



## Welcome to your CDP Climate Change Questionnaire 2019

### C0. Introduction

#### C0.1

**(C0.1) Give a general description and introduction to your organization.**

**Eni is an integrated company that operates across the entire energy chain in 67 Countries around the world and employing around 31,000 people.**

Eni's portfolio of conventional assets with a low break-even price at 25\$/bl, as well as the quality of the resource base with options for anticipated monetization represent the competitive advantages of Eni's upstream business. The large presence in the gas and LNG markets and know how in the refining business enable the company to catch joint opportunities and projects in the hydrocarbon value chain. Eni's fundamentals, such as the high portion of gas reserves and the opportunity to grow in the renewable sources segment leveraging on synergies with Eni's industrial plants, will sustain the path of the business model to a low carbon scenario. In this respect, this year, **Eni has recently set the target to achieve net zero emissions in the upstream business by 2030, with the ambition to achieve it in the long term in all business segments.**

#### C0.2

**(C0.2) State the start and end date of the year for which you are reporting data.**

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Row 1	January 1, 2018	December 31, 2018	No

#### C0.3

**(C0.3) Select the countries/regions for which you will be supplying data.**

- Algeria
- Angola

Argentina  
Australia  
Austria  
Bahrain  
Belgium  
Canada  
China  
Congo  
Cote d'Ivoire  
Cyprus  
Czechia  
Democratic People's Republic of Korea  
Denmark  
Ecuador  
Egypt  
France  
Gabon  
Germany  
Ghana  
Greece  
Greenland  
Hungary  
India  
Indonesia  
Iraq  
Ireland  
Italy  
Japan  
Kazakhstan  
Kenya

Kuwait  
Lebanon  
Libya  
Luxembourg  
Mexico  
Montenegro  
Morocco  
Mozambique  
Myanmar  
Netherlands  
Nigeria  
Norway  
Oman  
Pakistan  
Poland  
Romania  
Russian Federation  
Saudi Arabia  
Singapore  
Slovakia  
Slovenia  
South Africa  
Spain  
Sweden  
Switzerland  
Taiwan, Greater China  
Timor Leste  
Tunisia  
Turkey  
Turkmenistan

United Arab Emirates  
United Kingdom of Great Britain and Northern Ireland  
United States of America  
Venezuela (Bolivarian Republic of)  
Viet Nam

## C0.4

**(C0.4) Select the currency used for all financial information disclosed throughout your response.**

USD

## C0.5

**(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.**

Operational control

## C-EU0.7

**(C-EU0.7) Which part of the electric utilities value chain does your organization operate in? Select all that apply.**

Row 1

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### Electric utilities value chain

Electricity generation

Transmission

Distribution

### Other divisions

Gas storage, transmission and distribution

Gas extraction and production

## C-OG0.7

**(C-OG0.7) Which part of the oil and gas value chain and other areas does your organization operate in?**

Row 1

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### **Oil and gas value chain**

Upstream

Midstream

Downstream

Chemicals

### **Other divisions**

Biofuels

Grid electricity supply from gas

Grid electricity supply from renewables

## C1. Governance

### C1.1

**(C1.1) Is there board-level oversight of climate-related issues within your organization?**

Yes

### C1.1a

**(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.**

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	<p>Eni's CEO is responsible to identify the main business risks, including those related to climate change, to analyze the strategy and verify their progress. Every year the CEO assigns the guidelines in order to define the Strategic Plan on the path to decarbonization for the Business Lines and support functions.</p> <p>Eni's CEO is also the "Chair of the Steering Committee of Climate Change Programme": an executive team aimed to identify new strategic solutions to support Eni's path to decarbonization.</p> <p>The CEO brings constantly the attention of Eni's employees to the Company's results in terms of carbon footprint reduction and in particular on the actions needed to implement the decarbonization strategy. As an example, on July 12th, Eni's CEO himself spoke about the future of the planet to the entire Eni's Management with a focus on the twofold challenge of the energy sector: meeting the growing energy demand for the future, while reducing GHG emissions.</p>
Board-level committee	<p>The Sustainability and Scenarios Committee (SSC) addresses the integration among strategy, evolution scenarios and business sustainability over the medium to long term and examines the scenario for the strategic plan preparation. Set up in 2014, the SSC was the first example, in the Oil and Gas sector, of an integrated approach in the evaluation of sustainability and energy scenarios.</p> <p>During 2018, the CSS discussed in detail climate change issues at all meetings, including the decarbonization strategy, energy scenarios, renewable energies, research and development to support the energy transition, climate partnerships and water resources and biodiversity issues.</p>
Board-level committee	The Control and Risk Committee supports the BoD in the quarterly review of the main risks, including climate change.
Board-level committee	The Remuneration Committee proposes to the BoD the general criteria for the annual incentive of the CEO and managers with strategic responsibilities, which include specific objectives associated with the reduction of GHG emissions.
Other, please specify Advisory Board	Since the second half of 2017, for a broader view of the factors affecting the value creation of the Company in the long term, the Board of Directors has set up an Advisory Board, composed by international experts, to further strengthen the monitoring of long-term trends in energy markets, geo-politics, technological innovation, energy transition and the decarbonization process.

## C1.1b

### (C1.1b) Provide further details on the board’s oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	The Board of Directors (BoD) plays a central role in managing the main aspects linked to climate change. In particular, on the proposal of the Chief Executive Officer, the Board of Directors examines and/or approves: <ul style="list-style-type: none"> <li>- Objectives related to climate change and energy transition, as an integral part of business strategies (Reviewing and guiding strategy; Reviewing and guiding business plans);</li> <li>- The “GHG Action Plan” with investments to meet emission reduction targets by 2025 and 2030 (Reviewing and guiding major plans of action - Reviewing and guiding annual budgets)</li> <li>;</li> <li>- The portfolio of Eni’s top risk, including climate change (Reviewing and guiding risk management policies);</li> <li>- The Short Term Incentive Plan with targets related to the reduction of GHG emissions for CEO and managers with strategic responsibilities (Setting performance objectives - Monitoring implementation and performance of objectives);</li> <li>- Annual sustainability results, including the sustainability report (Eni for) and the HSE review, including climate change performances (Monitoring and overseeing progress against goals and targets for addressing climate-related issues);</li> <li>- Institutional reporting, including the Interim Consolidated Report and the Annual Financial Report (including the Consolidated Disclosure of Non-Financial information);</li> <li>- The relevant projects and their progress, on a half-year basis, with sensitivity to</li> </ul>

		<p>Eni and IEA SDS carbon pricing (Overseeing major capital expenditures, acquisitions and divestitures);</p> <ul style="list-style-type: none"> <li>- Resilience test on all upstream Cash Generating Units (CGUs) applying the IEA SDS scenario (Overseeing major capital expenditures, acquisitions and divestitures);</li> <li>- Strategic agreements, including climate change-related initiatives</li> </ul> <p>Moreover, in 2018, Eni BoD also contributed to the “Climate Governance” initiative of the World Economic Forum (WEF), aimed at developing guiding principles for effective climate governance on corporate boards.</p>
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## C1.2

**(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.**

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	Quarterly
Other, please specify Climate Change Programme - Committee	Both assessing and managing climate-related risks and opportunities	As important matters arise

## C1.2a

**(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).**

Eni's **CEO** is a member of the Board of Directors and he is directly responsible for identifying the main business risks, including risks related to climate change, directing strategies and assessing and monitoring their progress. Each year the CEO assigns the guidelines for setting out the strategies



provided for in the Strategic Plan on the path to decarbonization to the Business Lines and support functions. The CEO's Short-Term Incentive Plan (STI) includes objectives associated with climate strategy that are consistent with the guidelines defined in the Strategic Plan. During the strategic plan presentations to the financial community, the CEO is giving a progressively strong emphasis to the decarbonization path of the Company, confirming Eni's commitment on climate change. Moreover, Eni's CEO is the Chair of the Steering Committee of Climate Change Programme, that is an executive team aimed at identifying new strategic solutions to support Eni's path to decarbonization.

The **Climate Change Programme** is a committee set up in 2015 in order to have a cross-cutting executive team dedicated to climate-related issues. The committee is coordinated by the HSEQ (Health, Safety, Environment & Quality) Department, which encompasses a specific business unit to oversee climate change issues. The Program Team meets as important matters arise and includes the heads of Planning and Control, Investor Relations, Sustainability, Integrated Risk Management, Research and Development, Renewables and any other relevant functions on demand when requested. In the last years, the Programme has conceived and constantly updated the company's decarbonization strategy having, among its responsibilities, the definition of the drafting the road map for the long-term decarbonization of the company as well as the monitoring of the climate-related performance. The Team Program refers to a Steering Committee Chaired by CEO.

## C1.3

**(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

Yes

## C1.3a

**(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).**

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**Who is entitled to benefit from these incentives?**

Chief Executive Officer (CEO)

**Types of incentives**

Monetary reward

**Activity incentivized**

Emissions reduction target

**Comment**

The CEO's Short-Term Incentive Plan (STI) includes objectives associated with climate strategy that are consistent with the guidelines defined in the Strategic Plan. Under the Short-Term Incentive Plan, a portion of the bonus matured is deferred over a three-year period, subject to further performance conditions, in order to assess sustainability over the medium term. In particular, 25% of the STI is composed by environmental sustainability and human capital objective, half of this refers to reducing the GHG emissions intensity rate of operated hydrocarbon production, in line with the 2025 target announced to the market. This objective is also assigned to top management and managers with responsibilities associated with the emissions reduction.

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**Who is entitled to benefit from these incentives?**

Management group

**Types of incentives**

Monetary reward

**Activity incentivized**

Emissions reduction target

**Comment**

In coherence with CEO annual objectives, a component of Eni's management monetary incentive is linked to sustainability objectives, including indicators related to GHG, emission reduction targets and energy efficiency activities.

