic demand for biofuels, our biofuel teams are developing innovative approaches for chemical kinetics modeling. The objectives are to improve feedstock selection (e.g. type of cooking oil) to achieve better yields in our biorefineries. The first model was deployed at the La Mède biorefinery in 2022. The teams are working on a twin version for our units in Gonfreville, Antwerp and Grandpuits.

CREATION OF A CENTER OF EXCELLENCE IN DECARBONIZED ENERGIES IN DENMARK

Denmark is one of the most advanced countries for decarbonized energies. In 2022, we teamed up with the Technical University of Denmark (DTU), recognized worldwide for its expertise in renewable energies (specifically floating offshore wind), to create a center of excellence in low carbon energies. The center will allow us to improve our performance, test tomorrow's technologies and train our employees. As from 2023, it will have access to an industrial-scale pilot site comprising wind turbines, a solar power plant and batteries for conducting research with DTU on hybrid systems or the integration of renewables in power grids.

TOP INNOVATORS

Number of patent families published[1] 2019 - 2022



1. Source : Top innovator according to Cipher – https://cipher.ai/insights/energy-transition-oil-and-gas/.

FOCUS ON

Our projects in Uganda and Tanzania

Lake Albert (Uganda).

Uganda's Lake Albert region has significant oil resources. Uganda has made the sovereign decision to develop its resources, and has called on TotalEnergies to operate the Tilenga project and CNOOC to operate the Kingfisher project. These are major industrial projects for Uganda and Tanzania. The oil they produce will be transported to the port of Tanga in Tanzania via a 1,400 kilometer pipeline, built and operated by EACOP[1]. The February 2022 launch materialized the Company's commitment to responsibly and sustainably develop these projects in a low-carbon-intensity manner, to foster a net gain in biodiversity and to generate value for the two countries and their local communities. Civil engineering work started in 2022, and the first drilling rig has already arrived at the Tilenga site.

These projects have raised several questions and have been challenged. TotalEnergies has answered these questions in full transparency *(see p. 40)*.

CLIMATE AND ENERGY

The Tilenga project and EACOP pipeline constitute a hydrocarbon development project, consistent with our strategy of only approving new projects if they lower the average carbon intensity of our upstream portfolio *(see p. 14)*. They include concrete emission-reduction measures such as solarized pumping stations along the pipeline in Tanzania and the construction of an LPG[2] extraction unit at Tilenga, providing local communities with access to cleaner and more efficient energies than the wood and charcoal that most currently use every day[3], at an affordable price. In 2022, TotalEnergies also signed a memorandum of understanding with the Ugandan and Tanzanian governments to develop local wind and solar projects to provide power to the local population.

SUPPORT FOR THE PEOPLE CONCERNED BY THE PROJECTS

The Tilenga-EACOP project is being developed in a sensitive social environment and requires the implementation of land acquisition programs with a strong emphasis on respect for local communities' rights. This process, which will lead to the acquisition of 6,400 hectares of land, is being conducted on behalf of the Ugandan and Tanzanian governments, and in strict compliance with national legislation, the United Nations Guiding Principles on Business and Human Rights, and with the performance criteria established by the IFC[4]. Special attention is given to protecting the most vulnerable persons and women's rights by ensuring they are present and involved at each critical stage of the process. ››

Our Figures

For Tilenga:

- 94% of compensation agreements have been signed and 92% had been paid out as of the end of 2022.

For EACOP:

- 91% of compensation agreements have been signed and 85% had been paid out as of the end of 2022.
- Of the **775 households that have been relocated,** involving approximately 5,000 people, about 97% chose to be rehoused in a newly constructed home nearby.
- As of March 1, 2023, 204 houses had been delivered.

Our constant priority is support for the local populations, and action plans have been carried out to ensure that, once the property has been transferred, we can:

- Provide temporary support for those affected until the household has regained a stable livelihood, which has generally and traditionally been based on agriculture.
- Offer long-term support (for a minimum of three years) with three components:
  - Training, mainly in farming-related activities (specifically to improve crop yields), or to start new activities such as nurseries or bee-keeping;
  - Support for budget management;
  - Developmental assistance to help small businesses diversify their income. The projects have enabled a number of community members to receive new career training as machine operators, plumbers or mechanics, for example.

To ensure that we honor and deliver on these commitments, socio-economic monitoring of the population is now underway among the 622 households concerned by construction of the Tilenga industrial zone.

Grievance mechanisms[5] and a complaints tracking register are accessible and fully transparent. As of December 31, 2022, 1,420 grievances about the Tilenga project had been logged in the register, 93% of which have been resolved. For EACOP[6], 1,130 grievances have been logged and nearly 93% have been resolved.

CARE FOR THE ENVIRONMENT

The regions in which TotalEnergies is operating are home to a wealth of environmental and ecological resources, and we are committed to not only restoring that environment, but to leaving it in better condition than before the project began, with a "net gain in biodiversity."

Our first action was to reduce the scope of these projects to limit the footprint on the territory to the strict minimum *(see S&C 2022 Progress report)*.

In 2022, we then launched a "Net Gain" program at Tilenga[7] with the aim of:

- Reducing human pressures on the Murchison Falls National Park, by providing equipment and training to Uganda Wildlife Authority rangers, especially in their fight against poaching (more than 1,000 traps were removed in 2022);
- Protecting the forests' integrity and connectivity: 350 hectares of forest corridors have been replanted in collaboration with neighboring communities, with support from the nonprofit Ecotrust.
- Raising community awareness of chimpanzee protection, led by Chimp Sanctuary, an NGO.

CREATING SHARED VALUE

The development of oil resources will have a significant impact on the Ugandan and Tanzanian economies. The Ugandan government, which became a member of the Extractive Industries Transparency Initiative (EITI) in 2022 *(see p. 93)*, is intending to invest these new revenues in infrastructure development (roads, education, healthcare).

Nearly 80,000 direct and indirect jobs will be created during the project's construction phase, and three million hours of training will be provided during that time. Those skills are destined to expand the local job market in the two countries and strengthen the local industrial infrastructure. Nearly $2 billion in contracts will be awarded to local businesses (subcontractors and suppliers). Over 4,200 direct and indirect jobs will be created during the operation phase. ■

HUMAN RIGHTS

COMMITTED TO DIALOGUE AND RATIONAL DEBATE

Our dedicated teams in the field maintain a daily dialogue with communities and local governments to keep them informed and respond to their questions and concerns. More than 150 public meetings were held with local communities about the Tilenga project in 2022.

- **At a national level, our teams hold quarterly meetings with NGOs (either individually or through the CSCO), community representatives and traditional chiefs, to discuss sensitive or ongoing topics (compensation schedules, attention to the most vulnerable groups).**
- **In2022, our Ugandan affiliate hosted more than 50 outside delegations in the field, religious leaders, legislators, United Nations and European Union representatives, national and international media outlets, etc.**
- **At the international level, discussions have been held with NGOs and investors, as well as French and European political leaders.**

In September 2022, the European Parliament adopted a resolution condemning the alleged violation of human rights in connection with the oil projects in Uganda and Tanzania. TotalEnergies, which was named in the resolution, denounces the fact that it was not approached for a prior discussion and had no opportunity to inform the Parliament that some of its information was factually inaccurate or based on unfounded allegations, some being quite serious. On September 22, the Company sent and published a letter to that effect to the President of the European Parliament.

1. East African Crude Oil Pipeline, whose shareholders are TotalEnergies (62%), UNOC (15%), TPDC (15%) and CNOOC (8%). **2.** A fuel used by local communities for their daily needs that causes health problems and deforestation in the country. **3.** International Finance Corporation, part of the World Bank. **4.** Livelihood restoration program based on IFC standards. **5.** Each project at each site has its own grievance mechanism. Any expression of discontent, by any means and no matter how serious, regarding a specific impact, whether real or perceived, resulting from the affiliate's activities is considered a grievance. **6.** 830 grievances have been logged in Uganda; nearly 96% have been resolved. In Tanzania, 289 grievances have been filed and nearly 85% have been resolved. **7.** In accordance with strict IFC standards. **8.** Civil Society Coalition on Oil and Gas, a network of 60 Ugandan NGOs working toward sustainable governance of oil resources.

Climate and Sustainable Energy

CUSTOMER USING A FLEET CARD AT A CHARGING POINT

WHAT IS AT STAKE?

The **first challenge** posed by climate change is **the need to act.** The scientific community has spoken with one voice, notably in the IPPC Sixth Assessment Report published in 2022, in affirming the crucial role played by cumulative GHG emissions – three-quarters of which originate in the production or use of energy – in heating our planet, and their impact on our environment and communities. Scientists have reiterated the need to take action to reduce those emissions and collectively reach carbon neutrality. That requires a sweeping transformation of our energy systems.

The second challenge arises from the speed and distribution of the required effort. Although it is clear that we must aim for drastic reductions in the world's use of fossil fuels if we are to curb global warming, there is no single path toward meeting that objective. Multiple viable scenarios are compatible with the goals of the Paris Agreement: acting on demand, reducing emissions, capturing residual emissions. On one hand, the planet's path to net zero, as envisioned in the Paris Agreement, will require a differentiated commitment by developed and emerging nations and will hinge on whether people accept the pace of the transition. At the same time, energy sources will need to evolve in accordance with their GHG emissions' intensity and the availability of effective, affordable low-carbon alternatives for consumers. The reality is that fossil fuels still comprise 81% of the world's current energy mix, and global energy-related CO_2 emissions continue to rise, climbing to 36.8 Gt CO_2 in 2022[1].

Mahakam Delta, mangroves with livestock plots (Indonesia).

Cooperation is the third challenge we face, in order to tackle those tasks. Every member of civil society must make reducing its direct emissions (Scope 1+2) a priority. CO_2 emissions reductions and the energy transition are not just a matter of energy supply; they require action on demand, as energy is an essential good for both consumers (since it affects their standard of living) and businesses (since it affects their competitiveness). Reducing the supply of all fossil fuels indiscriminately, across the board, without first developing capacity for low-carbon alternatives, would put supply out of sync with demand, triggering inflation and aggravating social inequalities.

Every member of civil society must make reducing direct emissions, at a pace compatible with the Paris Agreement's objectives, a priority.

Governments, producers and consumers will therefore need to mobilize collectively to ensure the emergence of a planet-wide market for decarbonized energy sources.

A **final challenge, at the heart of the transition, is transparency.** The success of the transition will require appropriate, understandable benchmarks so as to communicate a clear picture of a company's emissions trajectory and progress and provide accurate information to investors, regulators and stakeholders as a whole. ■

1. IEA 2022, CO_2 emissions (https://www.iea.org/reports/co2-emissions-in-2022).

OUR 2022 PROGRESS AND 2025-2030 OBJECTIVES

Our continued progress in 2022, in line with – and often ahead of – our objectives for 2030, demonstrates our firm commitment year after year to our Company's transformation in pursuit of our 2050 ambition:

• **Emissions connected with our operated facilities have fallen by more than 13% since 2015.** That figure includes 7 million tons of emissions from our CCGT plants, pursuant to our new strategy of flexible power generation capacity; the emissions reduction for operated oil and gas activities is actually closer to 30%.

• Scope 3 indirect emissions associated with customer use of our products have declined since 2015. For the use of petroleum products specifically, the decline was more than 27%. The carbon intensity indicator for the energy products we sell **has dropped 12% since 2015,** making TotalEnergies the leader among our peers in decarbonizing our energy mix. ■

			2015	2022	2025	2030
Our emissions (Scope 1+2)	**Scope 1+2 (operated)**	$Mt\ CO_2e$ vs 46 Mt in 2015	46	40 -13%	38 ~~< 40~~ -17%	25-30[1] > -40%[1]
	Scope 1+2 Oil & Gas (operated)	$Mt\ CO_2e$ vs 46 Mt in 2015	46	33 -29%		
	Methane emissions (operated)	$kt\ CH_4$ vs 64 kt in 2020	94	42 -34%	- 50%	- 80%
	Routine flaring	Mm^3/d	2,3	0,5	< 0.1	0
Net carbon footprint of our sales products[2]	**Life-cycle Carbon intensity**	100 in 2015		- 12%	- 15% ~~> - 10%~~	- 25% ~~> - 20%~~
	Scope 3 Oil World[2]	$Mt\ CO_2e$ vs 350 Mt in 2015		254[3] -27%	- 30%	- 40% ~~- 30%~~
	Scope 3 World[2]	$Mt\ CO_2e$	410	389[3]	< 400	< 400

1. Including carbon sinks. **2.** From energy products used by our customers (GHG Protocol Category 11). **3.** Excluding Covid impact for first half 2022. **New goals.**

How TotalEnergies' 2030 Objectives Compare to the IEA Scenarios

Reducing both the GHG emissions at our operated facilities (Scope 1+2) and the life cycle carbon intensity of the energy products we sell are 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 target reductions in the European Union's "Fit for 55" program (a 37% decrease between 2015 and 2030) and the IEA's 2022 Net Zero Emissions scenario (a 35% decrease between 2015 and 2030).

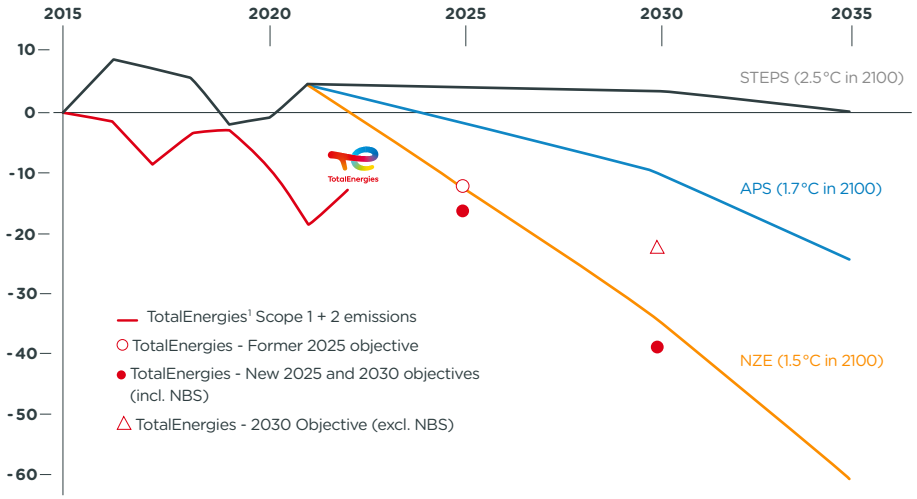
Our new targets for lowering the lifecycle carbon intensity of our energy sales (a 15% reduction by 2025 and a 25% reduction by 2030) place the Company on a trajectory comparable to the Announced Pledges Scenario (APS) in the IEA's World Energy Outlook 2022, which assumes that nations party to the Paris Agreement fulfill all of their net zero objectives. ■

1. Based on IEA WEO 2022 global CO_2 emissions from energy combustion and industrial processes. Excluding Covid impact in 2020 and 2021 for TotalEnergies' GHG emissions. **2.** TotalEnergies' lifecycle carbon intensity and the change in carbon intensity of the world's energy, calculated as the ratio of the world's CO_2 emissions from fossil fuels (in Mt CO_2) to the total primary energy supply in the IEA's World Energy Outlook 2022. A replacement factor of 2.63 (38%) is used to obtain a fossil equivalent for the renewable power generation (wind, solar and hydroelectric) modeled in those scenarios for purposes of comparison with TotalEnergies' lifecycle carbon intensity.

SCOPE 1+2 FROM OPERATED FACILITIES

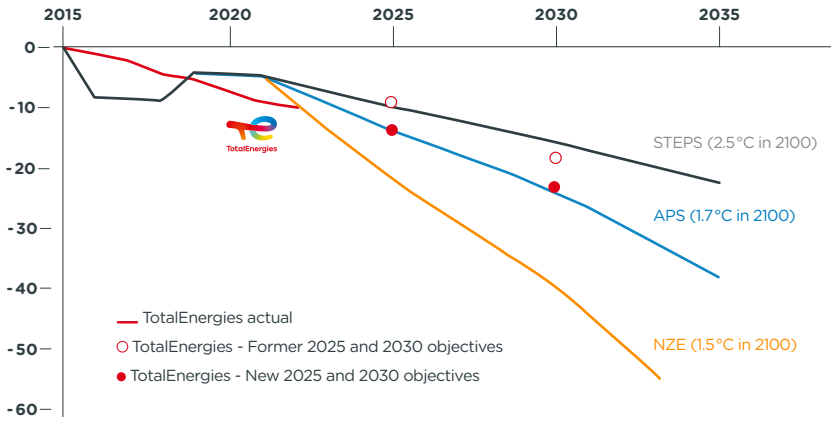
In line with IEA < 2°C scenarios[1]

In %



LIFECYCLE CARBON INTENSITY[2]

In %



Evaluation of our Trajectory by Third Parties

Investors increasingly expect companies to *1.* disclose their GHG emissions, *2.* set short-term (<2030) and *3.* long-term (2050) emissions reduction targets and *4.* develop a decarbonization strategy to meet those targets. In its Net Zero Alignment model, ISS assessed TotalEnergies as one of three companies in the sector to achieve the highest performance level among these four categories, and therefore to receive the "Net Zero Overall Alignment Status: Aligning."

In 2022, the NGO **Transition Pathway Initiative** evaluated TotalEnergies and awarded the Company its highest score for its efforts in managing both its emissions and transition-related risks and opportunities. TPI confirmed, as it had in 2021, that the Company's long-term objectives were sufficiently ambitious to achieve Net Zero by 2050 and remain aligned with their 1.5°C criterion.

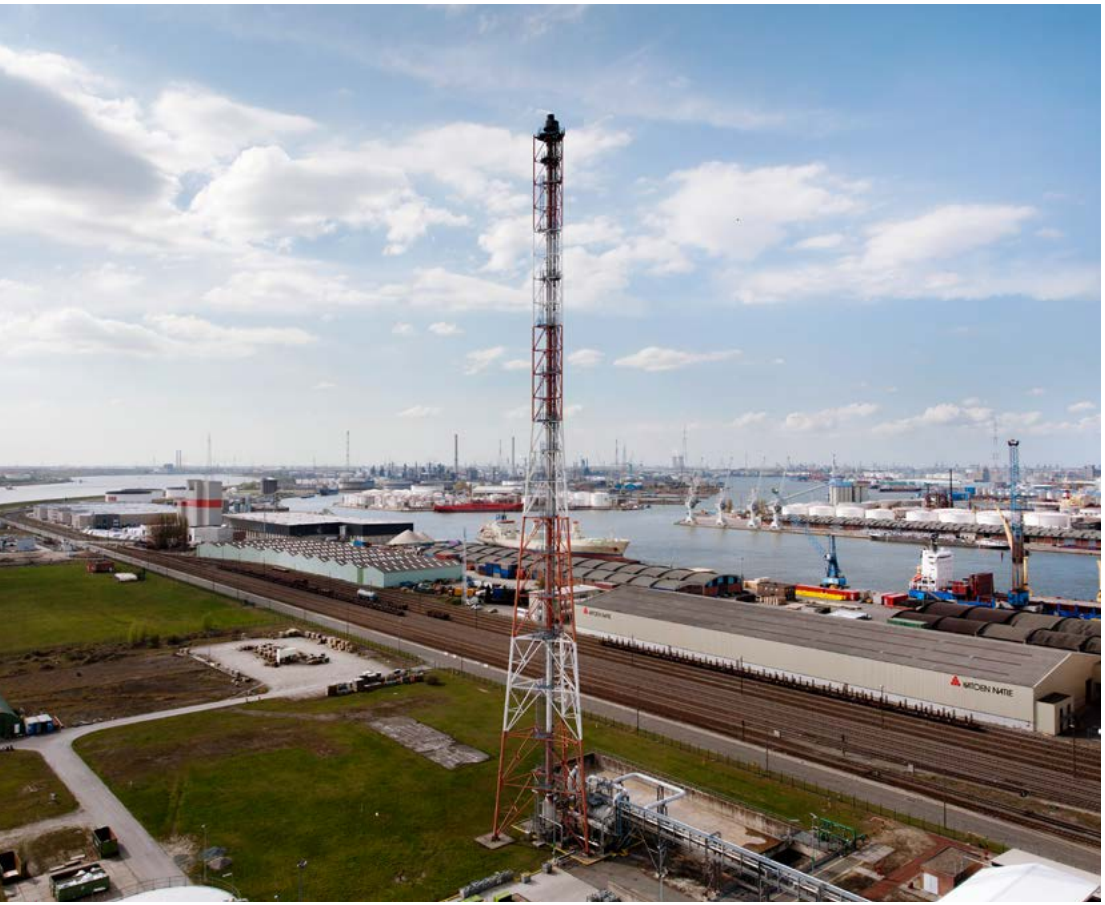
That same analysis was used by **CA100+,** a coalition of investors, to conclude that the long-term ambition set by TotalEnergies was aligned with the objective of capping the global temperature rise at 1.5°C. ■

ESG RATINGS

1. Oil & gas peers Shell, BP, ExxonMobil, Chevron, Equinor, Eni, Repsol (data at December 31, 2022).

Reducing Our Scope 1+2 Emissions,

Using the Best Technologies Available



Antwerp refinery (Belgium).

In early 2019, TotalEnergies made public our aim to reduce our net Scope 1+2 emissions from our operated activities by at least 40% from 2015 levels.

We are moving aggressively to curtail emissions at our operated sites

In 2022, GHG emissions from our operated assets were 13% lower than in 2015, standing at close to 40 million tons of CO_2e. 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 CCGT plants.

Across the 2015 scope of our oil and gas activities, emissions from our operated assets fell by more than **29% from 2015 levels, dropping from 46 to 33 Mt CO_2e in 2022.**

In 2022, with **more than 110 GHG emissions reduction projects** coming to fruition, we reduced our emissions by 0.8 million tons of CO_2e across our operated assets. **Examples of our emissions reduction projects in 2022:**

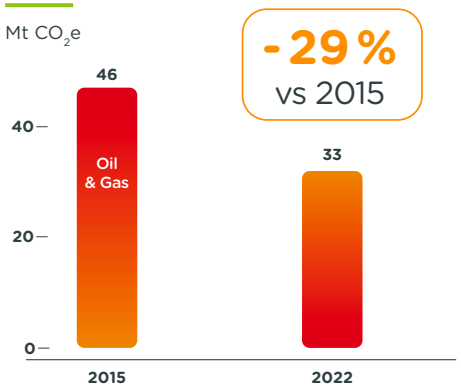
- **Upstream:** Emissions reduced by about 70 kt CO_2e annually thanks to improvements in gas turbine efficiency and refinements to water injection pumps in Angola (Block 17).
- **Refining:** Emissions reduced by about 200 kt CO_2e annually through improvements in energy use and recovery (Normandy, Antwerp).

38 Mt CO_2e/year

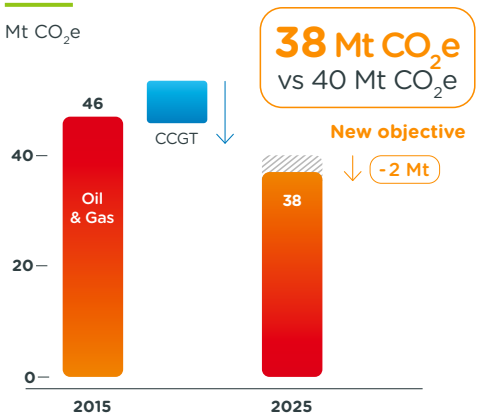
New 2025 Objective vs 40 Mt CO_2e/year previously

In September 2022 the Company decided to launch a two-year, $1 billion plan to accelerate our energy efficiency initiatives with the goal »

SCOPE 1+2 FROM OPERATED OIL AND GAS FACILITIES



SCOPE 1+2 100% OPERATED

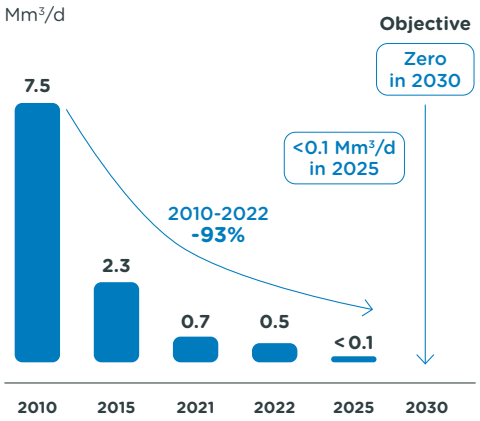


ROUTINE FLARING

OUR PROGRESS TOWARD ELIMINATING ROUTINE FLARING

Curbing routine flaring is a priority for reducing CO_2 and methane emissions. In 2000 TotalEnergies committed to discontinuing routine flaring on our new projects.
As a founding member of the World Bank's "Zero Routine Flaring by 2030" initiative since 2014, the Company has pledged to end the practice altogether by 2030, and our goal is to reduce flaring to less than 0.1 million cubic meters per day by 2025.
The volume of routine flaring fell from 0.7 Mm^3/day in 2021 to 0.5 Mm^3/day in 2022 – a 93% reduction from 2010 levels.
Total flaring, including safety flaring as well as routine and non-routine flaring, fell 7% in 2022 from the previous year.
Example of our reduction projects in 2022: Flaring was cut at Italy's Tempa Rossa field by 32,000 tons of CO_2e thanks to changes in fluid export and separation processes.

