

Carbon neutrality by 2050



Towards Net Zero in 2050

Business Evolution

Climate change impacts, risks, and opportunities

GHG Methodology and Transparency

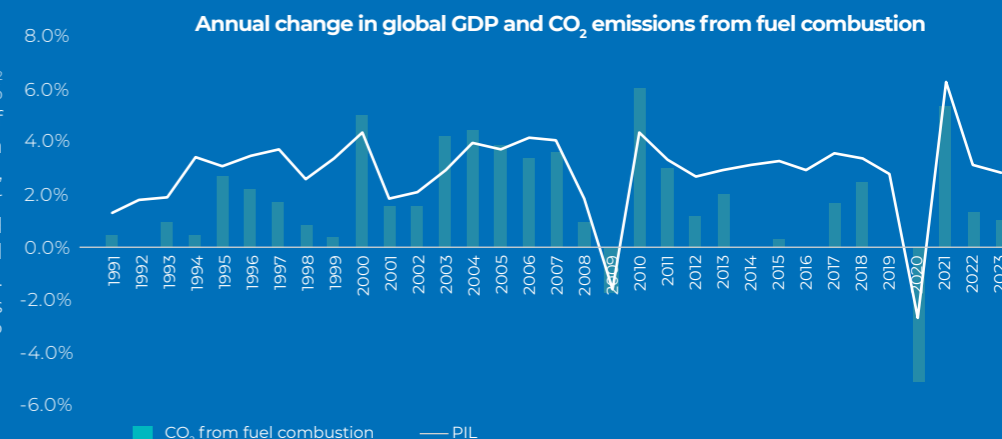
Just Transition for Eni

SETTING THE SCENE: CHALLENGES AND OPPORTUNITIES

Economic growth and emissions

Global power sector-related CO₂ emissions in 2023 increased by 1.1% (vs. 2022), reaching a new peak of over 37.4 Gt CO₂. The link between economic growth and emissions, which has been weakening over the past two years, has benefited from both structural and cyclical factors influencing this trend. Specifically, in 2023, emissions growth was 1.1% vs. worldwide GDP growth of 2.6%.

Source: Eni's elaborations on IEA data.

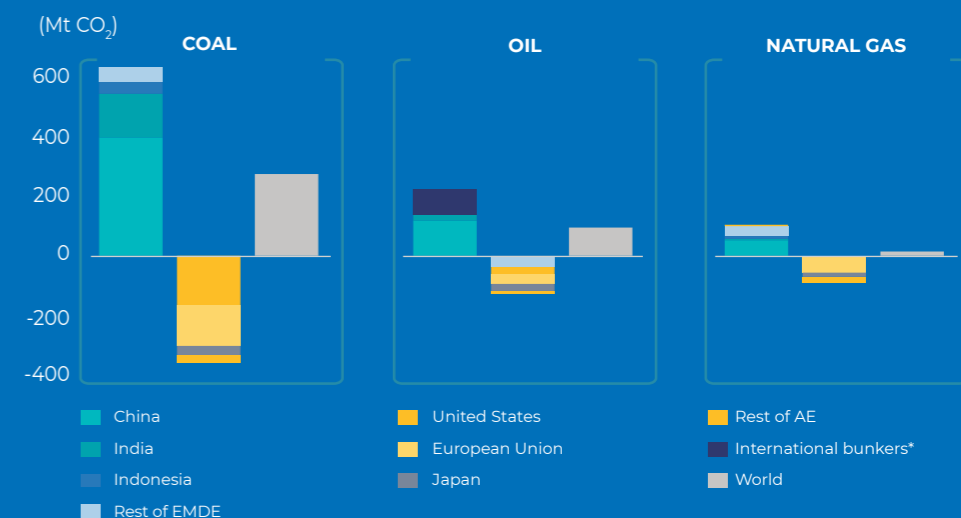


Regional dynamics

Contrasting geographical trends in 2023 determined the global dynamics of GDP and emissions changes. In advanced economies, GDP growth of 1.7% was matched by a contraction in emissions of 4.5%. In the rest of the world, emissions continued to grow. The push for renewables, as well as the weak economic environment and mild climate that limited energy consumption growth favored the emission contraction of advanced economies. These effects only partially affected the dynamics of the rest of the world against a more sustained energy consumption growth and the significant presence of sources with a higher emission impact.

Source: Eni's elaborations on IEA data.

Emission Changes by fuel and by area



* Represents the consumption of ships and aircraft on international routes.

Energy mix evolution

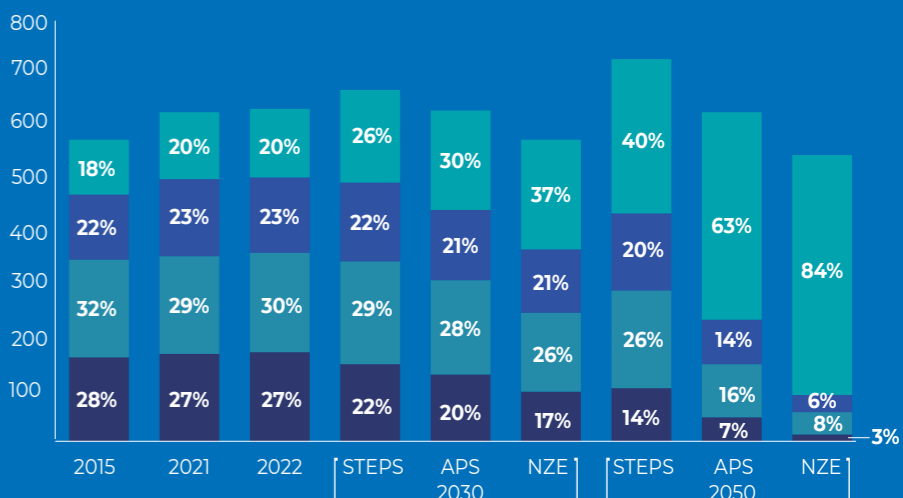
The evolution of future emission paths will depend on the speed of change for energy systems on a global scale, taking into account geographical peculiarities, policies supporting the transition, technological evolution, and consumption habits. The International Energy Agency (IEA), among other energy forecasters, outlines three trajectories constructed with different logics, which vary in degree and speed of decarbonization.

Context: progress and challenges of the transition.

Coal Oil Natural gas Other sources

Source: IEA, WEO 2023.

Historical and IEA Outlook of the global energy mix (2015-2050)



Towards Net Zero in 2050



Why is it important to Eni?

At Eni, we address the challenges posed by the energy transition with a distinct strategy to progressively reduce the emissions directly and indirectly associated with our business activities. We strive for carbon neutrality by 2050 while contributing to the security and competitiveness of energy supplies to the countries in which we are present. We are convinced that the energy transition can only be successful if it generates the basis for new and profitable forms of business, and this is precisely what we are doing through our technological expertise and the integration of traditional and transition-related businesses.

FRANCESCO GATTEI CHIEF FINANCIAL OFFICER AT ENI

For more information

POLICY/POSITIONING/OTHER DOCUMENTS

- Strategic Plan 2024-2027; ► Eni's responsible engagement on climate change within business association; ► Eni's position on biomass; ► Eni's Code of Ethics;
- Eni for 2023 - Sustainability performance; ► eni.com; ► Assessment of industry associations' climate policy positions

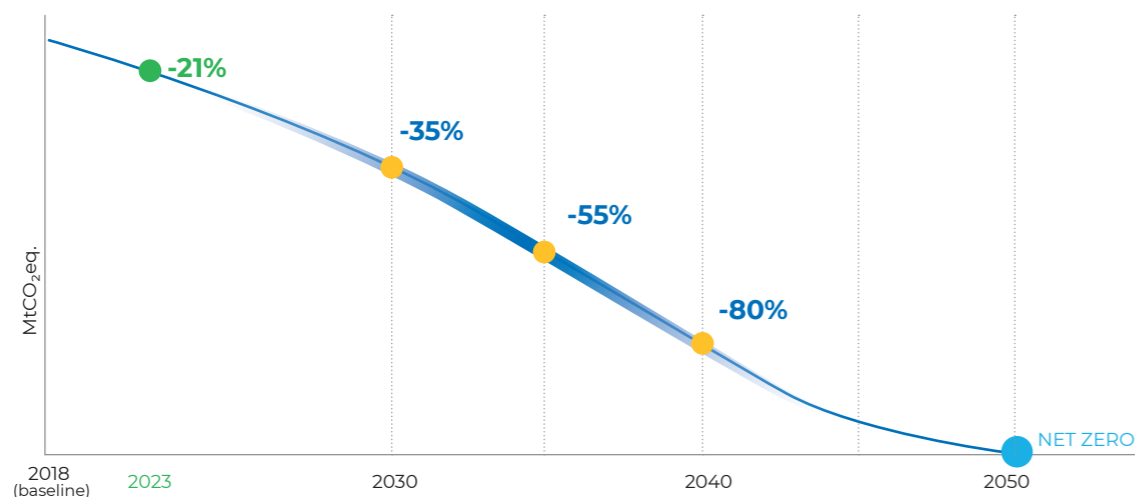
DECARBONIZATION ROADMAP AND ENI'S TARGETS

Eni has embarked on an industrial transformation based on a mix of levers and technologies to achieve Net Zero by 2050, which aligns with the recommendations of international climate objectives defined

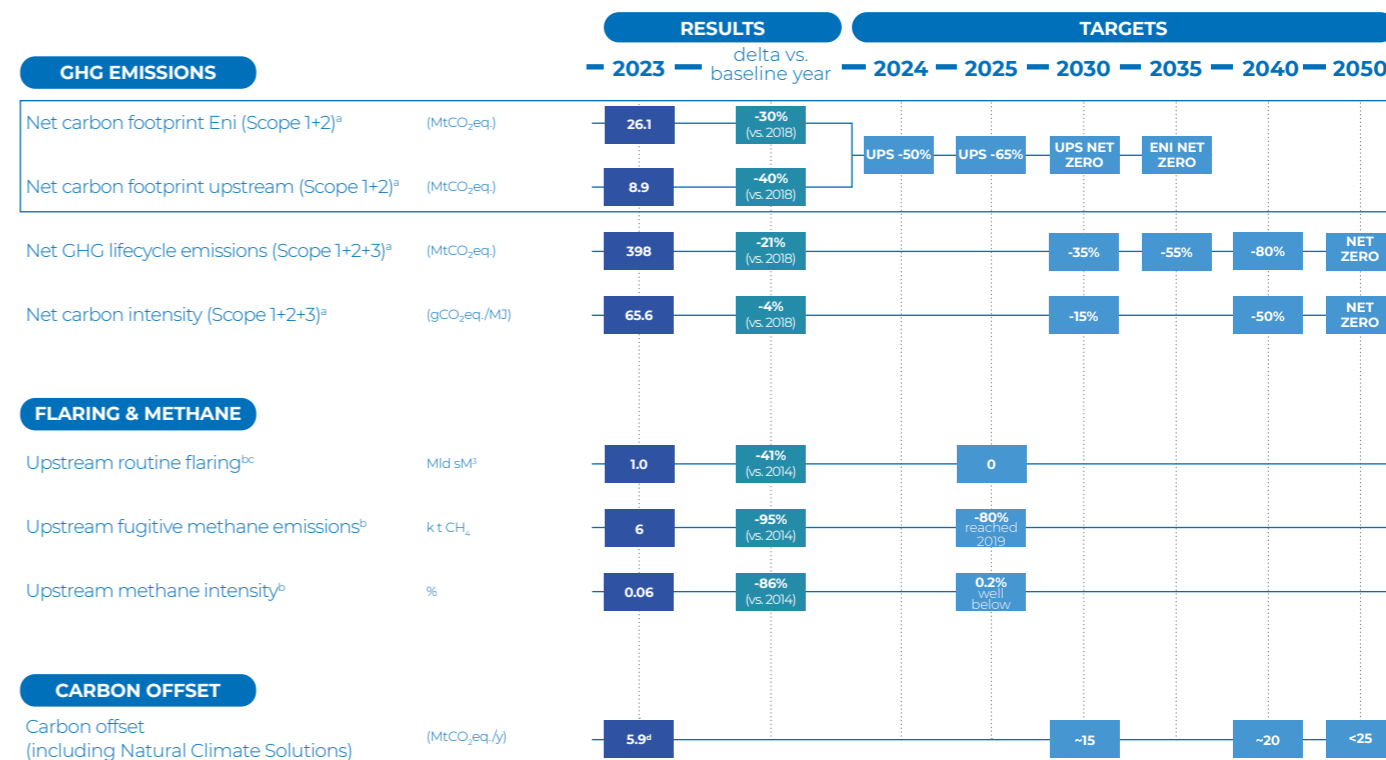
on a global scale. To achieve this, Eni pursues a strategy that maximises the value of traditional energy businesses and reduces their emissions while accelerating the development of new high-yield, high-growth activities related to the energy transition. The pathway towards Eni's carbon neutrality by 2050 includes a series of

intermediate objectives that first envisage Net Zero emissions (Scope 1+2) for the Upstream business by 2030 and for the Eni group by 2035, then Net Zero emissions by 2050 for all **SCOPE 1, 2, AND 3 GHG EMISSIONS** associated with Eni's entire value chain, both in absolute and in intensity terms (GHG Metrics).