## **C2. Risks and opportunities**

### **C2.1**

**(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.**

	From (years)	To (years)	Comment
Short-term	0	4	The short-term horizon is used to set decarbonization objectives in accordance with Eni's 4 year strategic plan, which is updated on a rolling basis each year.
Medium-term	4	11	The medium-term horizon is used to set decarbonization objectives and targets in application of Eni pathway to decarbonization and in line with business ambitions.
Long-term	11		The long-term horizon (>2030) is used to understand the future evolutions of energy business and to drive the company performances in line with low carbon trajectories.

## C2.2

**(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.**

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

## C2.2a

**(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.**

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	>6 years	Integrated Risk Management assessment and monitoring results are illustrated quarterly to the Control and Risk Committee and to the BoD. Assessments on the GHG performance in the light of 2025 and 2030 reduction targets are included.

## C2.2b

**(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.**

**The process for identifying and assessing climate-related risks and opportunities is part of Eni's Integrated Risk Management (IRM) Model**, developed to ensure that management takes risk-informed decisions, by taking into full account current and potential future risks, including medium and long-term ones, in the frame of an integrated and comprehensive approach.

The IRM model has been defined and updated consistently with international principles and best practices. It is an integral part of the Internal Control and Risk Management System and is structured on three control levels: the risk owners, the risk control functions and the independent assurance provider. IRM assessment and monitoring results are presented to the Control and Risk Committee and to the BoD quarterly.

**Climate Change is one of Eni's top strategic risks** and it is analysed, assessed and monitored by the CEO as part of the IRM process. The climate-related risks and opportunities analysis is carried out using an integrated and cross-cutting approach which involves specialist departments (i.e. HSEQ, Investor Relations, R&D, Planning&Control, IRM) and business lines. **Climate change risks and opportunities are analysed, assessed and managed by considering 5 drivers referring to aspects related with energy transition** (market scenario, regulatory and legal aspects, technological developments, reputational issues) **and physical aspects** (extreme/chronic weather and climate phenomena) **as recommended by the Task Force on Climate-related Financial Disclosures**. In addition, the process is carried out at a global, i.e. aggregated, level, at business lines level as well as at a specific project level.

At Corporate level, the Climate Change risk owner is identified with the EVP Health, Safety, Environment and Quality, whose responsibility lies in risk identification, assessment and related treatment measures.

**Risks identification and assessment in Eni model are carried out by adopting metrics that take into account the potential quantitative impacts** (i.e. economic, financial or operational) **as well as the potential qualitative impacts** (i.e. on the environment, health and safety, social, reputation).

Impacts severity is assessed on the basis of five levels, from negligible (1) to extreme (5). However, according to Eni risk management framework, risk prioritization is more generally based on the use of multidimensional matrices so that each risk is positioned at the intersection of set values of impacts and likelihood (from 1-rare to 5-probable). By applying such methodology, any assessed risk is given a tier of risk ranging from 1 to 3 - where risks falling either in tier 1 or 2 are Eni top risks - and therefore monitored and treated on a quarterly basis.

Specifically:

- Economic-financial impact is quantified in terms of absolute reduction of the net profit or cash flow. Severity thresholds (from negligible to extreme) are referred to the assumptions underlying the four-year strategic plan and vary when applied to a project or a subsidiary or the entire group. The financial thresholds are reviewed yearly on professional judgment formulated on the basis of an internal process shared among several functions (rather than on predefined percentages). **The impact is considered substantive if it affects one or more strategic goals and determines a wide review of strategies and then requires an extraordinary management commitment.**
- Descriptive-qualitative impact is evaluated based on the effort of the top management to manage the risk (including a potential review of strategies if appropriate).

- Image & reputation impact is evaluated by estimating relevant duration on selected stakeholders.
  - Environmental impact is evaluated based on the effects on the environment, ecosystem and people affected, e.g. the size of the involved area, impact on the ecosystem, inconvenience from pollution to personnel or population, etc.
  - Health & safety impact is evaluated considering the effects in terms of health of both Eni and third parties' personnel, or any other individual concerned (accidents, illnesses, etc.).
  - Social impacts are evaluated based on any social damage on local communities and population adjacent to industrial plants, e.g. employment and workers' rights, access to basic resources, etc.
- The process includes assessments at inherent level and at residual level, respectively before and after the mitigation actions are implemented.

## C2.2c

### (C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	<p>Eni is present in 67 Countries around the world with upstream and mid-downstream activities. Current or future regulations related to climate change in these Countries could have an impact on the business, such as:</p> <ul style="list-style-type: none"> <li>- Increase in operating and investment costs;</li> <li>- Declining demand for oil products.</li> </ul> <p>About 50% of Eni's direct emissions is already subject to carbon pricing schemes, mainly the European Emission Trading Scheme which covers all the major plants in the mid-downstream businesses.</p> <p>With particular reference to Europe, in 2018 entered into force the amended EU-ETS Directive covering the period 2021-2030 (Stage IV of the system), which provides for the consolidation of the Market Stability Reserve mechanism with a related increase in the prices of CO2 allowances.</p> <p>Current regulation risks and opportunities are internally analysed, assessed and managed within the Eni's Integrated Risk Management process, which includes the 5 climate-related drivers recommended by the TCFD guidelines.</p>

<p>Emerging regulation</p>	<p>Relevant, always included</p>	<p>Eni is present in 67 Countries around the world with upstream and mid-downstream activities. Current or future regulations related to climate change in these Countries could have an impact on the business, such as:</p> <ul style="list-style-type: none"> <li>- Increase in operating and investment costs;</li> <li>- Declining demand for oil products.</li> </ul> <p>About 50% of Eni's direct emissions is already subject to carbon pricing schemes, mainly the European Emission Trading Scheme which covers all the company's major plants in the mid-downstream businesses. In the forthcoming years additional countries could progressively apply a carbon price on GHG Scope 1 emissions that may imply an increase in operational cost of Oil and Gas operations.</p> <p>Emerging regulation risks and opportunities are internally analysed, assessed and managed through the Eni's Integrated Risk Management process, which analysis all the 5 climate-related drivers formalized by TCFD.</p>
<p>Technology</p>	<p>Relevant, always included</p>	<p>The shift to low-carbon activities in the energy sector is linked to the development of innovative/break-through technological solutions and consequent need of upgrading the energy infrastructures. Despite the decreasing costs of renewables, the contribution to the energy mix of wind and solar source will accounts for only 7% in 2040 according to the NPS scenario. Therefore, further technological advances and significant infrastructure investments are needed to support these trends and to make low-carbon technologies truly competitive. Technologies to capture and reduce GHG emissions as well as the containment of natural gas leaks along the Oil &amp; Gas value chain will be key for the sustainable growth of natural gas, the only fossil source to play a dominant role in the global energy mix in all IEA scenarios. Eni continues its commitment to optimizing its monitoring and reporting processes to reduce methane emissions from operated assets by implementing LDAR (Leak Detection and Repair) in order to identify and eliminate methane leaks.</p> <p>In the medium term, it will be necessary to develop a more efficient model of final energy consumption, capable of minimizing waste and encouraging the use of cleaner sources also through the adoption of the most advanced technologies. This circular economy model will progressively impact all the energy value chain in which Eni operates, promoting the expansion of low carbon products also in refining &amp; chemical sectors. In line with the decarbonization strategy and development of renewables, for several years now Eni has paired its traditional downstream business with the production of green fuels by converting the traditional refineries in Venice and Gela into biorefineries,</p>

		<p>Low carbon technology risks and opportunities are internally analysed, assessed and managed within the Eni's Integrated Risk Management process, which includes all the 5 climate-related drivers formalized by TCFD.</p>
Legal	Relevant, always included	<p>The legal risks of climate change are included in the process of integrated risk assessment and managed by Eni Legal Department through dedicated analysis, as recommended by TCFD.</p> <p>In some countries, governments and municipalities have filed lawsuits seeking to hold Oil and Gas companies liable for costs associated with climate issues.</p> <p>Eni, along with other major oil companies, is involved in some of the proceedings currently ongoing in California. As an example, at the end of 2018 the associations representing California crab fishermen filed suit against 30 fossil fuel companies - including Eni - seeking to make the companies pay for the harm global warming has caused to California's fisheries. The judgments are still pending.</p>
Market	Relevant, always included	<p>As an integrated energy company, Eni refers to the IEA's Sustainable Development Scenario (SDS) to analyse the energy transition market's risks and opportunities. SDS Scenario is considered the most challenging for the path to decarbonization, since it is a "predefined objective" scenario which aims to contain emissions well below 2 °C in line with the objectives of the Paris Agreement.</p> <p>In particular, in this scenario global energy demand at 2040 is expected to decrease compared to 2017 and low-carbon sources will double their share and account for 40% of global energy demand; fossil fuels will continue to play a central role in the global energy scenario, with natural gas that as the first "single" source in the energy mix.</p> <p>Eni's business depends on the global demand for oil and natural gas. Potential risk factors for Eni are linked with lower hydrocarbons demand. Others market-related risk factors are:</p> <ul style="list-style-type: none"> <li>- Loss of results and cash flow;</li> <li>- "Stranded asset" risk;</li> <li>- Impacts on shareholders' returns.</li> </ul> <p>Scenario and market risks and opportunities are internally analysed, assessed and managed within the Eni's Integrated Risk Management process, that includes all the 5 climate-related drivers formalized by TCFD.</p>