ROUTINE FLARING



of saving nearly 2 Mt CO_2e across our oil and gas operations *(see p. 48)*.

Thanks to that plan, we are accelerating our target emissions reduction for 2025 by 2 Mt CO_2e annually: our new 2025 objective is to reduce Scope 1+2 emissions at our operated facilities to less than 38 Mt CO_2e. Our 2030 objective remains unchanged at -40% in 2030 compared to 2015, net of 5-10 Mt of natural carbon sinks.

To reach our objective for 2030, we are mobilizing every tool at our disposal to prevent and reduce emissions from our operations. Compensation from natural carbon sinks will begin in 2030, to offset residual emissions in pursuit of our objective.

2030 Objective consistent with Paris Agreement

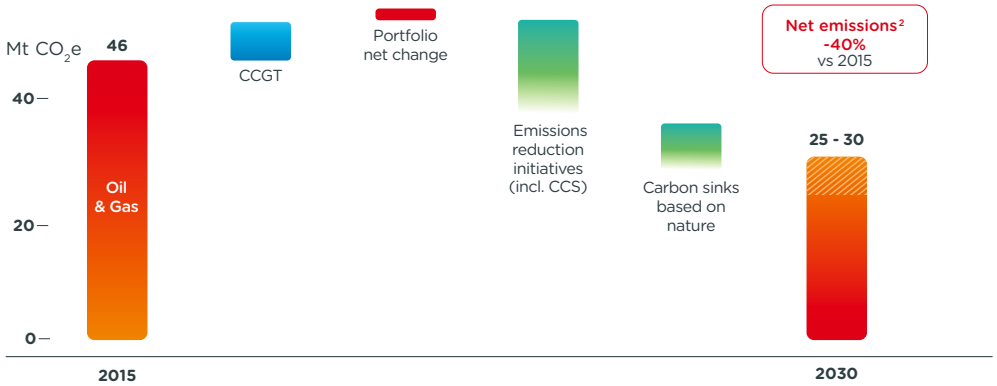
Our objective of a 40% reduction in net emissions of from Scopes 1 and 2 is in line with the reduction target of the European Union's "Fit for 55 program (-37% between 2030 and 2015) and the IEA's Net Zero Emissions 2022 (-35% between 2015 and 2030). ■

-40%

of reduction in net emissions by 2030, vs 2015.

Normandy Refinery in Gonfreville l'Orcher (France).

OUR LEVERS FOR REDUCING EMISSIONS AT OUR OPERATED SITES



2. Net of nature-based carbon sinks.

$1 Billion Over Two Years for Faster Energy Efficiency Results

Generating energy savings in our operations yields dividends 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 our energy efficiency gains at our operated sites worldwide. To that end, we will be investing $1 billion in 2023 and 2024 in efforts to further reduce our energy use.

This plan, centered on four key pathways and led by OneTech, will support the measures adopted over the past several years within the Company's operating segments. Each business sector 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 30 initiatives at Marketing & Services and Gas, Renewables & Power. ■

Solar panels on the roof of a service station in Ressons (France).

$1B
Invested over two years

4.6%
of energy savings by 2025

2 Mt CO_2e
of emissions reductions by 2025

FOUR KEY LEVERS

ENHANCING ENERGY EFFICIENCY AT OUR OPERATED FACILITIES

IMPROVE ASSET DESIGN

- **Exploration &Production**
  Changes to surface infrastructure
  - Exploit reservoir energy
  - Re-routing of process/utility fluids to optimize energy used. Solve piping vibration issues impacting process conditions
- **Marketing & Services**
  - Continue service station solarization

DIGITAL & MONITORING

- **Gas, Renewables & Power**
  Digital twins used to analyze deviations from design conditions of CCGT
- **Refining & Chemicals**
  - Flare InfraRed camera: flame analysis to reduce steam consumption at flare
  - Digital tool to detect process leaks to flare systems
  - Real time monitoring of CO_2 and energy use

ENERGY EFFICIENCY CULTURE

- Cross-branch network for sharing good practices led by OneTech
- **Refining & Chemicals**
  - **CO_2 & Energy Club RC:** network of energy coordinators & process engineers supported by **OneTech** experts
- **Exploration & Production**
  - Energy Management System implementation in operated assets

OPTIMIZE OPERATIONS

- **Refining & Chemicals**
  - Steam network optmization
    - Heat insulation
    - Fired Heaters performance
- **Gas, Renewables & Power**
  CCGT optimization
  - Optimization of the gas temperature
  - Fast start-up thanks to a change in operating mode

Our Actions to Reduce Indirect Emissions, Together with Society

Accelerating to a 25% reduction in the carbon intensity of our sales by 2030

The lifecycle carbon intensity of energy products sold divides emissions over a product's lifecycle by the total quantity of energy sold[1].

The indicator accounts for the impact of our multi-energy transformation and our investments in low-carbon energies. Thus, it reflects our progress in decarbonizing the energy mix of our sales and helping our customers reduce their emissions.

In 2022 we maintained our progress by notching a 12% reduction in the lifecycle carbon intensity of our products since 2015, thanks to growth in our sales of LNG (up 15% in 2022 over the previous year) and electricity (3%) and the diminishing share of our sales from petroleum products (41% of our sales mix in 2022, compared to 44% in 2021).

Based on our progress in 2022, we have decided to raise our objectives and are now aiming to reduce carbon intensity by more than 15% in 2025 and 25% in 2030, instead of the 10% and 20% targets that we had previously set.

-25%

in 2030. Our new target reduction in lifecycle carbon intensity of energy products sold.

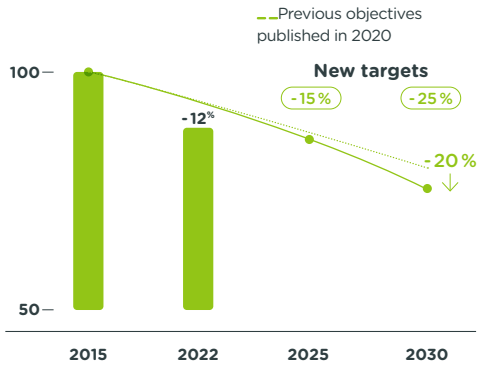
Growth in electricity will drive more than half the reduction in our lifecycle carbon intensity between 2015 and 2030. Another factor will be reduced sales of petroleum products coupled with an increase in gas (and specifically LNG) production and sales of products derived from biomass. Lastly, carbon sinks and lower emissions from our facilities will each account for about 5% of the reduction in carbon intensity.

TotalEnergies is positioning itself for the world's future energy supply and fulfilling its ambition of being a major force in the energy transition. ■

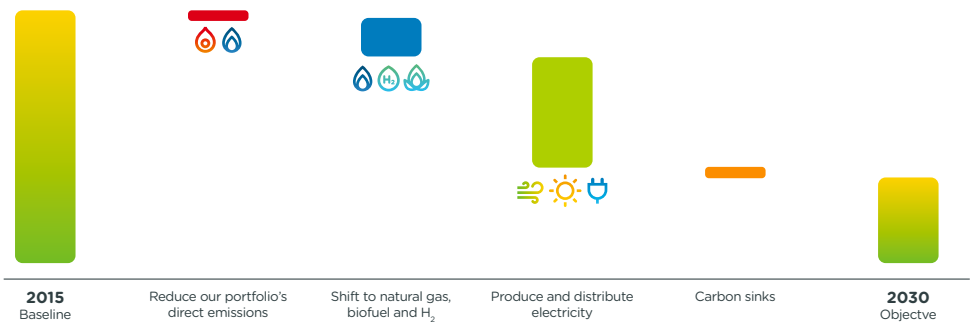
1. The indicator is calculated by dividing numerator and/or denominator *(see p. 106 for more details).*

NET LIFE CYCLE CARBON INTENSITY OF SOLD PRODUCTS

Base 100 in 2015

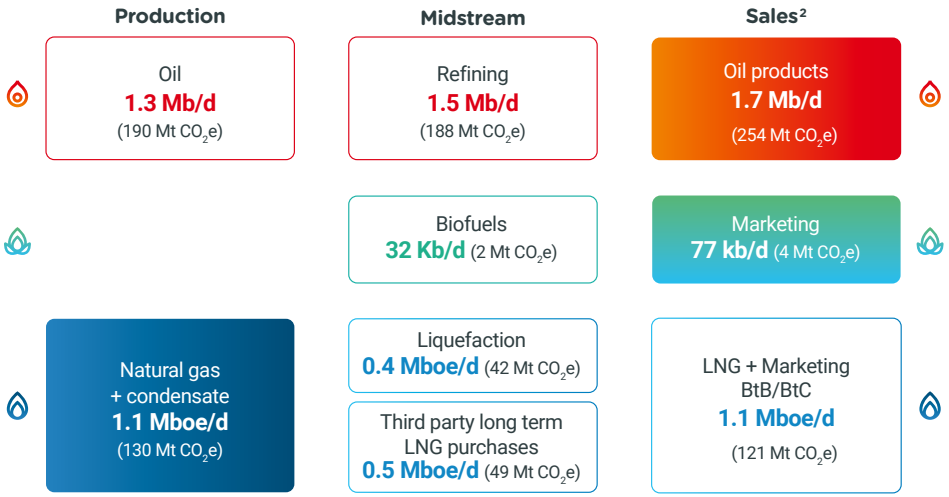


LEVERS TO CARBON INTENSITY REDUCTION (2015-2030)



TotalEnergies' Scope 3 Emissions

CATEGORY 11 SCOPE 3 EMISSIONS AT VARIOUS POINTS ON THE GAS, OIL AND BIOFUELS VALUE CHAINS IN 2022[1]



The emissions associated with the various points on the value chains are not meant to be aggregated, given the integrated nature of our operations.

Under Scope 3, we report emissions corresponding to Category 11 of the GHG Protocol, "Use of Sold Products". To avoid double counting and omissions, and in accordance with the petroleum industry reporting guidelines published by ipieca[3], the emissions counted are based on the largest volume in each value chain (oil, gas or biofuels), i.e., the higher of production or sales.

In 2022, the calculation of Category 11 Scope 3 GHG emissions took into account sales of oil and biofuels (higher than production) and production of gas (higher than sales). Category 11 Scope 3 emissions for electricity are zero.

Under Scope 3, TotalEnergies has since 2016 reported Category 11 emissions related to the use by its customers of products sold for final use – in other words, the emissions released when those products are burned to obtain energy, because customer use of these products constitutes the bulk of an energy company's Scope 3 emissions.

This year, we are publishing, for the first time, an estimate[4] of indirect emissions related to the other Scope 3 categories, in accordance with the classification used by the GHG Protocol and ipieca. Beyond our objectives for Category 11 emissions, we are implementing action plans to reduce emissions[4] in each of the other categories *(see p. 92)*. ■

2022

Estimate of indirect GHG emissions Scope 3[(5)] ($Mt CO_2e$)		
Scope 3 categories		
Cat. 1	Purchased goods and services[5]	**30**
Cat. 2	Capital goods	**< 1**
Cat. 3	Non-Scope 1+2 energy-related emissions	**3**
Cat. 4	Upstream transportation and distribution	**9**
Cat. 5	Waste generated in operations	**<1**
Cat. 6	Business travel	**<1**
Cat. 7	Employee commuting	**<1**
Cat. 8	Upstream leased assets[6]	**0**
Cat. 9	Downstream transportation and distribution	**1**
Cat. 10	Processing of sold products	**6**
Cat. 11	Use of sold products	**389**[2] **(381)**
Cat. 12	End-of-life treatment of sold products	**11**
Cat. 13	Downstream leased assets	**n/a**
Cat. 14	Upstream Franchises	**<1**
Cat. 15	Investments	**n/a**

1. Petroleum products including bulk sales from refining and biomass and natural gas, excluding minority interests in listed companies. **2.** Excluding the impact of Covid-19, in the first half of 2022. **3.** ipieca - Estimating petroleum industry value chain (Scope 3) greenhouse gas emissions. **4.** Explanations concerning the methodologies used to establish these estimates are provided in *Climate Indicators* at the end of this report. **5.** Cradle-to-gate emissions from purchases of goods and services, excluding those reported in category 2 or 4. Calculated with the sum of purchases (excluding energy products resold) multiplied by specific monetary ratios, as well as 20 Mt CO2e relating to purchases of oil and petroleum products (net of the Company's production) and medium and long-term LNG supply contracts. **6.** Reported under Category 4.

Reducing Scope 3 Oil Emissions

and Guiding Our Customers Toward Low-Carbon Mobility

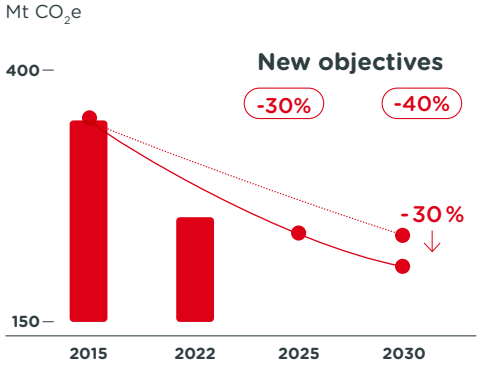
Transportation and shipping accounted for about 25% of the world's energy-related CO_2 emissions in 2021[1]. So decarbonizing mobility represents a major challenge.

Accelerating our target for reducing the Scope 3 World Oil emissions

We are progressively adapting our downstream refining and distribution of petroleum products, which now account for a much smaller share of the energy mix we sell. Scope 3 category 11 emissions from the Company's oil value chain fell by more than 25% over 2015-2022.

On the strength of that trend, we are accelerating our targets: we have now set 2025, rather than the previous date of 2030, as our target date for reducing our Scope 3 oil emissions by 30% in absolute terms from 2015 levels, and for 2030 we have increased our target reduction to 40%.

SCOPE 3 - WORLD OIL



-40%

in 2030. Reduction in Scope 3 World Oil emissions.

Road transportation: accelerating the shift to electric mobility and offering low-carbon fuels

Accounting for 19% of the world's energy-related CO_2 emissions, road transportation is far and away the highest-emitting form of mobility. TotalEnergies supports policies to reduce vehicle emissions. That's why we offer solutions for our customers that are designed to spur the adoption of electric mobility:

• **We are deploying charging infrastructure,** with a network that boasts more than 42,000 operated charge points (a 65% increase over 2021) and **a target of 150,000 charge points worldwide.**

• **We are upgrading services, offering high-power charging solutions along major highways** (more than 160 in Germany, Benelux and France in 2022). Our goal is to equip 700 sites in Europe with high-power charge points by 2025.

• **We are producing batteries for electric vehicles:** construction began on the ACC "gigafactory" in northern France during 2022, in partnership with Stellantis and Mercedes Benz.

CHARGE POINTS

Belgium's Flemish government has chosen TotalEnergies to install up to 4,400 public charge points over the next two years. The new charging stations will be operated for a period of twelve years and powered by 100% renewable electricity generated by offshore wind power in the North Sea off the Belgian coast.

Sales of **NGV** fuel (derived from natural gas or biogas) and **biofuels** can reduce GHG emissions from the existing automotive fleet until electric vehicles gain a broader market share. Thanks to our biorefineries in Europe, we can offer our customers hydrogenated vegetable oil (HVO[2]), a 100% bio-based biodiesel that can reduce carbon emissions by 50% to 90% over a conventional fuel. »

BIOFUELS

For the first time in the event's history, all of the 62 cars in competition at this year's 90th edition of the 24 Hours Le Mans race were using a fully sustainable biofuel developed and supplied by TotalEnergies – Excellium Racing 100. This alternative to conventional fuels reduces greenhouse gas emissions by at least 65% compared to its fossil fuel equivalent.

1st

Leader in mobility electrification in France, with charge points installed at nearly 40% of highway service areas.

1. IEA Transport overview 2022 - https://www.iea.org/reports/transport and IEA CO_2 emissions.**2.** Hydrotreated Vegetable Oil.

In 2022, TotalEnergies distributed 3.3 Mt of biofuels, and hopes aims to exceed 15 Mt by 2030. The Company is also promoting growth in **low carbon hydrogen** as a mobility solution, particularly for trucks. In 2022 we continued to provide backing to Hysetco, a company that is promoting hydrogen-based urban mobility through a taxi fleet and network of dedicated charging stations.

HYDROGEN

In February 2023, TotalEnergies and Air Liquide decided to form a joint venture to develop a network of more than 100 hydrogen stations for heavy-duty vehicles on major European routes.

Air transportation: developing Sustainable Aviation Fuel

Air transportation is responsible for 2% of the world's energy-related CO_2 emissions and is one of the most difficult sectors to decarbonize. Nonetheless, in October 2022 the members of the International Civil Aviation Organization (ICAO) pledged to achieve net zero emissions by 2050.

The adoption of Sustainable Aviation Fuels (SAFs) represents one of the biggest tools in the sector's arsenal for decarbonizing the aviation industry. SAFs can reduce carbon emissions by up to 90% over their entire lifecycle[3]. In 2022 TotalEnergies set a goal of capturing **10% of SAF sales worldwide by 2030** and is working with companies across the value chain, from suppliers of bio-based feedstock to customers that are incorporating SAFs into their aircraft fuel. The idea is to achieve economies of scale in the sector so as to reduce costs and boost adoption of this sustainable solution by our customers.

SUSTAINABLE AVIATION FUEL

- **Production of SAF came on stream at the Normandy complex in France.**
- **TotalEnergies signed a memorandum of understanding with Air France-KLM to deliver more than 800,000 tons of SAF over the ten-year period from 2023. The fuel will be produced in our biorefineries in France for flights departing from France and the Netherlands.**
- **Two technical partnerships: in United Arab Emirates** TotalEnergies joined with Masdar and Siemens Energy to provide its energy expertise for SAF production. In Japan, TotalEnergies partnered with ENEOS in April 2022 to develop an SAF supply chain for the ENEOS refinery in Negishi by 2025.

Shipping: LNG and bioLNG

The shipping industry, which generates nearly 3% of the world's energy-related CO_2 emissions, according to the IEA, has already moved aggressively to shrink its carbon footprint, notably via International Maritime Organization (IMO) rules aimed at halving emissions from shipping by 2050 (from 2008 levels).

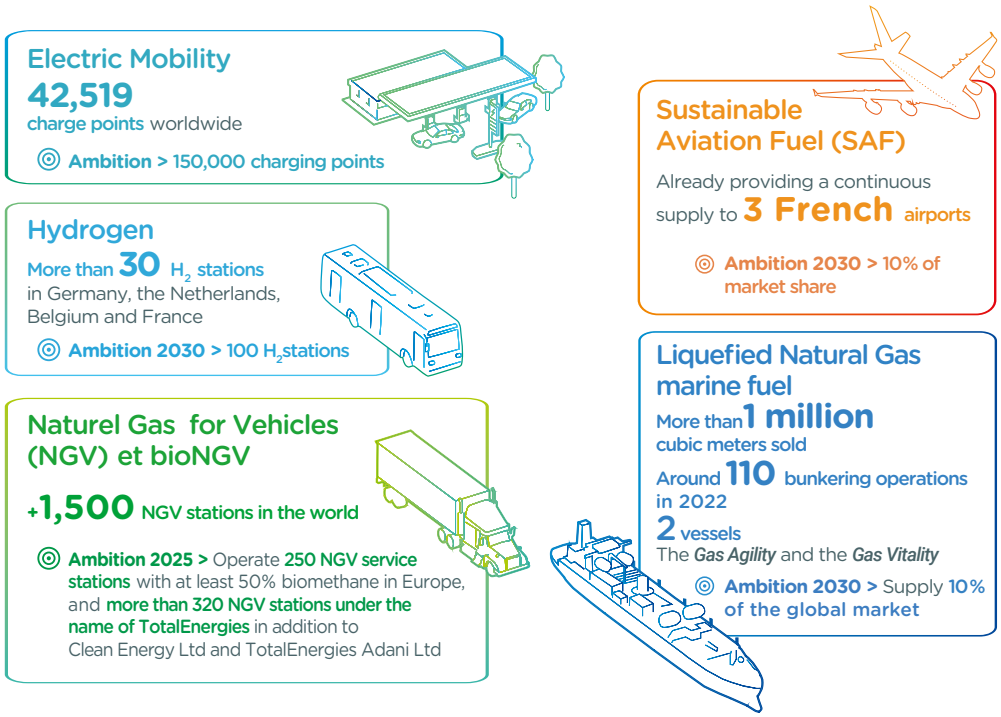
To help its maritime customers reduce their emissions, TotalEnergies has pledged to supply LNG[4] (10% global market share target in 2030), bio-LNG and biofuels to strategic bunkering hubs. For the longer term, the Company is collaborating with partners from shipping industry coalitions and inter-industry R&D initiatives to shape the future market for decarbonized shipping fuels, including advanced biofuels, biomethane, and more ecofriendly synthetic methanol and ammonia. ■

ADVANCED BIOFUELS

- **In January, TotalEnergies and its partner CMA CGM completed the first ship-to-containership LNG bunkering operation at the Port of Marseille Fos.**
- **In July, TotalEnergies successfully bunkered the Montoir, a CMA CGM container vessel, with sustainable marine biofuel in Singapore.**

3. Panorama 2020, published by the French Ministry of Ecological Transition. **4.** Of which GHG emissions from combustion are around 40% lower in relation to a typical heavy fuel oil. **5.** Data at December 31, 2022.

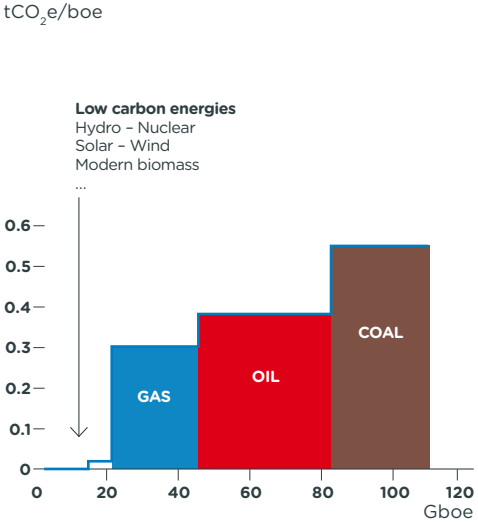
OUR NEW MOBILITIES[5]



Scope 3 Gas Emissions: Contributing to Lower Emissions

from Electricity and Industry

WORLD PRIMARY ENERGY DEMAND 2021 (Gboe) AND CARBON INTENSITY (t CO_2e/boe) BY ENERGY SOURCE



Source: IEA 2022, combustion activities.

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. Gas-fired plants discharge half the greenhouse gases of the coal-powered plants that still, in some countries, account for the majority of power generation capacity. Natural gas can also replace coal or fuel oil for other applications, such as generating heat for industry or homes.

Ninety-nine percent of our LNG sales are made in countries that are aiming for net zero emissions. A large percentage of the natural gas we sell goes to the electricity industry, where it usually competes with coal and fuel oil to provide marginal capacity for power generation.

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 reduction target. When a coal-fired power station is replaced by a gas-fired power station, GHG emissions fall, whereas TotalEnergies' gas Scope 3 increases. The example below illustrates that situation.

For the first time, we have decided to estimate the potential reductions in GHGs to which our 2022 sales of LNG may have contributed. To do that, we identified the likely competing source of flexible power generation for each LNG-receiving country. ››

COAL-TO-GAS SWITCHING: ILLUSTRATION OF THE IMPACT ON TOTALENERGIES' CO_2 EMISSIONS

	Scope 3 of the primary energy producer	Scope 1 of the electricity producer	Amount of power producer	Direct GHG emissions
Case #1: An electricity producer uses coal as fuel for power generation.	Coal producer: 2 Mt CO_2e	2 Mt CO_2e	2 TWh	2 Mt CO_2e
	TotalEnergies : 0 Mt CO_2e			
Case #2: The electricity producer switches from coal to natural gas as fuel for power generation.	Coal producer: 0 Mt CO_2e	1 Mt CO_2e	2 TWh	1 Mt CO_2e
	TotalEnergies : 1 Mt CO_2e			

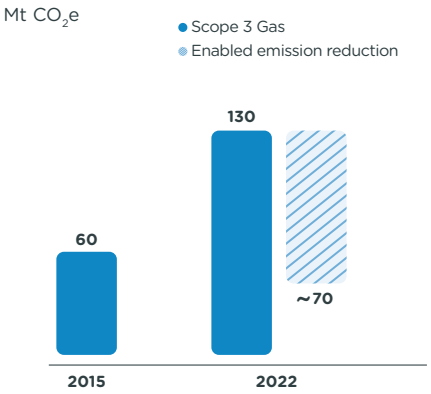
Coal/Natural gas switch Impact on Scope 3 Gas + 1 Mt CO_2e

Benefit for the planet: - 1 Mt CO_2e

When our customers' end use and the alternative source could be identified, we calculated the difference in emissions between the alternative fuel (fuel oil or coal) and natural gas, using each country's emission factors associated with power generation from those sources, based on published IEA[1] data.