NET GHG LIFECYCLE EMISSIONS (Scope 1+2+3)



2023 PERFORMANCE AND MAIN DECARBONIZATION TARGETS



a) KPI used in Eni Sustainability-linked Financing Framework. Targets are net of Eni's equity stored CO₂.
 b) Includes operated and joint operated assets.
 c) Subject to execution of projects in Libya.
 d) From this, 2.4 million tons of CO₂e were offset for Plenitude customers, using carbon credits, mainly obtained from Natural Climate Solutions. Of this amount, a portion of 1.6 million tons of CO₂e, related to Plenitude's customers gas consumption invoiced as of September 30, 2023, was offset in February 2024. The remaining portion, related to Plenitude's customers gas consumption invoiced in the fourth quarter of 2023, will be offset by September 2024 (► Eni for 2023 - Sustainability performance).

Focus on

International energy scenarios

The Intergovernmental Panel on Climate Change (IPCC), the United Nations organization responsible for providing scientific evidence on climate change, supports implementing plans and actions to limit the global average temperature increase to within 1.5°C in line with the Paris Agreement targets. To this end, the IPCC defines several scenarios; among these, two scenario groups are compatible with the goal of a 1.5°C target assuming two types of overshoot (average global temperatures temporarily exceeding the target before declining again): with no or limited overshoot (Category C1), or a high overshoot (Category C2). These scenarios involve the decarbonization of the energy system through the combined application of several levers, such as the deployment of renewable energy, end-use electrification, use of low and zero carbon fuels and CCS, consumer behavioural change, reduction of land use change (LUC) emissions, and neutralization of residual emissions through **carbon removal actions in LUC sector** and applying Carbon Capture and Storage to bioenergy (BECCS). The sheer number of scenarios and the wide range of possible solutions highlight the difficulty of identifying unambiguous drivers and paths to Net Zero by 2050. The simultaneous action of numerous variables, including geopolitical developments, technology and policy context, and adjustment speed of consumption habits and complex energy systems over the considered time horizon, requires elaborating different scenarios with a diversified mix of solutions and goals. In addition to the IPCC, the International Energy Agency's (IEA) World Energy Outlook, updated annually, is also worth mentioning. The IEA develops three scenarios based on some key assumptions, including population growth (+0.7% average annual growth rate - CAGR - 2022-2050) and economic growth (+2.6% CAGR 2022-2050) on a global scale, constructed according to two different logics: Forecasting and Backcasting (► Context: progress and challenges of the transition).

-40%
net Scope
1+2 upstream
emissions
vs. 2018
thanks to the
implemented
actions

DECARBONIZATION LEVERS

The implementation of Eni's strategy towards Net Zero consists of various actions that, on the one hand, allow it to decarbonize its own activities (reducing Scope 1+2 emissions) and, on the other, contribute to accelerating the decarbonization of the value chain, with particular focus on consumers, through the supply of low and zero carbon products (reducing Scope 3 emissions). This strategy is implemented using a mix of different levers and technologies, which are adopted and modulated in a targeted manner and with time horizons that take into account individual solutions' technological and commercial maturity. Simultaneously, this strategy considers market dynamics and the demands of the 'energy trilemma' (environmental sustainability, security of supply, and energy equity) while remaining in line with the evolving scientific and regulatory framework. Eni's short- to medium-term priority is to reduce Scope 1 and Scope 2 emissions, focusing primarily on the Upstream sector, for which technologically consolidated and economically viable solutions are already

available. On the path to Net Zero Upstream by 2030, emissions that cannot yet be reduced are voluntarily offset through high-quality carbon credits (Eni's Carbon Offset Initiatives). From 2018 to 2023, Eni has implemented actions that have reduced net Scope 1 and 2 Upstream equity emissions by around 40%, with a particular focus on the following areas: projects to reduce methane emissions and routine or process flaring and venting (Eni's commitment to reducing methane emissions and routine flaring), energy efficiency measures, and portfolio actions. Moreover, as a responsible operator, Eni is also implementing actions to reduce Scope 3 emissions through various solutions to reduce the carbon intensity of its products and services, contributing to the overall energy system and economic decarbonization. These actions require a profound strategic and technological transformation of the business. Eni's strategy towards Net Zero for Scope 1+2+3 emissions is supported by an approach that involves the entire value chain, envisaging the Upstream portfolio optimisation and valorisation through progressive decarbonization, combined with the

expansion of the bio, renewable, and circular economy businesses and the supply of new energy solutions and new services. Upstream's hydrocarbon production will see progressive growth of its gas component (including condensates, from 2024), reaching more than 60% by 2030 and more than 90% after 2040. It will also impact the Midstream gas portfolio (transportation and marketing), which will see increasing integration with equity projects. Concerning Downstream, biofuel development will significantly contribute to the decarbonization of the transport sector and provide an opportunity to convert existing traditional refining capacity. CO₂ capture, storage, and utilisation (CCUS) projects will have a complementary function in reducing residual emissions that are difficult to abate with existing technologies. Finally, Offsets, mainly from NATURAL CLIMATE SOLUTIONS, will compensate for residual emissions. The speed of this transformation and the relative contribution of the various business lines will depend on several variables, including market trends, the scientific-technological scenario, and relevant regulations.

Case Study



Carbon Offset Initiatives

CONTEXT: financing GHG emissions reduction and removal projects outside Eni's own value chain can contribute to climate change mitigation as a complement to measures to directly reduce its emissions. In this context, Eni supports the development of projects targeting the generation of voluntary carbon credits to compensate for residual GHG emissions, which cannot otherwise be abated, and monitors the quality and socio-environmental integrity of the Voluntary Carbon Market. By 2050, carbon credits will account for 5% of all the levers used towards the objective of carbon neutrality.

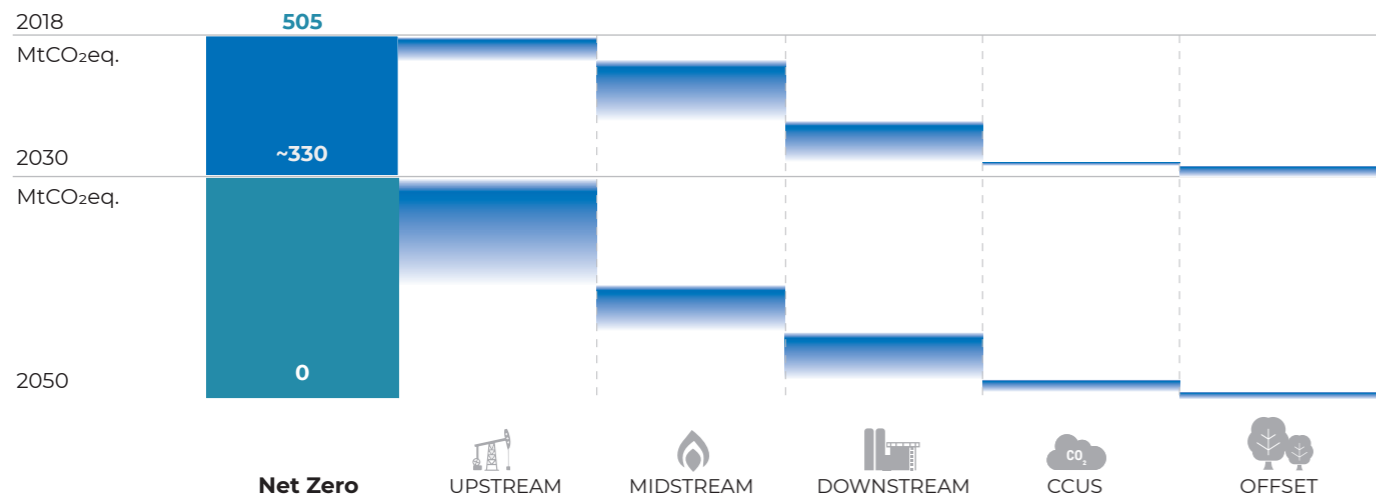
ACTIVITIES: in 2019, Eni initiated its first activities within the context of NATURAL CLIMATE SOLUTIONS⁵ (NCS), which, according to the IPCC Special Report on Climate Change and Land, foster climate change mitigation while benefiting local communities. NCS regards projects aiming to protect and sustainably manage land and restore natural ecosystems to enable a higher carbon storage capacity and/or prevent the GHG emissions. Simultaneously, these initiatives protect biodiversity and enhance resilience and the adaptive capacity of environmental systems related to climate change while promoting local sustainable development. The first projects focus on the protection, conservation, and sustainable management of forests, mainly in developing countries. These initiatives are part of the REDD+ framework, defined and promoted by the United Nations (particularly under the UNFCCC). Over time, Eni has built up a solid network of agreements with international developers to monitor the project development and implementation. The objective is to verify their adherence to the REDD+ framework and the application of the highest internationally recognised standards for the certification of carbon reduction (Verified Carbon Standard - VCS), along with socio-environmental results (Climate Community & Biodiversity Standards - CCB). Notably, in 2019, Eni signed a 20-year agreement to support the Luangwa Community Forest Project (LCFP) in Zambia. Through the purchase of the credits generated by this project, Eni ensures a financial flow suitable to bear the project costs and to release so-called conservation fees, which can be used by the 17 chiefdoms, promoting and contributing to the implementation of social projects aimed at the direct benefit of over 200,000 persons. Other ongoing projects include the Lower Zambezi in Zambia, Amigos de Calakmul in Mexico, Ntakata Mountain and Makame in Tanzania, Kulera in Malawi, and Mai Ndombe in the Democratic Republic of Congo. In 2023, Eni compensated 3.5 MtCO₂eq. with credits generated by Lower Zambezi, Ntakata Mountain, Kulera, and Mai Ndombe. Furthermore, applying technological solutions is another lever for offsetting residual emissions. Within this framework, in Ivory Coast, Eni has initiated projects that promote the introduction of improved cooking systems (clean cooking) that guarantee a reduction of over 60% in the wood biomass used by households to improve health conditions and the economic situation of families. In addition to the positive impact on health and the environment, the industrial approach, which tends to maximize the local production of improved cookstoves, promotes the development of entrepreneurship and the local economy. Gradually, the Eni programme for Clean Cooking envisages the transition towards increasingly efficient cooking systems (advanced cookstoves), potentially reaching up to zero emissions. Eni's strategy foresees the gradual increase of the component related to CDR projects (Carbon Dioxide Removal), maximizing the contribution towards achieving carbon neutrality.