<p>Reputation</p>	<p>Relevant, always included</p>	<p>Awareness campaigns by NGOs and other environmental organisations, media campaigns, shareholder resolutions at Shareholders' Meetings, divestments by some investors, and class actions by stakeholder groups are increasingly oriented towards greater transparency on the tangible commitment of Oil &amp; Gas companies to the energy transition.</p> <p>This could led to potential risk factor such as:</p> <ul style="list-style-type: none"> <li>- Impacts on stakeholders relations;</li> <li>- Impacts on stock price.</li> </ul> <p>Eni has long been committed to promoting a constant, open and transparent dialogue on climate change issues, which are communicated to all stakeholders being an integral part of the company's strategy.</p> <p>The commitment is part of a broader relationship on sustainability issues that Eni has built and has committed to strengthen towards all relevant stakeholders by means of a number of engagement initiatives such as the Chairman's roadshows on governance issues, dialogue with investors and targeted communication campaigns, participation in initiatives and international partnerships.</p> <p>Reputation risks and opportunities are internally analysed, assessed and managed within the Eni's Integrated Risk Management process, which includes all the 5 climate-related drivers formalized by TCFD.</p>
<p>Acute physical</p>	<p>Relevant, always included</p>	<p>According to the Intergovernmental Panel on Climate Change (IPCC), the physical impacts of climate change (e.g. increase of the average global temperature and sea level, hurricanes, cyclones, floods, droughts) observed in recent decades could increase its intensity and frequency of occurrence in the future.</p> <p>This could lead to potential risk factor such as:</p> <ul style="list-style-type: none"> <li>- Interruptions of industrial operations.</li> <li>- Damage to plants and infrastructures.</li> <li>- Recovery and maintenance costs.</li> </ul> <p>As to the intensification of extreme events, Eni's current asset portfolio is widespread in geographies so that there is no high risk concentration. The area most vulnerable to extreme events is for Eni the Gulf of Mexico - historically hit by tropical storms and hurricanes - where Eni holds interests in 62 exploration and production blocks, in the shallow and deep offshore, of which 26 are operated by Eni itself. In 2018 Eni applied the Emergency Plan twice due to Tropical Storm Alberto and Hurricane Michael (cat. 5) in both cases due to temporary interruption of Eni operations.</p>



		Acute physical risks and opportunities are internally analysed, assessed and managed within the Eni's Integrated Risk Management process, that includes all the 5 climate-related drivers formalized by TCFD.
Chronic physical	Not relevant, included	<p>According to the Intergovernmental Panel on Climate Change (IPCC), the physical impacts of climate change (e.g. increase of the average global temperature and sea level, hurricanes, cyclones, floods, droughts) observed in recent decades could increase the intensity and frequency of occurrence in the future.</p> <p>This could led to potential risk factor such as:</p> <ul style="list-style-type: none"> <li>- Interruptions of industrial operations</li> <li>- Damage to plants and infrastructures</li> <li>- Recovery and maintenance costs.</li> </ul> <p>For more gradual phenomena such as the rise in sea level, the vulnerability of Eni assets involved is limited and it is therefore possible to implement specific mitigation actions over the medium to long term.</p> <p>More in detail, in 2018 a qualitative assessment was carried out based on the perspective scenarios available in literature (IPCC scenarios). In this case, the coastal erosion in the Lower Egypt has been examined where some Eni's onshore assets are located but the vulnerability of these assets is limited and it is therefore possible to implement specific mitigation actions over the medium to long term (so the risk of coastal erosion in the Lower Egypt is not relevant for Eni).</p> <p>Chronic risks and opportunities are internally analysed, assessed and managed within the Eni's Integrated Risk Management process, that includes all the 5 climate-related drivers formalized by TCFD.</p>
Upstream	Relevant, always included	<p>Eni is an integrated Energy company that operates along most of the segments of the energy value chain. Upstream risks are already considered among the five drivers defined in accordance with TCFD recommendations.</p> <p>As an example, all Eni suppliers are subject to qualification procedures that includes HSE criticality as a specific risk category.</p> <p>Moreover, Eni has developed its Green Sourcing Position in order to spread and promote along its supply chain the adoption of Green sourcing principles. Eni Green Sourcing project is based on the Life Cycle Assessment methodology which evaluates the environmental footprint of selected Eni's commodity codes and deals with the potential environmental impacts during the product lifecycle, according to the principle "from cradle to grave".</p>

Downstream	Relevant, always included	<p>Eni is an integrated Energy company that operates along most of the segments of the energy value chain. Downstream risks, such as the change in the demand of energy products in a low carbon scenario, are already considered among the five drivers defined in accordance with TCFD Recommendations (e.g. scenario and policy risks).</p> <p>In line with the decarbonization strategy and development of renewables, since some years Eni has complemented its traditional business with the green downstream business, which includes:</p> <p>Since 2014, the production of green fuels as a result of the conversion into bio-refineries of its traditional refineries in Porto Marghera (Venice) and Gela (Sicily) also as part of its circular economy approach.</p> <p>and, through its subsidiary Versalis, green chemistry products from renewable feedstock,</p>
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## C2.2d

### (C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

**The process for managing the risks and opportunities related to climate change is a part of Eni's Integrated Risk Management (IRM) Model** as reported in C2.2b answer.

Furthermore, the IRM model takes a top-down and risk-based approach, starting from the definition of Eni's Strategic Plan (risk strategy), by identifying specific de-risking targets, the analysis of the underlying risk profile of the Plan, also through stress test for economic-financial resiliency vs. strategic targets, as well as the identification of strategic treatment actions. These activities – applied also to the climate change risks are performed coherently and integrated with the strategic planning process, support the Board's assessments regarding the acceptability of the risk profile of the strategic plan subject to his attention. The process continues with the periodic cycles of risk assessment & treatment and monitoring, the profile analysis on specific risks of the relevant transactions, as well as the integrated analysis on the risks in common with certain business and/ or functions.

During 2018:

- two assessment cycles were carried out: the Annual Risk Profile Assessment in the first half of the year and the Interim Top Risk Assessment in the second half;
- approximately 160 risks were identified, of which 19 top risks, grouped into strategic, external and operational risks; climate change is one of Eni's top strategic risks and it is analysed, assessed and monitored by the CEO as part of the IRM process;
- three monitoring cycles were performed on the top risks (including climate change risks) in order to analyse the risks trends and the implementation status of treatment actions put in place by management;

- specific de-risking objectives were identified with reference to the main risks, including climate change and were then, formalized in the 2019-2022 Guidelines issued by the CEO at the beginning of the Strategic Planning process.

**The results of the assessment and monitoring cycles are presented to the Administrative and Supervisory Bodies on a quarterly basis.**

With particular reference to climate related risks and opportunities, Eni refers to the World Energy Outlook scenarios reviewed yearly by the International Energy Agency (IEA). In 2018 the IEA's Sustainable Development Scenario (SDS) has been used to identify and assess potential emerging risks and opportunities associated with changes in energy market and then to define mitigation actions to be integrated in the Eni decarbonization strategy.

As an **example of the process for managing transition risks** related to market drivers, the SDS scenario (hydrocarbon prices and CO<sub>2</sub> costs) is used on annual basis to assess the risk of stranded asset in the upstream sector. Eni portfolio resilience is ensured by the regular review of the assets portfolio and new investments. The return on the main investment projects is tested using a sensitivity to carbon pricing of 40 \$/tCO<sub>2</sub>eq in actual terms in 2015, when the Final Investment Decisions (FID) is made and later during the six-monthly monitoring of projects (using both Eni's scenario and SDS scenario). Portfolio composition and Eni decarbonization strategy minimizes the risk of stranded assets, since the breakeven price of Oil & Gas projects have been gradually reduced through the optimization of the asset portfolio with the high incidence of conventional gas, near-field exploration and efficiency improvements in development projects. In terms of transition opportunities, the SDS scenario shows some business advantages for Eni. As also described in its decarbonization strategy, the following opportunities will be further highlighted in C2.4a answer:

- 1) increase of efficiency and reduction of direct GHG emissions, as described in Opp 1;
- 2) "low carbon" Oil & Gas portfolio, as analysed in Opp 2;
- 3) development of renewable sources, as described in Opp 3, and green business, as it is in Opp 4;
- 4) forestry project, analysed in Opp 5.
- 5) technological development, described in Opp 6

As an **example of the process for managing physical risks**, Eni has identified the assets in regions exposed to hurricanes and tropical storms as the most exposed to this risk (in particular the offshore installations in the Gulf of Mexico). Then, Eni has conducted an analysis of damage scenarios in case of extreme weather events then evaluating the maximum exposure to risk on its assets (see Risk 3, section C2.3a).

This kind of analysis allows Eni to plan mitigations actions such as the adoption of additional technical measures to protect wells, plants and structures in areas most exposed to extreme events and the introduction of more stringent design and control criteria for new projects, which consider the effects of climate change scenarios.

## C2.3

**(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

Yes

## C2.3a

**(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.**

---

**Identifier**

Risk 1

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Transition risk

**Primary climate-related risk driver**

Policy and legal: Other

**Type of financial impact**

Other, please specify

Development of laws, regulations, treaties, or international agreements related to GHG and climate change that could affect Eni's results of operations, liquidity, business prospects and shareholders' returns

**Company- specific description**

In the next decades the energy sector is expected to respond to a dual challenge: meeting the rising energy needs of a growing population, ensuring adequate access to energy, and limiting its GHG emissions, in order to contribute to the decarbonization process.

Eni is an integrated energy company and one of the global oil and gas super-players; because Eni's business depends on the global demand for oil and natural gas, existing or future laws, regulations, treaties, or international agreements related to GHG and climate change could affect Eni's results of operations, liquidity, business prospects and shareholders' returns.

To analyze the risks associated to a low carbon transition, Eni tests its resilience and competitiveness running a sensitivity analysis on its Upstream assets which represent around 85% of overall company net capital employed in 2018. In particular, on a yearly basis, the book value of upstream Cash Generating Unit (CGU) is subject to impairment test not only applying the Eni internal scenario but also the IEA's Sustainable Development Scenario (SDS), that considers specific hydrocarbon price assumptions and specific carbon taxes and is considered the most challenging for the path to decarbonization. Indeed, SDS is a "predefined objective" scenario, which aims to contain emissions well below 2 °C in line with the objectives of the Paris Agreement, to achieve universal access to energy and to reduce local pollution.

In this scenario:

- energy demand grows at global level in the medium and long term, driven by non-OECD Countries where demand is expected to exceed 16% above the current level by 2040;
- low-carbon sources, including nuclear, double their share in the energy mix and meet approximately 40% of the energy demand by 2040;
- fossil fuels continue to play a central role in the world energy scenario, in particular, Oil and Gas will still represent 48% of global energy demand by 2040.