For countries where the end use of the LNG we sell could not be identified, we applied that method to our sales weighted by the share of local gas consumption that goes to power generation. We estimate that our customers' use of LNG has enabled emissions reduction by about 70 $MtCO_2e$. The table opposite shows the data by country. ■

SCOPE 3 GAS VS ENABLED EMISSION REDUCTION FROM LNG SALES



ESTIMATE OF ENABLED EMISSIONS REDUCTIONS BY TOTALENERGIES' SALES

LNG

COUNTRY	LNG Sales 2022 (Mt)	LNG displacing (oil/coal)	Emission factor Gas-to-power (kt CO_2e/TWh)	Emission factor Oil-to-power (kt CO_2e/TWh)	Emission factor Coal-to-power (kt CO_2e/TWh)	Gas used in power	Enabled Emissions Reduction (Mt CO_2e)	Efficiency [3]
China	3.5	Coal	333		942		12.8	3.6
Argentina	0.6	Oil	362	730			1.4	2.3
Greece	1.3	Oil/Coal	390	773	1 023	69 %	3.1	2.3
Taiwan	1.4	Oil/Coal	398	720	844	82 %	3.1	2.3
United Kingdom	3.7	Oil/Coal	385	709	1 605	33 %	8.1	2.2
South Korea	5.6	Oil/Coal	355	585	992	57 %	12.4	2.2
Japan	2.8	Oil/Coal	388	837	898	67 %	5.8	2.1
Italy	1.1	Oil/Coal	358	801	1 004	41 %	1.5	1.4
Indonesia	0.6	Oil/Coal	536	1 259	1 046	40 %	0.8	1.3
Dominican Republic	1.0	Oil	449	654			1.3	1.3
Turkey	2.1	Oil/Coal	338	357	966	29 %	2.4	1.1
Malaysia	0.7	Oil/Coal	468	1 865	1 003	33 %	0.8	1.1
Spain	1.3	Oil/Coal	359	628	1 056	38 %	1.4	1.0
North-West Europe[2]	16.9	Oil/Coal	355	671	935	22 %	13.4	0.8
India	0.6	Oil/Coal	497	1 599	928	24 %	0.4	0.6
Others	4.9						4.8	1.0
Total	**48**						**73**	**1.5**

1. Except for France, where the emission factors published by RTE France were used. **2.** Belgium, France, Germany, Netherlands. **3.** Induced Emissions Reductions (t CO2e) /LNG sales (t).

Helping Our Industrial and Commercial Customers Decarbonize Their Operations

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 energy use with our customized solutions, and developing CO_2 storage solutions for our industrial customers.

Established in 2022, **TotalEnergiesOneB2B 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. ■

SAINT-GOBAIN

145 SITES COVERED BY THE *POWER PURCHASE AGREEMENT*

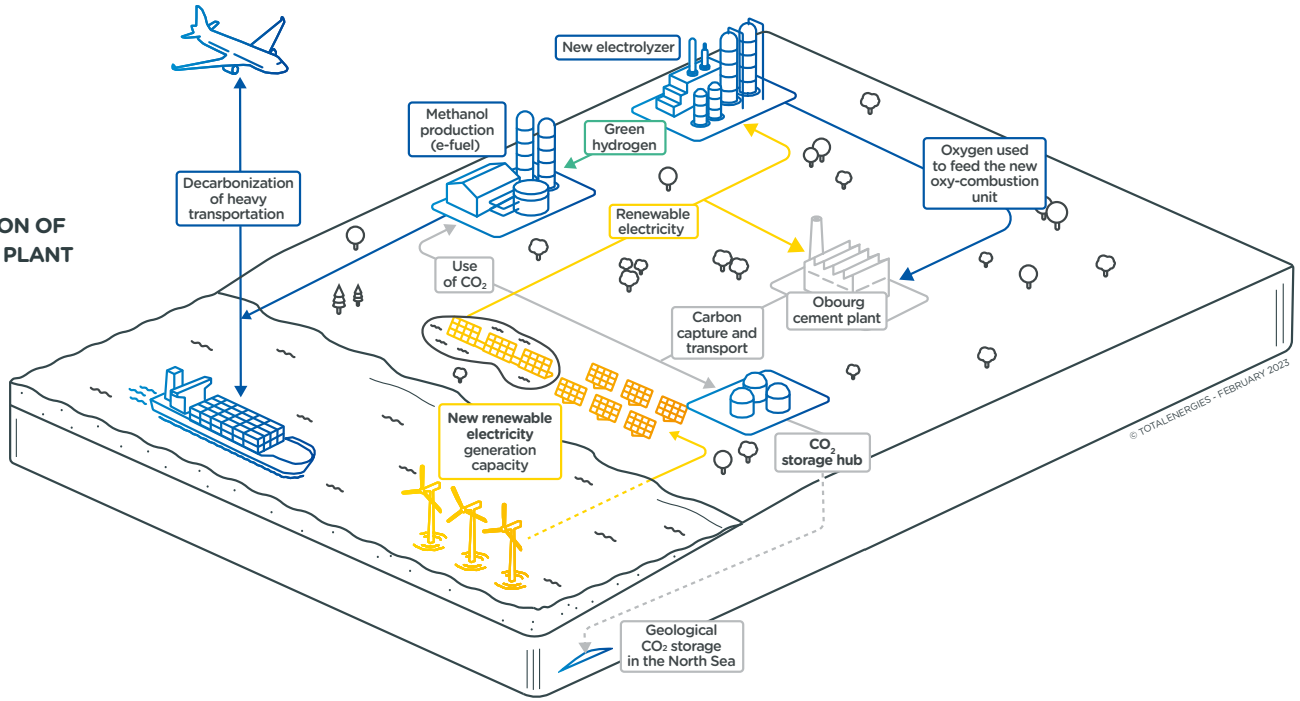
TotalEnergies is helping Saint-Gobain reduce its environmental impact. With its signing of a ten-year power purchase agreement (PPA) covering 145 sites in North America, Saint-Gobain will be able to slash its CO_2 emissions by 210,000 tons annually. In early 2023 we marked a milestone, having signed PPAs totaling 1 GW and covering more than 500 sites operated by our B2B customers.

HOLCIM

SIGNING OF A MEMORANDUM OF UNDERSTANDING

In 2022 TotalEnergies and Holcim signed a memorandum of understanding to jointly study the complete decarbonization of a Holcim cement plant in Obourg, Belgium, that is currently being modernized. The partners will be evaluating an array of energies and technology with the aim of preventing, reducing, capturing, storing and efficiently recycling the 1.1 million tons of CO_2 that the site emits each year. TotalEnergies is developing floating solar panels to supply the site with decarbonized power, and will deliver the captured CO_2 to a geological storage site in the North Sea. The potential for recovering some of the CO_2 to produce e-fuels will be studied as well.

DECARBONIZATION OF HOLCIM CEMENT PLANT



Expanding Geological Carbon Storage to Reduce Our Emissions and Those of Our Customers

CARBON STORAGE PROJECTS IN EUROPE

Carbon capture and storage, or CCS, refers to an industrial and commercial process that involves capturing CO_2, collecting it from industrial sites known as "carbon hubs," transporting it via ship or pipeline and storing it under the ground. Saline aquifers[1] and former oil and gas reservoirs offer a safe and permanent means of sequestering carbon. Under the IEA's NZE scenario, the world will still be consuming oil and gas in 2050; consequently, the need for CCS has been assessed at 6 billion tons of CO_2 annually by 2050, compared to a current global volume of about 40 million tons captured per year. The emerging CCS value chains require immediate investment if they are to be viable and bring carbon neutrality within reach. We are making that investment, to reduce emissions from our facilities and those of our customers.

Our objective for 2030 is to store more than 10 Mt CO_2 per year on an equity share basis. About $100m was invested in 2022, and we plan to increase these investments to $300m annually in order to reach our objectives.

From pilot projects to full-scale operation: the emergence of a new industry

In Europe, the North Sea has the potential to become a major CCS hub thanks to dedicated funding from the European Union (the Innovation Fund; the Connecting European Facility, or CEF) and a higher price for carbon in the EMS (€80/t CO_2 as of December 31, 2022), as well as backing from neighboring countries: Denmark is allocating $2.5 billion to CCUS projects in 2022 and 2023, while the United Kingdom is strengthening its regulatory framework for commercial CCS and boosting its financial support, with a package of £20 billion over 20 years. Moreover, Norway, the U.K. and Denmark have each launched a tender process to award exploration licenses for CO_2 storage.

We are developing multiple CCS projects in that region, where we can capitalize on this favorable regulatory climate. In 2022 our first commercial project, Northern Lights (see sidebar), reached an advanced stage of construction: drilling is currently underway and work has begun on the receiving terminal for CO_2 and transport vessels. »

1. Saline aquifers used for CO_2 storage are geological formations containing sandstone and highly salinated water that is unfit for consumption or agricultural use, overlaid by impermeable rock that allows the permanent containment of CO_2.

NORTHERN LIGHTS

WORLD'S FIRST COMMERCIAL AGREEMENT FOR CO_2 STORAGE SERVICES

In August 2022, TotalEnergies and its partners signed the world's first commercial agreement for the transport and storage of CO_2 with Yara, an ammonia and fertilizer producer.

Under the agreement, 800,000 tons of CO_2 will be captured at the plant every year, and transported to the Northern Lights site for permanent storage.

The Northern Lights CO_2 receiving, storage and pumping terminal, now under construction in Øygarden, (Norway).

Expanding CO_2 transportation and storage services for our customers

In addition to Northern Lights, we are developing several CCS projects that all provide a new use for TotalEnergies-operated oil and gas installations at the end of their working life and their offshore facilities.

Aramis Project, The Netherlands
This project – developed in the Netherlands by TotalEnergies alongside Shell, Energie Beheer Nederland (EBN) and Gasunie – will offer large-scale, flexible carbon transportation services and open access to offshore carbon storage capacity as a decarbonization solution for industry.

Conceptual engineering for phase 1 of the project was completed in 2022; the partners are aiming for a final investment decision in late 2024, with carbon storage beginning in 2027. The project is targeting storage of 5 Mt CO_2 annually in its two initial phases, with potential annual storage capacity exceeding 8 Mt CO_2 by 2030.

10 Mt

Is the target for annual carbon storage in Company share, by 2030.

Cameron LNG liquefaction terminal, next to Lake Charles, Louisiana, (US).

Bifrost Project, Denmark
Bifrost is a CCS project to develop infrastructure that will link European industrial hubs with offshore storage in the North Sea. In partnership with Denmark's state-owned Nordsøfonden, TotalEnergies obtained two licenses in early 2023 encompassing the Harald natural gas fields we currently operate and a saline aquifer, to explore the area's CO_2 storage potential. TotalEnergies will operate under those licenses and plans to develop a project totaling more than 5 Mt CO_2/year, sourced from Denmark as well as Germany, Sweden and Poland.

Reducing carbon emissions at our facilities

CCS is also an important tool for reducing emissions at our facilities, whether we are operator or partner. Those projects span both upstream (native CO_2 capture and storage in Papua New Guinea and at Ichthys LNG) and downstream, with studies underway for our Normandy, Antwerp and Leuna refineries. ■

CAMERON LNG

HACKBERRY CARBON SEQUESTRATION (HCS) PROJECT

In May 2022 we finalized an agreement with Sempra Infrastructure, Mitsui & Co., Ltd. and Mitsubishi Corporation to develop the Hackberry Carbon Sequestration (HCS) project at Cameron LNG, a natural gas liquefaction terminal in the US state of Louisiana. The project will provide permanent storage of up to 2 million tons of CO_2 annually in a saline aquifer.

Offsetting Residual Emissions With Natural Carbon Sinks

Peruvian forest.

"We are investing in forestry, regenerative agriculture and wetlands protection projects."

Forest preservation and restoration can be instrumental in achieving net zero emissions worldwide by 2050. The Paris Agreement encourages these solutions as a way to meet climate change mitigation targets, as well as the related market mechanisms for carbon credit trading. The COPs in Glasgow (2021) and Sharm El-Sheikh (2022) yielded progress toward that goal, with the adoption of rules for implementation of Article 6 of the Paris Agreement and the appointment of the supervisory body envisioned in Article 6.4.

Nonetheless, the ongoing enhancements to the framework for meeting that goal raise some complex issues. Civil society is rightly demanding measures to strengthen the integrity and permanence of emissions reductions obtained through carbon credits, and is stressing the need to manage risks that have adverse effects on people or the environment.

We are backing the efforts underway to create a climate of trust that addresses those legitimate concerns and ultimately yields a robust and reputable voluntary credit system, one that boosts public and private funding to ensure that projects beneficial to the climate, people and diversity can be developed at the appropriate scale. That is one of the challenges facing COP 28, to be held in the United Arab Emirates.

Avoid, reduce, compensate

We have embarked on a fundamental transformation of our Company in which our priority is to "avoid" and "reduce" emissions. Only in 2030 will TotalEnergies begin voluntary offsetting of its residual emissions via NBS (Nature Based Solutions) carbon credits, which will continue gradually until 2050, and will offset only its Scope 1+2 residual emissions, amounting to about 10% of the Company's global footprint.

To that end, we are investing in forestry, regenerative agriculture and wetlands protection projects. Our strategy consists of combining and balancing 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.

In 2022, TotalEnergies forged new partnerships and agreements with recognized stakeholders in Gabon, Peru, Southeast Asia and Guatemala. At year end, our stock of credits stood at just under 7 million. We have budgeted $100 million annually for these projects, and the cumulative budget pledged for all of these campaigns amounts to nearly $675 million over their lifespan, with the accumulated credits expected to total 45 million in 2030 and 69 million over the lifespan of the projects. The final tally of credits obtained will be determined once the projects have been completed. ■

Working With Our Partners on Non-Operated Assets

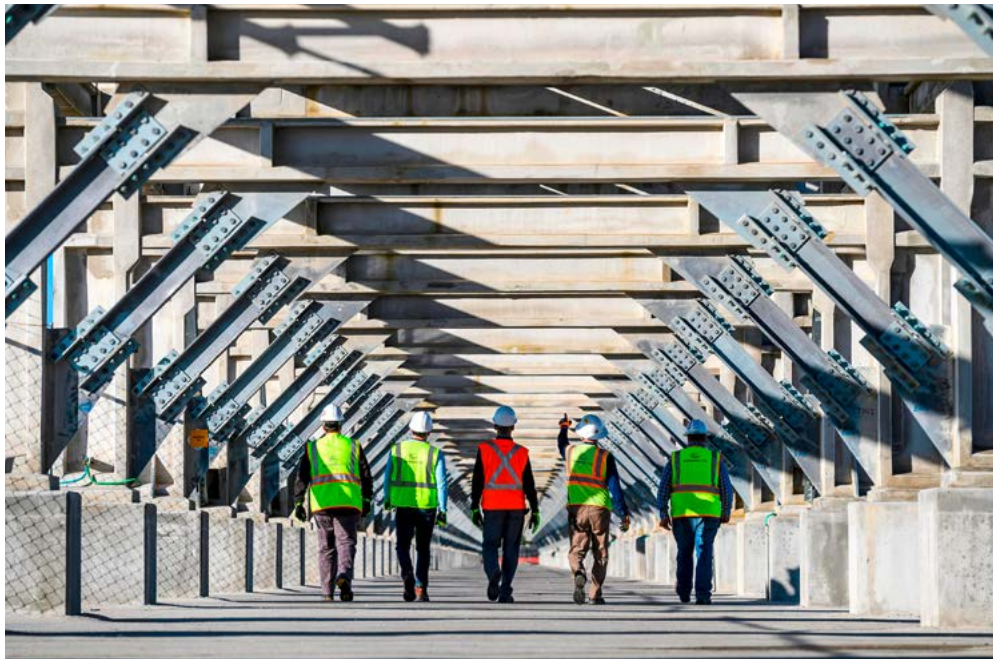
Our Scope 1+2 emissions based on equity share amounted to 56 Mt CO_2e in 2022. Half of those emissions are attributable to our interests in sites we operate; the balance is from our interests in sites operated by our partners.

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, eliminating 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.

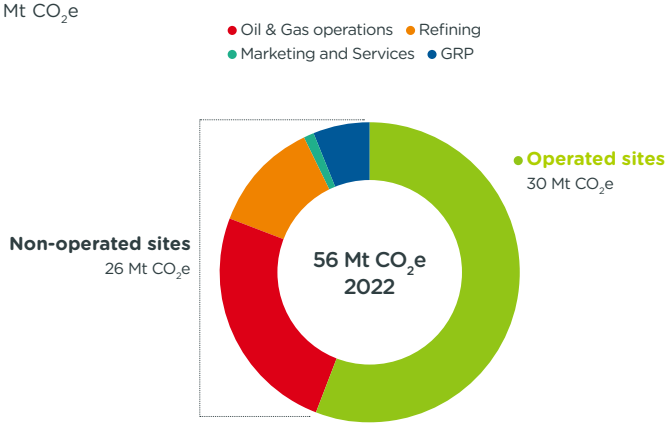
• **Carbon capture and storage** is also an important tool for reducing direct emissions from our assets operated by third parties. To that end, TotalEnergies shares its CCS expertise with its partners, as can be seen in its alliance with Sempra Infrastructures, which operates the **Cameron LNG** natural gas liquefaction plant *(see p. 56)*.

• TotalEnergies works with its partners at each non-operated site on **methane emissions reduction,** promoting the goal of zero methane by 2030 and implementing the **OGMP 2.0** reporting framework. We share feedback and best practices with our partners, via the **Methane Guiding Principles** and other resources. TotalEnergies is also a founding member of the **Oil & Gas Climate Initiative (OGCI),** whose twelve members have collectively met the goal of reducing the methane intensity of their operations significantly below 0.2%. The organization is promoting the **Aiming for Zero Methane Emissions** initiative, which seeks drastic reductions in methane emissions by 2030 across the entire oil and gas industry *(see p. 30)*. ■



Liquefaction terminal (US).

SCOPE 1+2 BASED ON EQUITY SHARE



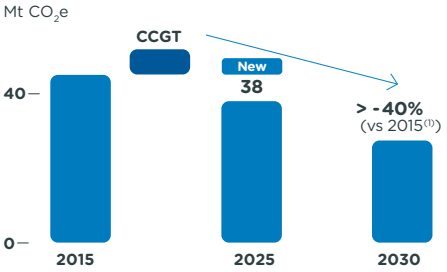
Key Takeaways

AMBITION NET ZERO BY 2050, TOGETHER WITH SOCIETY

OUR OBJECTIVES FOR 2030

SCOPE 1+2

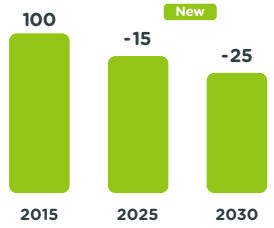
Reduce our emissions – Scope 1+2 Operated



SCOPE 3

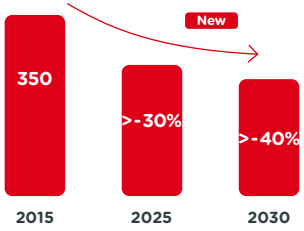
Produce more energy for our customers while reducing our products' carbon footprint

Carbon intensity[2]



Scope 3 - Oil[3]

Mt CO_2e



OUR LEVERS

REDUCE SCOPE 1+2

IMPROVE THE EFFICIENCY OF OUR FACILITIES

- Achieve zero routine flaring by 2030 and less than 0.1 Mm^3/d by 2025.
- Invest in emissions-reduction projects (400 projects identified, $1 B over 2023-2024). New
- Decarbonize our electricity purchases in Europe and the United States (Scope 2) by 2025.

TOWARDS ZERO METHANE EMISSION

- Reduce emissions by 80% by 2030 (compared to 2020).
- Methane intensity of operated gas installations below 0.1%.

CAPTURE AND STORE CARBON FROM OUR FACILITIES

- Develop a CCS capacity of 10 Mt/y by 2030[4].

OFFSET RESIDUAL EMISSIONS

- Invest $100 million a year to develop natural carbon sink capacity of 5 to 10 Mt/y by 2030.

DEVELOP A MULTI-ENERGY OFFER

ELECTRICITY

- Rank among the top 5 producers of renewable electricity (wind and solar).
- Achieve the same customer recognition in electric mobility tomorrow as we have in fuel retailing today.

OIL PRODUCTS

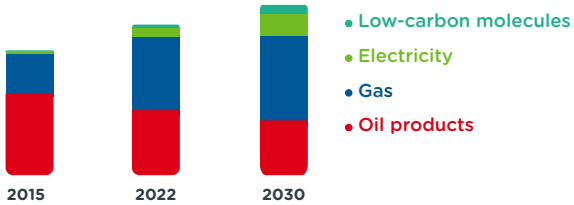
- Focus on projects with low emissions and low technical costs.
- Set the standard in the reduction of oil chain emissions.

NATURAL GAS

- Cement our position among the top 3 in LNG.
- Set the standard in the reduction of gas chain emissions.

LOW-CARBON MOLECULES

- Develop production of biofuels and biogas with a 10% share of the global SAF market in 2030.
- Produce one million tons of clean H_2/e-fuels by 2030.



REDUCE SCOPE 3 EMISSIONS, TOGETHER WITH SOCIETY

- Guide our customers towards lower-carbon energies.
- Promote a circular economy approach in the use of biomass and plastics.
- Develop a carbon storage offer for our customers with capacity exceeding 10 Mt/year by 2030[4].
- Forge partnerships with our top 1000 suppliers to reduce emissions from our purchasing.

1. Including carbon sinks. **2.** Average net carbon intensity of energy products. **3.** Indirect GHG emissions related to the use by customers of energy products sold. **4.** Overall capacity that includes storage for our facilities as well as the storage offer for our customers.

People's Well-Being

TOTALENERGIES EMPLOYEES

WHAT IS AT STAKE?

The 2015 Paris Agreement has generated a groundswell of awareness about the climate challenges and the imperative to take action into account the requirements of a just transition.

The ILO's guidelines for a just transition towards environmentally sustainable economies and societies for all emphasize that economic actors must go beyond this single field to integrate social and environmental concerns into their activities. Thus, attention to people is highlighted as a key element, covering multiple dimensions: safety, respect for human rights or individual fulfillment.

As a major player in the energy world, TotalEnergies aims to be a leading name as a responsible employer and operator. For that purpose, we draw on the principles at the heart of our business model and our Code of Conduct, which applies to all of our operations worldwide

Safety and respect for each other are the two core values of TotalEnergies. Safety is part of our Company's DNA. We make every effort to ensure that everyone, whether our employee or an employee of our contractors, is able to return home safely at the end of their workday.

Operator in the HDS3 unit. Refinery of Leuna (Germany).

Respect for each other includes respect for human rights, in the workplace, in relations with host communities and in contexts where security is an issue. We apply best practices in this regard, based on the United Nations Guiding Principles, among others.

The transformation we are undertaking to become a multi-energy company and achieve our ambition of carbon neutrality in 2050, together with society, is meant to be a just transition for our employees. Their engagement and skills are the main drivers of our long-term performance. Promoting their well-being, an inclusive corporate culture and an environment that encourages the expression and development of everyone's potential is essential to achieving this transition while leaving no one behind. ■

"Listening to stakeholders is an essential part of the just transition. It allows us to better understand society's expectations, which are affected by the geopolitical context, the fear of inflation or the rise in social inequalities, and to direct our actions towards paying greater attention to people's well-being."

Ensuring People's Safety

Operator in front of the La Mède biorefinery, making the symbole of the Company's safety program (France).

Safety is more than a priority at TotalEnergies – it is a core value on which we will not compromise for any reason. Everyone who works at our sites must be able to return home safe and sound at the end of their workday.
The Company has set a goal of **"zero fatalities"** and is aiming for ongoing reductions in the number of accidents.

Sadly, we recorded three accident-related fatalities in 2022 among contractor staff. An analysis of these cases led to specific action plans *(see below)*.

Actions to prevent fatal accidents

Our action plans to prevent fatal accidents are based on long-term work to continuously adapt and systematically implement our two global programs in the field: **Our Lives First** and **the Golden Rules**.

This indispensable fundamental work is supplemented by specific action plans resulting from investigations carried out when new events occur. ››

PREVENTING ACCIDENTS

LESSONS LEARNED FROM THE THREE ACCIDENT-RELATED FATALITIES IN 2022

BURKINA FASO – April 27, 2022
Kader was electrocuted in a service station when his rolling scaffold got close to an overhead medium voltage power line during rebranding work.

Action plan
For all service stations and sites with overhead power lines:
- Isolate the power line with the grid manager before starting any work nearby.
- Prohibit scaffolds under live power lines.
- Ensure a minimal lateral safety distance with dedicated surveillance.

ARGENTINA – August 10, 2022
Florentin was buried in a landslide when he was removing rubble from a quarry with a loading shovel.

Action plan
- Control the application of the prohibition that a worker be alone on an remote site.

FRANCE – September 23, 2022
Alvin was killed when his tanker truck overturned on a motorway.

Action plan
Deploy the best and most recent technologies worldwide by end-2024:
- Lane departure warning system;
- Advanced fatigue and distraction detection.