In 2023, Eni reached a reduction of over 100 MtCO₂eq. (-21%) of Net GHG Lifecycle Emissions (Scope 1, 2, and 3) compared to 2018. This re-

duction was about 20 MtCO₂eq. (-5%) vs. 2022. Furthermore, in 2023 potentially avoided emissions⁶ amounted to approximately 12 MtCO₂eq,

leveraging the contribution of LNG commercialization and the production of renewable electricity and biofuels.

MAIN DECARBONIZATION LEVERS



Potentially avoided emissions for different sectors

- 9.1** MtCO₂eq. of GHG emissions were potentially avoided through Eni's LNG sales in 2023, assuming that gas replaces more emissive fossil fuels (oil, coal) in the power generation phase⁷.
- 1.5** MtCO₂eq. of GHG emissions were potentially avoided by selling Eni's renewable electricity in 2023, assuming that it replaced emissions associated with the average electricity mix in the country of generation⁸.
- 1.7** MtCO₂eq. of GHG emissions were potentially avoided by selling Eni's biofuel production in 2023, considering an emission savings of about 80% compared to the average fossil fuel benchmark⁹.

⁵ Natural Climate Solutions are nature-based climate change solutions based on nature's ability to remove and store carbon from the atmosphere (Source: Natural Climate Solutions Alliance, NCSA, 2022).
⁶ Avoided emissions refer to a 'positive' impact (in terms of potential emissions reduction) on society, comparing the GHG emissions of a reference scenario with an alternative solution with lower GHG emissions (World Business Council for Sustainable Development, WBCSD, 2023).
⁷ The calculation of the emission savings is based on the gas share used in the power sector in the countries of sale. For all fossil sources analysed (coal, oil, and LNG), only emissions from the electricity generation phase are referred to. Data is based on IEA (Energy Balance 2023, WEO 2023, Emission Factors 2021) and Enerdata reports.
⁸ The representative emission factors used were compiled based on IEA data (Emission Factors 2021).
⁹ The average emission savings were calculated as the ratio between the emissions associated with the quantities of HVO biofuels sold in 2023 and reported in the sustainability certificates and the value of the fossil fuel reference defined in the RED III directive (equal to 94 gCO₂eq./MJ). The calculation does not include the production from the Chalmette biorefinery in Louisiana.

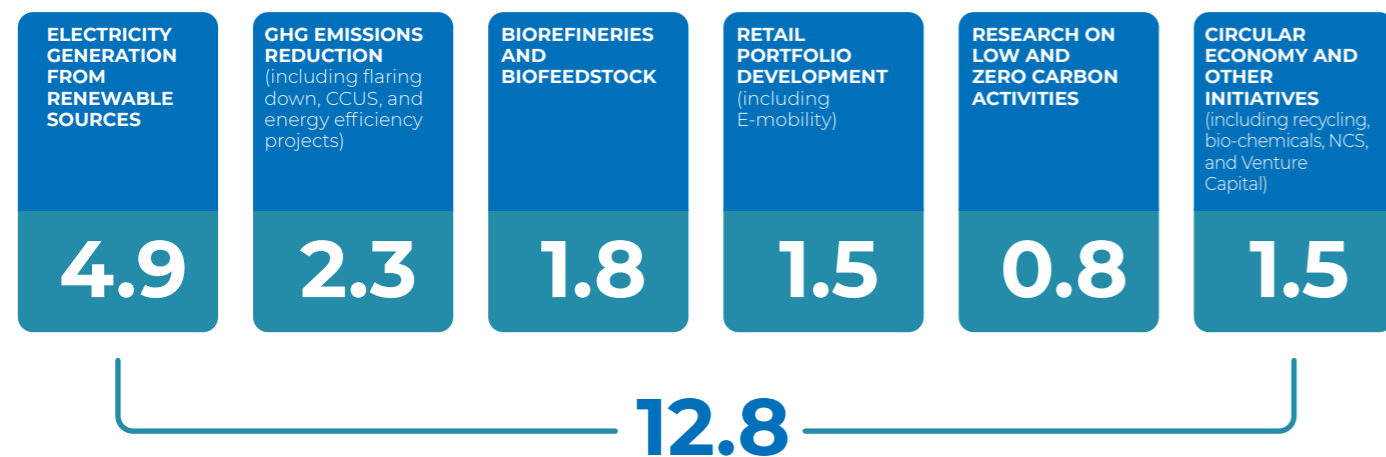
CAPITAL ALLOCATION EVOLUTION

A gradual increase in the share of investments for developing new energy solutions and services to support the transition will sustain the evolution towards a decarbonized product portfolio. Eni plans to allocate more than 30% of its expend-

iture to low and zero carbon projects in the next four-year period, 2024-2027. Unlike the EU Taxonomy regulation, this expenditure also includes interventions made in JVs, all spending that contributes to emission reduction (e.g., energy efficiency and routine flaring abatement), and the development of the Plenitude

customer base. In the medium-to-long term, the share of expenditure dedicated to Oil & Gas activities will be gradually reduced, with the progressive phase-out of investments in high carbon intensity activities and products (available in the [► Consolidated Disclosure of Non-Financial Information](#)).

SPENDING ON LOW & ZERO CARBON 2024-2027 (€ BN)



Focus on

Sustainable finance at Eni

As part of its financial strategy, Eni has issued sustainability-linked financial instruments, i.e., linked to achieving sustainability targets that help promote the energy transition towards a low carbon future by also supporting the achievement of the SDGs, in particular SDG 7 and SDG 13. The instruments are issued following the [► Sustainability-Linked Financing Framework](#), which details the guidelines for issuing new sustainable financial instruments. In 2023, Eni issued financial instruments linked to achieving sustainability targets related to installed capacity for renewable electricity generation and [NET CARBON FOOTPRINT Upstream](#) (Scope 1 e 2).

2023 ISSUED SUSTAINABLE BONDS



PARTNERSHIPS FOR DECARBONIZATION

Eni has long collaborated and engaged with academia, civil society, institutions, and businesses to foster the energy transition by generating new knowledge, sharing best practices, and leveraging initiatives with stakeholders. Confirming the significant value recognised in decarbonization partnerships, Eni actively contributed to the dialogue with stakeholders, participated in the Oil and Gas Climate Initiative (OGCI), joined the COP28 presidency in preparation for the Conference of the Parties, and was among the first companies to adhere to the Oil & Gas Decarbonization Charter

(OGDC). More than 50 companies have joined the OGDC, of which, for the first time, about 30 signed commitments to achieve Net Zero by 2050 for [SCOPE 1](#) and [2 GHG EMISSIONS](#), achieve near zero methane emissions and zero routine gas flaring by 2030, as well as a commitment to report on reductions achieved. Furthermore, in support of its commitments, Eni has joined the Global Flaring and Methane Reduction (GFMR) Trust Fund, an initiative launched by the World Bank to help governments and operators in developing countries eliminate methane emissions and routine gas flaring by 2030 ([► Eni's commitment to reducing methane emissions and routine flaring](#)).

COP28 was an opportunity to present the progress of the 'Pact for the Decarbonization of Air Transport,' an initiative promoted in cooperation with Aeroporti di Roma that brings together representatives of institutions, sector stakeholders, trade associations, and the service sector to define a decarbonization roadmap of the air transport sector by 2050. Eni is developing innovative solutions with universities and start-ups, such as magnetic confinement fusion, an energy source that could revolutionise the energy world forever by ensuring a more sustainable and lower-emissions future ([► The value of collaboration for new low and zero carbon energy sources](#)).

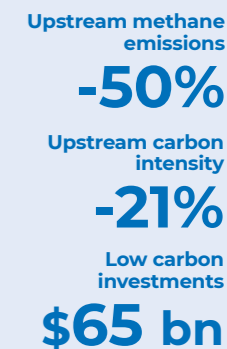
Focus on

10 Years of Oil and Gas Climate Initiative (OGCI)

CONTEXT: Eni was among the companies that, in 2014, launched the Oil and Gas Climate Initiative (OGCI) to lead the industry in responding to climate change and to accelerate action towards a Net Zero emissions future in line with the 2015 Paris Agreement.

ACTIVITIES: in the ten years since its creation, OGCI has grown to 12 companies that have set collective emissions reduction targets, particularly for methane, contributed to the launch and deployment of CO₂ capture and storage (CCUS) projects, and increased investment in low carbon technologies and solutions. Among the recent initiatives promoted by OGCI to reduce methane emissions, the Aiming for Zero initiative saw around 100 companies commit to the ambition of eliminating methane leakage from their assets by 2030. To support other operators in eliminating methane emissions practically, OGCI launched the Satellite Monitoring Program, a programme for satellite monitoring and technical support to identify and eliminate methane leaks. After the encouraging results of the 2022-2023 monitoring in Algeria, Kazakhstan, and Egypt (as published in the OGCI report), OGCI has extended the programme to other Countries and sites.

OGCI PROGRESS 2023 VS. 2017:



Case Study

The value of collaboration for new low and zero carbon energy sources



CONTEXT: fusion is the energy that dominates the universe as it is the physical principle that illuminates our stars, such as the Sun. In particular, under certain conditions, the fusion process consists of light atoms merging, a reaction that releases an enormous quantity of energy. Once brought to an industrial level, it is a revolutionary technology that may guarantee large amounts of zero-emission energy with a safe, continuous, and [► virtually unlimited process](#) (International Atomic Energy Agency).

ACTIVITIES: Eni has long and firmly been committed to contributing to progress in the field of magnetic confinement fusion and is working in synergy with some of the most important international and Italian players in this field. Notably, since 2018, Eni has invested in Commonwealth Fusion Systems (CFS), a Massachusetts Institute of Technology spin-out, with whom Eni is actively collaborating to build the first industrial-scale plant to feed CO₂-neutral fusion electricity into the grid by the early 2030s. CFS's roadmap anticipates the construction of the net energy production pilot plant, to be called SPARC, around the middle of this decade based on the initial results obtained in 2021 following the high-field superconducting magnet testing. This innovative technology will enable the construction of more compact and efficient plants. In March 2023, the collaboration between Eni and CFS was strengthened by signing a strategic Technological Framework Agreement to accelerate the industrialisation of fusion energy.