**Time horizon**

Medium-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

0

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

On annual basis the management run a sensitivity analysis to test the book value resilience to IEA SDS scenario of all the CGUs (Cash Generating Units) in the Upstream sector.

The overall outcome of the stress test is the result of two differential impacts on Eni's forecasts, caused respectively by:

- IEA's hydrocarbons price scenario vs Eni's scenario;
- Introduction of CO2 tax vs the current regulation.

The estimation of financial impact is zero because in 2018 the stress test shows no impact on the fair value. Indeed, the negative burden of CO2 tax is offsetted by the positive effect of IEA's hydrocarbon prices, that are higher than those forecasted in Eni's scenario. Considering only the impact of CO2 tax, the impact on the asset fair value would be a decrease of around \$ 3 bln (-4% of total fair value). Considering the theoretical worst case scenario where CO2 cost are nor deductible and recoverable the fair value impact would cause a decrease of around -10% of total asset value.

**Management method**

Eni has defined a decarbonization strategy even in response to the potential risk described herein. Two pillars of this strategy are:

1. Reduction of direct GHG emissions (in 2018 100% operated GHG direct emissions have decreased by 27% compared 2010)
2. Low carbon Oil & Gas portfolio, characterized by conventional and low CO2 intensity assets and projects, most of them deriving from Eni's exploration discoveries. Eni's portfolio has hydrocarbon reserves and resources with a high natural gas incidence, a bridge towards a low emission future. In 2018, investments related to gas projects were around 55% and the share of natural gas in total equity hydrocarbon production was 52%, increased by 10% since 2015. The new upstream projects under construction, which represents about 65% of the total development investments in the period 2019 – 2022, have a break-even price of 25\$/bl, and are therefore resilient even to low-carbon scenarios. Moreover, 50% of capex expenditures projected in the plan period 2021 -2022 is uncommitted, indicating a high degree of flexibility and adaptability of Eni's capital expenditures.

The estimated cost of management is equal to US\$795 million and represents the total decarbonization equity investments of all Eni's

businesses (flaring down, reduce fugitive emission, improve carbon efficiency and GHG emission intensity for upstream activities), included in the 4 year plan (2019-2022).

**Cost of management**

795,000,000

**Comment**

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**Identifier**

Risk 2

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Transition risk

**Primary climate-related risk driver**

Policy and legal: Increased pricing of GHG emissions

**Type of financial impact**

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

**Company- specific description**

The risk related to the foreseeable increase price of emission allowances and to the increase deficit of emissions allowances is expected to rise due to the on-going effects of the reform of the European Union Emission Trading Scheme (EU-ETS).

The implementation of the Market Stability Reserve, which has come into effect in 2019, is progressively curbing the allowances supply, thus tightening the market. This is already driving the EU-ETS price up (2018 average allowances price has been 2.5 times higher than 2017 price).

On the other hand, the new rules for free allocation reduced the availability of free allowances in the period 2021-2030, contributing to increase

the allowances deficit of the industry installations.

Currently, almost 50% of the total Eni's operated direct GHG emissions is under EU-ETS. As a consequence, Eni's installations located in Europe could face the risk of a loss of competitiveness on international scale, in particular towards competitors located outside EU, which will not borne the same level of environmental cost. In 2018 Eni has operated 41 installations subject to the EU-ETS, of which 34 located in Italy, 5 in UK, 1 in France and 1 in Norway. On these installations, Eni received a total amount of 7.246.314 free allowances, that covered only 36% of the emissions subject to the EU-ETS (19.966.377 tCO<sub>2</sub>). Within Eni, the power sector has the highest exposure on the carbon market, as it does not receive free allowances and accounts for 52% of the Eni emissions subject to EU-ETS. The financial impact of the identified policy risk is made worse by the expected increasing of the Eni allowances deficit in the 4 year plan. Indeed, by 2022, the emissions are expected to increase by 11%, while free allowances are expected to be reduced by 22%, compared to 2018. In addition, the lack of the harmonization of the compensation for indirect costs caused by the EU-ETS, could have an effect of market distortion between sectors and countries within the European Union. Another element that could further increase the allowances price is the on-going debate around the revision of the 2050 EU ambition on GHG reduction. A potential target of carbon neutrality established by 2050 will cause also a likely adjustment of the 2030 EU GHG target. Consequently, the allowances market could become even tighter and the need to purchase allowances could increase.

**Time horizon**

Short-term

**Likelihood**

Very likely

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

270,000,000

**Potential financial impact figure – minimum (currency)**



## **Potential financial impact figure – maximum (currency)**

### **Explanation of financial impact figure**

In 2022, the Eni's extra cost for allowances purchase compared to 2018 could be 270 M\$. The potential financial impact has been assessed considering the increased cost to be borne by Eni in 2022 compared to 2018 to purchase the allowances required for the EU-ETS compliance. In detail, to calculate the financial impact Eni estimated its deficit in 2022, based on the business plan projections and considering an estimated cost for the European Union Allowances of about 26€/t. The financial exposure is only a preliminary estimation since the amount of free allowances is still to be officially published by the European Commission. Eni has estimated that approximately 70% of its emissions subject to the EU-ETS will not be covered by free allowances in the 2019-2022 and 76% in 2023-2030.

### **Management method**

Eni is committed in improving the carbon efficiency of its production assets, including the ones, which participates in EU-ETS, in order to minimize the needs of purchasing CO2 permits. In particular, with reference to its downstream business, including power, Eni plans to implement new projects that will guarantee, at full operation, energy savings of more than 50 k toe/y, corresponding to an emissions reduction of 136 kt/y. Moreover, in the power sector, Eni plans to implement technical investments (e.g. new boilers) that will ensure a saving of 760 k tCO<sub>2</sub>. Additional GHG saving could come from the use of low carbon fuels made available by R&D programs. As a general target, Eni has the commitment to improve its carbon efficiency index, which includes all the Eni's businesses, by 2% per year between 2014 and 2021. Furthermore, Eni has a dedicated team in London that is in charge of CO<sub>2</sub> trading, monitoring the market, minimizing financial risks and catch any opportunities. In 2018 Eni purchased on the European carbon market about 13 million emissions permits - European Union Allowances (EUAs).

The estimated cost of management is equal to US\$78 million and represents the value of energy efficiency measures and technical investments in the power sector to be implemented in the period 2019-2022 in all facilities impacted by EU-ETS.

### **Cost of management**

78,000,000

### **Comment**

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**Identifier**

Risk 3

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Physical risk

**Primary climate-related risk driver**

Acute: Increased severity of extreme weather events such as cyclones and floods

**Type of financial impact**

Other, please specify

Increased costs related to asset damages and business interruption

**Company- specific description**

The intensity and frequency of the physical impacts of climate change observed in the last decades are expected to increase in the next future according to the IPCC V Assessment Report and other reference studies, that indicate a potential intensification of both acute phenomena (extreme weather conditions, in the short term, such as hurricanes) and chronic phenomena (e.g. sea level rise, coastal erosion whose effects are estimated more gradual over time ).

For more gradual phenomena such as the rise in sea level, the vulnerability of Eni assets is limited and it is therefore possible to implement specific mitigation actions in the medium to long term. In short, according to our model, the risk of chronic event is not relevant.

As to the intensification of extreme events, Eni's current asset portfolio has a geographical distribution that does not result in high risks concentrations. The most vulnerable area to extreme events for Eni is the Gulf of Mexico - historically interested by tropical storms and hurricanes - where Eni holds interests in 62 exploration and production blocks, in the shallow and deep offshore, of which 26 are operated by Eni itself. In 2018 Eni applied the Emergency Plan twice due to Tropical Storm Alberto and Hurricane Michael (cat. 5) that led to temporary interruption of Eni operations. In the case of extreme events in the Gulf of Mexico, Eni has assessed the potential economic exposure in terms of damages to assets and loss of production and has identify potential mitigation actions.

**Time horizon**

Current

**Likelihood**

More likely than not

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

250,000,000

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

With reference to the US Gulf of Mexico, Eni holds interests in 62 exploration and production blocks in the shallow and deep offshore, of which 26 are operated by Eni. In 2018 Eni's production in the Gulf of Mexico was about 35 kboe/d, corresponding to less than 2% of Eni equity production in 2018. To simulate the impacts of the intensification of the extreme events Eni has developed a model for the quantitative assessment of the risk. This analysis shows a marginal increase in the exposure of both risk to asset (covered by specific insurance) and business interruption (average of 120 kboe/y lost for hurricanes). In the worst case scenario (total loss of the platform at highest risk) the maximum potential financial impact is 250 M\$ net of the insurance coverage.

**Management method**

To simulate the impacts of the intensification of the extreme events Eni has developed a model for the quantitative assessment of the differential risk exposure from climate change scenarios based on historical data, by increasing wind speed and hurricane trajectory variation.

Eni's current asset portfolio has a geographical distribution that does not result in high risks concentrations. The most vulnerable area is the Gulf of Mexico where we hold interests in 62 exploration and production blocks, in the shallow and deep offshore, of which 26 are operated by Eni. The analysis shows a marginal increase in the exposure of both risk to asset and business interruption. In the worst case scenario (total loss of the platform at highest risk) the maximum potential financial impact is 250 M\$ net of the insurance coverage.

The analysis' results allowed to identify as mitigation actions the integration of appropriate technical measures to the assets with greater exposure to hurricanes; the inclusion of the climate change risk in the project Risk Register and in the definition of the Basis of Design; adequate insurance coverage for hurricane risk.

The estimated cost of management is equal to US\$ 6 million and represents the insurance costs for damages to asset due to hurricanes impact in Gulf of Mexico.