Worldwide deployment of the "Our Lives First" program

The "Our Lives First" program was expanded in 2022. The program is designed to implement three types of practical actions at all of our sites:

- **Life Saving Checks:** Based on an analysis of past accidents, five activities were identified as generating the highest risk, with the potential for a fatal accident: work at height, work on powered systems, hot work, lifting operations and work in confined spaces. Safety checklists have been drafted for these activities to check that work is carried out correctly in the field, in compliance with the safety rules.
- **Joint Safety Tours:** Front-line presence and safety dialogue have been enhanced to promote a shared safety culture. Joint safety tours with TotalEnergies senior management and contractor partners are held in addition to daily visits from local management.
- **Safety Green Light:** The goal is to ensure that the intervening teams understand the risks involved, notably of a fatal accident, before starting work. The team goes through a ritual of questions, signed off by each team member, as part of the work permit process.

OUR LIVES FIRST PROGRAM

"Our Lives First" program across the Company, in 2022:

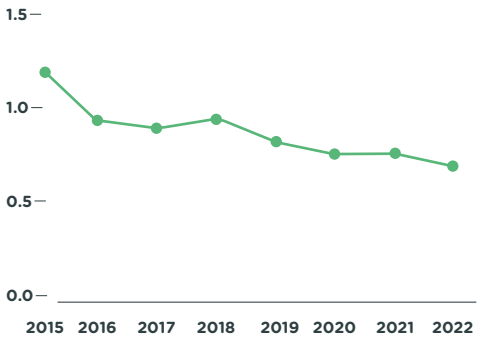
- **150,000 Life Saving Checks,**
- **10,000 Joint Safety Tours,**
- **100% of sites deployed the Safety Green Light.**

OCCUPATIONAL SAFETY

The number of injuries per million hours worked (TRIR) for Company employees and contractors has improved regularly for many years. It stood at 0.73 in 2021 and 0.67 in 2022.

TOTALENERGIES TRIR

Total recordable injury rate per million hours worked.



Adapting our 12 Golden Rules

Concerning occupational safety, our 12 Golden Rules apply to all TotalEnergies employees and contractors. They are a key tool for achieving our safety objectives.

In 2022, the Golden Rules were revised to integrate feedback from recent accidents in the Company and the industry.

- High-risk Situations
- Traffic
- Body Mechanics and Tools
- Personal Protective Equipment
- Work Permits
- Lifting operations
- Powered Systems
- Confined Spaces
- Excavation Work
- Work at Height
- Hot Work
- Line of Fire

Two new Golden Rules were added:

- **Hot work** (risk of fire or explosion)
- **Line of fire** (risk when a person is directly in the path of a hazard)

This revision was a key theme at our World Safety Day on April 29, 2022, which brought together all Company employees and contractors at our operated sites. After this launch, the revised Golden Rules were deployed in the second half of 2022 at all sites.

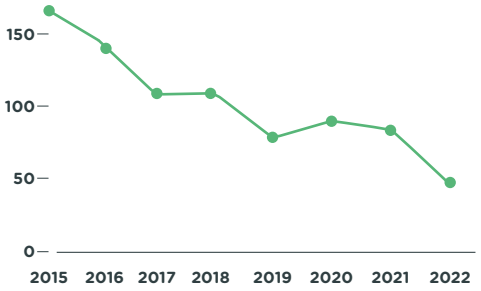
Preventing other accidents

Preventing major accidents and accidental pollution

We track the number of Tier 1 and Tier 2 losses of primary containment, as defined by industry standards. The prevention policy we implemented based on managing technical integrity and operating excellence has resulted in a fourfold decrease since 2015. The figure for 2022 (48) is a significant improvement over 2021 (77). The Company did not experience any major industrial accidents in 2022. ■

TIER 1 AND TIER 2

An indicator of the number of losses of primary containment as defined in the API and IGOP standards (excluding acts of sabotage and theft), Tier 1 incidents being those that may have the most serious consequences.



Upholding Human Rights

Personal Protective Equipment shop (Mozambique).

Respect for each other is a core value at TotalEnergies, at the heart of our collective ethics and Code of Conduct. The Code of Conduct applies to all our employees, as well as our suppliers and contractors. Respect for each other means respect for human rights, which are non-negotiable in our operations around the world. It is also a collective and individual requirement.

Our salient risks of impacting human rights remain unchanged from 2021. They break down into three categories:

Our commitments:

- Our values and Code of conduct
- Compliance with international standards and principles:
  - Universal Declaration of Human Rights,
  - United Nations Guiding Principles on Business and Human Rights,
  - Fundamental Conventions of the ILO,
  - Voluntary Principles on Security and Human Rights (VPSHR),
  - The OECD Guidelines for Multinational Enterprises.

Human rights in the workplace

We take action against all forms of discrimination, forced labor and child labor; ensure good quality working conditions and decent wages; and require the same of our suppliers in their operations *(see p. 92)*.

In the field, we emphasize training to explain, anticipate and prevent human rights risks. More than 2,050 employees participated in classroom training in 2022. In all, 35,700 employees have taken part in the online *human rights in the workplace* training module since it was introduced in 2019.

We are also engaged in conducting external audits of our affiliates using the consulting firm Good Corporation. In 2022, five assessments were conducted in four countries (Mexico, Argentina, India and Qatar) by this consultant, and 200 supplier audits were also performed. Half of such supplier audits required corrective action plans which are ongoing.

In 2022, we joined the International Labour Organization's Child Labour Platform, a multi-sector initiative to combat child labor.

Human rights and local communities

In our project development process, we conduct specific due diligence as soon as studies begin to identify the potential negative impacts of our activities on local communities, as well as appropriate remediation plans, in accordance with the United Nations Guiding Principles on Business and Human Rights (UNGPs). ››

The Risk Committee analyzes project impacts before investment decisions are made and can alert the Company to the need to adjust the project with regard to human rights challenges. We comply with our Charter Regarding Indigenous and Tribal Peoples issued in 2012. In 2022, we published a Human Rights Impact Assessment (HRIA) for the Tilenga project in Uganda. Updates to the Human Rights Due Diligences (HRDD) for Mozambique LNG, including a conflict sensitivity analysis, and for EACOP, have been performed.

We are setting up mechanisms to manage grievances in our affiliates. We maintain regular dialogue with our stakeholders, including human rights defenders NGOs who help us identify actions in the field, and we make sure to involve them in the pre-project stages. We bring in independent third party experts for complex situations. In Papua-New Guinea, for example, a panel of independent experts was formed in 2022 to advise us on dialogue with local communities and other issues.

Human rights and security operations

When security contractors or government forces in charge of protecting our employees and installations have to intervene, we make sure they have been vetted individually and received adequate training. We also perform analyses each year to assess the security risks at our sites. In March 2022, we published our Voluntary Principles on Security and Human Rights (VPSHR) report for 2021. In Mozambique, Uganda and Papua-New Guinea, we continued to provide VPHSR training. In all, 3,557 people were trained in 2022.

We listen to whistleblowers

The Company's Ethics Committee reports directly to the Chairman and CEO and oversees a network of more than 100 Ethics Officers. It maintains a system for reporting situations or behavior that violate the Code of Conduct, including a grievance reporting mechanism (at ethics@totalenergies.com). In 2022, 151 reports were logged and processed. »

151

reports were logged and processed in 2022, through our reporting system

HUMAN RIGHTS

OUR ORGANIZATION ENSURES RESPECT FOR HUMAN RIGHTS

It acts on three levels:

1. Our affiliates' human rights representatives, most of whom are Ethics Officers in our host countries or dedicated Human Rights correspondents depending on the project, who are in contact with local populations and are active in the field.
2. The Business Segment human rights coordinators.
3. The Human Rights Department of the Sustainability and Climate direction, reporting to the President Strategy and Sustainability, who sits on the Executive Committee; the department interacts with the Risk Committee and the Ethics Committee.

The Human Rights Department leads a quarterly steering committee meeting attended by representatives from each Business Segment and from cross-business functions such as Human Resources, Security and Social Engagement. It organizes a monthly review with each of these Business Segments and functions to ensure, among other things, that specific due diligences are performed as soon as a project or new activity requires, as outlined in our Human Rights Guide published in 2015.

OUR EXTERNAL PARTNERS

ERM, ipieca, PILLAR TWO, CDA Practical Learning for International Action, goodcorporation, IHRB Institute for Human Rights and Business, BSR, SHIFT, GBI

MYANMAR

OUR RESPONSIBLE WITHDRAWAL FROM MYANMAR

Following the coup of February 1, 2021 in Myanmar, we decided on January 21, 2022 to withdraw from the country, effective in July 2022. We studied the withdrawal's impact on the human rights of our employees and local communities located near the export gas pipeline to Thailand, as well as the human rights of our contractors' employees.
We set up a counseling hotline and a specific grievance management system among other things to support our employees.
PTTEP, our Thai partner in the Yadana field, is the new operator. We negotiated an agreement with PTTEP in which it pledged to take on virtually all of our employees without changing the terms of their contracts and to continue a social engagement program benefiting local communities to which we contributed.
As part of a commitment made in 2021, we donated $25.3 million to humanitarian organizations working with the local population.

Fishing center, solar kiosk and small retail shop in Mozambique.

MOZAMBIQUE

ASSESSING THE HUMANITARIAN AND HUMAN RIGHTS SITUATION

The project led by Mozambique LNG in the Cabo Delgado region was suspended due to force majeure in April 2021 after insurrections and armed conflict in the region which caused a humanitarian crisis.

In 2022, as tensions subsided somewhat, the teams were able to re-establish contact with local communities, NGOs, civil society organizations, the government and the National Human Rights Commission, a key partner.

Mozambique LNG, backed by local NGOs, has initiated a number of projects for the local population, including booths equipped with solar panels for micro-shops, agricultural and fish farming activities, micro-loans for opening a business *(see p. 90)*.

In December 2022, TotalEnergies entrusted Jean-Christophe Ruffin, a French doctor, writer and diplomat, with an independent mission to assess the humanitarian and human rights situation in Cabo Delgado province.

Transforming with Our People

Employees at the petrochemical platform plant in Port Arthur, Texas.

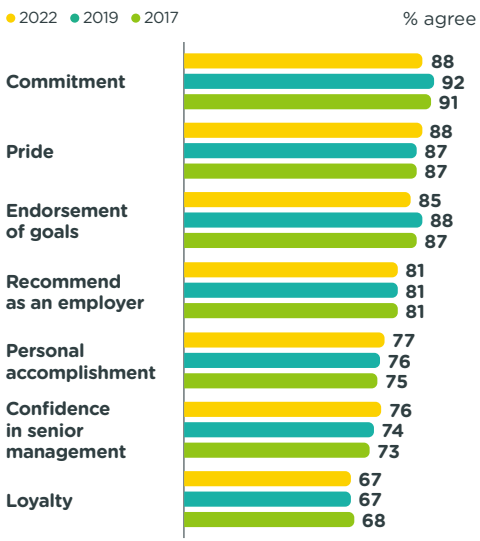
Our employees are at the heart of our performance and their engagement is essential to the success of our transformation. Our Better Together program brings together a set of measures to make the Company a good place to work together and to lead to a just transition.

Employees confident in our ability to achieve our ambition, with engagement at 80%

We believe that listening to our stakeholders is an essential part of the just transition, and this is achieved through social dialogue and participatory approaches *(see p. 85)*. All of our employees around the world are surveyed every other year about their engagement at work and perception of the Company's future through the TotalEnergies Survey (80% participation rate, 86,000 individual feedbacks).

In this survey, we assess the level of employee engagement through seven specific questions formulated by Ipsos. The engagement score was seven points higher than the benchmark made up of companies with more than 10,000 employees worldwide. »

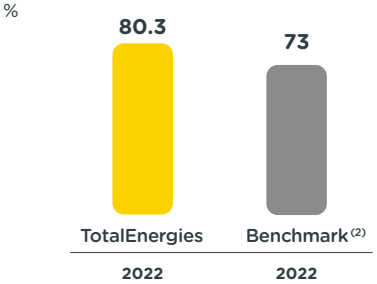
TOTALENERGIES ENGAGEMENT INDEX[1]



87%

of employees have confidence in the ability of TotalEnergies to achieve its Ambition.

TOTALENERGIES ENGAGEMENT SCORE



1. Results scope: Company without Hutchinson. **2.** Benchmark composed of companies larger than 10,000 employees throughout the world.

Maintaining this high level of engagement is our responsibility and motivation. This leads us to innovate and experiment with new initiatives in order to make our employees ever more active participants in our transformation.

In 2022, for the first time, nearly 300 employees under 35 from around the world came together for two days at the One Young Campus. They were asked to make practical suggestions and discuss six key topics with members of the Executive Committee and senior executives: climate change, sustainable development, position on controversial projects, diversity and inclusion, talent development and the Company's future. The positive and constructive feedback from this innovative event led us to renew the experience in April 2023 with 300 employees aged 35 to 45.

Talent and skills: The keys to our successful transformation

Developing everyone's skills is a major challenge for a just transition. Our goal is to empower all employees to take charge of their career development, notably through the internal mobility platform. The results of the last TotalEnergies Survey show that we are on the right track *(see below)*.

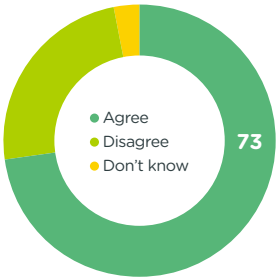
2022 Initiatives

To keep moving forward, new initiatives were launched to support our employees in our transformation:

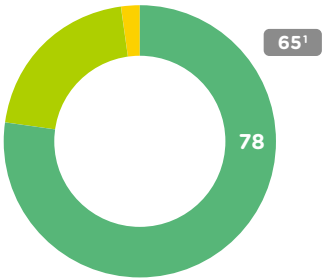
- The **Visa for TotalEnergies** program was rolled out to inform employees about climate challenges and the responses provided by our new ambition. Over a six-month period, 30,000 people in 112 countries took part in two days of training, with more than 200 plenary sessions and over 2,000 workshops. The interactive nature of the sessions, led by nearly 3,700 executives and managers, contributed to the construction of a shared multi-energies culture. Deployment continued in 2023, with training for employees of our industrial sites with shift schedule or rotating schedule and the introduction of a chapter on electricity.
- Starting in 2023, each employee will be able to freely decide which training courses they consider important for their development, up to three days per year, in addition to mandatory training.
- 100% of technical disciplines were mapped by typical roles and skills, a first step in supporting employees who want to upskill in new areas of energy. At OneTech, around 20% of technical staff mobility required upskilling, backed by either appropriate training or specific support during onboarding. Employees experienced in managing Oil & Gas projects, for example, can shift over to solar farm installation projects and reservoir engineers transitioning to yield engineering in offshore wind.
- 750 co-development workshops were organized for manager coaches, with more than 4,500 participants. This innovative approach launched in 2021 provides an opportunity to discuss tangible issues encountered on a daily basis among peers and find collective solutions. In all, 98% of managers said the workshops had helped them solve a shared problem, and 89% said they would like to participate again in the future.
- Sixty young professionals (62% women and 65% non-French representing 23 different nationalities) were recruited through the **OneTech Graduate Program.** This group of young multi-energies talents was formed over the two-year program, which included learning expeditions and three eight-month assignments. ››

LAST TOTALENERGIES SURVEY RESULTS

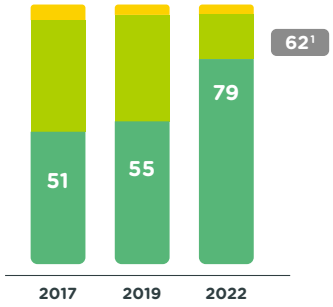
I consider myself **to be in the driving seat** of my professional development



Over the last 12 months **I have learnt new things and I have gained in competency**



I can **access information** about the available positions within TotalEnergies



1. Benchmark composed of companies larger than 10,000 employees throughout the world.

170

applications on average for each job offer in France.

GRANDPUITS

TAKE INTO ACCOUNT SOCIAL IMPACTS

Our industrial site conversion projects pay the utmost attention to potential social impacts. The project to convert Grandpuits was presented in full transparency to our peers, International Labour Organization (ILO) and International Trade Union Confederation (ITUC) representatives, as part of the "Energy for a Just Transition" initiative led by two civil society organizations. Our approach to engaging with stakeholders, which included public hearings, training for employees, and maintained employment in jobs related to biofuels or renewable energies, was appreciated. The scale of support for employees was particularly singled out for praise.

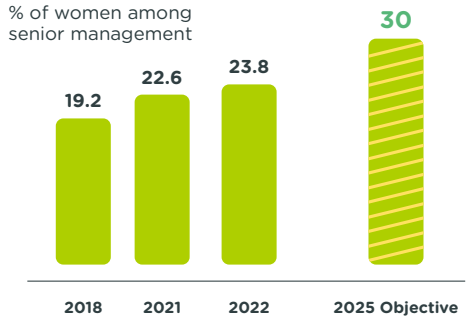
An inclusive company that respects each of its employees

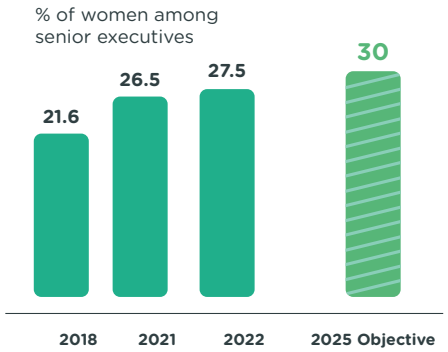
A diverse workforce and management team is critical to the Company's competitiveness, ability to innovate, appeal and acceptability. *(see below)*.

In 2022, numerous *Inclusion Talks* were held to accelerate awareness of inclusion. In addition, the Executive Committee has decided to launch an awareness-raising campaign for employees on LGBTQIA+ matters. To demonstrate its commitment, the Company in France will sign the *Autre Cercle* charter in 2023.

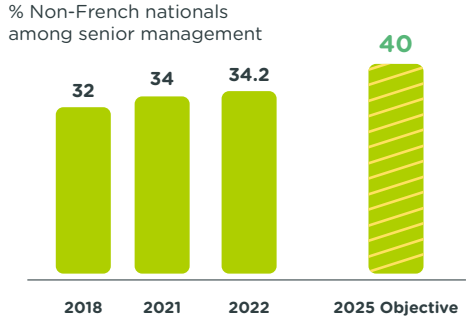
Diversity 2025 roadmap: Ongoing progress

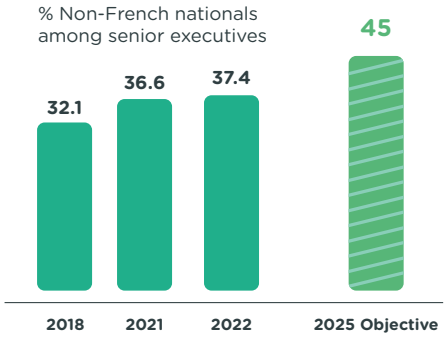
EVOLUTION OF GENDER DIVERSITY





EVOLUTION OF INTERNATIONALIZATION





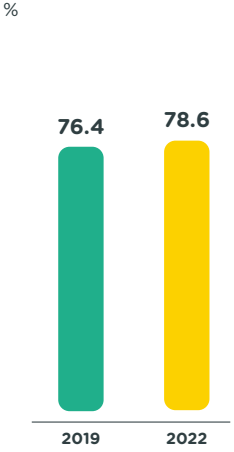
Care program for a Company that is a great place to work

In a fast-moving environment, people's well-being is a driver in employee engagement. In 2022, the level of our employees' well-being was measured in a first Care index, based on questions asked in the TotalEnergies Survey *(see below)*.

In 2023, in addition to the listening to our employees approaches described above, we are developing a **TotalEnergies Care** program based on measures and commitments related to health, social protection, the work environment, ways of working and the family sphere. The program is aligned with our ambition to make the Company a good place to work together. ››

TOTALENERGIES CARE INDEX[1]

TOTALENERGIES CARE SCORE



1. Results scope: Company without Hutchinson.

TOTALENERGIES CARE PROGRAM

Health Preserve the physical and mental health of all our employees worldwide	• Provide medical follow-up to our employees exposed to an occupational risk that may have harmful effects on their physical and mental health. • Offer employees a health check at least every two years unless there are specific local regulations or contexts. • Deploy a global policy for the prevention of psychosocial risks to protect the mental health of employees *(see sidebar)*. **Local initiatives** • Conduct vaccination and disease prevention campaigns (Covid-19, AIDS, cancer, malaria, etc.) for employees, their families, and local communities.
Social protection Ensure a living wage and quality social protection for all our employees, regardless of their location	• Ensure all our employees receive direct remuneration above the living wage of the country or region in which they work. • Set up a health insurance plan or offer a complementary company health plan. • 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 our employees while preserving collective efficiency in a safe working environment	• Generalize and encourage the use of flexible working hours and teleworking by establishing clear rules in these areas. • Provide training and practical guides for a quick start in digital work environments. • Conduct information campaigns or organize events related to the well-being of employees. • Conduct awareness-raising campaigns on work-life balance. **Local initiatives** • Deploy user-friendly spaces and *Bonjour* stores on our sites.
Family sphere Give our 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). • Commit to neutralizing absences for childcare leave by granting the first parent to return from leave a pay increase equal to the average of individual increases received over the last three years.

This program may evolve through dialogue with trade unions.

2022 Initiatives

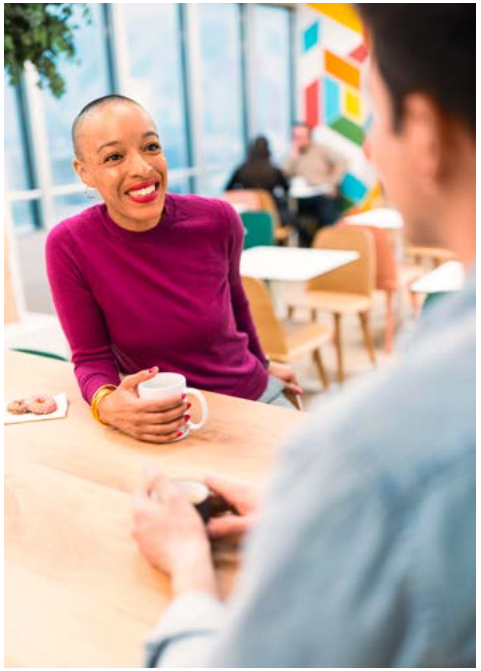
Maternity leave has evolved into a childcare leave of at least 14 weeks, paid at 100% (subject to more protective local measures). This leave is offered in all of the Company's affiliates. It is based on a neutral concept of families that takes into account the diversity of existing family structures. The concepts of "first parent" and "second parent" allow all parents regardless of the composition of their families to benefit from leave for the birth or arrival of a child.

Guided by the will to innovate and experiment, we decided to introduce "Green Fridays" in January 2023. Practically speaking, employees are freed from attending meetings every other Friday so they can step back and focus on individual projects. This new organization has been applied worldwide. ■

MENTAL HEALTH

OUR POLICY FOR PREVENTING PSYCHOSOCIAL RISKS COMPRISES THREE KEY MEASURES:

1. Take action at the source by reducing or eliminating any potential risk though a system of stress measurements and assessment of risk factors in the working environment.
2. Raise awareness and train our employees and managers via a kit distributed throughout the Company.
3. Assist all employees who need support via a 24/7 hotline, regardless of their location.



Key Takeaways

OUR AMBITION:
BEING A LEADING NAME AS A RESPONSIBLE EMPLOYER AND OPERATOR

ENSURE THE SAFETY OF EVERYONE

TRANSFORMING WITH OUR PEOPLE

RESPECT FOR HUMAN RIGHTS THROUGHOUT THE VALUE CHAIN

KEY POINTS

ZERO FATALITIES OBJECTIVE

- Worldwide deployment of the "Our lives first" program

STEADLY REDUCE OUR TRIR

- Continue to steadily improve our results and achieve a TRIR of 0.65 or less in 2023

PREVENT MAJOR INDUSTRIAL ACCIDENTS

- Prevent any loss of containment and keep under 50 leaks classified as Tier 1 and Tier 2 in 2023

EMPLOYEE ENGAGEMENT

- **87%** of our employees are confident in our ability to achieve our ambition
- **80%** employee engagement

DEVELOP TALENTS FOR OUR TRANSFORMATION

- **30,000** people trained on our ambition in 2022 Continued training in 2023 on electricity
- Skills mapping for all our technical disciplines
- 3 days of training per year at the employee's choice from 2023, in addition to mandatory training

PROMOTE DIVERSITY AND INCLUSION

- Progress in gender balance and internationalizing senior management and senior executives, in line with the 2025 roadmap

MAKE THE COMPANY A GOOD PLACE TO WORK TOGETHER

- Development of a Care Program
- Launch of the Care Index

FOSTER A HUMAN RIGHTS CULTURE

- **2,050** employees trained on site in 2022
- **35,700** trained remotely since 2019

LISTEN TO WHISTLEBLOWERS

- **100%** response to all reports from our internal and external stakeholders
- **100%** of our affiliates (SAFT by the end of 2023) have a grievance mechanism system

EVALUATE OUR ETHICS AND HUMAN RIGHTS PRACTICES

- By 2024, audit **100%** of priority suppliers
- **200** of these suppliers were audited in 2022

Care for the Environment

TIERA DEL FUEGO, ARGENTINA.

WHAT IS AT STAKE?