Business Evolution

Mix of levers and technologies to support decarbonization strategy

BUSINESS DEVELOPMENT IN TRANSITION

Eni's decarbonization strategy involves adopting a mix of levers and technologies along its value chain and developing new energy solutions and services. Enilive, Plenitude, CCS, and biochemicals businesses represent a portfolio of business solutions capable of meeting product demand with a progressively decreasing emissions intensity. In recent years, the actions implemented by Eni made it possible to reach important milestones, forming the basis for achieving future goals:

- A progressive rebalancing of the upstream portfolio in favour of the gas component is underway, thanks to recent extraordinary transactions (such as the acquisition of Neptune Energy and BP's activities in Algeria). They reflect the commitment to a gas component production level (including condensates) of more than 60% by 2030 and more than 90% after 2040;



- the growth of gas marketing and integration with equity production;
- the acquisition of a leading position in the UK and Italy for developing dedicated CO₂ storage hubs to reduce hard-to-abate emissions, both from its own operations and to support the decarbonization of third parties. Eni aims to achieve a gross CO₂ re-injection capacity of over 15 MTPA by 2030 and increase it to around 40 MTPA after 2030 and up to 60 MTPA by 2050;
- the development of biorefining (Enilive) with the start-up of the Chalmette plant in the US in 2023, the agreements to convert the Livorno refinery, and the current projects for the potential plant development in South Korea and Malaysia. These actions are instrumental in achieving a 'bio' refining capacity of over 3 MTPA by 2026 and over 5 MTPA by 2030. Eni also aims to grow the agribusiness to account for over 35% of the feedstock processed in Eni's Italian biorefineries by 2027;
- the increase of Plenitude's renewable

capacity with 3 GW installed in 2023, 4 GW by 2024, over 8 GW by 2027, and over 15 GW by 2030, to reach 60 GW within a customer base growth to more than 20 million in 2050;

- the installation of 19,000 charging points for electric vehicles in 2023 through Be Charge (Plenitude), establishing itself as a player in the electric vehicle charging services panorama in Italy and Europe. Business development for sustainable mobility projects to achieve about 24,000 charging points for electric vehicles by 2024, 40,000 by 2027, about 50,000 by 2030, and about 160,000 by 2050;
- the transformation and repositioning of the chemicals business towards specialised products, such as bio-based and circular chemicals, which includes the acquisition of Novamont in 2023;
- research and development activities for breakthrough technologies, such as **magnetic confinement fusion**, with the first operational plant expected by the early 2030s (**Innovation, Digitalization and Cyber Security**).

THE ROLE OF GAS IN THE TRANSITION

Natural gas is the most suitable traditional source to accompany the energy transition process due to two important factors:

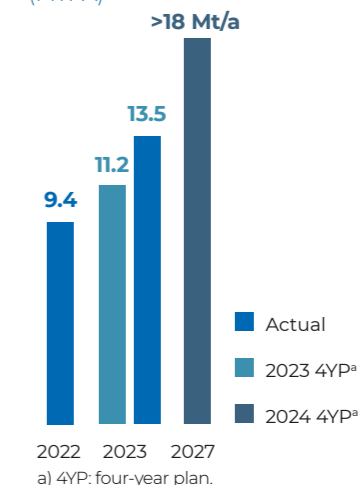
- 1) The carbon footprint of gas-fired power generation is about half that of coal-fired¹⁰ power generation and may be reduced further through efforts to limit emissions related to methane leakage and routine flaring;
- 2) the flexibility of gas-fired power plants and the short lead times allow rapid intervention to balance the power system.

The combination of low emissions and high flexibility makes natural gas the ideal bridging solution for quickly replacing fossil fuel sources with higher carbon footprints. It is also ideal for supporting the transition to an energy system based on renewables and, in the long-term, entirely new sources such as magnetic confinement fusion. Eni's decision to increase its share of natural gas production

must be considered in this context. Eni acquired a portfolio of low-emission and cost-competitive assets supporting the Group's strategy. In addition to the significant Nargis 1X gas discovery in Egypt, the Geng North-1 discovery in Indonesia was one of the industry's largest discoveries of the year. The latter, along with the acquisition of Neptune (finalised in January 2024) and Chevron's production and development assets in offshore Indonesia, provide control of significant resources that will be developed in synergy with Eni's existing fields and the Bontang LNG export terminal. Indonesia is expected to become one of the primary growth drivers in Eni's portfolio, transforming the Kutei Basin into a new global gas hub. Moreover, Eni completed the acquisition of BP's business in Algeria, including two gas production concessions, "In Amenas" and "In Salah", operated jointly with Sonatrach and Equinor. The LNG business represents one of the levers for energy security and diversification of Eni's portfolio and will play a growing role in the coming years. This strategy includes the exam-

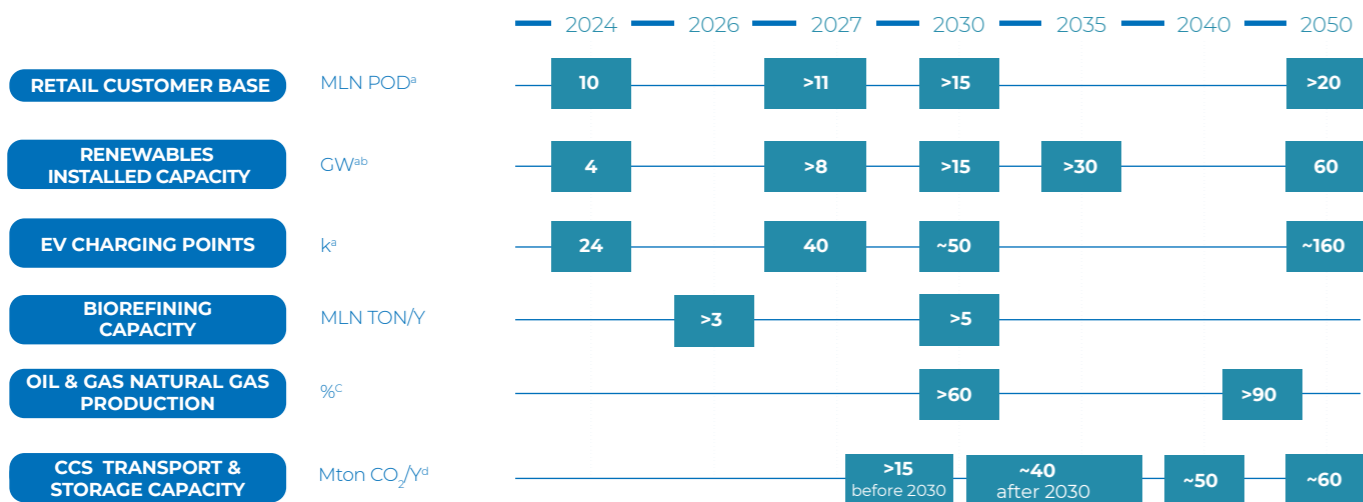
ple of the fast-track LNG equity development in Congo, which was approved in December 2022 and led in record time to the first LNG cargo in February 2024, which allowed Eni to secure supplies thanks to its presence across the value chain.

LNG EVOLUTION CONTRACTED VOLUMES (MTPA)



¹⁰ IEA emissions factors 2021.

MAIN BUSINESS TARGETS



a) Plenitude 100%.
 b) KPI used in Eni Sustainability-linked Financing Framework.
 c) Since 2024 includes gas condensates.
 d) Gross capacity.



Case Study



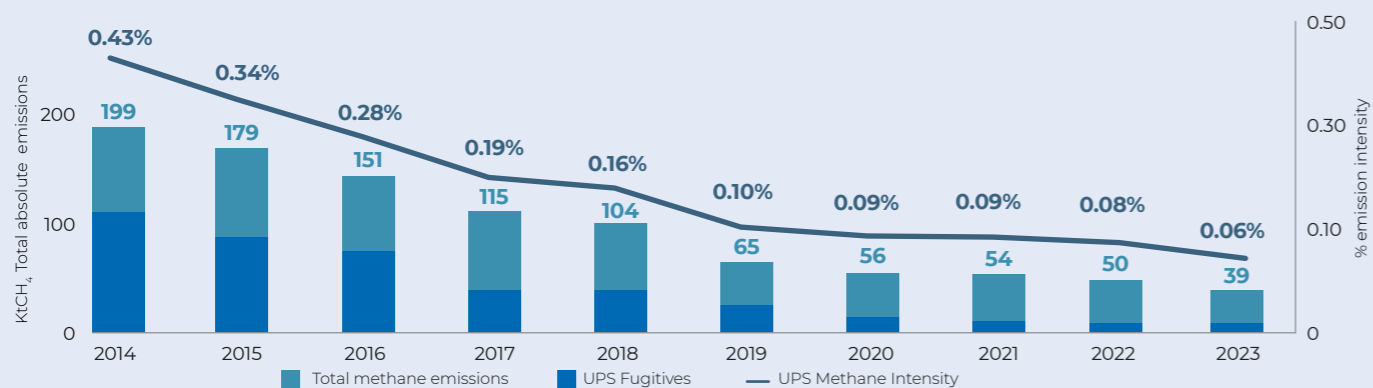
Eni's commitment to reducing methane emissions and routine flaring



CONTEXT: anthropogenic activities (such as the production and distribution of fossil fuels, livestock and agricultural practices, land use, and organic waste decomposition in landfills) are responsible for 60% of global methane emissions; the remaining 40% comes from natural sources (IEA estimates). According to the IEA, reducing methane emissions from the fossil fuel sector is the easiest way to minimise man-made methane emissions. Estimates reported by the United Nations Environmental Programme (UNEP) show that possible reductions of methane emissions from the fossil fuel sector could avoid 0.14°C additional warming, making an essential contribution to limiting global warming to 1.5°C. Methane emissions in the O&G sector may be unintentional, e.g., due to a faulty hermetic device or a leaking valve ("fugitive"), or intentional, usually carried out for safety reasons, due to plant or equipment design (venting - direct release or flaring - release by combustion). Routine flaring is sometimes used when selling gas is impossible.

ACTIVITIES: reducing methane emissions is a key part of Eni's decarbonization strategy, particularly concerning fugitive and routine flaring emissions. Eni has developed various methodologies and technological solutions at its sites to identify, quantify, and ultimately reduce methane emissions. To date, LDAR (Leak Detection and Repair) campaigns cover 99.7% of the assets managed by Eni. Complete coverage is expected by 2024. Eni also carries out LDAR campaigns with OGI (Optical Gas Imaging) cameras. Moreover, in recent years, Eni has devoted increasing efforts to identifying and implementing initiatives to mitigate gas flaring. To date, examples of such projects can be found in Congo, Libya, and Egypt, where major logistical, operational, and market barriers have limited the exploitation of associated gas. In December 2023, Eni was recognised as a Gold Standard Pathway under the Oil & Gas Methane Partnership (OGMP 2.0) programme, as reported in the International Methane Emissions Observatory (IMEO) Report 2023 published by UNEP. This award underlines the effectiveness of Eni's decarbonization strategy in measuring methane emissions with the ultimate goal of reducing and mitigating them. During 2023, Eni conducted an extensive worldwide methane measurement campaign. A dedicated multidisciplinary task force supervised the activities, with significant support and commitment from all Eni geographic areas, joint venture companies, and partners. In line with OGMP's best practices, Eni applied its internal procedures to all methane emission sources. On-site measurement activities involved specific equipment and technology for each emission source category.

UPSTREAM METHANE EMISSIONS (SCOPE 1) AND METHANE INTENSITY*



* The indicator is calculated as the ratio of the direct upstream methane emissions (from natural gas and oil production) to the sold natural gas production of the upstream operated/cooperated assets.