**Cost of management**

6,000,000

**Comment**

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**Identifier**

Risk 4

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Transition risk

**Primary climate-related risk driver**

Policy and legal: Other

### **Type of financial impact**

Write-offs, asset impairment, and early retirement of existing assets due to policy changes

### **Company- specific description**

The Italian regulation (PNIEC - Piano Nazionale Integrato Energia e Clima 2030) foresees a share of renewable energy in transport sector of 21.6%, a share much higher than the comprehensive EU target set at 14%. Moreover, regarding feedstock use, the European Union REDII Directive sets a gradually phase out of the feedstock with “high indirect land-use change-risk” between 2023 -2030. This rule will strongly limit the availability of palm oil as a primary feedstock.

Eni’s decarbonization path is rooted in different objectives to be pursued primarily through our different business units. Growth of green products is one of the objectives of decarbonization strategy and is primarily ensured by our downstream activities and relevant investments. To this regard, Eni set itself a challenging goal several year ago, by converting traditional refineries into bio-refineries, such bio-refineries (Porto Marghera and Gela) to be expected to produce an overall amount of more than 1 Mton of greendiesel by 2021. Currently the feedstock used by Eni’s bio-refineries is palm oil, which availability could be affected by new regulations. The alternative feedstocks (advanced/unconventional) could be not available in the quantities required by law and as a consequence bio-refineries can run at a lower pace, such pace compatible with the estimated shortages of alternative feedstocks.

With reference to our bio-refineries and the policy driver, as a part of our regular monitoring of climate change risks and legal / regulatory framework, a sensitivity analysis has recently been performed in order to evaluate maximum financial impact due to the “legal” constraints regarding feedstocks as adopted in the REDII and proposed in the Italian regulation.

### **Time horizon**

Medium-term

### **Likelihood**

About as likely as not

### **Magnitude of impact**

Low

### **Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

### **Potential financial impact figure (currency)**

200,000,000

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

A sensitivity analysis has recently been performed in order to evaluate maximum financial impact due to the “legal” constraints regarding feedstocks as adopted in the REDII and proposed in the Italian regulation. The financial impact has been calculated as the difference between 2022 and 2030 Ebit and include both Gela and Porto Marghera bio-refinery.

**Management method**

A sensitivity analysis on Eni bio-refineries has been performed in order to evaluate maximum financial impact due to potential regulation constraints regarding feedstocks, as adopted in the EU REDII directive and proposed in the Italian regulation.

Such a scenario has prompted the identification and planning of mitigation actions mainly focused on:

- increase in the supply of alternative feedstocks available in the domestic market;
- investment in process plant improvement and R&D aimed at producing advanced future feedstocks (e.g. waste to fuel, microbial oil, algae).

As an example, Eni’s Syndial has built the Waste to Fuel pilot plant, which transforms the organic fraction of solid municipal waste into bio-oil through a hydrothermal liquefaction process. The implementation of the project marks a significant step for Eni towards the production of second-generation biofuels.

In addition, specific investments should be taken in order to meet the increasing demand of biofuels as envisaged by regulations and to allow the bio-refineries to work at full capacity. In details such investments include a steam reformer for Porto Marghera bio-refinery to increase hydrogen production and an ad hoc process plant investment to produce biojet in Gela bio-refinery.

The estimated cost of management is equal to US\$ 100 million and represents the capex for allowing the bio-refineries to work at full capacity (i.e. steam reformer for Porto Marghera and plant to produce biojet in Gela).

**Cost of management**

100,000,000

**Comment**

## C2.4

**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

### C2.4a

**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.**

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**Identifier**

Opp1

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Resource efficiency

**Primary climate-related opportunity driver**

Use of more efficient production and distribution processes

**Type of financial impact**

Reduced operating costs (e.g., through efficiency gains and cost reductions)

### **Company-specific description**

According to the IEA Sustainable Development Scenario (SDS), considered the most challenging for the path to decarbonization, fossil fuels continue to play a central role in the world energy scenario. In particular, Oil and Gas will still represent 48% of global energy demand by 2040 and natural gas becomes the first “single” source in the energy mix and the only fossil fuel growing in absolute terms and in its share of energy mix. Indeed gas consumptions grows over 15% between 2016 and 2030 and then stabilizes.

Due to regulation constraints and increasing interest from stakeholders and financing institutions Oil&Gas sector is day-by-day more oriented towards less carbon-intensive activities

Eni’s business depends on the global demand for oil and natural gas and one of the drivers used by Eni to pursue its decarbonization strategy is to pursue an Oil & Gas portfolio characterized by conventional projects developed in stages and with low CO2 intensity. For this reason the SDS offers considerable opportunities for Eni. More specifically:

- the need remains for significant investments in the upstream sector to meet demand and compensate for underlying declines in existing sources of production (Upstream investments represents more than around 80% of total Eni capex in the period 2019-2022);
- significant growth in natural gas demand from 3.6 to 4.2 trillion cubic meters by 2040.

Eni aims for long term/high margin growth based on exploration of material and conventional prospects in:

- Near field plays, in synergy with existing facilities, as in Nooros (Egypt), West and East Hub (Angola) and Jangkrik (Indonesia) projects.
- in frontier plays not far from the final market.

Moreover Eni is able to capture the full value of the gas resources leveraging the integration all along the gas chain.

### **Time horizon**

Medium-term

### **Likelihood**

Likely

### **Magnitude of impact**

High

**Are you able to provide a potential financial impact figure?**



Yes, a single figure estimate

**Potential financial impact figure (currency)**

750,000,000

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

The financial opportunity related with the low carbon portfolio could be estimated considering the difference between an application of 40\$/tCO<sub>2</sub>eq, inflated by 2% on a yearly basis from 2015, to the 2025 expected Upstream operated production assuming a carbon intensity in line with the target (-43% vs 2014) vs a baseline one (2014).

**Strategy to realize opportunity**

Situation: Due to regulation constraints and increasing interest from stakeholders and financing institutions Oil&Gas sector is day-by-day more oriented towards less carbon-intensive activities.

Task: In this context, Eni targets to reduce by 2025 its emission intensity by 43% compared to 2014 in its upstream operated assets.

Action: The drivers used to pursue a decarbonized portfolio are:

- implementation of energy efficiency measures to target zero flaring down by 2025 and to reduce of 80% by 2025 fugitive methane emissions (vs 2014);

- development of conventional projects with low CO<sub>2</sub> intensity, competitive also in a low-carbon scenario (25\$/barrel break-even Brent price).

Results: In 2018 the GHG upstream intensity index calculated per unit of gross hydrocarbons produced (100% operated) improved by 6% vs 2017 (by 20% compared to 2014) reaching 21.44 tCO<sub>2</sub> eq / mgl boe thanks to:

- reduction of flaring emissions and fugitive emissions;

- the return to full production of Goliat in Norway, which has lower emission intensity than the average E&P assets and the contribution of ramp-up of the gas fields in Egypt (Zohr) and Indonesia (Jangkrik).

The estimated cost to realize the strategy is equal to US\$ 644 million and represents the investments in the period 2019-2022 allocated to

Upstream GHG emission reduction and flaring down activities on operated assets at 100%.

**Cost to realize opportunity**

644,000,000

**Comment**

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**Identifier**

Opp2

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Shift in consumer preferences

**Type of financial impact**

Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

**Company-specific description**

According to IEA Sustainable Development Scenario gas becomes by 2040 the first “single” source in the energy mix and the only fossil fuel growing in absolute terms and in its share of energy mix. Natural Gas is widely considered the ideal partner for the development of renewables, which still have some economic and technological limits when deployed on a large scale. In particular, the development of gas projects near growing markets in emerging economies with increasing energy needs and the sale of domestic gas in these countries allows not only to access to energy but also to enhance the decarbonization process, because natural gas is often a cleaner source compared to the alternatives

available.

Eni is a major player of natural gas value chain and provides gas to domestic market in 14 countries.

Especially in Africa, Eni invests in the construction of thermal power stations by using the associated gas, traditionally flared, to diversify the energy mix (50% biomass and coal) by introducing a cleaner source such as natural gas. Some examples are:

- Egypt: between 2017 and 2018 the acceleration of the Nooros and Zohr projects allowed Egypt to become self-sufficient and to save more than \$7 billion in LNG imports.
- Nigeria: Okpai power plant with 480 MW installed capacity has generated since 2005 about 35,000 GWh of energy (8-12% of the Country's capacity). In 2019, it is expected to double its installed power capacity to reach about 1 GW, making it one of the largest combined cycle plants with low environmental impact and high efficiency.
- Libya: Eni supplies almost all the gas needed by national power plants.
- Congo: Following the acquisition in 2007 of the onshore M'Boundi gas field in Congo, Eni has developed a large-scale energy access model. Since 2010 the CEC has been supplying electricity to the cities of Pointe-Noire and Brazzaville, thanks to the upgrading of the transport network to Brazzaville and the expansion of the distribution network in Pointe-Noire. To date, with two gas turbines and a capacity of 314 MW, the CEC covers 75% of the energy demand of the local population, being country's main producer of electricity.

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

High

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

4,000,000,000

**Potential financial impact figure – minimum (currency)**

## Potential financial impact figure – maximum (currency)

### Explanation of financial impact figure

The financial impact estimation takes into account the revenues in 2018 from domestic sales of natural gas in selected Countries (Egypt, Pakistan, Nigeria, Libya, Ghana, Congo).

### Strategy to realize opportunity

Situation: Gas is a bridge solution to a low carbon future, especially in Africa, where the energy mix is currently composed of 60% biomass and coal.

Task: Eni ambition is to achieve a gas share of 60% by 2030 in the hydrocarbons production, opening up new market opportunities, both in terms of products and geographies.

Action: Eni intends to maximize the use of gas as a bridge fuel:

- in emerging Countries with growing energy needs, especially in Sub-Saharan Africa. Eni is committed to research and develop gas resources for local markets to access energy and energy mix diversification with low impact sources.
- in the LNG sector, growing its traded volumes portfolio to 14 MTPA by 2022 and up to 16 MTPA by 2025. By the end of 2022, more than 70% of traded volumes will come from Eni equity production, mainly in Africa and East Asia.
- in electricity generation, and to promote its use in the transportation sector. In this sense Eni supports the introduction of mechanisms (e.g. European EPS) that promote the use of fuels with lower emission intensity and natural gas consumption.