In 2022, the world adopted a Global Biodiversity Framework[1], with quantified targets for States to halt biodiversity decline by 2030, and put nature on a path to recovery for 2050. We support this ambitious and concrete agreement. It also calls on businesses to be transparent throughout their value chain[2].

This agreement highlights the importance of nature in the broadest sense. It recalls the link between climate and biodiversity, with climate change being listed by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) as the third cause of biodiversity loss. This makes us all the more determined to implement the transformation we are leading in the face of climate challenge.

The reporting initiatives and frameworks that are being set up, such as the Taskforce on Nature-related Financial Disclosures (TNFD), consider nature as whole, through a combination of four realms: land, oceans, freshwater and the atmosphere.
For a company like TotalEnergies, caring for the environment in our activities includes all these realms. It is a question of operational excellence. In concrete terms, this means developing our businesses, including renewables, while at the same time taking actions to protect biodiversity, paying attention to land use and making commitments to preserve forest areas. It means considering the issue of freshwater and therefore the preservation of water bodies in our upstream and downstream operations. It means being a player in circularity by developing recovery channels for the waste from our sites and by making a concrete contribution to this "resource efficiency", particularly through our production of circular polymers. Finally, it means integrating these issues into our value chain: in 2022, we established and tested the sustainable development audit protocol (greenhouse gas emissions, biodiversity, water and circularity) which will enable us to audit 300 suppliers in 2023 *(see p. 92)*. ■

River Bakuilou, Region of Kuilou (republic of the Congo).

In 2022, the world adopted a Global Biodiversity Framework [...] to halt biodiversity decline by 2030, and put nature on a path to recovery for 2050.

1. The Kunming-Montreal Global Biodiversity Framework, adopted by 196 parties at the United Nations Convention on Biological Diversity; https://www.cbd.int/article/cop15-cbd-press-release-final-19dec2022. **2.** Target 15 of the Kunming-Montreal Global Biodiversity Framework.

Acting for Biodiversity

Mangrove (Angola).

Nature provides many services, known as "ecosystem services", which are directly or indirectly necessary for human activities on earth. We are one of the actors who depend on these services. Our operations certainly have an impact on ecosystems, like all human activities. Acting for biodiversity is a major focus for us, for all our sites, and is the subject of a concrete ambition and objectives.

Our approach is to reconcile the development of energy resources with the protection of biodiversity to build a sustainable future. We apply the Mitigation Hierarchy approach of **Avoidance, Reduction/Restoration and Compensation** to all our operations and projects. In concrete terms, we implement environmental impact assessments for all our projects, including renewable energy projects, in all countries where we operate.

Our commitments: 2022 update

Our ambition is based on four pillars[1]: respecting our voluntary exclusion zones, preserving biodiversity in our projects and on our existing sites important for the environment [2], and promoting biodiversity. It is based on the Act-4Nature International commitments we have made since 2018 [3]. >>

1. For more: https://totalenergies.com/sites/g/files/nytnzq121/files/documents/2021-10/Brochure_biodiversite_EN_BD.pdf
2. Producing exploration-production sites, refineries, petrochemical and polymers facilities and gas-fired power plants.
3. https://www.act4nature.com/entreprises- engagees-2018/

OUR COMMITMENTS

1 RESPECTING VOLUNTARY EXCLUSION ZONES

2 MANAGING BIODIVERSITY IN NEW PROJECTS

4 PROMOTING BIODIVERSITY

3 MANAGING BIODIVERSITY AT EXISTING SITES

RESPECTING OUR VOLUNTARY EXCLUSION ZONES

- No oil or gas exploration or extraction activities in Unesco zones.
- No oil exploration activities in the Arctic sea ice.

MANAGING BIODIVERSITY IN OUR NEW PROJECTS

- Implementation of a biodiversity action plan for every new project in areas of interest such as IUCN I to IV and Ramsar sites.
- Production of a positive impact on biodiversity, confirmed by a third party, for all new projects in priority areas of interest (IUCN I to II and Ramsar sites).

MANAGING BIODIVERSITY ON OUR EXISTING SITES

- Implementation of a biodiversity action plan for each of our sites important for the environment.
- Consideration of the possibility of creating areas with rich biodiversity (habitats for rare species, etc.) in end-of-life sites, as one option for their rehabilitation.

PROMOTING BIODIVERSITY

- Promoting biodiversity to the young generation, to our employees, and sharing the biodiversity data collected from our projects.

In 2022, we are rolling out 7 biodiversity action plans on our new projects located in areas of interest for biodiversity[4], inlcuding our Tilenga project, where we are committed to a net gain in biodiversity *(see p. 39-40)*, and we have launched 43 biodiversity surveys on our existing environmentally significant sites.
As part of our Sustainab'ALL program, we have decided to go further: our commitment to deploy a biodiversity action plan now concerns all our operated sites *(see p. 01)*.
This year, we have committed to a target of **zero net deforestation** for each of our projects located on new sites. We use the definition of forest given by the FAO[5]. We compensate on the basis of surface (hectares). None of the projects launched in 2022 required compensation measures.

Finally, we take biodiversity into account across our value chain, particularly in our supplies. *(see p. 92)*.

Biodiversity All in Action!
World Environment Day
June 10, 2022

Each year we organise a World Environment Day to raise awareness among all our 100,000 employees, all over the world, at each of our sites. In 2022, this day was dedicated to the theme of Biodiversity.

Our partnerships in 2022

We work with scientific partners on these complex biodiversity issues to ensure that we take biodiversity into account in our operations.

• In 2022, in Uganda, we worked on forestry corridors connectivity restoration to increase the chimpanzee population and area of occupancy within the Bugoma-Budongo corridor (part of the Tilenga biodiversity Action Plan, partner: Ecotrust).

• In 2022, we collaborated with the International Union for Conservation of Nature (IUCN) to establish best practices for managing the impacts of renewable energy on biodiversity.

• **During the COP15 Biodiversity Conference** in Montreal, we were invited to participate in the opening plenary session and several Business Forum panels organized by the CBD[6], an opportunity to discuss nature preservation with all stakeholders (including the private sector, conservation organizations, private sector, scientists), in support of the GBF[7].

• In 2022, we participated in the work on the **"Nature Positive"** concept through the IUCN's Impact Mitigation and Ecological Compensation Thematic Group (IMEC) and the World Business Council for Sustainable Development's (WBCSD's) sector pilot program[8].

• We contribute to the Taskforce on Nature-related Financial Disclosures (TNFD) forum, sharing feedback from the pilot we led in June 2022.

• The issue of footprint measurement is one of the challenges for biodiversity. In 2022, we continued our work based on the Biodiversity Indicators for Site-based Impacts (BISI) methodology of the United Nations Environment Programme's World Conservation Monitoring Centre (UNEP-WCMC). This methodology will enable the site level biodiversity footprint measurements that can be consolidated at Company level. Our work is accompanied by an independent review committee. The methodology will be made public when it is finalized in 2024. It has been shared with other companies since 2022. In 2022, our R&D has also developed various tools, including environmental DNA, for environmental impact studies. ■

"Our commitment to implement a biodiversity action plan now extends to all of our operated sites."

OCEANS

PRESERVING OCEAN BIODIVERSITY

**Our offshore oil, gas and wind projects make us a player in the marine environment. In 2022, we continued our collaboration with the Ocean 100 initiative led by the World Resources Institute (WRI) and the World Economic Forum (WEF). We launched an analysis of our interactions with the ocean to define a comprehensive strategy at the Company level.
In terms of operations, we deployed specific Biodiversity Action Plans (BAPs) for our offshore facilities in Congo and Denmark in 2022.**

FOCUS

In May 2022, Patrick Pouyanné became Chairman of Entreprises pour l'Environnement (EpE), an organization of French and international companies from all sectors of the economy engaged in the energy transition. EpE is the French partner of the World Business Council for Sustainable Development (WBCSD) and co-founder of the Act4Nature International initiative.

4. Corresponding to IUCN Cat I to V and Ramsar areas, some of those with a net gain. **5.** Forest: Land spanning more than 0.5 hectares with trees higher than 5 meters and canopy cover of more than 10 percent, or trees able to reach these thresholds in situ (Source: Food and Agriculture Organization of the United Nations). **6.** CBD : Convention of Biological Diversity. **7.** Global Biodiversity Framework - https://www.cbd.int/doc/c/e6d3/cd1d/daf663719a03902a9b116c34/cop-15-l-25-en.pdf **8.** https://www.wbcsd.org/Programs/Food-and-Nature/Nature/Nature-Positive/Roadmaps-to-Nature-Positive

FOCUS ON

Biodiversity Action Plan for a Wind and Solar Site (La Reunion)

La Perrière wind and solar Farm – Reunion Island (France).

A biodiversity action plan (BAP) was launched in 2021 to protect local biodiversity, involving external stakeholders, including environmental groups, government organizations and local communities, in its design and implementation. It was decided to launch this BAP as the site is located in the buffer zone of the Reunion Island National Park, an area that includes mid-altitude rain forests, significant plant species and several endangered fauna species. Our Biodiversity action plans are designed in accordance with our internal guidance and ipieca[1] good practices. At *La Perrière,* the plan is based on an inventory of fauna and flora established over the dry and rainy seasons.

La Perrière is an established TotalEnergies site with a 10 MWp wind farm installed in 2006 and a 3 MWp solar plant built in 2011. Considering growing demand for electricity, a repowering project was decided. Construction of a new 20 MWp wind farm began in 2022.

The plan developed on the site is part of TotalEnergies' proactive approach to conserving Reunion Island's endemic species, including the day gecko *(Phelsuma borbonica,* listed as *Endangered species on the IUCN* Red List*)*. During repowering works, the gecko was observed laying eggs and nesting in the installations being dismantled.

Measures taken as part of the Biodiversity Action Plan include:

- Calling upon an ecological expert to identify the colonized wind turbines.
- Moving the geckos to shelters and placing the eggs in incubators in the refuge area next to the site.
- Scheduling wind turbine dismantling from January to April, outside the hatching period.
- Monitoring the reintroduction of geckos for three years after the work.

The plan also includes a program to monitor birds – targeting the Reunion Harrier (Circus maillardi, IUCN Red List of endangered species) specifically – and bats for the first two years so that measures can be adjusted if necessary.

Lastly, an ecosystem services assessment was carried out. It confirmed that neighboring communities were not dependent on services provided by the ecosystems impacted by the site. ■

1. https://www.ipieca.org/resources/a-guide-to-developing-biodiversity-action-plans

Reunion Island Day Gecko

2022 HIGHLIGHTS

- **Collaboration with the Reunion Island ornithological society (SEOR) on the Papangue (Harrier) national action plan (PNA).**
- **Monitoring of day gecko reintroduction.**

Preserving Freshwater

Boat on the Bakuilou River, Kuilou region, Republic of Congo.

In 2022 we joined the CEO Water Mandate, part of the United Nations Global Compact, joining a group of more than 200 companies committed to advancing water management. Our actions are in line with this mandate. We detail them for 2022. Details for 2022 are provided below.

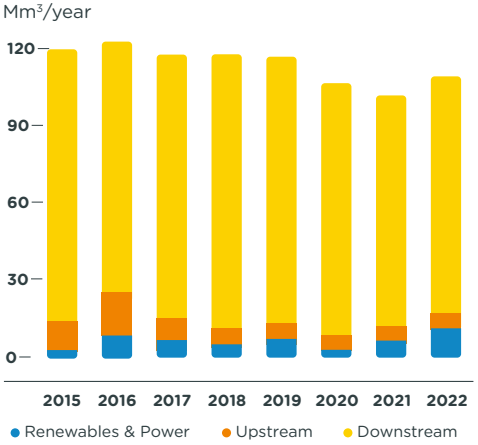
Reduce freshwater withdrawals in our direct operations

Freshwater accounts for 19% of the water used at our operated sites. and we have decided to focus our efforts on this unevenly distributed resource on the planet that we share with our neighbors.

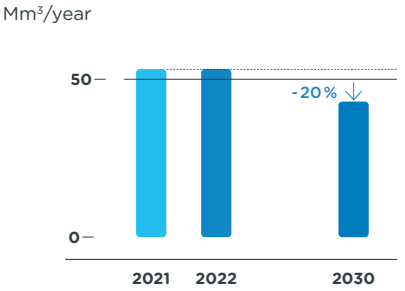
In 2022, we set ourselves a target of reducing our overall freshwater withdrawals by 20% overall[1] at sites located in water-stressed areas[2] between 2021 and 2030. This approach aligns with the Science-based Targets Network (SBTN) methodology. In 2022, we conducted basin-by-basin analyses.

Ten priority sites are concerned by this objective[3]. Located mainly in Western Europe, they represent 51% of the Company's total withdrawals in 2022, or 55 million cubic meters. The increase from 2021 reflects increased activity at our gas-fired power plants (Pont s/ Sambre and Marchienne in France) due to the energy crisis in Europe. >>

TOTALENERGIES' FRESHWATER WITHDRAWALS BY BUSINESS



FRESHWATER WITHDRAWALS AT SITES LOCATED IN WATER-STRESSED AREAS*



** According to the WRI Baseline Water Stress forecast for 2030.*

1. 20% is the target integrated in the reduction for each site. It is an initial approach aligned with the definition of water stress. **2.** Areas facing high and extremely high levels of water stress as defined by the World Resources Institute (WRI) and Aqueduct (withdrawals exceed 40% of the available resource). **3.** The sites are the following: our refineries in Normandie and Grandpuits (France), Leuna (Germany), Feluy and Anvers (Belgium), La Porte (US), our CCGTs in Marchienne (Belgium) and Pont sur Sambre (France), in Castejon (Spain) and our operated Barnett assets (US). These sites account for 98% of our withdrawals in water-stressed areas. They are located in the following watersheds: Maas and Scheldt (Belgium), Seine and Côte Ouest (France), Elbe (Germany), Ebro (Spain) and Gulf Coast (US).

In 2022, all the sites embarked on the process to optimize water use and reduce freshwater withdrawals. The measures to be implemented will make it possible to achieve and, if possible, exceed our target by 2030.

In particular, our Antwerp refinery has approved an ambitious plan to reduce its freshwater withdrawal. Also, we take water challenges into account right from the design phase for our installations. In Saudi Arabia, the Amiral project includes the construction of a waste-water treatment plant to reduce the site's water consumption by 70% *(see p. 33)*.

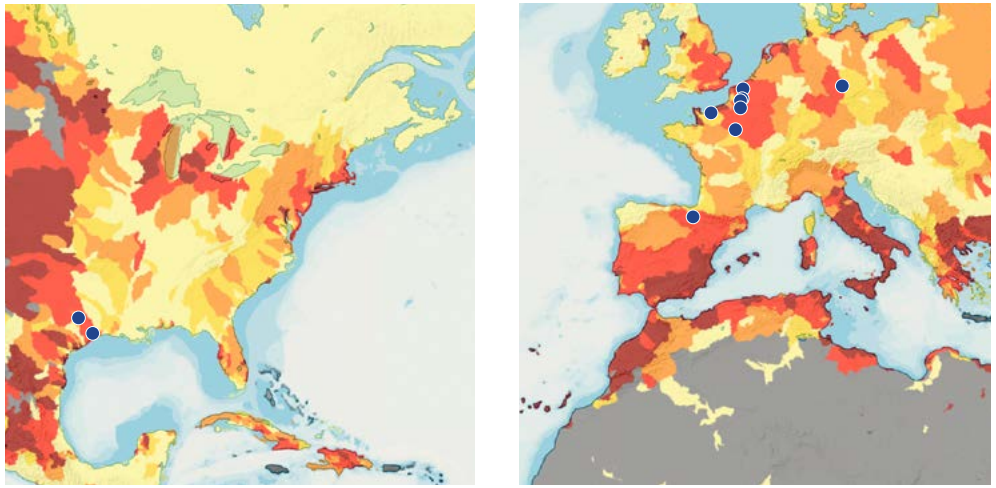
Involving our suppliers

We take our suppliers' water footprint into account. In 2022, we established and tested an audit protocol that will allow us to audit 300 suppliers in 2023 *(see p. 92)*.
In 2022, we launched a process for our data centers, a topic on which we were questioned Our data centers are either air-cooled or water-cooled in a closed circuit system with heat recovery and reuse. We therefore have almost zero water consumption.

Freshwater access for local populations

Access to water is fundamental to local development. We have several WASH[4] programs linked to our local operations.

In 2022, in Uganda, the Kirama project renovated boreholes for 3,000 beneficiaries in 10 villages in the community of Buliisa, provided water troughs for animals, strengthened 10 water users' management committees and supported two mechanics' associations to maintain the boreholes. Other equipment installed included a pump, a tank, chlorine treatment and 20 private connections *(see p. 39-40)*.



Location of our 10 sites in water-stressed areas in 2030 that withdraw more than 500,000 cubic meters/year[5].

Water fountains (Uganda).

Reducing freshwater withdrawals in our direct operations: The Antwerp complex in Belgium

Located in a water-stressed area, the Antwerp complex was the first Refining & Chemicals facility to approve a large-scale project for reducing freshwater withdrawals in 2022. The project involves reusing treated wastewater from local households to supply industries in the Port of Antwerp. The initiative is part of the Flemish government's Blue Deal program, which aims to attenuate drought and water shortage in the region. It will help the complex **reduce its drinking water use by more than 9 million cubic meters a year,** or almost 65% of its freshwater withdrawals. This represents the **consumption of 280,000 Antwerp residents,** out of a total population of 620,000.

The studies completed in 2022 made it possible to launch the project and sign agreements with Waterkracht, the joint venture in charge of developing this water treatment plant. The Antwerp platform plans to adapt the internal networks (additional pipes and construction of a buffer tank), and will purchase the water at the same cost as drinking water. The work should be completed in 2025. ■

Antwerp complex (Belgium).

4. WASH : Water, Sanitation And Hygiene. **5.** Source : Water Risk Atlas, Aqueduct WRI, Water Stress 2030.

Circular Resource Management

The BioVilleneuvois methanization plant in Villeneuve-Sur-Lot (France).

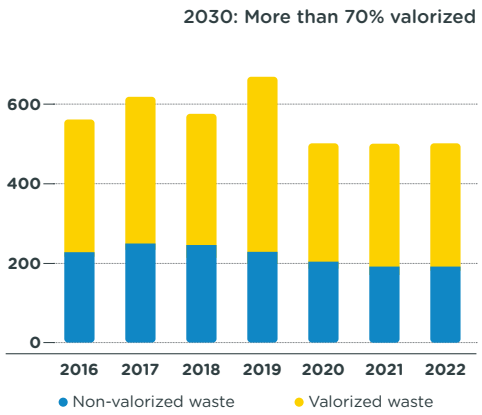
We are actors of the circular economy through our production of biofuels, biogas and circular polymers. For biofuels, we have set an objective of increasing the share of circular feedstock (used cooking oil and animal fat) from 50% to more than 75% as from 2024. Biogas production relies primarily on agricultural waste *(see p. 34)*.
At our sites, promoting circular management of resources starts with responsible management of our waste.

Valorizing our waste from our sites

In 2022, we have set ourselves the goal of valorizing more than 70% of our waste by 2030.

OUR WASTE

Kt/year



This approach, which is based on the **Recover • Re-use • Recycle • Valorize** principle, led to a 61% valorization rate of our waste from our operated sites in 2022. It is the same value as in 2021. This is explained by the long time frame in which we are involved in developing such sectors areas.
To meet our objective, we are setting up demanding waste management contracts and partnerships with international waste treatment companies, both in France in in our host countries. This contributes to the local development of waste treatment industries in the countries where we operate.

Lastly, we integrate the circular economy in our value chain with our suppliers *(see p. 92)*.

Waste management partnership for our La Mède biorefinery in France

We have developed a biomethanization value chain to reuse biorefinery clays and effluents in partnership with Veolia for our biorefinery in La Mède (France).
When the biorefinery came on stream, there were only two waste treatment processes that could accept the waste from our site:[1] incineration and landfilling. »

1. La Mède's biorefinery process produces nearly 10 kt of waste each year, mainly effluents and filtration clays containing up to 20% of vegetable oils and animal fats.

As part of a partnership with Veolia affiliate SEDE, a biomethanization chain was developed for waste that we could not avoid. Biogas plants use our waste to produce biogas and digestate (a fertilizer). In 2022, we modified the process so that more biogas plants could use our waste.

Thanks to the deployment of this circular waste management system, the biorefinery now valorizes close to 90% of its waste. The same system will be used for our future biorefinery under construction at Grandpuits.

SAFT and battery recycling

SAFT is a member of the Global Battery Alliance, a public-private collaboration founded at the World Economic Forum in 2017 to develop a sustainable value chain for batteries by 2030. The batteries marketed by SAFT are designed to have a reduced environmental footprint.

For nickel batteries (primarily used in industrial backup in the rail and aviation sectors) SAFT has developed a network to collect and recycle its customers' used nickel batteries. More than 75% of used batteries' weight is recovered and reused in industry. Saft has pushed the logic of responsible manufacturing to the point of having its own battery recycling plant in Oskarshamn (Sweden).

For lithium-ion (Li-ion) batteries (used in several sectors, in particular electric mobility). These batteries are now processed at the end of their life using best available technologies, with no risk to the environment. Taking the process a step further, SAFT has launched an R&D project with Orano, Paprec, MTB Manufacturing and the French Atomic Energy Commission (CEA) to recycle electric vehicle batteries in order to recover metals (in particular lithium and cobalt) that can be used to make new batteries.

CREATING VALUE FROM CIRCULAR FEEDSTOCK

Reduce • Recycle

- Double by 2030 the amount of circular feedstock (in Mt) entering our sites.
- Reach a 75% share of waste & residues in our biofuel production by 2024.
- Produce 2 TWh of biogas by 2025, mainly from waste, targeting 20 TWh by 2030.

PRODUCING RESPONSIBLY

Reduce

- Assess our 1,300 priority suppliers on their overall sustainability performance by the end of 2025 (GHG emissions, biodiversity, water, waste/circularity).

Reduce • Reuse • Recycle

- 70% valorisation rate for our waste by 2030.

OFFERING OUR CUSTOMERS A RANGE OF LOW-CARBON ENERGY AND CIRCULAR POLYMERS

Reduce • Rethink • Recycle

- Produce 1 Mt/year of circular polymers in 2030.

RE-use — Mechanical recycling

RE-build — Advanced recycling

RE-newable — Biopolymers

Reusing circular feedstock

We joined the World Economic Forum's Platform for Accelerating the Circular Economy (PACE) in 2022. As part of this commitment, we monitor two indicators: the amount of circular feedstock (in Mt) going into our products and the amount of sales of circular products (in MUSD). We have committed to doubling these figures by 2030. ■

FOCUS ON

CIRCULAR POLYMERS

In October 2022, we launched our new product range RE: clic for our low carbon polymers, organized around three product lines. It allows us to show our customers what type of circularity we can offer and help them achieve their sustainability objectives. We are investing in our installations and forging partnerships to ensure availability. Our ambition is to produce 1 Mt of circular polymers by 2030.

Key Takeaways

OUR AMBITION:
OPERATIONAL EXCELLENCE IN THE SERVICE OF THE ENVIRONMENT AND NATURE

ACT FOR BIODIVERSITY | **PRESERVE WATER RESOURCES** | **PROMOTE CIRCULARITY**

KEY POINTS

RESPECT OUR VOLUNTARY EXCLUSION ZONES
- **UNESCO:** no oil or gas exploration/extraction
- **Arctic sea ice:** no oil field exploration

MANAGING BIODIVERSITY IN OUR PROJECTS
- **7 Biodiversity Action plans** in progress in 2022 for our projects located in biodiversity-rich areas (1)

MANAGE BIODIVERSITY ON OUR EXISTING SITES
- **43 biodiversity plans** launched at our sites important for the environment (2) in 2022
- **Extension of the requirement to all our operated sites in 2022**

PROMOTE BIODIVERSITY
- **18** quotations in scientific publications (3)
- World Environment Day, on the theme of **biodiversity, celebrated at all our sites**

PROTECT THE FOREST
- **Zero net deforestation** (4)

REDUCE OUR FRESHWATER WITHDRAWALS
- **Reduce** our freshwater withdrawals by **20%** for our sites located in water stress zones between 2021 and 2030
- Launch in 2022 of the project on the Antwerp platform (Belgium), to preserve 9 Mm^3/year

IMPROVE WATER QUALITY
- **Onshore and coastal sites - target: maximum 1 mg/l of hydrocarbons in discharge by 2030**
- In 2022, **73%** of the Company's oil sites met the new target
- **Offshore sites - target: maximum 30 ppm of hydrocarbons in discharge**
- In 2022, **92%** of the Company's oil sites met the target

RESPONSIBLE PRODUCTION: RECOVERING 70% OF OUR WASTE BY 2030
- **61%** of waste valorized in 2022 thanks to our approach **"Reduce • Reuse • Recycle • Recover"**

BE A PLAYER IN THE CIRCULAR ECONOMY
- **Double** the amount of circular raw materials entering our sites by 2030
- Produce biofuels from **75%** waste and residue feedstocks by 2024
- Produce 2 TWh biogas by 2025, targeting 20 TWh by 2030

OFFER OUR CUSTOMERS A RANGE OF CIRCULAR POLYMERS
RE-use — Mechanical recycling
RE-build — Advanced recycling
RE-newable — Biopolymers

INTEGRATION IN OUR VALUE CHAIN
In 2022, a sustainable development audit protocol was established and tested: it will enable us to audit 300 of our 1,300 priority suppliers in 2023 on the subjects of biodiversity, water and circularity.