COLLABORATIONS: a crucial part of Eni's methane strategy is collaborating with other industry players and international organisations to seek a common, concrete commitment to controlling methane emissions in the oil and gas value chain. In addition to OGMP 2.0, Eni was also a founding member of the Oil and Gas Climate Initiative (OGCI) and the Methane Guiding Principles (MGP) and actively participates in industry associations, such as IPIECA and IOGP. These collaborations have helped define the extent of the problem with increasing precision, develop monitoring methodologies, reporting and verification tools for methane emissions, and promote the dissemination of new technologies for monitoring and reducing emissions. Moreover, Eni's recent membership of the GFMR Trust Fund demonstrates its willingness to support low-income producing Countries and small operators in implementing national policies and emission reduction projects, contributing not only financially but also providing the necessary technical support. Eni's contribution has been articulated over several fronts. On the one hand, participating in awareness-raising actions aimed at other sector players and the producing Countries' governments to stimulate the adoption of advanced management practices. On the other hand, participating in the implementation of national strategies and regulations in line with declared international commitments. For Eni, it is essential to work with governments and organisations such as UNEP/IMEO to define policies and regulations at the regional level. In this context, Eni contributed its testimony to the UNEP/IMEO capacity building courses for governments and officials of National Oil Companies (NOCs) organised in producing countries like Ivory Coast, Libya, and Mozambique. Lastly, Eni has established collaboration agreements with some NOCs, making its methane management experience available. In particular, Eni is working with Sonatrach and EGAS in Algeria and Egypt to identify opportunities to reduce greenhouse gas emissions, focusing on methane and energy efficiency. Similar initiatives exist in Libya, the United Arab Emirates and Indonesia.

CCS PROJECTS



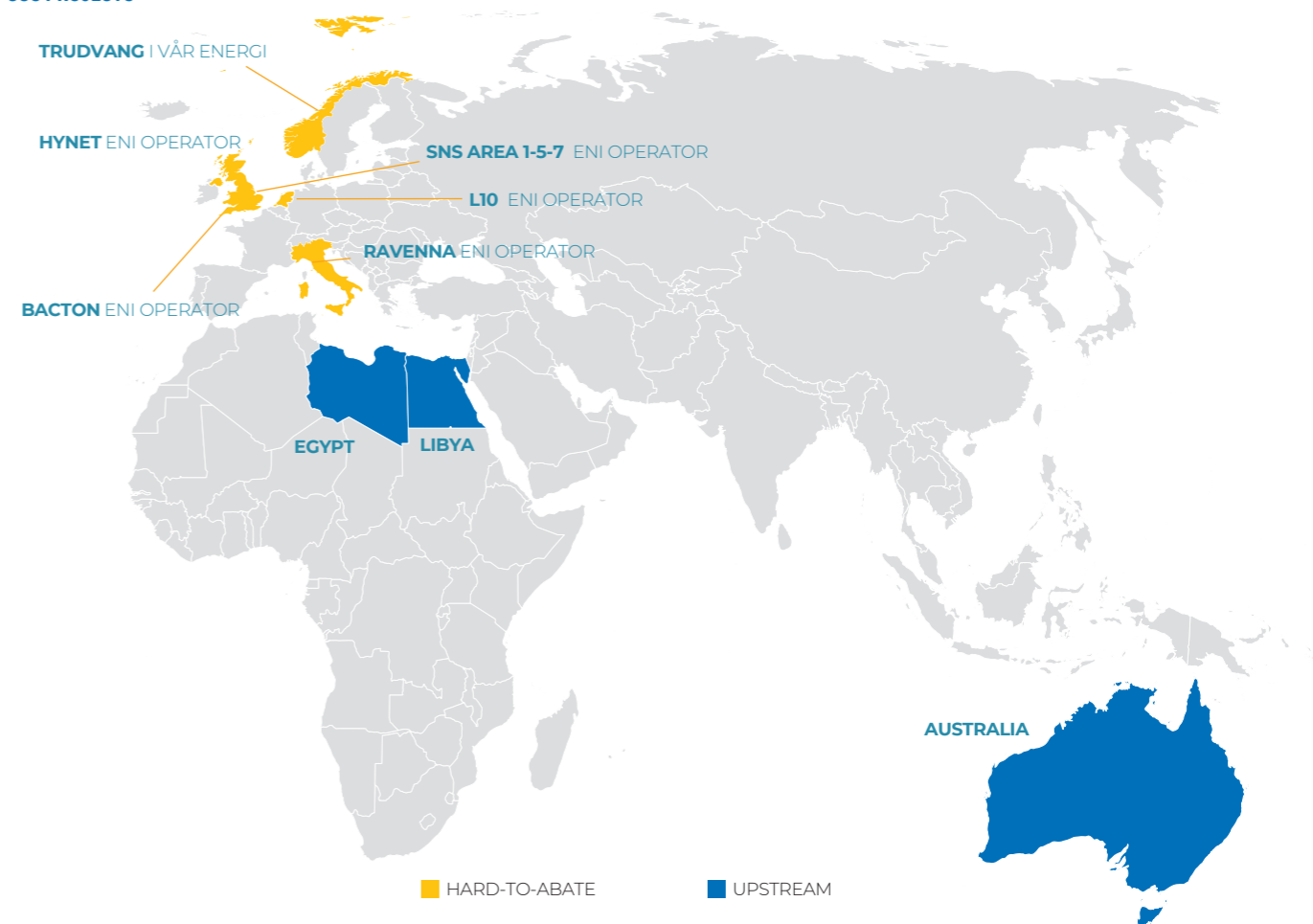
Carbon Capture and Storage (CCS) is a crucial technology for decarbonizing industrial clusters, particularly in hard-to-abate sectors, and thus for the success of the transition itself. Its role is recognised in the decarbonization scenarios developed by the most important international organisations (IPCC, IRENA, IEA) and, more recently, by the European Union in the EU Industrial Carbon Management Strategy, which clarifies the regulatory framework supporting the development of CCUS. For Eni, CCS is a decarbonization lever that represents an opportunity to reduce emissions from its own operations and provide a service to support the decarbonization of third-party industrial activities.

Thanks to its portfolio of depleted gas fields and its technical and commercial know-how, Eni has developed a distinctive approach that, in addition to its role as an operator of transport and storage services, enables it to support emitters' CCS value chain activities through integrated project management that optimises the decarbonization of industrial hubs. Eni has acquired a leading position, particularly in the UK and Italy, and is expanding its business in North Africa, the Netherlands, and the North Sea. The total gross storage capacity at 100% estimated to date is about 3 billion tonnes, with a target of reaching a gross annual CO₂ re-injection capacity of more than 15 MTPA before 2030, increasing to about 40 MTPA after 2030

before exceeding 60 MTPA after 2050. Last October, Hynet became the first CCS project in the UK for which the authorities signed off the general principles ("Head of Terms") of the CO₂ Transport and Storage business model. Eni expects to approve the Transport and Storage project in 2024, as the plans to capture the CO₂ produced by emitters (to be stored in Hynet) are approved. Moreover, for the Ravenna CCS project, Phase 1 will start in 2024, while Phase 2 is scheduled in 2027, with an annual storage capacity reaching 4 MTPA by 2030. Future expansions will increase the storage capacity to 16 MTPA. As with other transition-related businesses, CCS also lends itself to development according to [Eni's satellite model](#).

3 bln tonnes, total gross storage capacity at 100%

CCS PROJECTS



Interview



DAVID WHITEHOUSE

An established industry leader with 30 years of experience, David has been a longstanding champion of OEUK, the leading industry association for the UK's integrated offshore energy sector. He is respected across the sector for his strategic and hands-on leadership in the North Sea and around the world, including the USA, the Netherlands, and the Philippines. His passion for energy, engineering, and innovation is built on a PhD in Theoretical Chemistry from Cambridge University and a first-class degree in Chemistry from the University of Manchester. He is currently studying for a Master's degree in Renewable Energy at Aberdeen University.

The role of CCUS in the energy transition



Why is CCUS important for a low-emission future? Which key sectors/stakeholders will benefit?

The role Carbon Capture, utilization, and Storage (CCUS) has to play in supporting UK Net Zero emissions by 2050 is significant - there is no credible Net Zero scenario that does not include a role for CCUS. Many industries, such as cement, steel, and lime, will continue to produce process emissions, a natural byproduct of the production of these materials. These industries will be pivotal in ensuring the UK has the supply chain capabilities to manufacture and install the renewable energy infrastructure that will be key to unlocking a low carbon economy fuelled by homegrown energy. CCUS provides a solution to abating these emissions. It not only has a role to play in decarbonising our domestic heavy industries but also as a solution to the growing issue of intermittency in power generation. Last year roughly 30% of our electricity was generated by gas power plants, providing a stable source of electricity to millions. Maintaining a consistent source of power will be vital as we increase our reliance on renewable electricity. CCUS offers a means of decarbonising the power generated by gas power plants. Finally, it is key to note that even in the most aggressive Net Zero scenarios, there will likely be a small portion of emissions that have not been abated by 2050; such emissions will need to be offset by negative emissions technologies such as Direct Air Capture (DACs). Oil and gas companies such as ENI have an opportunity to diversify and grow in a new industry/area of the North Sea. Many current carbon storage licence holders have a legacy of oil and gas production in the North Sea.



What enabling policies can incentivize CCUS, and what are the barriers? What does it mean to be a Regulated asset-based mechanism?

The UK government has stated its intent to heavily invest in the energy transition through the development of four industrial CCUS clusters while dedicating funding to emitters, storage sites, manufacturing services, and beyond. In 2023, the UK announced £20bn in support of the early development of 4 domestic CCUS clusters (HyNet, East Coast Cluster, Viking CCS, and Acorn CCS), including the £1bn CCUS Infrastructure Fund. In December 2023, the UK's CCUS Vision was announced, outlining the Country's plan to develop the CCUS sector into a self-sustaining industry from 2035 onwards. The UK government has taken great strides in developing effective policies to support the emergence of a domestic CCUS industry. The

UK is increasingly competing on a global stage to secure and attract offshore energy investment, talented people and skills and critical resources and infrastructure to create our low carbon integrated energy future. It is so important that we create a competitive business and operating environment for project developers and supply chain companies to invest in. Our world-class supply chain and offshore energy workforce are two assets that we must harness. Their skills and expertise will be vital in delivering a successful energy transition, fuelled by the domestic production of energy. A regulated asset-based (RAB) mechanism is an economic regulation tool typically used in the UK for monopoly infrastructure assets such as water, gas, and electricity networks. In the case of CCUS, the company developing the infrastructure will receive a licence from the NSTA, which grants it the right to charge a regulated price to users in exchange for the provision of infrastructure (T&S networks, storage sites, etc.).



What will Eni's role be in developing the UK's CCUS? What are the future challenges and opportunities in this space?

Eni's opportunities lie in the development of carbon stores and technologies associated with drilling, pipeline installation, and Measurement, Monitoring, and Verification (MMV). OEUK estimates that roughly 84% of the domestic UK CCS market is targetable by the existing oil and gas supply chain. Roughly 45% is made up of activities related to offshore storage and targetable by Eni through its involvement in the UK's cluster projects. A significant challenge/opportunity for the UKCS and ENI is unlocking cross-border transportation of CO₂. The reward for doing so could be substantial, given the size of the UK's potential carbon storage capacity. At present, several barriers stand in the way of CO₂ imports to the UK. These challenges include the need for mutual recognition of UK and EU ETS systems, non-alignment of transportation, lack of existing infrastructure, liability of CO₂ leakage, and storage standards. Finally, the declining UK ETS price remains a challenge for the development of self-sustaining CCUS projects in the UK. Currently, the levelized cost of CO₂ capture is likely to lie between £40-100 per tonne, depending on the industry and size of the capture plant. This cost lies significantly above the current UK ETS price, <£40 per tonne, and does not include the additional cost of transporting and storing CO₂. Ensuring an effective and targeted approach to the free allocation of carbon credits and stability in oil and gas prices will be key to maintaining an ETS price that works in favour of the development of CCUS projects in the UK.