Results: In 2018 Eni traded 8.8 MTPA LNG volumes, 56% from Eni equity production. Moreover, the hydrocarbon equity resources at 31/12/2018 show that natural gas accounts for over 50%.

The estimated cost to realize the strategy is equal to US\$ 2.5 billion and represents the share of investments addressed to gas development projects in selected countries (Egypt, Pakistan, Nigeria, Libya, Ghana, Congo).

### Cost to realize opportunity

2,500,000,000

### Comment

Eni is investing in development projects in countries providing gas necessary for domestic consumption. In 2018, 55% of overall upstream investments are addressed to gas projects, of which \$2,5 billion Eni share are addressed to gas development projects in selected countries

(Egypt, Pakistan, Nigeria, Libya, Ghana, Congo).

Furthermore, Eni has invested in past years a total of further approximately \$2 billion in Sub-Saharan Africa in the construction and restoration of networks and power plants in Nigeria and in Congo, with a significant reduction of gas flaring in both Countries. This successful model will be soon replicated in other Countries where Eni is present.

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**Identifier**

Opp3

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Type of financial impact**

Increased revenue through demand for lower emissions products and services

**Company-specific description**

By 2040, oil and gas will continue to meet over 50% of energy needs; gas and renewables are the sources with the highest growth rate in the next decades. In particular, according to IEA Sustainable Development Scenario, renewable sources (excluding biomass) expands in all regions, in particular in Africa, a major region for Eni, where renewables will cover 26% of primary consumption compared to 2% today.

To catch this opportunity, Eni has put great energy into its strategy to develop a renewable energy business, establishing the Energy Solutions Department (DES), which reports to the CEO. In the next four years Eni has planned to install power from renewable sources of about 1.6 GW by 2022, 5 GW in 2025 and over 10 GW by 2030.

Some of the main projects which are currently under development to reach those targets are:

- Algeria: 10 MW solar plant at the Bir Rebaa oil field, run jointly by Eni and Sonatrach, to make Upstream activity self-sufficient in terms of

energy;

- Kazakhstan: 50 MW wind farm in Badamsha, Kazakhstan, to provide renewable energy for the country;
- Tunisia: 5 MW photovoltaic plant in Adam, Tataouine Governorate, built by Eni Tunisia BV, which prevents over 6,500 tonnes of CO<sub>2</sub> from being emitted into the atmosphere every year;
- Pakistan: 10 MW Bhit plant, built by Eni New Energy Pakistan, to reduce gas consumption and prevent 140,000 tonnes of CO<sub>2</sub> from being emitted into the atmosphere in the next 10 years;
- Australia: acquisition of a project to build a 33.7 MW photovoltaic plant at a site in Katherine, in the north of the country.

**Time horizon**

Short-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

246,000,000

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

The financial impact of activities is estimated considering the expected annual revenues from renewables once the 1.6 GW of installed capacity will be operational in 2023.

### **Strategy to realize opportunity**

According to the IEA SDS scenario, renewables will increase their share within the energy mix and decrease their cost of production. Therefore, Eni has planned an increased commitment on renewable energy, targeting an installed capacity of 1 GW by 2021 and over 1,6 GW by 2022. This capacity is expected to reach 5 GW by 2025 and 10 GW by 2030. In order to reach these challenging targets, Eni has boosted its development strategy for the renewable energy business, setting up the Energy Solution Division. The strategy for the next four years will be focused mainly on the countries where Eni has a strong presence. Africa, due to its large renewable potential, will be one of the main targets as well as Italy, where Eni will continue to develop the Renewables Italy Project, an industrial conversion project that involves the construction of large-scale generating capacity from renewable sources on reclaimed industrial areas. In terms of technology, solar and wind projects will be developed, with ever increasing exposure to energy storage solutions also keeping high technological standards and R&D innovative deployment. In 2018 Eni has reached an installed capacity of 40 MW, promoting the installation of new power plants also developing industrial conversion projects that generate power from renewables on reclaimed industrial areas.

The estimated cost to realize the strategy is equal to US\$ 1.66 billion and represents the total investment in renewables in 2019-2022 period.

### **Cost to realize opportunity**

1,660,000,000

### **Comment**

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### **Identifier**

Opp4

### **Where in the value chain does the opportunity occur?**

Direct operations

### **Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development of new products or services through R&D and innovation

**Type of financial impact**

Increased revenue through demand for lower emissions products and services

**Company-specific description**

In the medium term, there is a need to build a model for final energy consumption that is more efficient, minimizes waste and favors the use of cleaner sources of energy, largely by adopting more advanced technologies. But it will also be necessary to look beyond the energy system, which accounts for 60 per cent of emissions, and adopt a new model of energy conservation based on a circular economy and way of life – not merely reducing waste, but also decreasing the need for raw materials.

Through its downstream platform, Eni is poised to exploit the circular model thanks to its conversion plants, consolidated skills, technologies, innovative research and the geographical distribution of its assets.

In line with the decarbonization strategy and development of renewables, for several years now Eni has paired its traditional downstream business with the production of green fuels by converting the traditional refineries in Venice and Gela into biorefineries, using the Ecofining proprietary technology which enables the production of green diesel with a high level of performance through a flexible hydrogenation process with different types of biological raw materials (vegetable oils, waste oils, animal fat derivatives, by-products from the food industry, etc.). These initiatives implemented in Gela and Venice are expected to reach a total supply of renewables of over 1 million ton by 2019. In 2018, 252 thousand tonnes of biomass were transformed into 174 thousand tons of green diesel, 32 thousand tons of green naphtha and 13 thousand tons of green LPG with emissions savings of about 450 thousand tons of CO<sub>2</sub> compared to traditional processes.

Also in the Petrochemical sector, chemicals from renewable feedstock is a strategic sector for long-term development to be achieved through innovative technologies for the production of high-quality products. As part of its commitment to contribute to the decarbonization process, Eni is active in the green chemistry sector through its dedicated company Versalis, offering a portfolio of products from renewable feedstock for high value-added applications and for increasing the share of renewables in its product range.

**Time horizon**

Short-term

**Likelihood**



Likely

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

1,800,000,000

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

The financial impact is the estimated yearly revenues at 2025 of circular economy and green business activities (i.e. green refineries) excluding renewables.

**Strategy to realize opportunity**

In line with its decarbonization strategy and to seize the opportunities related to increase interest on more sustainable products in the mobility sector, Eni is carrying out various initiatives, i.e. to reach 1 Mton of green-diesel production by 2021 and to increase by 2030 its bio-fuels capacity. Eni traditional refineries has been converted into bio-refineries, using a proprietary technology to produce green-diesel from raw materials and other feedstock (waste, oils, animal fats, by-products from the food industry, etc.). As result of its commitment, Eni has worked in 2018 on the expansion of Venice refinery to be completed before the end of 2021. Moreover, Eni worked on the start-up of Gela plant in 2019. In Gela a Waste-to-fuel pilot system will produce from the organic fraction of solid urban waste (FORSU) a second-generation bio-fuel, which could be used as feedstock in the green-diesel production, recovering 70% of the water contained. In addition, Eni through its subsidiary Versalis acquired the organic business unit of the company Mossi&Ghisolfi, specialized in producing bio-ethanol from biomass. Overall in 2018, 252 kttons of biomass have been processed and transformed into 174 kttons of green diesel, 32 kttons of green naphtha and 13 of green LPG, saving 450 ktCO<sub>2</sub>.

The estimated cost to realize the strategy is equal to US\$ 880 million and represents capex in circular economy in 2019-2022 period, including “Renewables Italy project” the total amount is \$1.15 billion.

**Cost to realize opportunity**

880,000,000

**Comment**

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**Identifier**

Opp5

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Resilience

**Primary climate-related opportunity driver**

Resource substitutes/diversification

**Type of financial impact**

Other, please specify

Reduced exposure to GHG emissions and therefore less sensitivity to changes in cost of carbon

**Company-specific description**

In the framework of global efforts to reduce GHG emissions in line with the objectives of the Paris Agreement, Eni aims to contribute to reducing CO2 concentration in the atmosphere and avoiding CO2 emissions from land use change. In particular, Eni’s approach includes halting deforestation and forest degradation and pursues the role of conservation, sustainable management of forests, and enhancement of forest carbon sinks implementing REDD+ project (Reducing Emissions from Deforestation and Forest Degradation) under the framework established

by UNFCCC (United Nations Framework Convention on Climate Change). Eni aims to support developing Countries in implementing REDD+, depending on Country needs. We'll use one of the methodologies implemented by Verra for Verified Carbon Standard for the voluntary carbon market. Also, the methodology will be consistent with both the Country's REDD+ framework and methodological approach.

**Time horizon**

Medium-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

1,200,000,000

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

Financial impact figure is calculated assuming:

- a differential expenditure for emission carbon offsetting through forestry activities (10 \$/tCO<sub>2</sub>e) vs an average cost of investing in CCS technologies (70 \$/tCO<sub>2</sub>e);
- a target to reach a potential of more than 20 million tCO<sub>2</sub>/y captured by forestry.

The final figure would be much higher if social benefits (i.e. new jobs, economic empowerment of local communities) were quantified and

included in the calculation.

### **Strategy to realize opportunity**

Situation: Literature studies defined 20 Natural Climate Solutions (NCS) options that could deliver more than a third of the GHG reductions needed to meet the Paris goals by 2030 at less than \$100/t, with 1/3 of those below \$10/t.

Task: Carbon offsets generated by REDD+ projects could be voluntarily used by Eni to offset part of its emissions, achieving net-zero carbon footprint in UPS activities by 2030.

Action: Eni plans to implement REDD+ projects using a strategy based on cooperation agreements with international and experienced developers. Geographies currently being explored have the highest potential in terms of abatement and a REDD+ framework in an advanced status.