1. Biodiversity rich Area: IUCN (International Union for Conservation of Nature) zones I-IV and Ramsar zones. The action plan must produce a positive impact on biodiversity, as certified by a third party institution, if the project is located in an IUCN zone I to II and Ramsar zones.**2.** Sites important for the environment: our operated Exploration-Production sites in production, our refineries and petrochemical platforms producing more than 250 kt/year, our gas-fired power plants. **3.** Citations of our data shared on the Global Biodiversity Information Facility (GBIF). **4.** Zero net deforestation on our new projects located on new sites. We use the FAO definition of "forest" (Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent, or trees able to reach these thresholds in situ). We compensate on the basis of surface area (ha).

Creating Shared Value

DAYAPAR WIND PROJECT – WIND FARM (INDIA).

WHAT IS AT STAKE?

The development of our societies over the last half a century has added around 15 years to average life expectancy [1], while the number of people living in extreme poverty has decreased significantly [2]. This spectacular progress nevertheless masks severe disparities. And it was largely achieved through the use of fossil energies, resulting in a very sharp increase in CO_2 emissions, which are the main cause of the climate change we can observe today. The 17 Sustainable Development Goals formulated by the United Nations in 2015 aim to eliminate poverty, protect the planet and improve everyday life for everyone all over the world. The 8 billion people currently living on the planet, for example, do not all have the same access to energy, which is essential for their development.

In this situation, exacerbated by geopolitical upheavals such as the war in Ukraine and the current energy crisis, pressure is growing on energy companies to meet a wide range of occasionally conflicting expectations.

These demands are legitimate, reflecting people's aspiration to build a more responsible and more equitable world, while ensuring that the required transition is as fair as possible.

We recognize the key role that TotalEnergies can play in this transition, and this carries a number of responsibilities: first, we must make sure we understand these expectations, by holding an open dialogue with all our stakeholders; we must transform our business model in order to become a leader in creating a new low-carbon energy system, driving positive change; finally, we must report transparently on our actions.

For a company like ours – a key player in the energy landscape and member of the United Nations Global Compact – creating shared value means supporting the countries in which we operate as they transition towards a multi-energy model lower in carbon and helping to make energy accessible and affordable for as many people as possible. Shared value is created at all levels, from developing our host communities to promoting fiscal transparency and fighting corruption, as well as steadfast commitment to young people and helping them find employment. While redistributing wealth is essential, a lot more is needed to be able to produce economic value while also responding to society's needs and expectations in the current transition. ■

Solar kit, Douala, Cameroun.

"Pressure is growing on energy companies to meet a wide range of occasionally conflicting expectations. These demands reflect people's aspiration to build a more responsible and more equitable world, while ensuring that the required transition is as fair as possible."

1. Between 1970 and 2020 - Source: data.un.org **2.** Source: data.un.org

Engaging With Our Stakeholders

Agricultural training session in Tanzania (Livelihood restoration program).

With industrial and commercial operations in over 130 countries across five continents, our activities have a significant effect on society, and directly or indirectly concern a very large number of stakeholders. With growing expectations of businesses, legitimate questions are raised about our strategy, how we implement it and the impact it has, from the most immediate local level to the most general.

We firmly believe that we need dialogue, and strive to provide honest and useful answers to the questions we are asked about what we do, which we try to adapt to the very wide variety of people we communicate with (see opposite). We take part in existing bodies that facilitate this dialogue, such as labor relations organizations *(see p.86)*, and we create these bodies where necessary. In 2022, for example, we put together an advisory panel of six independent experts in Papua New Guinea made up of local representatives from civil society and international scientists, which was operational even before the final decision was made to invest in the Papua LNG project. Its main role is to make recommendations about how the project should go ahead with regard to local communities and biodiversity. Two meetings have already been held.

On the ground, all over the world, we work hand in hand with local NGOs. These mostly excellent relationships, – which get little media coverage – are crucial in taking a responsible approach in our operations and enable us to find out and respond to priority needs. ››

OUR STAKEHOLDERS

- **100,000 employees** *(see p. 68)*
- **Investors and the financial community** *(see p. 94)*
- **Millions** of residential **customers,** businesses and local authorities *(see p. 55, 89)*
- **100,000 suppliers** *(see p. 92)*
- **Member of 929** industry **associations** *(see p. 21)*
- **Civil society:** communities living close to our sites, multilateral institutions and agencies, universities and research centers, experts and researchers, NGOs, the media, young people *(see p. 90, 91)*
- **Public authorities:** Host countries, local authorities, government bodies *(see p. 94)*

Three members (center) of the Papua LNG independent expert panel (Papua New Guinea).

We also organize informal discussion channels in order to dialogue with more critical parties, despite growing polarization of opinion. As a result, we pay particular attention to any controversies raised, which usually reflect unmet expectations, whether or not it is within our power to provide a response that is considered satisfactory.

The main controversies that we faced in 2022 related to:

- **Our strategy** to get to **net zero** by 2050, together with society, the pace of the resulting transformation of the Company, and whether the Company is transforming at all;
- **Our climate impact,** and particularly that of new oil and gas production projects;
- **Human rights and the impact of our activities on local communities,** in connection with our duty of vigilance, particularly in Uganda and Tanzania through our Tilenga-EACOP projects, as well as in Mozambique and the Republic of the Congo;
- **Our operations** in Myanmar and Russia;
- **The impact of our operations on the environment,** especially biodiversity (e.g. Murchison Falls National Park in Uganda);
- **The Company's rate of taxation,** its profits and the amount redistributed to its employees;
- **Fuel, gas and electricity prices,** particularly in France.

In all its forms, from the most consensual to the most conflictual, from the most local level to the most global level, dialogue helps to identify and analyze the main risks and impacts relating to our activities, as well as giving a better understanding of the complex challenges involved and the sometimes contradictory expectations we have to deal with. This is why we set up regional think tanks in France in 2022 to work with local stakeholders on issues relating to the energy transition (see "Civil society" inset).

Discussion between local and central teams, as well as regular monitoring and tracking of social trends, provides us with a global understanding of challenges, to feed the Company's strategy.

Transparency as a principle for action

We believe that transparency is essential if we are to build relationships of trust with our stakeholders. We report on our performance through the various commonly used ESG disclosure frameworks, such as GRI (Global Reporting Initiative) and SASB (Sustainability Accounting Standards Board) standards. We also include the core metrics recommended by the World Economic Forum. ■

DIALOGUE WITH EMPLOYEES

AN ESSENTIAL TOOL FOR US TO SUCCESSFULLY ACHIEVE OUR TRANSFORMATION

We strive to encourage regular dialogue with employees and their representatives. In countries where employee representation is not mandatory under local legislation, the creation of a body to foster dialogue is proposed. A total of 92% of employees have union representation or employee representatives.

The European Works Council met 25 times in 2022 to discuss key issues such as the Company's new energies and the challenges they pose.
To get a clearer understanding of the Company's strategy, learning expeditions were organized on the ground to meet the dedicated teams.

CIVIL SOCIETY

TALKING TO PEOPLE LOCALLY

In France, a dedicated entity is in charge of local dialogue and forming ties with local public and private sector representatives.

Think tanks in 12 regions meet to discuss the issues relating to the energy and ecological transitions, the industry's transformation, the skills to be developed and regional projects.

The 34 meetings held in 2022 were attended by more than 300 people, taking an unprecedented and collective approach involving people from the business world, civil society (non-profits, academics and NGOs), public authorities, local politicians, and representatives of the farming community and related sectors.

Partnerships have also been formed with city authorities to share our respective aims in terms of economic development and the energy transition. In 2022, TotalEnergies entered into a partnership with FNSEA to decarbonize farming.

INVESTORS

ONGOING, DEMANDING AND FRUITFUL DIALOGUE

We attach particular importance to dialogue with all our shareholders. Members of the Executive Committee, the Lead Independent Director and the investor relations team maintain an ongoing dialogue with them about the Company's strategy and sustainability policy. The many interactions with our individual and institutional shareholders as well as investor coalitions such as CA100+ and IIGCC helped provide content for this report.

92%

of employees worldwide have union representation or employee representatives.

Deploying the Multi-Energy Transition in Host Countries

First loading of the LNG Adventure vessel at the Cameron LNG liquefaction terminal in Louisiana (US).

By deploying our strategy, we are helping host countries to transform and implement their own energy transition strategies.

As a multi-energy company, our integrated model allows us to provide technical solutions tailored to meet the needs of countries where the transition is in progress, from energy production to distribution.

Our global presence and expertise throughout the value chain help with technology transfer. By forming local partnerships, we make use of and add to the existing industrial and commercial network. And, owing to the time scale of our projects, we contribute to the long term by investing in local development and skills.

Supporting the energy transition in non-OECD countries

Demand for energy is set to increase in these countries, driven by their growing populations and by their need to access the energy for economic and social development. It is therefore crucial to help these countries respond to their populations' needs by providing them with energy as low in carbon as possible. By supplying natural gas, particularly in the form of LNG, we encourage the replacement of coal in all final demand sectors, including electricity. We are also supporting the rapid growth of renewable energies by developing a portfolio of wind and solar power projects.

At the forefront of OECD countries' energy transition

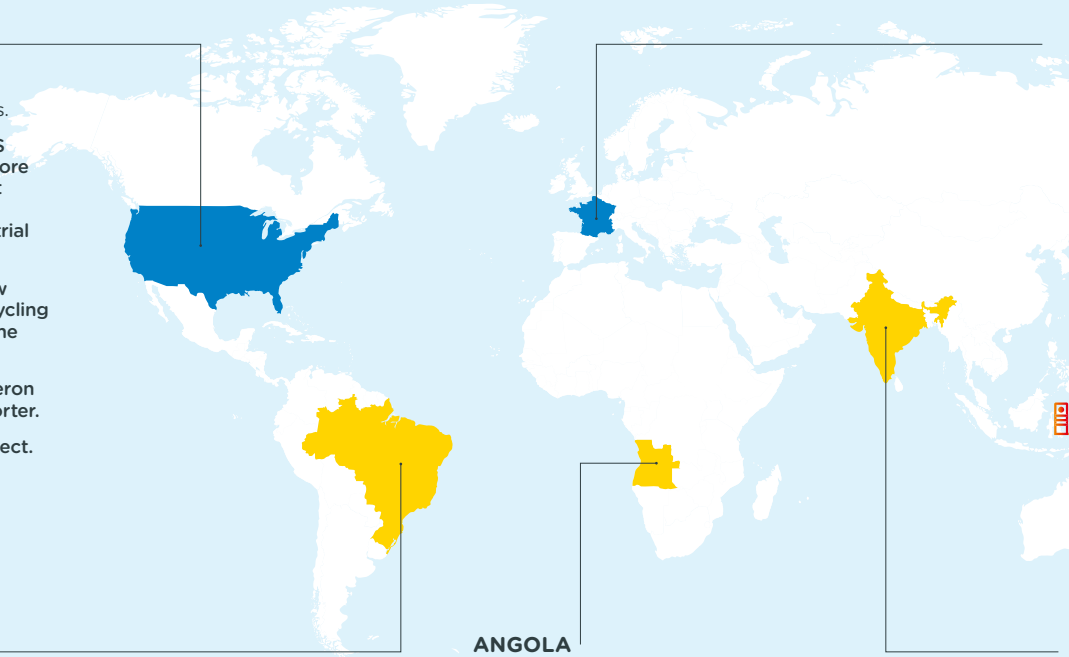
In these countries, electrification of final demand, including for mobility, coupled with the decarbonization of electricity, is a structural change that is helping to reduce emissions and increase energy efficiency. To this end, we are investing in locally competitive solar and wind power projects in countries such as the United States *(see p. 88)*. The crisis in Europe has also shown the essential role played by natural gas in allowing Europe to achieve its greenhouse gas emission reduction targets, a process we are contributing to *(see p. 28)*.

Taking a longer-term view, we are also developing our capacity to produce low carbon fuels such as biogas, low-carbon hydrogen, bio fuels and e-fuels *(see p. 34)*.

We are also promoting moderation and responsibility in the use of energy by means of incentive mechanisms. In November 2022, we introduced bonuses for our gas and electricity customers for cutting down on demand and launched a new offer to enable them to make better use of off-peak hours. ■

MULTI-ENERGY DEVELOPMENT IN 5 KEY COUNTRIES IN 2022

Biomass · CO_2 · Electricity · Wind
Natural gas · Hydrogen · Oil · Solar



UNITED STATES

Rapid expansion in our two main growth areas, LNG and renewables

2022 saw a change of scale in our US operations.

- **Acquisition of a 50% stake in Clearway (US No. 5 in renewables) and Core Solar. Offshore wind power concessions won off the coast of New York and New Jersey, and in North Carolina. Acquisition of SunPower's industrial and commercial business portfolio.**
- **Start of commercial operations for the new Port Arthur ethane cracker. Advanced recycling project with New Hope Energy, due to come into service in 2025.**
- **Launch of engineering studies in the Cameron LNG expansion project; No. 1 US LNG exporter.**
- **Cameron LNG expansion CO_2 capture project.**

FRANCE

Growing in the electricity business, No. 1 in biogas, we support our customers in their energy transition.

TotalEnergies has strong roots in France, where it is rolling out all aspects of its multi-energy strategy.

- **Renewable energy generation of 1 TWh with 426 solar plants, 64 wind farms and 10 hydropower plants.**
- **Production capacity of 700 GWh, thanks to 7 plants feeding into the grid and 11 cogeneration plants. Agreement with Saria to produce sustainable aviation fuel (SAF) at the Grandpuits zero-crude platform.**
- **6 CCGT power plants generating 14.45 TWh in 2022; start of operations at the Landivisiau plant.**
- **No. 1 fuel retailer (24% market share in 2022).**
- **17,285 charge points for electric vehicles.**
- **Agreement with Air Liquide to produce renewable, low carbon hydrogen at Grandpuits.**

BRAZIL

Partnerships driving multi-energy growth

As an oil-producing country, Brazil presents considerable potential for renewables. TotalEnergies significantly ramped up its multi-energy activities in the country in 2022.

- **Start of production for the first phase of the giant Mero oilfield. Entry into the Sépia and Atapu oilfields.**
- **Joint venture with Casa dos Ventos, the Brazilian wind power leader. Aim to develop a portfolio of 12 GW.**

ANGOLA

A 70-year shared path

TotalEnergies has been operating in Angola since 1953, helping the country to address the challenge of deep offshore oil production.

In July 2022, TotalEnergies announced the launch of three projects:

- **Final decision to invest in the Begonia oilfield, the first development in block 17/06.**
- **Final decision to invest in the NAG1 project, Angola's first non-associated natural gas project, which will supply the Angola LNG plant.**
- **The Quilemba concession granted to build a 35 MW solar plant.**

INDIA

Major transition challenges

India, the world's third-largest energy consumer, wants to reduce its CO2 emissions by 40% by 2030. TotalEnergies' growing operations in the country reflect that ambition.

- **Stake in Adani Green Energy Ltd.**
- **Additional gas distribution licenses awarded to ATGL; the TotalEnergies and Adani joint venture becomes the first private company in its sector.**

Accessible and Affordable Energy for All

Universal access to clean energy is one of the main aims of the Sustainable Development Goals (SDG 7). TotalEnergies' mission is to deliver energy that is more reliable, more affordable, cleaner and accessible to the greatest number of people. In emerging markets, this is a prerequisite for social and economic development.

The energy transition relies in part on using more electricity. We devoted 25% of our investments to this in 2022. In emerging markets, particularly in Africa, making the move from traditional biomass towards modern forms of energy – while keeping them affordable – is essential to increase energy efficiency, raise living standards and support the economic development of growing populations. One third of the world's population, or 2.5 billion people, currently have no modern and reliable means to cook [1].

We are committed to producing energy from renewable sources and our goal for 2030 is to achieve gross installed capacity of 100 GW. We estimate that around one third of this will be developed in emerging markets, as described in our SDG7 Energy Compact [2], which will serve around 40 million people.

In OECD countries, the energy crisis and inflation made defending buying power and combating energy insecurity a central issue in 2022. Faced with soaring energy prices in France, we took measures to help our customers. In February 2022, we introduced a €5 discount on each full tank at our service stations in rural areas, followed by wider-reaching, including a discount of €0.12 per liter at motorway service stations during the summer, €0.20 per liter everywhere in France in September and October, and €0.10 per liter in November and December.

We also upheld our commitment to programs to fight energy insecurity in housing and mobility, which affects more than 20% of households in France, with measures such as a €100 "gas check" for customers facing energy insecurity in February 2022. These measures reflect our sense of responsibility towards society. ■

A Sunshine lamp in Douala (Cameroon).

ELECTRICITY GRID

THE BIGGEST PRIVATE-SECTOR SOLAR POWER PLANT IN ANGOLA

TotalEnergies is developing the 35 MW power plant in Quilemba with its partners Sonangol and Greentech. When the plant comes on stream in 2024, it will prevent the use of 30 million liter of diesel a year and annual emissions of around 56,000 tons of CO_2eq. It will be connected to the grid in the province of Huila, in the south of the country.

LIGHTING

MORE THAN 5 MILLION SOLAR LAMPS AND KITS

Around the world, 760 million people, or around one in 10, do not have access to electricity for lighting, preserving food or keeping cool when temperatures rise. With more than 5 million solar lamps and kits sold, including 700,000 in 2022, we are providing lighting solutions in 40 countries, mostly in Africa and Asia. To offer a better response to the needs of local populations, we have expanded the product range, reviewed our product design for improved reparability, and set up battery collection and recycling points.

CEE

FRANCE'S CEE ENERGY SAVING CERTIFICATES SCHEME

TotalEnergies plays an essential role in driving renovation projects, putting an end to energy inefficient buildings and tackling energy poverty in construction, industry and transportation. In 2022, TotalEnergies supported around 300,000 energy efficiency projects at residential properties, half of which benefited people on very low incomes, and encouraged around 360,000 new drivers to sign up to car pooling programs. As a result of its incentives and initiatives, TotalEnergies achieved energy savings of around 150 TWhp in 2022, equal to the domestic energy use of 1.5 million French people for 15 years.

1. www.iea.org 2. www.un.org

Supporting our Host Communities

The nature of our operations involves close interaction with local communities in our host countries. Our vision of shared prosperity is based on three principles: **dialogue and engagement** with all our host communities, **assessing and reducing the impact** of our operations, and **contributing to local social and economic development** that meets the needs of the community.

Contributing to local socio-economic development

Long-term operations in a host territory means developing profitable, sustainable projects that create jobs and develop skills locally. TotalEnergies is committed to prioritizing local jobs and subcontracting locally whenever possible, in accordance with operational constraints. In 2022, around two thirds of our workforce (65.5%) was employed outside France, including more than 10% in Africa, 19% in North and Latin America and 6.5% in the Asia-Pacific region.

Each large industrial project includes targets for host country jobs and local value creation, particularly in purchasing, manufacturing, support for local businesses and skills development. For example, at the end of 2022, 93 % of people working on the Tilenga project in Uganda were Ugandan citizens (around 6,500 employees of the Company and its subcontractors). 230,000 hours of training have been provided within the framework of the project since mid-2021, for employees, subcontractors and the local communities affected.

In addition to jobs and using local suppliers for projects, we support initiatives in areas such as education and getting young people into employment, protecting cultural heritage, access to water, health and road safety, which all contribute to reduce inequality. More than 1,500 initiatives were supported in these areas in 2022.

Farmers supported by Mozambique LNG, (Mozambique).

Building ties with host communities

We also give our employees the opportunity to get involved in causes close to where they work. The **Action!** program enables all employees to donate up to three workdays a year to local causes. Helping a young person find a job or taking care of natural spaces are opportunities to play a part, individually or with others, in achieving the Company's aim of driving positive change locally. In 2022, 8,000 employees took part in more than 11,000 citizenship initiatives worldwide as part of this program. ■

MOZAMBIQUE

AN INITIATIVE FOR THE DEVELOPMENT OF CABO DELGADO

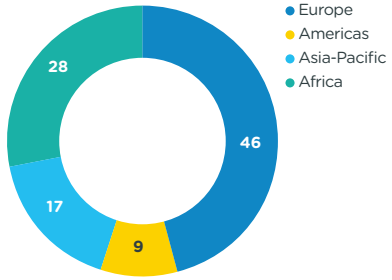
Pamoja Tunaweza is a community-driven initiative set up by the Mozambique LNG Project. It is a platform for local communities, local government representatives and the Mozambique LNG Project to collectively identify, implement and monitor progress on socio-economic development opportunities.

Its priorities are the creation of sustainable revenues and the diversification of the local economy. In 2022, the project dedicated a budget of $20 million to the implementation of more than 40 programs, creating nearly 4,000 local jobs, and revitalizing food-producing agriculture with more than 2,500 farmers benefiting from the project, and training communities in the fight against malaria.

The name Pamoja Tunaweza was chosen by the communities and means "Together we will succeed" in Kiswahili.

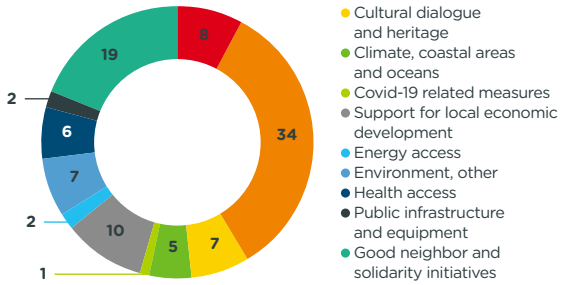
SOCIAL INITIATIVES BY REGION

In %



SOCIO-ECONOMIC DEVELOPMENT INITIATIVES BY TOPIC

In %



Making a Commitment to Young People

Since there is no sustainable development that would leave young people by the wayside, TotalEnergies takes action to give them the means to take charge of their own futures, focusing on the most vulnerable. This starts with helping them find jobs, promoting equal opportunity or improving road safety which, in addition to saving lives, also plays an important role in reducing poverty and inequality by supporting access to employment and education.

Helping young people to find work

TotalEnergies takes an active approach as an employer. In 2022, we exceeded our target of recruiting 5% of work-study placements in France with 1,900 hires (6.3%) and the same target has been set for 2023. After joining *the Collective for a more inclusive economy* in 2022, we added a target of 300 employees becoming mentors of a young person in 2023.

The Company also takes action via its corporate foundation, and funds L'***Industreet,*** a campus it designed and launched in 2020 in Stains, Seine-Saint-Denis, providing free professional training for young people in industrial sectors struggling to recruit. In 2022, 204 18- to 30-year-olds received training and 68 obtained their qualifications.

The TotalEnergies corporate foundation also contributed to the opening of a further 12 Production Schools in 2022 as part of a €60 million partnership over 10 years.

The Company takes action in all countries in which it operates via its affiliates. Every year since 2011, university professors in Nigeria have been invited to spend a semester at MIT under the *Empowering The Teachers* initiative. A total of 16 took this opportunity in 2022, and 92 since 2011.

Making the roads safer and educating about road safety

TotalEnergies plays a major role in mobility. In 2022, we experienced the death of a partner's employee on the road ourselves *(see p. 63)*, and we are ramping up the international rollout of the best and latest technologies by 2024.
We are committed to road safety for our operations and our customers, to make the roads safer for all users, in particular the youngest users, for whom this is the leading cause of death.
With this in mind, in 2022 we took part in the pilot stage of a Road Safety Index project launched by the Fédération Internationale de l'Automobile, which aims to develop a methodology to assess and improve organizations' road safety performance.

By sharing our expertise in schools, for example, we can help to reduce the number of victims and reach the target set by the United Nations in 2020 of halving the number of traffic accident-related deaths between now and 2030, supporting SDG 3.6. This is the aim of the VIA Road Safety Education Program jointly founded by the TotalEnergies and Michelin Foundations. In 2022, 300,000 schoolchildren received training in 36 countries, including around 170,000 in Africa and over 75,000 in India. The program's rollout is supported by employees of the Company's affiliates. ■

CITIZENSHIP ENGAGEMENT

TOTALENERGIES CORPORATE FOUNDATION

Created in 1992, the TotalEnergies Foundation now takes action in four priority areas: Inclusion and education, Road safety, Climate, coastal areas and oceans, and Cultural dialogue and heritage.
In 2022, it provided €65 million of support for its non-profit partners. The Company has renewed its commitment, pledging €200 million for the period from 2023 to 2027.
A communications campaign highlighting its commitment to helping young people was launched in September 2022.

Working Alongside our Suppliers

CLIMATE AND SUSTAINABLE ENERGY | PEOPLE'S WELL-BEING | CARE FOR THE ENVIRONMENT | CREATING SHARED VALUE

TotalEnergies works with over 100,000 suppliers of goods and services worldwide for a total spend of $27 billion in 2022. So we can play a major role in encouraging our suppliers to improve their sustainability. We are implementing a responsible purchasing program which puts the four dimensions of our sustainability ambition at the heart of the purchasing process. The program has four operational priorities, each with its own target, set in January 2022.