NEW BUSINESSES FOR TRANSITION



Plenitude

Plenitude, Eni's Benefit Corporation (Società Benefit), integrating renewables, customer energy solutions, and an extensive electric vehicle (EV) charging network, is developing its renewable projects pipeline and has reached its target of more than 3 GW of installed capacity in 2023. Plenitude will achieve its objectives in this area through the organic development of

a diversified portfolio, complemented by selective asset and project acquisitions and strategic national and international partnerships, which will enable the progressive increase of Plenitude's installed renewable capacity to more than 15 GW by 2030 and to reach 60 GW by 2050. In an evolving mobility sector, which envisages a constant increase in the number of electric vehicles in circulation in Italy and Europe, Plenitude has one of the largest and most widespread networks of public electric vehicle charging infra-

structure, with about 19,000 charging points distributed throughout Italy, aiming at a total of 40,000 units by the end of 2027, about 50,000 by 2030, and rising to 160,000 by 2050. Finally, integrating retail activities (the number of customers is expected to exceed 20 million by 2050), renewable energy, and electric mobility provides significant synergies from an operational perspective and ensures diversification and financial resilience. For more information, see the ► [Plenitude sustainability and impact report](#).

Focus on

Capacity growth from renewable sources

CONTEXT: Plenitude's growth trend confirms a path of internationalisation initiated in previous years, mainly in the US and Spain.

ACTIVITIES: in 2023, Plenitude strengthened its renewable business through organic project development in Italy, Kazakhstan, and Spain, as well as acquisitions in the United States and Spain. The latter aligns with Plenitude's strategy to exploit all synergies in the Countries where it is already present with its **retail business**. Furthermore, 2023 saw the addition of a new technology to Plenitude's portfolio: offshore wind. This expansion coincides with its debut in the UK, strengthening its European presence. 32% of installed capacity is located in Italy (vs. 38% in 2022) and 68% abroad (vs. 62% in 2022).

INSTALLED CAPACITY AS OF DECEMBER 31, 2023* (3 GW)			
COUNTRY	PHOTOVOLTAIC	WIND	TOTAL
ITALY	242 MW	712 MW	954 MW
USA	1.246 MW	15 MW	1261 MW
SPAIN	196 MW	246 MW	442 MW
KAZAKHSTAN	50 MW	96 MW	146 MW
FRANCE	115 MW	-	115 MW
AUSTRALIA	64 MW	-	64 MW
UNITED KINGDOM	-	11 MW	11 MW

* Data includes storage capacity.

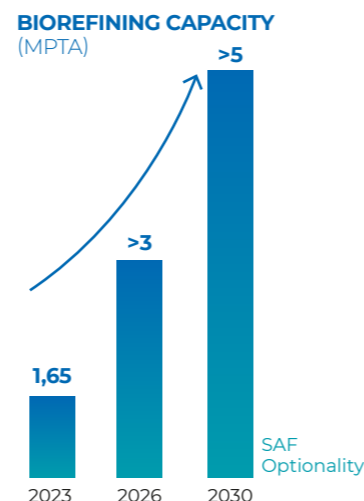


Plenitude's Wind Farm in Olivadi (Catanzaro province) has a total capacity of 4 MW.

Enilive

Enilive, Eni's mobility transformation company, is one of the leading companies in the global biorefining sector, distinguished by having developed a proprietary technology. It is characterised by a vertically integrated business model along the entire supply chain, including advanced agrifoodstock¹¹ production, and decades of operational experience. Enilive forecasts a biorefining capacity of over 3 MTPA by 2026 and over 5 MTPA by 2030. Enilive recently approved the bio-conversion project for the Livorno refinery (the third project, following Venice and

Gela), while a fourth project in Italy is under study. Moreover, two additional studies are underway for biorefineries in South Korea and Malaysia with the Final Investment Decision (FID) expected in 2024. Sustainable Aviation Fuel (SAF) capacity of over 1 MTPA – twice previously defined target – is expected to be reached by 2026, with a potential to be doubled by 2030¹². The supply of feedstock from Eni's supply chain will reach over 700,000 tonnes by 2027, corresponding to more than 35% of the feedstock processed in Eni's Italian biorefineries (► [New businesses in the territories](#)).



Case Study



Biomass sustainability



CONTEXT: to ensure sustainable management of the **BIOMASS** supply chain, Eni follows general principles and criteria that meet sustainability standards for selecting suppliers by defining specific clauses in **BIOMASS** procurement contracts. In addition, in October 2022, Eni ceased the procurement of palm oil.

ACTIVITIES: 100% of the **BIOMASS** used in Italy's biorefineries is certified under voluntary EU or Italian certification schemes. These certifications ensure that raw materials do not come from areas with a high level of biodiversity and carbon stock, such as forests, that have been converted to agricultural use.

In 2023, more than 95% of the raw materials for the Venice and Gela biorefineries were classified as waste and residues, UCOs (Used Cooking Oils), soap slurry, animal fats and other processing wastes such as POME (Palm Oil Mill Effluent) and PFAD (Palm fatty acid distillate - certified as processing residue as it does not represent the primary purpose of the production process and does not contribute to the demand for palm oil).

Versalis

Versalis is committed to achieving carbon neutrality in 2050 by promoting chemicals from renewable sources, identifying alternative feedstocks, and continuously developing solutions in the circularity area. Versalis' transformation cannot be separated from innovation. Eni also pursues research and development of new and existing technologies in part-

nerships with important players within the value chain. In 2023, to accelerate the strategy in the direction of chemistry from renewable sources, Versalis finalised the acquisition of Novamont, a leader in the production of bioplastics and the development of biochemicals and bioproducts (► [Circular Economy](#)). Moreover, Versalis's commitment to the transition is part of a decarbonization

plan – in line with Eni's strategy – with emissions reduction targets for the short, medium and long-term, supported by specific levers and a solid dedicated governance structure. The interim targets envisage a reduction in Scope 1 and 2 emissions compared to the 2018 base year of 15% by 2025 and 30% by 2035. For more information, see the ► [Versalis Sustainability Report](#).

Climate change impacts, risks, and opportunities

In line with previous years, climate change is the most significant material theme in the double materiality analysis (► [Material Topics for Eni](#)). From the viewpoint of the consulted stakeholders, the GHG emissions produced by Eni as an outcome of its activities or associated with its value chain result in a negative impact on climate change due to their contribution to the global phenomenon¹³. Additionally, the company's potential climate-related risks are analysed, assessed, and managed by considering the aspects identified in the TCFD recommendations. These refer both to energy transition risks (market scenario, regulatory and technological development, reputation issues) and physical risk (acute and chronic) through an integrated transversal approach that involves all the responsible functions as well as business lines. The risks of implement-

ing planned strategic actions to mitigate climate change are also considered. Commitments to achieving carbon neutrality and possible changes in consumer preferences could lead to a structural decrease in demand for hydrocarbons in the medium- to long-term and an increase in Oil & Gas sector operating costs. Uncertainties about demand trends and the feasibility/viability of decarbonization technologies make long-term investment decisions risky. The growing focus of the public debate on climate change and the increasingly stringent scrutiny by various stakeholders could lead to difficulties in accessing the capital market and call into question Oil & Gas companies' license to operate. To minimise the risks associated with climate change while also seizing opportunities, Eni is implementing a long-term strategy aimed at transforming its

business model to achieve carbon neutrality by 2050 through a series of targets, levers, and actions defined and adjusted considering the energy trilemma (environmental sustainability, security of supply, and affordability). Regarding physical risk, Eni has adopted a structured risk management process for identifying and analysing assets exposed to potential prospective changes in natural events (acute and chronic) in the medium- and long-term. This analysis envisages different climate scenarios, consistent with different emissions scenarios and short (5/10 years), medium (10/20 years), and long-term (20/30 years) periods. Assets still at risk after mitigation actions are analysed in more detail as part of the [ASSET INTEGRITY](#) process. The table below summarises the main risks and opportunities identified by Eni related to climate change.

CLIMATE RISKS

LOW CARBON SCENARIO

- Uncertainty about market development for new products
- Changing consumer preferences (e.g. decline of global demand for hydrocarbons)
- Loss of earnings and cash flow
- Stranded asset risk
- Impacts on shareholders' returns

REGULATORY AND LEGAL ISSUES

- Introduction of new climate disclosure requirements
- Uncertainty about evolving regulatory frameworks with potential impacts on long-term strategy
- Proceedings on climate change and greenwashing

TECHNOLOGICAL DEVELOPMENTS

- Profitability and specific risks of transition technologies
- Delays in technology development and technology supply chain needed to meet decarbonization targets
- Failure to address technologies that are important for the energy transition

REPUTATION

- Changing consumer preferences
- Deterioration of the sector's image in the face of accusations of greenwashing
- Deterioration of industry/company appeal for talent attraction & retention
- Impact on share price
- Lower attractiveness of the sector to investors/financiers and potential disinvestment risk

ACUTE AND CHRONIC PHYSICAL

- Possible effects on the operability and security of Eni's assets

CLIMATE OPPORTUNITIES

RESOURCE EFFICIENCY & ENERGY SOURCES

- Energy efficiency and emission reduction measures with the adoption of Best Available Technology
- Cost reduction through efficient water resource and waste management
- Using sustainable raw materials for biorefineries and chemistry

PRODUCTS AND SERVICES

- Development of renewables and low carbon energy, CCS, and biochemistry/circular economy
- Development of new products and services through R&D and open innovation (e.g., magnetic fusion)

MARKETS

- Partnerships for the development of technological solutions to cut emissions
- Access to financing through sustainable finance instruments
- Access to new capital through the satellite model

RESILIENCE

- Design of climate change resilient assets through scenario studies and processes for monitoring physical risks

¹¹ Regenerative agriculture projects that do not compete with either food production or forest resources, coordinating the cultivation of non-food plants on degraded land and promoting the introduction of second-harvest crops.

¹² With the SAF, Eni contributes to the decarbonization of air transport thanks to its Taranto and Livorno production facilities. In 2024, biojet production will be launched in Gela and Venice to achieve 0.2 million tonnes of production capacity by 2026.

¹³ Note that, as illustrated in Eni's appearance and response in the litigation brought by Greenpeace, Recommen, and 12 private citizens against Eni, the Ministry of Economy and Finance and Cassa Depositi e Prestiti (pg 98): "[...] Climate change is a global phenomenon that is characterized by peculiar features such as (a) multi-factoriality determined by the sum of a large number of anthropogenic factors and natural causes and (b) inter-temporality resulting from the fact that greenhouse gas emissions, produced at a given historical moment, result in effects on climate that can become relevant over long periods, partly because of the accumulation effects with other factors mentioned above. In this view, the mentioned temporal distance between the release of greenhouse gases and the rise in temperatures does not make it ascertainable (nor proven in the actual case) that there is a consequentiality between certain greenhouse gas emissions from an operator at a specific time in history and the increase Earth's temperatures in a specific subsequent period [...]" For further discussion, please refer to the ► [Technical and Scientific Report by Prof. Eng. Daniele Bocchiola of the Politecnico di Milano](#).