Results: Eni has already signed MoU with international developers and started the opportunities selection process. Eni has already signed a long term purchase agreement of a REDD+ project in Zambia in order to accelerate its capacity building in the development of NCS's Projects and Carbon Credits management. The final aim is to be directly involved in the planning and execution of projects, guaranteeing that all social and environmental benefits are delivered to the local communities and the hosting Countries with the consequential additional benefit of the generation of carbon sinks. Projects selection will see the direct involvement of governments, ensuring synergies with their NDCs.

The cost to realize the strategy is equal to \$ 110 million equal to the investments on REDD+ projects in 2019-2022 plan.

### **Cost to realize opportunity**

110,000,000

### **Comment**

Eni decided to take advantage of the opportunity to invest around \$110 million in 2019-2022 plan, aiming at developing REDD+ projects certified with the most accredited standards worldwide and capable to deliver permanent emissions reductions and social/economic development for the local communities living in the area, where REDD+ projects are carried on.

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### **Identifier**

Opp6

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development of new products or services through R&D and innovation

**Type of financial impact**

Increased revenue through demand for lower emissions products and services

**Company-specific description**

The shift to a low-carbon energy sector is linked to the development of innovative/break-through technological solutions and consequent need of upgrading the energy infrastructures.

Eni's commitment to reducing the carbon footprint of its operations and products is reflected in a wide selection of R&D projects inspired by the principles of sustainability throughout the value creation chain, developing innovative technologies to improve process and product performance by increasing energy efficiency and reducing environmental impact.

As part of the promotion of natural gas, during the period 2019-2022, pilot plants and demonstrations of the technologies developed are planned, which include, for example, the transformation of methane in liquid products such as methanol. New, more efficient methods for the separation of hydrogen sulphide (H<sub>2</sub>S) are also being studied. H<sub>2</sub>S and carbon dioxide (CO<sub>2</sub>) and their use as raw materials for products of consumption. In the renewable energy sector, with reference to solar energy, there are projects on concentrating solar power (CSP), with the aim of producing steam and electricity also in hybridization with fossil fuel plants, advanced organic photovoltaics (OPV) and luminescent solar concentrators (LSC) for applications in sustainable construction.

The growing spread of energy sources emissions from renewable energy sources, because of their highly variable production profile over time, requires the development of increasingly high-performance and low-cost energy storage systems to follow the energy demand of the user in an optimal way.

For this reason, the following are active research and development projects of innovative flow batteries, electromagnetic storage and thermal storage coupled with solar thermodynamic concentration technology.

In the circular economy, on the other hand, activities are aimed at reducing the use of raw materials or their recycling and the conversion of waste into valuable products. Paradigmatic are the projects for the production of fuels from the organic fraction of municipal solid waste

(FORSU) and the bio-fixing of CO<sub>2</sub> through algae grown in photo-reactors. In the same field there is also the technology of transformation of agroforestry waste biomass into a microbial oil, suitable to be transformed into green diesel in our biorefineries.

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

1,500,000,000

**Potential financial impact figure – maximum (currency)**

1,800,000,000

**Explanation of financial impact figure**

An internal procedure has been developed to quantify the value generated by the application of innovative technologies under development. For each technology, three deployment scenarios are evaluated (min, med, max) in which sensitivity analyses are carried out in terms of diffusion of deployment and technology performance. For each scenario, the difference of tangible benefits compared to the Best Available Technology (BAT) is evaluated. The potential financial impact figure represents the sum of average probability of benefits generated by the application of technologies related to decarbonization in the next 10 years (gross).

**Strategy to realize opportunity**

A dedicated structure has been created within the R&D department in order to:

- ensure support to business units in identifying the technological portfolio upon which application can be planned on an industrial scale,
- promote the adoption of the best available technology at the selection stage of development projects,
- promote and coordinate the planning and achievement of specific deployment initiatives in agreement with the methods defined with the technical/business departments.

As an example, during the four-year period, pilot plants and demonstrations of technologies for the reuse of carbon dioxide are planned, which include, for example, permanent fixation of CO<sub>2</sub> in cements or use as a reagent for the production of polymers, or conversion into methanol, a liquid compound that is easy to handle and transport and is widely used both as an intermediate in the chemical industry and directly as a fuel.

The cost to realize opportunity is US\$ 570 million i.e. the total spending in planned research over the next 4 years aimed at carbon neutrality (US\$ 310 million) and the circular economy (US\$ 260 million). In addition, Eni supports the Oil and Gas Climate Initiative on new carbon capture and storage technologies with a \$10 Mln/year for 10 years from 2017 and the Commonwealth Fusion Systems for fusion power generation technology industrial development in collaboration with Massachusetts Institute of Technology (initial investment of \$50 million).

### **Cost to realize opportunity**

570,000,000

### **Comment**

Research and Development at the service of the energy transition is a key element for Eni's transformation into an integrated energy company for a low-carbon future. More than 53% of the total spending in planned research over the next 4 years is aimed at carbon neutrality (\$310 million) and the circular economy (\$260 million). In addition, Eni

- supported Oil and Gas Climate Initiative (OGCI) on new carbon capture and storage technologies with a \$10 Mln/year for 10 years from 2017 and
- sustained an initial investment of \$50 million in Commonwealth Fusion Systems (CFS) for fusion power generation technology industrial development in collaboration with Massachusetts Institute of Technology (MIT).

## **C2.5**

**(C2.5) Describe where and how the identified risks and opportunities have impacted your business.**

	Impact	Description
Products and services	Impacted	<p>Risks: Policy and legal: Other (Risk1 and Risk4)            Opportunities: Development and/or expansion of low emission goods and services (Opp3); Development of new products or services through R&amp;D and innovation (Opp4 and Opp6)</p> <p>Magnitude of impact: High</p> <p>The growing need of providing to the market low carbon products and services has materially impacted Eni's business. Eni has boosted its development strategy for the renewable energy business, through a distinctive model based on: (i) integration with the other business lines and existing assets; (ii) a gradual geographical balance with an initial focus on the Countries in which Eni has a consolidated presence; (iii) a technology neutral approach due to the close cooperation with Eni's Research and Development function, which will enable the introduction of innovative technological solutions that are currently being studied. Investments in renewable energy projects in the next 4 years will equal to \$1.4 billion and in the past 3 years Eni has invested around 60 mln \$ in the development of renewable energies.</p> <p>Moreover, Eni is investing for the production of green fuels by converting the traditional refineries of Porto Marghera and Gela into modern biorefineries. Investments in circular economy (including biorefineries and other projects) in the next 4 years will equal to approximately \$1.15 billion and in the past 3 years Eni has invested 300 mln \$ in the development of the biorefineries of Gela and Venezia.</p>
Supply chain and/or value chain	Impacted	<p>Opportunities: Shift in consumer preferences (Opp2)</p> <p>Magnitude of impact: High</p> <p>Natural gas is the ideal partner for the development of renewables and a bridge towards a low carbon future. Eni intends to maximise the use of gas as a bridge fuel along all its value chain, particularly in electricity generation, and to promote its use in the transportation sector. Selling natural gas as LNG has a high impact on Eni's business and is crucial in order to optimise gas value. Given the significant investment required to build liquefaction and regassification plants, producers must sell the majority of the LNG they produce on long-term contracts (20 years) before the final investment decision (FID) can be taken. As an international gas and LNG (liquefied natural gas) operator, integrated with the Upstream sector, Eni is developing a new model to ensure it retains a leading position in the LNG market, both in Europe and in emerging economies.</p> <p>Eni has a global LNG portfolio based on long-term purchasing contracts with reliable suppliers, a network of relationships with end clients and traders all over the world. Over the next few years, the portfolio is expected to grow with forecast traded</p>



		<p>volumes of 14 MTPA to 2022 and up to 16 MTPA to 2025, almost twice as high as the traded volumes in 2018 (8.8 MTPA). By the end of 2022, more than 70% of traded volumes will come from Eni's equity production, mainly in Africa and East Asia, up from 56% in 2018.</p> <p>Examples on the climate related impact on our value chain are the agreements that Eni signed last years. The supply agreement signed by Eni with PT Pertamina (PERSERO) in June 2015. The agreement signed in October 2016 by Eni and its partners with BP to sell all the LNG produced by Coral South in Mozambique for 20-plus years, amounting to around 3.3 million tonnes per year of LNG.</p>
Adaptation and mitigation activities	Impacted	<p>Risks: Policy and legal: other (Risk1)          Opportunities: Use of more efficient production and distribution processes (Opp1)          Magnitude of impact: High</p> <p>The need of reducing GHG emissions from industrial operations has materially impacted Eni's business. As an example, Eni has implemented programs to reduce gas sent to flaring, through an emphasis on the production of electricity for local populations, distribution for domestic consumption or export.</p> <p>Investments to reduce GHG emissions (100% of operated activities) in the 2019-22 period will be about \$ 0.6 billion.</p>
Investment in R&D	Impacted	<p>Opportunities: Development of new products or services through R&amp;D and innovation (Opp4 and Opp6), Development and/or expansion of low emission goods and services (Opp3)          Magnitude of impact: High</p> <p>Technologies to capture and reduce GHG emissions as well as leaks of natural gas along the Oil and Gas value chain are fundamental for affirming the dominant role of gas in the global energy mix. On the other hand, technological development in the field of renewable energy production and storage and in the efficiency of electric vehicles could have impacts on the demand for hydrocarbons and therefore on the business. Low Carbon Research and Development is a key element for Eni's transformation into an integrated energy company. In 2018, Eni spent over \$87 million on research and development for carbon neutrality. More than 53% of the total spending in planned research over the next 4 years is aimed at carbon neutrality and the circular economy (about \$560 million).</p>
Operations	Impacted	<p>Risks: Policy and legal: Increased pricing of GHG emissions (Risk 2)          Opportunities: Development of new products or services through R&amp;D and innovation (Opp4 and Opp6), Development and/or</p>