Priority 1 • Sustainability awareness raising and training for our buyers

In 2022, TotalEnergies created a special training course that has now been taken by over 460 employees, or around half our buyers. We also conduct regular awareness-raising sessions, using specific webinars on the climate (over 500 buyers) and human rights (over 300 buyers).

SUSTAINABILITY AWARD

In 2022, TotalEnergies awarded a "Sustainability" prize to Greif, an international packaging supplier, in recognition of its excellent scores in the human rights audits TotalEnergies carries out among its suppliers.

Priority 2 • Raising awareness and mobilizing suppliers

A sustainability platform, which has been operational since June 2022, allows our buyers to track suppliers' performance in this area, and already includes over 560 suppliers of the 1,300 priority suppliers identified [1]. This is backed by other actions, such as the publication in May 2022 of a new Practical Guide on Respect for Human Rights in the Workplace and the November 2022 Suppliers' Day, attended by over 100 suppliers to talk about Sustainability with our Chairman and CEO and two members of the Executive Committee.

Priority 3 • Integration of our sustainability requirements into our purchasing process

In 2022, TotalEnergies updated its Purchasing Directive and Fundamental Purchasing Principles (which incorporate the prevention of and fight against conflicts of interest and corruption) to include and strengthen the attention given to sustainability and climate. Our purchasing risk mapping has also been updated. The aim now is to implement a specific roadmap in each purchasing segment by the end of 2024.

CLIMATE

After an initial estimation in 2021 of greenhouse gas emissions connected with the purchase of goods and services, the Company updated this assessment in 2022. In January 2022, the Company pledged to ensure that the 400 suppliers accounting for 70% of these emissions adopt reduction targets by 2025. To date, 62% of the 345 suppliers who responded have already done so.

In 2022, TotalEnergies was recognized by the CDP as "Supplier Engagement Leader", for our efforts to measure and reduce the climate risk in our supply chain.

Priority 4 • Our supplier audits

TotalEnergies has had a human rights audit system for several years. In 2022, human rights audits of 200 suppliers were carried out by specialized third companies, i.e. more than twice the number (80) in 2021. At the same time, the Company undertook to assess its 1,300 priority suppliers for their global sustainable development performance by the end of 2025, using new, broader criteria, including environmental issues such as biodiversity, water and circularity, and the climate. In 2022, nine test audits were carried out by third parties in order to deploy the new criteria by 2023. ■

AUDITS

IMPROVING PERFORMANCE WITH HUMAN RIGHTS AUDITS OF OUR SUPPLIERS

Since 2016, the human rights audits of our suppliers have involved 160,000 people in 77 countries and have had a positive impact on working conditions for over 14,000 of them. An Asian carrier whose employees were working over 80 hours a week, for example, because there was no local law on working hours, agreed to align its practice with international standards to meet TotalEnergies' requirements.

1. I,300 priority suppliers, including 500 main suppliers, representing 50% of the Company's total spend, and 800 suppliers at risk in terms of human rights (600 suppliers) and the environment (200 suppliers) depending on their activity and country of operation.

Promoting Fiscal Transparency and Fighting Corruption

We work with governments to promote fiscal transparency and fight corruption, helping to create the right environment for economic development.

Promoting fiscal transparency

TotalEnergies is a member of the Extractive Industries Transparency Initiative (EITI) and made its tax policy public in 2014. This policy is approved by the Board of Directors and published in the Company's Universal Registration Document. We also publicly endorse the Responsible Tax Principles developed by the B Team, a non-profit organization of business leaders and civil society representatives, which aims to promote sustainable economic and social development.

The Company published a fiscal transparency report in March 2022, providing additional information on the taxes paid in its main host countries in 2019 and 2020, in order to give its stakeholders a fuller and more pertinent view of its tax situation. Our stakeholders welcomed the publication of this report and TotalEnergies was ranked third in the VBDO Tax Transparency Benchmark 2022's EU company rankings[1].

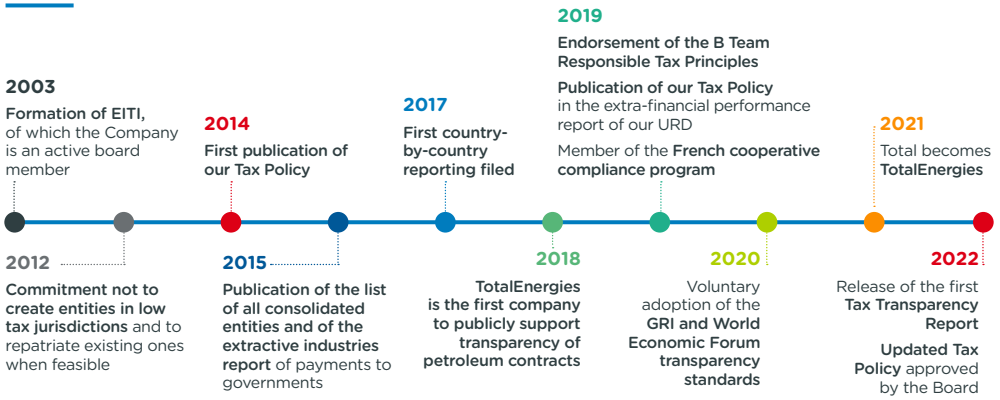
Fighting corruption

TotalEnergies is exposed to corruption risks owing to its presence in certain countries that have a high perceived level of corruption according to the index drawn up by Transparency International. We apply a principle of zero tolerance for corruption among our employees and suppliers. We advocate a culture of "Speak up!" and regularly promote the value of "Respect For Each Other", which is part of our Code of Conduct. Our employees and third parties are encouraged to report any situations that they believe to be in breach of this code.

To take action in all areas of its value chain, TotalEnergies has made preventing and fighting the risk of conflicts of interest and corruption part of its Responsible Purchasing program *(see p. 92)*. A new platform launched in 2022 includes preventing and combating the risk of conflicts of interest and corruption in purchasing. More than 560 of the 1,300 priority suppliers invited joined the platform in 2022. ■

1. Dutch Association of Investors for Sustainable Development.

TAX TRANSPARENCY



ANTI-CORRUPTION

PROGRESS MADE IN 2022

- 360 Compliance Officers, receiving regular training and working in our affiliates around the world;
- Addition to our Code of Conduct of practical examples of prohibited behaviors;
- Anti-corruption training: a new online training course was launched in mid-2022, replacing the two existing training courses taken by more than 82,000 employees. To date, more than 31,000 employees have already taken the new training course, designed to adapt to the Company's employees' greater maturity in this area.
- Assessments: more than 15 assessments were carried out at affiliates identified as most at risk by the Chief Compliance Officer's team by our partners specializing in financial data analysis.
- Number of incidents and disciplinary actions: just over 200 incidents relating to fraud (excluding attempted fraud), corruption or influence peddling were identified and – where they concerned an employee – resulted in around 130 disciplinary actions, most of which entailed dismissal.

Sharing the Economic Value We Create

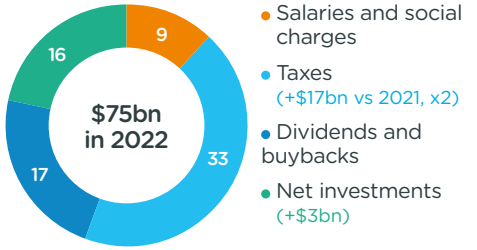
TotalEnergies creates economic and financial value in the 130 countries in which it operates, which benefits governments, its economic partners, including suppliers, its employees and its shareholders. In 2022, this represented $75 billion.

Sharing value with governments

TotalEnergies pays its share of tax, making a substantial contribution to the economic development of its host countries.
In 2022, the amount of income tax and production taxes paid by the Company across all operations came to just over $33 billion (compared to $15.9 billion in 2021). This includes the various exceptional taxes introduced in the European Union and the United Kingdom representing just over $2 billion in 2022. The average tax rate was 40.9% in 2022. In countries where hydrocarbon exploration and production activities are carried out, TotalEnergies' operated and non-operated activities are conducted under contracts with a government, a national oil company or private owners. Payments made by the Company's extracting entities to governments or territories in which we operate amounted to $35.8 billion in 2022 (mainly taxes, duties and production rights).

At the other end of the value chain – product retail – the Company collects excise taxes for governments from energy product consumers. Each day, TotalEnergies serves more than 8 million customers at its service stations around the world and 8.9 million B2B and B2C gas and electricity customers. In 2022, it collected $17.7 billion in excise taxes on petroleum products and $1.3 billion on gas and electricity for governments.

OUR VALUE CREATION IN 2022



Sharing with our 100,000 employees worldwide

Wages and payroll taxes amounted to $9 billion in 2022, including the payment by the Company of an exceptional bonus to all employees corresponding to one month's pay, capped for high salaries. At the Socle Social Commun level in France, representing a total of 14,000 employees, the agreement also provided a 7.5% pay rise to reflect inflation of 6% over the year. In addition to this, there was a 15% increase in the amount allocated to bonuses for workers and supervisors, as well as managers' variable pay (excluding executives), to reach an average remuneration increase of 10%.

TotalEnergies also encourages employee shareholding. In 2022, 49,189 employees and former employees in 101 countries subscribed to a capital increase in the amount of €337.8 million; 11,500 employees also received performance shares. Finally, 65% of TotalEnergies employees are company shareholders. They received around 7% of dividends in 2022, or €700 million.

An attractive shareholder returns policy

TotalEnergies strives to create long-term value in order to ensure that its shareholders' investments pay returns and are maintained. Therefore, it has not reduced its dividend since 1982. The average annual gross return for the last 10 years is 10.44%.

With a breakeven point below $25 per barrel, TotalEnergies is now much more profitable than it was 10 years ago. On the basis of an equivalent oil price, it generates $15 billion more cash flow. At the end of 2022, the Company's debt was reduced significantly to 7%, allowing it to step up its transformation strategy and offer an attractive shareholder returns policy.

A new cash flow allocation strategy has therefore been announced for the next few years. The Board of Directors is confident in the Company's ability to ensure profitable and lasting growth and wants to share its profits with shareholders in the current climate of high prices. It therefore decided to allocate 35-40% of cash flow to shareholders over the cycles. A $7 billion share buyback program was carried out in 2022 and an exceptional interim dividend of €1 per share was paid in December 2022, on top of the 5% increase in quarterly interim dividends already announced and implemented. Returns to shareholders therefore represented 37.2% of cash flow in 2022. ■

Key Takeaways

OUR AMBITION:
SUPPORTING A JUST TRANSITION BY CREATING SHARED VALUE

MAKING COMMITMENTS TO OUR STAKEHOLDERS

ACCESSIBLE AND AFFORDABLE ENERGY FOR ALL

SHARING THE ECONOMIC VALUE WE CREATE

KEY POINTS

ENGAGING WITH OUR STAKEHOLDERS

- **Listening to voices from civil society** and paying attention to controversies
- **Promoting dialogue with employees :** 92% of employees worldwide have union representation or employee representatives
- **Encouraging debate:** 12 regional think tanks created in France to discuss issues related to the energy transition

SUPPORTING OUR HOST COMMUNITIES

- **Putting local workers and subcontracting locally first**
- **1,500 local socio-economic development** initiatives supported in 2022
- **8,000 employees involved** in local public interest initiatives

MAKING A COMMITMENT TO YOUNG PEOPLE

- **1,933 work-study placements in France** in 2022
- **300,000 school children given road safety training** in 36 countries through the VIA program

MEETING THE NEEDS OF NON-OECD COUNTRIES WITH A MULTI-ENERGY OFFERING

- **Leveraging our service station network,** especially in Africa
- **Supplying natural gas** to encourage the replacement of coal
- **Supporting growth in renewables**

INVESTING IN THE ENERGY TRANSITION WITHIN THE OECD

- **Developing LNG and renewables**
- **Promoting low carbon transportation**

MAKING ENERGY ACCESSIBLE AND AFFORDABLE FOR EVERYONE

- **25% of our 2022 investments dedicated** to the electrification of energy end-usage
- **Discounts of up to €0.20 per liter at the pump** in our French service stations in 2022
- **300,000 energy efficiency renovations** in French homes
- **700,000 solar kits** sold worldwide in 2022

PROMOTING TRANSPARENCY AND FIGHTING CORRUPTION

- **Tax transparency report** published in 2022
- **31,000 employees** given online **anticorruption training** in 2022
- **15 anticorruption assessment missions** in our most exposed entities

SHARING THE ECONOMIC VALUE WE CREATE

- **With our employees:** $9bn of salaries and social contributions in 2022; 65% of employees are shareholders
- **With our partners and suppliers:** $16bn net investment and $27bn in supplier spending in 2022
- **With governments:** $33bn in tax paid in 2022; average tax rate of 40.9%
- **With shareholders:** $17bn of dividends and share buybacks in 2022

Our Indicators

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VERIFICATION BY AN INDEPENDENT THIRD PARTY

The non-financial performance indicators presented below are taken from the Non-Financial Performance Declaration for which EY & Associés, in its quality as an independent third-party accredited by the COFRAC, has issued a reasoned opinion expressing a moderate assurance conclusion. This moderate assurance conclusion concerns, in accordance with the regulations in force, the following: • the compliance of the Declaration with the provisions of Article R. 225-105 of the French Commercial Code; • the fairness of the historical information (observed or extrapolated) provided pursuant to 3° of I and II of article R. 225-105 of the French Commercial Code, namely the results of policies, including key performance indicators, and actions, relating to the main risks.

The work was carried out by EY & Associés in accordance with the international standard ISAE 3000 (revised). The report of the independent third party organization on the verification of the consolidated non-financial performance statement is available in section 5.12 of the Company's Universal Registration Document, available at ***https://totalenergies.com***

Climate

- Number of sites with an auditable energy management system
- Direct GHG emissions at operated sites (scope 1)
- Direct GHG emissions based on equity share (scope 1)
- Indirect GHG emissions from energy use at operated sites (scope 2)
- Indirect GHG emissions from energy use as equity share (scope 2)
- GHG emissions (scopes 1 & 2) from operated oil & gas facilities
- Other indirect GHG emissions related to the use by customers of energy products (scope 3 category 11)
- Other indirect GHG emissions related to the use by customers of petroleum products
- Flared gas (Upstream oil & gas activities, operated scope)
- Routine flaring
- Lifecycle carbon intensity of energy products used by the customers
- Intensity of GHG emissions (Scopes 1 & 2) of operated Upstream oil & gas activities
- Methane emissions from Company operated activities
- Methane emissions based on equity share
- Intensity of methane emissions from operated oil & gas facilities (Upstream)
- Net primary energy consumption (operated scope)
- Global energy efficiency indicator (GEEI)

Health Safety

- Loss of primary containment Tier 1 and Tier 2
- Millions of hours worked
- Number of occupational fatalities
- Number of occupational fatalities per hundred millions hours worked
- TRIR (number of recorded injuries per million hours worked)
- LTIR (number of lost time injuries per million hours worked)
- SR (number of days lost due to accidents at work per million hours worked)
- Number of severe road accidents
- Number of occupational illnesses recorded in the year (in accordance with local regulations)
- Percentage of employees with specific occupational risks benefiting from regular medical monitoring

Social

- Total number of employees
- Total number of employees hired on permanent contracts
- Total number of departures per category
- Percentage of the Group's entities including HSE criteria in the variable compensation
- Average number of training days/year per employee (onsite training)
- Average number of training days/year per employee (remote training)
- Average number of training days/year per employee, per segment, per geographical areas and per type of training
- Average training cost per employee
- Percentage of women among permanent contract recruitment, among management recruitment, among total employees, among managers, among senior executives
- Percentage of employees of non-French nationality among permanent contract recruitment, among management recruitment, among total employees, among managers, among senior executives
- Percentage of companies offering the option of regular remote working
- Percentage of employees choosing remote working when given the option
- Percentage of companies offering voluntary part-time work
- Absences for medical reasons
- Percentage of companies with labor union representation and/or employee representation
- Percentage of employees covered by a collective bargaining agreement
- Number of active agreements signed with employee representatives worldwide and in France
- Percentage of employees that received a direct salary that exceeds the living wage in the country or region in which they work

Human Rights

- Percentage of E&P, R&C and M&S segments' operating subsidiaries in the One MAESTRO rollout scope with an operational activity which have a grievance mechanism in place

Environment

- Number of operated sites important for the environment ISO 14001 certified
- Number of sites operated by the Company ISO14001 certified
- Number of sites whose risk analysis identified at least one risk of major accidental pollution to surface water
- Proportion of those sites with an operational oil spill contingency plan
- Proportion of those sites that have performed an oil spill response exercise or whose exercise was prevented following a decision by the authorities
- Accidental liquid hydrocarbon spills of a volume of more than one barrel that affected the environment, excluding sabotage (number and total volume of spills, total volume recovered)
- SO2 emissions
- NOX emissions
- NMVOC emissions
- Hydrocarbon content of offshore water discharges
- Hydrocarbon content of onshore water discharges
- Percentage of sites that meet the target for the quality of offshore discharges
- Percentage of sites that meet the target for the quality of onshore discharges
- Fresh water withdrawals excluding cooling water
- Fresh water consumption
- Fresh water withdrawal in water stress area
- Quantity of non-hazardous and hazardous waste
- Quantity of non-hazardous and hazardous waste valorized
- Percentage of waste processed per treatment process (valorization, landfill, other)

Energy transition

	Unit	2015	2019	2020	2021	2022	2025	2030
Energy mix (sales)								
Petroleum products[2]	%	65	53	47[1]	44[1]	41		30
Gas[3]	%	33	40	45[1]	48[1]	50		50
Low-carbon energies[4]	%	2	7	7[1]	8[1]	9		20
Petroleum products								
Petroleum products - sales	Mb/day	2,4	2,3	1,8	1,8	1,7		1.4
Gas								
LNG-Sales	Mt	13	34	38	42	48		
Electricity								
Gross renewable electricity capacity[5]	GW	0	3	7	10	17	35	100
Net production[6]	TWh	2	11	14	21	33	>50	130
Clients BtB and BtC	Millions	<2	6	8	9	9		10
EV charging points	Thousands	0	0	22	26	42		
New molecules								
Biofuels - production	Mt	-	<1	<1	<1	<1		SAF: 1.5
Biogas - production	TWh	-	-	-	<1	1	2	20
Net investments	**B$**	**20**	**17**	**13**	**13**	**16**		
Oil	B$	13	9	6	7	10		
LNG & Gas	B$	7	7	5	3	2		
Low-carbon energies	B$	0	1	2	4	4	33 %	33%
Integrated Power	B$	0	1	2	3	4		
New molecules	B$	0	<1	<1	<1	<1		
Energy consumption								
Net primary energy consumption[7]	TWh	153	160	147	148	166		
Renewable energy consumption[7]	TWh	-	-	-	-	1		
Global Energy Efficiency Indicator (GEEI)	Base 100 in 2010	90.8	88.0	90.2	87.0	85.1		
Energy management system								
Operated sites with an auditable energy management system (annual consumption > 50 ktoe)[8]	Nb	-	-	26	27	27		
Operated sites with annual consumption > 50 ktoe[9]	Nb	-	-	42	46	46		

1. Valuation of these indicators excluding Covid-19 effect. **2.** Sales of petroleum products (from Marketing & Services and bulk refining sales). **3.** Marketable gas production of Exploration Production and LNG sales. **4.**Sales of electricity, distribution of biofuels, sales of biomass, biogaz and H_2. **5.** Gross installed renewable electricity generation capacity. **6.** Equity interest domain. **7.** Operated domain. **8.** The ISO 50001 standard accompanies the implementation in companies of an energy management system that allows better use of energy. **9.** Combined-cycle natural gas power plants are power generation facilities whose gas consumption is optimized for maximum efficiency. These installations benefit from efficient energy management and do not require the implementation of a specific energy management system.

Climate

	Unit	OPERATED DOMAIN 2015	2019	2020	2021	2022	2025	2030	EQUITY INTEREST DOMAIN 2015	2019	2020	2021	2022
GHG Emissions - Scope 1+2													
Scope 1- Direct emissions	**Mt CO_2e**	**42**	**41**	**38[1] (36)**	**34[1] (33)**	**37**			**50**	**55**	**52**	**49**	**51**
Breakdown by segment													
Upstream oil & gas activities	Mt CO_2e	19	18	16	14	14			22	26	24	23	22
Integrated Gas, Renewables & Power, excluding upstream gas operations	Mt CO_2e	-	3	3	5	9			-	4	5	6	9
Refining & Chemicals	Mt CO_2e	22	20	17	15[1] (14)	15			27	25	22	19	20
Marketing & Services	Mt CO_2e	<1	<1	<1	<1	<1			1	<1	<1	<1	<1
Breakdown by geography													
Europe: EU 27 + Norway + UK + Switzerland	Mt CO_2e	22	24	22[1] (21)	20[1] (19)	23			22	23	20	18	21
Eurasia (inclu. Russia) / Oceania	Mt CO_2e	5	1	1	1	<1			13	18	17	17	15
Africa	Mt CO_2e	12	11	10	9	9			9	8	7	7	7
Americas	Mt CO_2e	4	4	4	5	5			5	6	7	7	8
Breakdown by type of gas													
CO_2	Mt CO_2e	39	39	34	32	36			-	-	-	47	50
CH_4	Mt CO_2e	2	2	2	1	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**	**4**	**4**	**3[1] (3)**	**2[1] (2)**	**2**			**-**	**-**	**-**	**5**	**5**
of which Europe: EU 27+ Norway + UK + Switzerland	Mt CO_2e	2	2	2[(1)] (2)	1[(1)] (1)	1			-	-	-	2	2
Scope 1+2	**Mt CO_2e**	**46**	**44**	**41[1] (38)**	**37[1] (35.7)**	**40**	**38**	**25-30[2]**	**-**	**-**	**-**	**54**	**56**
	vs 2015		**-3%**	**-9%[1]**	**-20%[1]**	**-13%**	**-17%**	**> - 40%[2]**					
of which oil & gas facilities	Mt CO_2e	46	42	39[1] (36)	33[1] (32)	33			-	-	-	49	48
of which CCGT	Mt CO_2e	-	2	3[1] (3)	4	7			-	-	-	5	8
GHG Emissions – Methane													
Methane emissions[3]	**kt CH_4** vs 2020	**94**	**68**	**64**	**49** -23%	**42** -34%	-50%	-80%	**-**	**-**	**-**	**51**	**47**
Breakdown by segment													
Upstream oil & gas activities	kt CH_4	92	66	62	48	41			-	-	-	48	43
Integrated Gas, Renewables & Power, excluding upstream gas operations	kt CH_4	0	<1	<1	<1	1			-	-	-	2	3
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	9	15	12	7	7			-	-	-	5	5
Eurasia (inclu. Russia)/Oceania	kt CH_4	33	3	3	1	1			-	-	-	16	15
Africa	kt CH_4	49	39	31	23	23			-	-	-	18	17
Americas	kt CH_4	3	10	18	18	12			-	-	-	12	10
Flaring													
Flared gas[4] (Upstream oil & gas activities operated scope)	Mm^3/d	7.2	5.7	4.2	3.6	3.3							
of which routine flaring	Mm^3/d	2.3[5]	0.9	0.6	0.7	0.5	<0.1	0					

1. Excluding Covid-19 effect for 2020 and 2021 emissions data. **2.** Including carbon sinks. **3.** Excluding biogenic methane. **4.** This indicator includes safety flaring, routine flaring and non-routine flaring. **5.** Volumes based on historical data.

Climate

	Unit	2015	2019	2020	2021	2022	2025	2030
Indirect GHG emissions and estimates of enabled emissions reductions								
Scope 3[2]	Mt CO_2e	410	410	400[1] (350)	400[1] (370)	389[1] (381)	< 400	< 400
Breakdown by geography								
Europe: EU 27 + Norway + UK + Switzerland	Mt CO_2e	256	232	215[1] (190)	220[1] (202)	191[1] (187)		
Eurasia (inclu. Russia)/Oceania	Mt CO_2e	-	-	-	79[1] (77)	81[1] (80)		
Africa	Mt CO_2e	-	-	-	68[1] (59)	77[1] (74)		
Americas	Mt CO_2e	-	-	-	33[1] (31)	40[1] (39)		
Breakdown by value chain								
Petroleum products	Mt CO_2e vs 2015	350	335 -4%	320[1] (270) -9%[1]	285[1] (255) -19%[(1)]	254[1] (246) -27%[1]	-30%	-40%
Biofuels	Mt CO_2e	-	-	-	-	4		
Gas	Mt CO_2e	60	75	80[1)] (80)	115[(1)] (115)	130		
Estimates of enabled emissions reductions by TotalEnergies' LNG sales[3]	Mt CO_2e	-	-	-	-	~70		
Intensity indicators								
Lifecycle carbon intensity of energy products used by the customers (73 g CO_2e/MJ in 2015)	Base 100 in 2015	100	94	92[1] (90)	90[1] (89)	88	85	75
Intensity of GHG emissions (Scope 1+2) of operated Upstream oil & gas activities[4]	kg CO_2e/boe	21	19	18	17	17		
Intensity of GHG emissions (Scope 1+2) of Upstream oil & gas activities[4] on equity basis	kg CO_2e/boe	-	-	-	19	19		
Intensity of methane emissions from operated oil & gas facilities (Upstream)	%	0.23	0.16	0.15	0.13	0.11		
Intensity of methane emissions from operated gas facilities	%	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

	Unit	2022
Estimates of indirect GHG emissions - Scope 3		
Categories of Scope 3		
Cat 1 - Purchased goods and services[5]	Mt CO_2e	30
Cat 2 - Capital goods[6]	Mt CO_2e	<1
Cat 3 - Fuel-and-energy-related activities (not included in Scope 1+2)[7]	Mt CO_2e	3
Cat 4 - Upstream transportation[8]	Mt CO_2e	9
Cat 5 - Waste generated in operations[9]	Mt CO_2e	<1
Cat 6 - Business travel[10]	Mt CO_2e	<1
Cat 7 - Employee commuting[11]	Mt CO_2e	<1
Cat 8 - Upstream leased assets[12]	Mt CO_2e	0
Cat 9 - Downstream transportation[13]	Mt CO_2e	1
Cat 10 - Processing of sold products[14]	Mt CO_2e	6
Cat 11 - Use of sold products[15]	Mt CO_2e	389[1] (381)
Cat 12 - End of life treatment of sold products[16]	Mt CO_2e	11
Cat 13 - Downstream leased assets[17]	Mt CO_2e	n/a
Cat 14 - Franchises[18]	Mt CO_2e	<1
Cat 15 - Investments[19]	Mt CO_2e	n/a

In line with our commitment to transparency, this year we are publishing an estimate of indirect emissions in other Scope 3 categories according to the GHG Protocol and ipieca classification. The scope of reporting is specified for each category. The values of these estimates may change from year to year as estimation methodologies progress.