STRATEGY RESILIENCE TO LOW CARBON SCENARIOS

Eni regularly assesses the potential impact of the energy transition on the company's strategy and business through a series of tools. Oil & Gas cash-generating units (CGUs) recoverability is one of the most critical accounting estimates for preparing Eni's consolidated financial statements. This analysis depends on the relative weight of the sector's invested capital in total consolidated assets. Future expected cash flows associated with the use of Oil & Gas assets are based on management's judgement and subjective evaluation about highly uncertain matters like: future hydrocarbon prices, assets' useful lives, projection of future operating and capital expenditures (including CO₂ emission costs relating to different geographies where legal obligations are present), the volumes of ultimately recoverable reserves, and costs of decommissioning Oil & Gas assets at the end of their useful lives. In particular, hydrocarbon prices are forecasted as part of Eni's scenario, which considers macroeconomic and industry projections, policies, regulations, and

technologies (in place or foreseeable) and provides a holistic and consistent framework for the economic and energy variables of interest. These forecasts incorporate management's best estimate of the various energy market fundamentals while considering the changing market environment and challenges related to the energy transition. The value in use (VIU) of the oil & gas CGUs under the management's scenario assumptions displayed a headroom (difference between VIU and book values) of approximately 80% of the assets' carrying. The headroom discounts expected expenses associated with the purchase of carbon credits as part of the company's strategy to decarbonize its oil & gas operations through carbon credits generated by natural and technological-based solutions. Considering the judgmental nature of the assumptions underlying the estimate of the VIU, management has stress-tested its base case by applying the following sensitivity analyses to the base case assumptions underlying the oil & gas CGUs values-in-use: (i) a -10% haircut to hydrocarbon prices for all the years of the cash flow projections; (ii) a one-percentage point increase in the risk-adjusted

WACCs applied to each Country of operations; (iii) the projections of hydrocarbon prices and CO₂ costs of the decarbonization scenario Net Zero Emissions 2050 (NZE 2050) elaborated by IEA (World Energy Outlook 2023). These sensitivities do not consider possible actions to mitigate a changed price environment, such as rescheduling and/or cancellation of planned development activities, contract renegotiations, cost efficiencies, or actions to accelerate the payback period. Sensitivity was not applied to the Chemicals and Gas Power Generation business lines considering the immateriality of the residual book values of property, plant, and equipment (€581 million and €766 million, respectively) and economic-technical lives. At the same time, no impact can be associated with the refineries, considering that their book values are zero (► [Note 14 of the Consolidated Financial Statements of the Annual Report 2023](#)). The results of those sensitivity tests expressed in terms of the percentage ratio of the cumulated headroom for the Oil & Gas CGUs to their corresponding book values under each scenario and potential pre-tax income statement impacts are provided below:

	Value in use of the O&G CGUs Headroom vs. Carrying amounts		Possible impairments € billion	Assumption at 2050 in real terms USD 2022		
	Tax-deductible CO ₂ charges	Non tax-deductible CO ₂ charges		Brent price	European gas price	Cost of CO ₂
Scenario Eni	77%	-		48 \$/bbl	6.2 \$/mmBTU	CO ₂ costs projections in the EU/ETS + projections of forestry costs
10% haircut of Eni's prices assumptions	56%	-	(1.0)			CO ₂ costs projections in the EU/ETS + projections of forestry costs
Eni's scenario with +1% increase in WAAC	67%	-	(0.2)			CO ₂ costs projections in the EU/ETS + projections of forestry costs
IEA NZE 2050 scenario	28%	23%	(3.2)-(4.3)	25 \$/bbl	4.1 \$/mmBTU	\$250-180 per tonne of CO ₂ ^a

a) Range of values depending on advanced or emerging economies with or without Net Zero commitments. For low-income economies a lower cost is expected.

GHG Methodology and Transparency

SCOPE 1, 2, AND 3 - OPERATING AND EQUITY REPORTING

Eni reports its GHG emissions (► [Statement on GHG accounting and reporting - year 2023](#)) in line with leading international standards and industry best practices¹⁴. Specifically, Scope 1 and 2 emissions are accounted for both with operational control

approach (100% of emissions from assets over which Eni has operational control) and equity share approach (for assets operated by Eni and third parties). Eni adopts the operational control approach extensively, encompassing 100% of GHG emissions from assets with operational control and jointly controlled companies. Scope 3 emissions are reported according

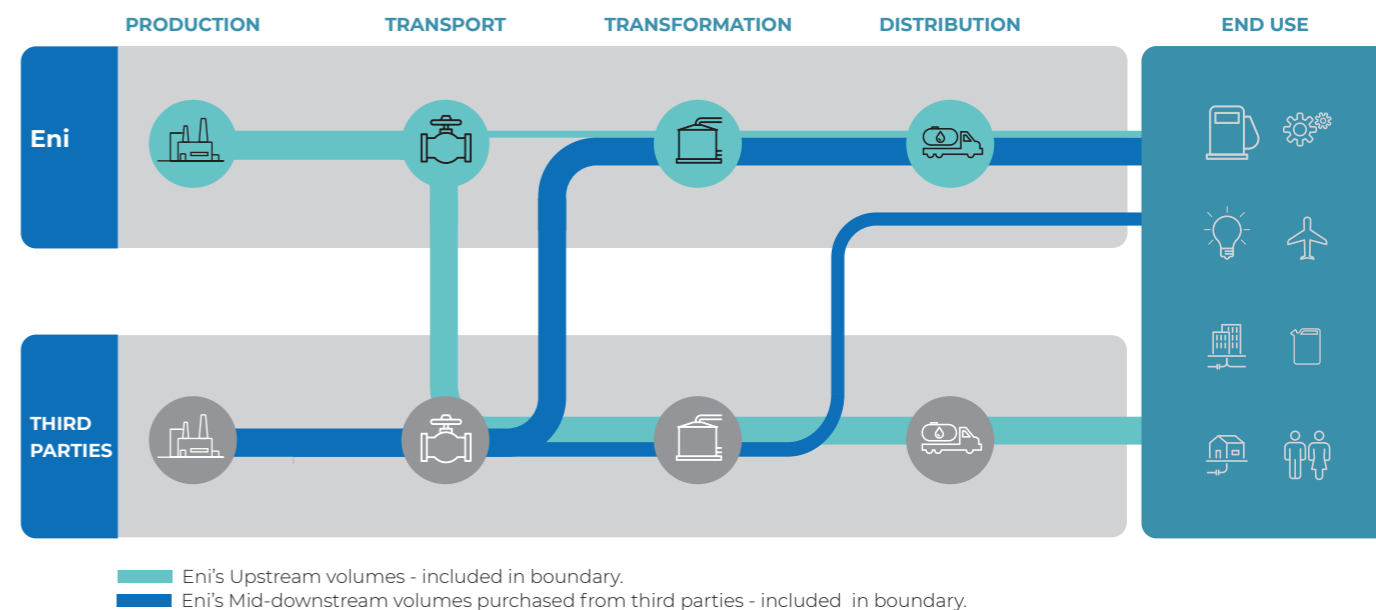
to the categories defined in the GHG Protocol standard/IPIECA industry guidelines¹⁵. The most relevant component for the Oil & Gas segment comprises emissions related to the final consumption of products sold (so-called Category 11). The accounting is performed on an equity share based on the prevailing business segment (upstream hydrocarbon production sold).

NET GHG LIFECYCLE EMISSIONS AND NET CARBON INTENSITY - LIFECYCLE REPORTING

From 2020, Eni has added a value chain methodology¹⁶ to its usual reporting approach that allows for an integrated accounting of GHG emissions (Scope

1+2+3) related to the lifecycle of energy products¹⁷ sold by Eni (from a Well-to-Wheel perspective) net of carbon offsets. The energy product volumes and emissions generated along the entire value chain are quantified on an equity basis and applied to an extended boundary, which includes both own

production and volumes purchased from third parties. Eni has adopted this approach to define its medium to long-term decarbonization targets, both in terms of absolute emissions, [NET GHG LIFECYCLE EMISSIONS](#), and in terms of intensity, [NET CARBON INTENSITY](#).



14 For example, the WBCSD/WRI GHG Protocol Initiative, a Corporate Accounting and Reporting Standard, and IPIECA/API/IOPG Petroleum industry guideline for reporting 2011 greenhouse gas emissions.
 15 Scope 3 emission categories are calculated and reported in the ► [Eni For 2023 - Sustainability performance](#) document, highlighting each category's methodology and reporting boundary.
 16 The methodology was developed with the collaboration of independent experts and is being progressively improved to reflect the latest developments in emissions reporting standards.
 17 The scope does not include the contribution from the Chemicals sector.

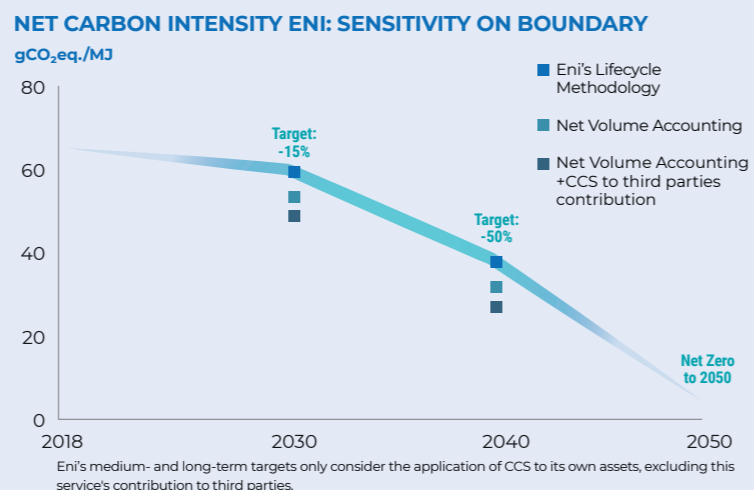
Case Study



Resilience of emissions intensity targets

CONTEXT: in a context where there is no single standard for defining and reporting indicators associated with emission targets, companies adopt approaches that differ in terms of scope and decarbonization levers.

ACTIVITIES: to assess the resilience of the emissions intensity indicator (Net Carbon Intensity¹⁸), Eni compared its trajectory with what would result from applying the net volume accounting method¹⁹, with and without emissions removed from the atmosphere through CCS solutions (provided by Eni as a service for third parties). Pronounced reductions in Net Carbon Intensity are observed when the methodological approach is varied.



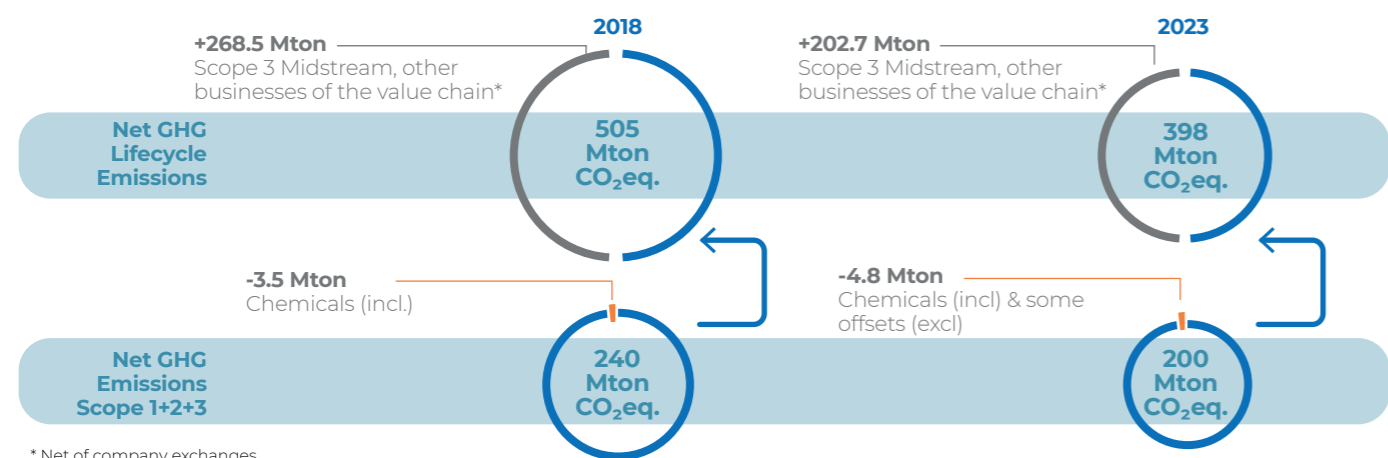
NET SCOPE 1+2+3 GHG EMISSIONS - A NEW INDICATOR

From this reporting cycle, Eni introduced the indicator Net Scope 1+2+3 GHG Emissions, which considers equity assets and is not associated with any corporate targets. The indicator is calculated as the sum of net Scope 1, 2, and Scope 3 GHG

emissions from the use of sold products (Cat. 11 - calculated on the basis of equity production of upstream hydrocarbons). The comparison between the Net Scope 1+2+3 GHG Emissions and the **NET LIFECYCLE GHG EMISSIONS** shows a difference of almost double (200 vs. 398 MtCO₂eq.), mostly related to the larger scope used in the life cycle methodology.