1. Excluding Covid-19 effect for emissions data from first half 2020 through first half 2022. **2.** Scope 3 category 11. Oil products including bulk refining sales; biofuels; natural gas excluding minority stakes in public companies. **3.** Potential emissions reductions that may have been contributed by TotalEnergies' LNG sales. **4.** This indicator doesn't include integrated LNG assets in its perimeter. **5.** Cradle-to-gate emissions from purchases of goods and services, excluding those reported in category 2 or 4. Calculated with the sum of purchases (excluding energy products resold) multiplied by specific monetary ratios, as well as 20 MtCO2e relating to purchases of oil and petroleum products (net of our production) and medium and long-term LNG supply contracts. **6.** Cradle-to-gate emissions from purchases of capital goods such as drilling, subsea equipment, valves, static equipment's purchase categories. Calculated with the sum of the purchases multiplied by specific monetary ratios. **7.** Cradle-to-gate emissions related to B2B/B2C electricity sales (excluding trading) net of TotalEnergies' electricity production in Europe. **8.** Upstream emissions related to the transport of energy products, including measured shipping emissions and estimated emissions related to land transport purchase categories, calculated with the sum of purchases multiplied by specific monetary ratios. **9.** Cradle-to-gate emissions from purchase categories linked to waste treatment and remediation. Calculated with the sum of purchases multiplied by specific monetary ratios. **10.** Emissions related to employee business travel as reported by contractors. **11.** Emissions related to the commuting of the Company's employees. The estimate uses the average emission factor reported by INSEE per employee. **12.** Direct emissions related to long-term contracted assets, which mainly correspond to sea charters for the transport of energy products, already included in category 4. **13.** Emissions related to the downstream transport of B2B marketing sales in M&S and petroleum products bulk sales of Refining. **14.** Emissions related to the transformation of the main non-energy intermediate products sold (sulphur, polymers, bitumen), based on most representative or conservative physical emission factors. **15.** Oil products including bulk refining sales; biofuels, natural gas excluding minority stakes in public companies. **16.** Emissions related to the end of life of the main non-energy products sold (lubricants, polymers, bitumen). **17.** Not applicable, the Company did not identify emissions linked to third party leasing. **18.** Emissions associated with service stations operated by third parties, calculated with TotalEnergies' Scope 1+2 emission intensity. **19.** Not applicable, emissions associated with non-operated activities are included in Scope 1+2 equity reporting.

Health & Safety

Occupational Safety	Unit	2018	2019	2020	2021	2022
Millions of hours worked - All personnel	Mh	456	467	389	389	392
Company Personnel	Mh	237	243	211	215	217
Contractors' employees	Mh	219	224	178	174	175
Number of occupational fatalities - All personnel[1]	Nb	4	4	1	1	3
Company Personnel	Nb	0	0	0	1	0
Contractors' employees	Nb	4	4	1	0	3
Number of occupationnal fatalities per hundred millions hours worked - All personnel	Nb/ 100Mh	0.88	0.86	0.26	0.26	0.77
Company Personnel	Nb/ 100Mh	0.00	0.00	0.00	0.46	0.00
Contractors' employees	Nb/ 100Mh	1.83	1.79	0.56	0.00	1.71
Number of occupational injuries - All personnel	Nb	416	376	289	285	263
Company Personnel	Nb	195	181	134	127	130
Contractors' employees	Nb	221	195	155	158	133
Number of lost days due to accidents at work - All personnel	Nb	7,563	8,108	6,764	5,980	5,724
Company Personnel	Nb	3,298	4,949	3,429	2,703	3,116
Contractors' employees	Nb	4,265	3,159	3,335	3,277	2,608
Number of severe road accidents	Nb	30	33	27	21	15
Light vehicles and public transportation	Nb	7	9	0	1	3
Heavy goods vehicles (truck)	Nb	23	24	27	20	12

Health indicators (WHRS scope - Worldwide Human Resources Survey)						
Percentage of employees with specific occupational risks benefiting from regular medical monitoring	%	98	98	97	97	99
Number of occupational illnesses recorded in the year (in accordance with local regulations)	Nb	154	128	136	158	129

Occupational Safety	Unit	2018	2019	2020	2021	2022
TRIR: number of recorded injuries per million hours worked - All personnel	Nb/Mh	0.91	0.81	0.74	0.73	0.67[2]
Company Personnel	Nb/Mh	0.82	0.74	0.63	0.59	0.60
Contractors' employees	Nb Mh	1.01	0.87	0.87	0.91	0.76
LTIR: number of lost time injuries per million hours worked - All personnel	Nb/Mh	0.59	0.48	0.48	0.48	0.45
Company Personnel	Nb/Mh	0.62	0.52	0.50	0.47	0.51
Contractors' employees	Nb/Mh	0.56	0.43	0.46	0.48	0.39
SR: number of days lost due to accidents at work per million hours worked - All personnel	Nb/Mh	17	17	17	15	15
Company Personnel	Nb/Mh	14	20	16	13	14
Contractors' employees	Nb/Mh	19	14	19	19	15

Safety prevention of major industrial accidents						
Losses of primary containment (Tier 1 and Tier 2)[4]	Nb	103	73	84	77	48[3]
Losses of primary containment (Tier 1)	Nb	30	26	30	29	11
Losses of primary containment (Tier 2)	Nb	73	47	54	48	37

1. Target zero fatalities. **2.** Target TRIR less than or equal to 0.70 in 2022 and 0.65 in 2023. **3.** Target losses of primary containment Tier 1 and 2 less than or equal to 70 in 2022 and 50 in 2023. **4.** Excluding acts of sabotage and theft.

People

	Unit	2018	2019	2020	2021	2022	2025
Employees							
Company's workforce Breakdown by region	Nb	104,460	107,776	105,476	101,309	101,279	
Europe	%	63.2	61.5	62.8	63.2	63.3	
of which France	%	34.9	34.1	34.0	34.7	34.5	
Africa	%	9.4	9.4	9.6	9.8	10.4	
North America	%	6.7	6.9	6.8	7.5	6.0	
Latin America	%	11.8	12.4	11.3	11.6	13.1	
Asia-Pacific	%	8.0	9.0	6.7	7.2	6.5	
Middle East	%	0.9	0.8	2.8	0.7	0.7	
Gender							
% of women							
Among all employees	%	35.1	35.8	34.8	35.8	36.3	
Among senior management[1]	%	19.2	20.5	21.1	22.6	23.8	30
Among senior executives	%	21.6	23.0	25.7	26.5	27.5	30
Internationalization							
% of employees of non-French nationality							
Among senior management[2]	%	32.0	32.5	32.1	34.0	34.2	40
Among senior executives	%	32.1	34.1	36.3	36.6	37.4	45
Living wage[3]							
Employees receiving a direct salary that exceeds the living wage in the country or region in which they work	%	-	-	-	98	100	100

1. Restated 2018 to 2021 data. The percentage of women was 19.9% in 2021, 18.2% in 2020, 17.4% in 2019 et 16.3% in 2018 based on the previous calculation method, which did not include JL14 and senior executives.

1. Restated 2018 to 2021 data. The percentage of women was 19.9% in 2021, 18.2% in 2020, 17.4% in 2019 et 16.3% in 2018 based on the previous calculation method, which did not include JL14 and senior executives. **2.** Restated 2018 to 2021 data. The percentage of employees of non-French nationality was 33.8% in 2021, 31.8% in 2020, 32.4% in 2019 and 32.0% in 2018 based on the previous calculation method, which did not include senior executives. **3.** A living wage is defined as income that, in exchange for standard work hours, allows employees to ensure a decent life for their families, cover their essential costs and cope with unforeseen events. This criterion applies to the so called "périmètre de gestion" i.e., all subsidiaries controlled at more than 50%.

	Unit	2018	2019	2020	2021	2022
Training						
Employees having attended at least one training course during the year	%	75.0[1]	88.2	84.6	93.0	97.3
Average number of onsite training days/year per employee[2]	days	2.8	2.7	1.6	1.8	2.3
Average number of remote training days/year per employee[2]	days	0.5	0.4	0.8	1.2	1.0
Average number of on-the-job training days/year per employee[2]	days	-	-	-	1.2	1.4
Average number of training days/year per employees[2]	days	3.3[3]	3.1[3]	2.4[3]	4.2	4.7
Social dialogue						
Companies that have implemented flextime	%	-	69.3	77.2	80.6	81.8
Companies offering the option of occasional remote working	%	38.3	51.2	87.4	84.3	83.3
Employees covered by a collective bargaining agreement	%	71.5	71.2	71.9	72.6	73.6
Employees with labor union representation and/or employee representation	%	88.5	88.2	91.7	90.8	91.8
Number of active agreements signed with employee representatives worldwide	Nb	316	312	281	347	330
Human rights						
Subsidiaries[4] with an integrated grievance mechanism	%	40	47	99	100	100
Priority supplier audits[5]	Nb	28	100	79	83	200
Ethics and Human Rights audits	Nb	7	7	2	2	5

1. Information is only available for onsite training. **2.** This number is calculated using the number of hours of training where 7.6 hours equal one day. **3.** On-the-job training information only available from 2021. **4.** EP, RC and M&S segments' operating subsidiaries in the One MAESTRO roll-out scope with an operational activity. **5.** On the respect of the Fundamental Principles of Purchasing including human rights.

Environment

	Unit	2018	2019	2020	2021	2022	2030
Environmental footprint							
Atmospheric chronic emissions (excluding GHG)							
SO_2 emissions	kt	48	39	34	16	13	- 75% vs 2015
NO_x emissions	kt	66	72	64	59	60	
NMVOC[1] emissions	kt	81	83	69	58	48	
Total particulate matters	kt	-	-	-	3.8	3.9	
Discharged water quality							
Offshore continuous water discharges hydrocarbon content	mg/l	14.1	13.0	12.8	13.7	12.9	
% of sites that meet the target for offshore discharges quality (30 mg/l)	%	96[2)]	100[2]	100[2]	92	93	100
Onshore continuous water discharges hydrocarbon content	mg/l	1.8	1.7	1.9	2.6	1.8	<1
Sites that meet the 2010-2020 target for onshore discharges quality: 15 mg/l	%	100	100	100	100	100	
Sites that meet the 2030 target for onshore discharges quality: 1 mg/l	%	-	-	-	80	73	
Water-related indicators							
Fresh water withdrawals excluding open loop cooling water	Mm^3	116	115	105	101	107	
Fresh water withdrawal in water stress area[3]	Mm^3	-	-	52	54	55	-20% vs 2021
Fresh water consumption	Mm^3	-	-	75	75	80	
Forest-related indicators							
Deforested area	ha	-	-	-	-	0	
Compensated area	ha	-	-	-	-	0	
Net deforestation[4]	ha	-	-	-	-	0	0
Environmental management system							
ISO 14001 certified sites	Nb	264	281	266	279	284	
Sites important for the environment ISO 14001 certified	%	100	100	97	100	100	100

1. Non-methane volatile organic compounds. **2.** Alwyn site (United Kingdom) excluded from 2018 to 2020 and Gryphon (United Kingdom) in 2019 and 2020, as its produced water discharges only occur during the maintenance periods of the water reinjection system and are subject to a specific regulatory declaration. **3.** Fresh water withdrawal in water stress area (according to BWS from WRI 2030). **4.** Zero net deforestation target from 2022 for each of new projects, on new sites.

	Unit	2018	2019	2020	2021	2022	2030
Risks of accidental pollution							
Accidental liquid hydrocarbon spills							
Number of spills	Nb	74	57	50	65	49	
Total volume of spills	10^3m^3	0.3	1.2	1.0	2.0	0.1	
Total volume recovered	10^3m^3	-	-	-	1.7	0.1	
Waste management							
Company's waste balance and waste treatment processes							
Total volume of processed waste[1]	kt	573	662	501	500	498	
Non-hazardous waste	kt	379	375	303	335	322	
Hazardous waste	kt	194	288	198	165	176	
Reuse[2]	%	57	65	59	61	61	70

1. Excluding drilling cuttings, excluding digestate from Biogas units, excluding sites that have ceased operations and are in the process of being remediated. **2.** Valorization includes recycling, material recovery and energy recovery.

Circular economy							
Quantity of circular feedstock	Mt vs 2021	-	-	-	3.4	3.4 -	x 2
Sales from circular products	B$ vs 2021	-	-	-	4.2	5.4 +30%	x 2
Biodiversity[1]							
Respecting our commitment to voluntary exclusion zones							
No oil or gas exploration/extraction activity in UNESCO areas		Respected	Respected	Respected	Respected	Respected	Respected
No oil field exploration activity in the artic pack ice zone		Respected	Respected	Respected	Respected	Respected	Respected
New projects							
Biodiversity plans deployed or in preparation for our sites located in area of interest for biodiversity[2]	Nb	-	-	6	8	7	
Existing sites							
Biodiversity diagnostics carried out on sites important for the environment	Nb	-	-	-	5	43	

1. See section 5.5.4 of this chapter for detailed reporting on action plans implemented on our four Biodiversity axes. **2.** IUCN zone (International Union for Conservation of Nature) I to IV and Ramsar areas for IFC standard projects.

Creating Shared Value

	Unit	2018	2019	2020	2021	2022
Value sharing						
Net investments	B$	20	17	13	13	16
Dividends and buybacks	B$	9	9	8	10	17
Salaries and social charges	B$	9	9	9	9	9
Taxes[1]	B$	14	13	6	16	33
Fighting corruption						
Online anti-corruption training course attended	Nb	9,810	5,791	9,701	13,215	38,624
Integrity[2] incidents recorded	Nb	354	388	326	350	207

1. Current tax expenses and taxes on production. **2.** Incidents covering fraud (excluding attempts since 2022), corruption or influence peddling.

	Unit	2018	2019	2020	2021	2022
Initiatives of general interest						
Number of actions for *Action!* program[3]	**Nb**	**1,051**	**4,140**	**4,119**	**8,146**	**11,028**
Europe	Nb	1,051	3,524	2,952	6,115	7,410
Africa	Nb	0	249	709	1,208	1,664
Asia	Nb	0	293	191	415	923
Latin America	Nb	0	49	159	253	609
North America	Nb	0	25	2	131	231
Oceania	Nb	0	0	106	24	191
TotalEnergies Corporate Foundation						
Expenditures of TotalEnergies Corporate Foundation	M€	21	27	46	73	65

3. Worldwide community volunteering program for employees who can devote up to three workdays a year to local community projects.

Glossary

Units of measurement

b	barrel
B	billion
boe/d	barrel of oil equivalent per day
CO2e	CO2 equivalent
e	equivalen**t**
G	giga
J	joule
k	thousand
M	million
MMBtu	million British Thermal Unit
Mm^3	million cubic meters
Mtpa	million tons per year (of LNG)
PJ	petajoule (10^15 joules)
t	metric ton
TWh	terawatt-hour
W	watt

Acronyms

AI	Artificial Intelligence
BESS	Battery Energy Storage Systems
CCGT	Combined Cycle Gas Turbine
CCS	Carbon Capture & Storage
CCUS	Carbon Capture, Utilization and Storage
CNG	Compressed Natural Gas
EACOP	East African Crude Oil Pipeline
EPA	Environmental Protection Agency
ESS	Energy Storage Systems
GHG	Greenhouse Gas
GRI	Global Reporting Initiative
GRP	Gas, Renewables & Power
IEA	International Energy Agency
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
IPIECA	International Petroleum Industry Environmental Conservation Association
ISSB	International Sustainability Standard Board
IUCN	International Union for conversation of Nature
LNG	Liquefied Natural Gas
NBS	Nature Based Solution
NFE	North Field East (Qatar)
NFS	North Field South (Qatar)
NGV fuel	Natural Gas Vehicle Fuel
OGCI	Oil & Gas Climate Initiative
ROACE	Return on Average Capital Employed
SAF	Sustainable Aviation Fuel
SEC	Securities and Exchange Commission (US)
TNFD	Taskforce on Nature-related Financial Disclosures
UNEP-WCMC	United Nation Environment Program – World Conservation Monitoring Centre
WBCSD	World Business Council for Sustainable Development
WEF	World Energy Forum
WEO	World Energy Outlook
WRI	World Resource Institute
$	Abbreviation for the United States dollar

Definitions

Biogas

A renewable gas produced from the fermentation of organic waste. Biogas can be purified to obtain biomethane, which has the same properties as natural gas and can therefore be injected into the gas distribution network or used as an alternative fuel for mobility (bio-NGV or bio-LNG).

Biomethane

An upgraded biogas with the same characteristics as natural gas. Biomethane can be injected into the gas distribution network.

Contractor/service provider personnel

Any employee of a contractor or service provider working at a site that is part of the safety reporting Scope or assigned by a transport company under a long-term contract.

Estimates of enabled emissions reductions by TotalEnergies' LNG sales

The Company has identified, for each recipient country, the likely source of competing flexible power generation. Where the end-use of customers is established and the alternative source identified, the difference between the emissions of the alternative fuel (fuel oil or coal) and the gas has been calculated, using each country's power generation emission factors for each of these sources, as published by the IEA (with the exception of France, where the emission factors published by RTE France have been used). For countries where the end use of LNG sales is not identified, this method is applied to sales weighted by the percentage of electricity generation in local gas consumption.

Glossary

Equity interest domain

Sites and industrial assets in which the consolidated affiliates have a financial interest or rights to production. This scope includes the entire statutory scope of the consolidated non-financial performance statement and the emissions of subsidiaries consolidated by equity method or not consolidated because they are not material from a financial standpoint. Those emissions are calculated on a pro rata basis according to the Company's share in the entity or the production (in the case of Upstream oil and gas operations).

Greenhouse gases (GHG)

The six greenhouse gases named in the Kyoto Protocol: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF6), with their respective Global Warming Potential (GWP), as described in the 2007 IPCC report. HFCs, PFCs and SF6 are virtually absent from the Company's emissions or are considered non-material, and are therefore no longer counted as of 2018.

Hydrocarbon spills

Accidental spills of liquid hydrocarbons that have an environmental impact and exceed one barrel in volume, excluding acts of sabotage.

Life cycle carbon intensity indicator of the products sold

Measures the average GHG emissions of a unit of energy sold to our customer across its life cycle (i.e., Scopes 1+2+3), from production to final use. The indicator is calculated by dividing:

The following numerator:

• Emissions related to the production and processing of the energy products used by TotalEnergies customers, calculated on the basis of the Company's average emissions rates;

• Emissions related to the use of energy products by TotalEnergies customers, calculated by applying stoichiometric emissions factors per product to obtain a quantity of emissions. Products not intended for combustion, such as bitumen, lubricants and plastics, are not taken into account;

• Less the CO2 sequestered by Carbon Capture and Storage (CCS) and natural carbon sinks.

By the following 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 using a base of 100 from 2015.

Lost Time Injury Rate (LTIR)

Frequency rate of lost-time injuries.

Low-carbon or clean hydrogen

Regroups blue hydrogen (hydrogen produced notably from natural gas via the steam reforming process associated with a capture and storage (CCS) process of the CO_2 emissions presenting a carbon footprint lower than 36.4 g CO_2/MJ) and green hydrogen (hydrogen produced from renewable electricity via the water electrolysis process).

Scope 1 GHG emissions

Direct emissions related to the Company's activities. Direct emissions of biogenic CO2 are excluded from Scope 1 and reported separately.

Scope 2 GHG emissions

Indirect emissions attributable to brought-in energy (electricity, heat, steam), net of any energy sales, excluding purchased industrial gases (H2). Unless otherwise indicated, TotalEnergies reports Scope 2 GHG emissions using the market-based method defined in the GHG Protocol.

Scope 3 GHG emissions

All other indirect emissions. The Company follows the oil & gas industry reporting guidelines published by IPIECA, which comply with the GHG Protocol methodologies. Unless otherwise indicated, in this report the term Scope 3 refers solely to Category 11 emissions.

Glossary

Category 11:

This indicator reports Scope 3 GHG emissions related to the use by customers of energy products, i.e. combustion of the products to obtain energy.

TotalEnergies accounts for the largest volume in the oil, biofuels and gas value chain, i.e. the higher of the two production volumes or sales to end customers. For TotalEnergies, in 2022, the calculation of Scope 3 GHG emissions for the oil and biofuels value chains considered product sales (higher than production) and for the gas value chain, marketable gas production (higher than gas sales either as LNG or as part of direct sales to B2B/B2C customers). A stoichiometric emissions (oxidation of molecules to carbon dioxide) factor is applied to these sales or production to obtain an emission volume.

Serious road accident

Overturned vehicle or other accident resulting in the injury of a crew member (declared incident) involving a TotalEnergies vehicle or vehicle on long-term contract with TotalEnergies (> 6 months).

Severity rate (SR)

Number of lost-time days due to accidents at work per million hours worked.

Sites important for the environment

Producing affiliate sites in Exploration & Production; Refining & Chemicals and Marketing & Services sites where annual production exceeds 250,000 tons; gas-fired power plants in Integrated Gas, Renewables & Power.

Tier 1 and Tier 2

Indicator of the number of loss of primary containment events with more or less significant consequences (fires, explosions, injuries, etc.), as defined by API 754 (for downstream) and IOGP 456 (for upstream) standards. Excluding acts of sabotage and theft.

Total Recordable Injury Rate (TRIR)

Frequency rate of recordable injuries.

Upstream oil and gas operations

Upstream oil and gas exploration and production operations of the Exploration & Production and Integrated Gas, Renewables & Power segments. Does not include power generation from renewable sources or natural gas, such as combined-cycle gas power plants.

Worldwide Human Resources Survey (WHRS)

An annual study that includes 275 workforce indicators. The survey covers a representative sample within the consolidated scope. The data published in this document is extracted from the most recent survey, carried out in December 2022 and January 2023; 132 companies in 52 countries, representing 90.2% of the consolidated Company workforce (91,378 employees), responded to all the topics. For the health indicators, responses were collected across a broader scope of 146 companies in 52 countries, representing 91.3% of the consolidated Company workforce.

Cautionary Note

The terms "TotalEnergies," "TotalEnergies company" or "Company" in this document are used to designate TotalEnergies SE and the consolidated entities that are directly or indirectly controlled by TotalEnergies SE. Likewise, the words "we," "us" and "our" may also be used to refer to these entities or to their employees. The entities in which TotalEnergies SE directly or indirectly owns a shareholding are separate legal entities. This document makes reference to greenhouse gas emissions. The Company has control over emissions from the facilities it operates (Scope 1) and their indirect emissions from purchased energy (Scope 2). By contrast, it does not have control over emissions from the end use of its products by its customers (Scope 3), and trends in those emissions depend largely on external factors, such as government policies and customer choices (for additional information on the definition of Scope 1, 2 and 3, refer to the Universal Registration Document). The use in this document of expressions such as "carbon intensity of the products sold by the Company," "carbon footprint of the Company" or similar expressions, insofar as they include Scope 3 emissions, does not mean that the latter are TotalEnergies emissions.

This document may contain forward-looking statements. Specifically, this document may contain statements regarding the perspectives, objectives, areas for 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 prove to be inaccurate in the future and are subject to a number of risk factors. Neither TotalEnergies SE nor any of its affiliates assumes any obligation with respect to investors or any other stakeholder to update or revise any forward-looking information or statement, objectives or trends contained in this document whether as a result of new information, future events or otherwise. Further information on risk factors that could have a significant adverse effect on the financial performance or operations of TotalEnergies is provided in the most recent version of the Universal Registration Document, which is filed by TotalEnergies SE with the French Autorité des Marchés Financiers and on Form 20-F filed with the United States Securities and Exchange Commission ("SEC").

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