The latter also includes energy products purchased from third parties (e.g. natural gas produced by third parties and sold by Eni). The reconciliation of these indicators²⁰ is deemed appropriate to provide a representation consistent with the methodologies commonly used in the Oil & Gas industry and to ensure greater comparability.

RECONCILIATION OF LIFECYCLE AND GHG PROTOCOL INDICATORS



18 The indicator is calculated as the ratio of Net GHG Lifecycle Emissions to the energy content of energy products sold by Eni. It includes the contribution of CCS to Eni's own assets and excludes the contribution of CCS from services to third parties.
 19 According to the net volume accounting method, for each fossil product (oil or gas), only the volumes prevailing between the production or sales stages are considered (IPIECA, Estimating petroleum industry value chain (Scope 3) greenhouse gas emissions - 2016). To date, it is a commonly used method in the industry for calculating the lifecycle carbon intensity for fossil fuel energy products.
 20 The two indicators can be reconciled by adding the Scope 3 emission components of mid-downstream businesses (excluding carbon credits used to offset these emissions) to Net GHG Emissions and subtracting the Scope 1 and 2 emission contribution from the Chemicals sector.

TRANSPARENCY IN DISCLOSURE AND ADVOCACY

Eni supports the definition of best practices for comprehensive and effective climate change disclosure. The company promotes the need to standardise the methods used for GHG emissions reporting to make Oil & Gas sector performance and decarbonisation targets comparable. In addition, Eni has an ongoing monitoring exercise on the development of soft and hard law related to climate issues, aimed at assessing the resilience of its instruments and their possible adaptation. In this regard, Eni pays particular attention to the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises as of June 2023, the Corporate Sustainability Reporting Directive (CSRD) and European Sustainability Reporting Standards (ESRS), and the Corporate Sustain-

ability Due Diligence Directive (CS3D proposal). This exercise may lead to an integration of corporate climate tools and disclosure. Transparency in reporting related to climate change, together with the strategy implemented by the company, has allowed major ESG ratings and climate benchmarks to rate Eni positively (Eni's recognitions). In terms of its partnerships and advocacy activities, Eni engages with policymakers directly and indirectly via trade associations. Through its experience as an international energy company, Eni contributes to defining strategies and regulations that accelerate the transition to Net Zero. Eni clearly and transparently expresses and shares its position on climate change and related climate strategy issues. Eni recognises the value of active participation in the work of business associations to develop and share best practices and develop advocacy positions aimed at promoting

the energy transition. Furthermore, in 2024, Eni will publish the third edition of the report assessing the alignment of Eni's position with that of the business associations in which the company participates on climate advocacy issues. This assessment was extended to 45 associations, of which 39 were aligned with Eni's positions, and 6 were partially aligned. Eni engages proactively to steer the positions of each association, particularly, those whose positions diverge from Eni's climate Advocacy Principles towards a positive climate vision. Finally, Eni publishes a list of key advocacy initiatives related to climate change. The issues mentioned in this chapter were also examined in the climate litigation brought by Greenpeace, Recommen, and 12 private citizens against Eni, the Ministry of Economy and Finance, and Cassa Depositi e Prestiti Eni. The relevant documentation is available at eni.com.

ENI'S PRINCIPLES IN CLIMATE ADVOCACY

- 1 Paris Agreement: Eni supports the objectives of the Paris Agreement and the policies that pursue sustainability, energy security, and the protection of industrial competitiveness on the path to Net Zero by 2050.
- 2 Role of gas: Eni recognises the role of natural gas in the energy transition and supports the implementation of specific regulations to reduce methane emissions and routine flaring.
- 3 Carbon pricing: Eni supports the implementation of credible and cost-efficient carbon pricing mechanisms.
- 4 Energy efficiency and low carbon technologies: Eni promotes actions and policies to support energy efficiency and technologies necessary for decarbonization, such as renewables, CCS, Carbon Dioxide Removal, and hydrogen.
- 5 Sustainable Mobility: Eni supports implementing complementary solutions for the decarbonization of transportation, such as biofuels and electric mobility, and policies based on a technology-neutral approach that promotes the most mature and cost-efficient technologies.
- 6 Role of Carbon Credits: Eni supports the development of enabling policies for investments in Nature and Technology-Based Solutions and use of carbon credits to offset residual hard-to-abate emissions.
- 7 Transparency and Disclosure: Eni supports the development of best practices for transparently disclosing climate actions and climate advocacy.

The Just Transition for Eni



Why is it important to Eni?

Pursuing a just energy transition means working towards decarbonizing energy, while helping to keep it abundant to support the development and make it accessible to all. It also means imagining change and envisaging opportunities for transformation for the people, value chains and territories where we are present.

FRANCESCA CIARDIELLO HEAD OF SUSTAINABLE DEVELOPMENT AT ENI

Eni is working to ensure that the decarbonization process offers opportunities to convert existing activities and develop new production supply chains, which will create significant opportunities in the Countries where it operates and for all parties that work within the value chain. At the same time, Eni is committed to managing any potential negative impact on workers, communities, consumers and business partners in both "transition-out" and "transition-in" activities, leveraging an approach that respects human rights, diversity and inclusion, and women empowerment. Eni outlined specific commitments,

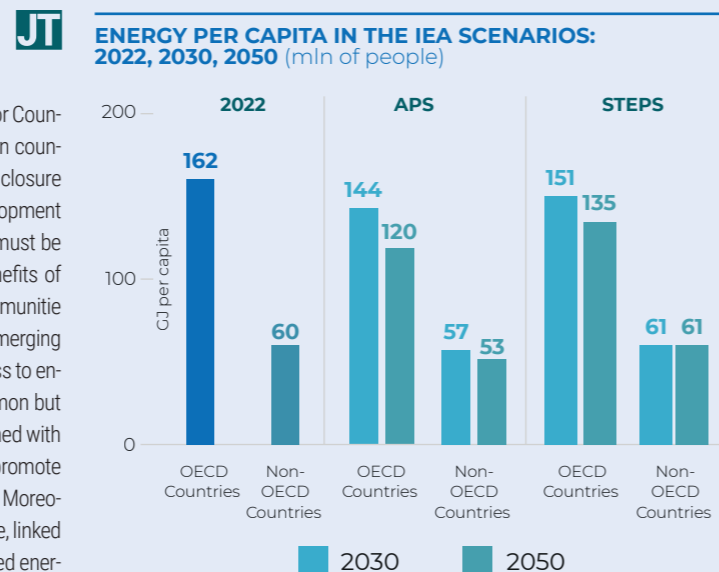
in a Statement signed by the CEO, addressed to those who will be most affected by the transformation. Moreover, an approach framework was developed based on the principles outlined in the Preamble to the Paris Agreement and the [ILO \(INTERNATIONAL LABOUR ORGANISATION\) GUIDELINES](#) for a just transition towards environmentally sustainable economies and societies for all (2015), as well as taking into account the initiatives carried out at an institutional level, by Governments, the European Commission and international bodies such as the IEA and IRENA (International Renewable Energy Agency). In

addition, major multi-stakeholder initiatives were considered which outlined the central role that the private sector can play in decarbonizing the energy sector, such as: the framework by the Council for Inclusive Capitalism; the approach proposed by World Benchmarking Alliance; and the research by the Grantham Research Institute on Climate Change and the Environment. Eni shares its transition path with its stakeholders, including its workers and their representatives, companies operating in the value chain, business partners, communities and consumers in particular. The dialogue makes it possible to sys-

Focus on

What does a Just Transition mean in concrete terms?

In promoting a just energy transition, a separate approach must be considered for Countries with advanced economies and Countries with and emerging economies. In countries with advanced economies, the management of "Transition-Out", i.e., the closure or conversion of a specific business sector, and "Transition-In", i.e., the development of new business, infrastructure, and products, are essential. In this process, it must be ensured that those affected by "Transition-Out" are not excluded from the benefits of "Transition-In". Similarly, providing decent jobs and positive impacts on the communities that characterise the new "low carbon" sectors is necessary. In Countries with emerging economies, on the other hand, the priority is to reconcile development and access to energy in parallel with reducing emissions, while respecting the principle of "common but differentiated responsibilities". Here, the Just Transition primarily will be concerned with overcoming energy poverty, with the support of international coordination, to promote the industrial and technological evolution towards clean energy infrastructure. Moreover, the potential retributive effects evaluation and management on a global scale, linked to new sectors, will also have a central role, such as the production of plant-based energy feedstocks or the mineral extraction used in the low carbon energy chain, so that they do not translate into a further expansion of existing inequalities.



Source: International Energy Agency, "World Energy Outlook 2023".

tematise the commitments and actions already introduced, defining strategies, targets and indicators to be monitored over time to assess the effectiveness of the path undertaken. The starting point, and linking element between Eni's strategy and the management of the

social repercussions and opportunities of the transition is the human rights management model, which, over the last five years, has been successfully developed and consolidated within Eni's main processes. This model was assessed by the World Benchmarking Alliance's

► **Corporate Human Rights Benchmark** in the latest 2023 survey, providing a comparative analysis of the major companies operating in high-risk sectors, examining their policies, processes and practices, to systematise their approach to human rights.

"PEOPLE-CENTRED" TRANSITION



WORKERS

Involvement of workers by anticipating changes.
Ensure a workplace environment where diversity, personal and cultural opinions are considered sources of mutual enrichment.
Transition-In: provide access to decent jobs in decarbonized activities, attract the best talent, and offer equal opportunities to everyone.
Transition-Out: priority to up-skill and re-skill programmes; support the reallocation of workers into new or transformed activities.
Support the social protection of workers.

- Each of us
- Occupational and process safety
- People's health
- Human Rights



SUPPLIERS

Build an ecosystem of companies (current and future suppliers) engaged in a fair and sustainable energy transition.
Guide and support suppliers, especially SMEs, in a path of growth and development through concrete tools and solutions.
Increase companies' and their employees' awareness of energy transition and sustainability issues.

- Human Rights
- Customers and suppliers



COMMUNITIES

Promote Local Development projects with a long-term perspective to improve the living standards of host communities, including vulnerable groups.
Contribute to developing adequate economic and social opportunities for all.
Promote access to energy, economic diversification, job opportunities, education and professional training, community health, water access, land protection and improved social protection systems.

- Occupational and process safety
- People's health
- Human Rights
- Alliances for development



CONSUMERS

Support customers by offering innovative energy solutions to help them play a leading role in the energy transition.
Contribute to creating and spreading a culture of sustainable energy use by enhancing the use of renewable energy sources and educating to energy consumption conscious and efficient.
Managing rising energy prices, prioritising vulnerable consumers, removing barriers preventing consumer support transition, also through financial services.

- Innovation, Digitalisation and Cyber Security
- Customers and suppliers

Human Rights

Carbon neutrality by 2050