		<p>expansion of low emission goods and services (Opp2), Shift in consumer preferences (Opp 2) Resource substitutes/diversification (Opp5)                      Magnitude of impact: High</p> <p>As stated by the CEO during the 2019-2022 strategy presentation to the investors “Decarbonization is embedded in our strategy” and all the operations will be impacted by opportunities and risks identified.</p> <p>One of the three pillars of the Eni’s business model is “carbon neutrality in the long term” and this strategy will be pursued through a defined path that includes: (i) actions on energy mix and maximization of energy efficiency and reduction of direct emissions. These will include investments to reduce GHG emissions (that in the 2019-22 period will be \$ 0.8 billion) and investments in renewable energy projects (in the next 4 years these investments will equal to \$1.4 billion).</p> <p>(ii) development of forest conservation, reforestation or afforestation projects to increase CO2 absorption capacity in the atmosphere, with positive effects on local communities. These projects will have an offsetting potential for 20 Mton/year of CO2 by 2030</p> <p>(iii) development of circular economy initiatives aiming at the valorisation of waste and biomass and the recovery of disused or reclaimed assets. Actions related with the development of circular economy initiatives will include investments in circular economy that in the next 4 years will equal to approximately \$1.15 billion.</p> <p>To achieve maximum efficiency in the decarbonization process and find innovative solutions to facilitate the energy transition Eni is committed to the implementation of its scientific and technological research activities (R&amp;D) and an example is the % of spending in R&amp;D aimed at carbon neutrality and the circular economy (over the next 4 years it will be about \$560 million and it will be more than 53% of the total spending in R&amp;D).</p>
Other, please specify		

## C2.6

**(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.**

	Relevance	Description
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Revenues	Impacted	<p>Opportunity: Development and/or expansion of low emission goods and services (Opp3) Development of new products or services through R&amp;D and innovation (Opp6)                      Magnitude of impact: Medium</p> <p>Natural gas and low carbon business will cover a growing share of revenues in Eni in consequence of increasing investment on green business.                      As per Eni green business (renewables, green refineries and green chemistry), the expected regime revenues will be around \$2 Billions.</p>
Operating costs	Impacted	<p>Risks: Policy and legal: other (Risk 1)                      Opportunities: Use of more efficient production and distribution processes (Opp1).                      Magnitude of impact: Medium</p> <p>Eni is already incurring in operating costs related to the participation in the European Emission Trading Scheme, whereby we need to purchase on the open markets emission allowances in case our GHG emissions exceed a pre-set limit established at European level by regulations in force. In 2018 to comply with this carbon scheme, Eni purchased on the open market allowances corresponding to about 12.7 million tonnes, with an estimated cost of about \$ 239 Million.</p>
Capital expenditures / capital allocation	Impacted	<p>Risks: Policy and legal: other (Risk 1), Policy and legal: Increased pricing of GHG emissions (Risk 2)                      Opportunities: Use of more efficient production and distribution processes (Opp1)                      Magnitude of impact: Medium</p> <p>Decarbonization strategy will be underpinned by the development of the business of power generation from renewable sources, growth at our green business lines and implementation of a number of industrial projects designed to promote the circular economy. These projects will attract some \$3.5 billion, or 9% of the Group planned capex for the four-year period 2019 – 2022, including projects designed to reduce gas flaring and improve energy efficiency across all business lines. In addition, portfolio resilience is ensured by the regular review of the assets portfolio and new investments in order to identify and assess potential emerging risks associated with changes in emissions regulations and in the physical conditions of operations.</p> <p>New projects' internal rates of return are stress-tested against two sets of assumptions: i) Eni's management estimation of a cost per ton of carbon dioxide (CO2) equivalent of 40 \$/tonnes in real terms 2015, which is applied to the total GHG</p>

		<p>emissions of each capital project, while retaining the management scenario for hydrocarbons prices; and ii) the hydrocarbon prices and cost of CO2 emissions adopted in the International Energy Agency (IEA) Sustainable Development Scenario “IEA SDS”. This stress test is performed on a regular basis, to monitor the progress of each project. The review performed at the end of 2018 indicated that the internal rates of return of Eni’s ongoing projects in aggregate should not be substantially affected by a carbon pricing mechanism. The project development process features a number of checks that may require the development of detailed GHG and energy management plans. The majority of the projects have GHG intensity targets that allow them under current assumptions to compete in a more CO2 regulated future. These processes can lead to projects being stopped, designs being changed, and potential GHG mitigation investments being identified, in preparation for when the economic conditions imposed by new regulation would make these investments commercially compelling.</p>
Acquisitions and divestments	Impacted	<p>Risks:                      Opportunities: Development and/or expansion of low emission goods and services (Opp3); Development of new products or services through R&amp;D and innovation (Opp4 and Opp6)                      Magnitude of impact: Medium</p> <p>In coherence with the overall integrated climate strategy, investment process and also acquisition / divestment opportunities are evaluated taking into consideration climate change impact and the effective integration with Eni's decarbonization strategy.</p> <p>As examples in 2018:</p> <ul style="list-style-type: none"> <li>- Eni finalized the acquisition of the Italian Mossi &amp; Ghisolfi Group, engaged in the field of bio-chemicals. The acquired operation includes assets and resources related to development activities, industrialization, licensing of technologies and bio-chemical processes based on the use of renewable resources, especially biomass.</li> <li>- Eni signed agreements with Commonwealth Fusion Systems LLC (CFS) and the Massachusetts Institute of Technology to acquire an equity stake in CFS for the industrial development of the fusion power generation technology. Eni will support CFS to develop the first commercial power plant producing energy by fusion, a safe, sustainable, virtually inexhaustible source without any emission of pollutants and greenhouse gases. Eni acquired a significant share in the company with an initial investment of \$50 million.</li> </ul>
Access to capital	Not impacted	<p>Eni has adopted an integrated strategy aimed at achieving its operating objectives, combining financial robustness with social and environmental sustainability, in order to create long-term value for all stakeholders. A constant dialogue with</p>

		<p>investors about climate and ESG themes is ensured during Shareholders' Annual meetings and CEO's Investors presentations as well as during the regular meetings and calls carried out by Eni teams.</p> <p>As of today, access to the international debt capital markets has remained strong and at the moment, we are not experiencing unattractiveness from the capital market to our bond issues even from ESG investors.</p> <p>However, the investment world has changed significantly over the last decade and sustainable investing is now a mainstream approach; in the future we cannot exclude the possibility that energy companies that operate in the O&amp;G sector may be less attractive to investment funds and individual investors who assess the risk profile of companies against their environmental and social footprint when making investment decisions.</p> <p>As of today, Eni access to capital market is not impacted: Eni enjoys strong access to debt capital markets as evidenced for example by the significant interest from the market generated by our most recent 10 year bond offering (US market), which reached a demand of around USD 4.6 billion vs a total principal amount issued of USD 1 billion.</p> <p>With the growing importance of ESG factors in the O&amp;G industry, Eni has an opportunity to take credit for its progress on integrating climate into its strategy, and position itself as a sustainability leader and best in class in its sector going forward.</p>
<p>Assets</p>	<p>Impacted</p>	<p>Risks: Policy and legal: other (Risk 1), Policy and legal: Increased pricing of GHG emissions (Risk 2), Physical risk (Risk 3)</p> <p>Opportunities: Shift in consumer preferences (Opp 2)</p> <p>Magnitude of impact: Low</p> <p>Climate-related issues may affect Eni assets financial stability: invested capital might not be totally repaid due to decreasing demand of Oil&amp;Gas products and increasing costs spent on carbon taxes.</p> <p>Therefore, a regular review of the assets portfolio and new investments is assessed in order to identify potential emerging risks associated with changes in emissions regulations and in the physical conditions of operations. The return on the main investment projects is tested using a sensitivity to carbon pricing when the Final Investment Decisions (FID) is made and later during the six-monthly monitoring of projects based on scenario of hydrocarbon prices and CO2 cost of Eni (40 \$/tCO2eq) and IEA SDS low-carbon scenario of hydrocarbon prices and cost of CO2. The results of the most recent monitoring have highlighted marginal impacts on internal return rates.</p> <p>In addition, the portfolio composition and decarbonization strategy minimises the risk of stranded assets in the upstream sector thanks to a progressive reduction of the break-even of Oil &amp; Gas projects (\$25/barrel) by optimising the asset</p>

		<p>portfolio with a significant share of conventional gas, near field exploration and improved efficiency in development. In this regard, the management has subjected to a sensitivity analysis the book value of all CGUs (Cash Generating Units) in the upstream sector, adopting the IEA SDS scenario; this stress test highlighted the substantial retention of the asset book values and no impact on fair value.</p>
Liabilities	Impacted	<p>Risks: Policy and legal: other (Risk 1), Policy and legal: Increased pricing of GHG emissions (Risk 2)                      Opportunities:                      Magnitude of impact: Low</p> <p>Some governments have already introduced carbon pricing mechanisms, which can be an effective measure to reduce GHG emissions at the lowest overall cost to society. Eni expects that more governments will adopt similar schemes and that a growing share of the Group GHG emissions will be subject to regulation in the medium-long term.</p>
Other		

### C3. Business Strategy

#### C3.1

**(C3.1) Are climate-related issues integrated into your business strategy?**

Yes

#### C3.1a

**(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?**

Yes, quantitative

## C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b

**(C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b) Indicate whether your organization has developed a low-carbon transition plan to support the long-term business strategy.**

Yes

### C3.1c

**(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.**

*i. Company-specific explanation of how business objectives and strategy have been influenced by climate-related issues*

Eni acknowledges the challenge posed by climate change and the need to limit the temperature increase below 2°C. In the next decades energy demand will continue to grow, driven by demographic and economic development in emerging economies. In this framework, renewable energies will play an increasingly role in the energy supply, but cannot immediately replace hydrocarbons in all the sectors due to various technical and economical limits. In this framework, natural gas, will continue to meet a key part of global energy demand, even in a lower carbon scenario. According to Eni long-term vision, in the next decades the energy sector will have to face a dual challenge:

- to ensure that the entire world population, that will increase from 7 to 10 billion people by 2050, will have access to energy, and
- to guarantee that this happens in an environmentally sustainable way, limiting the increase of temperature to below 2°C.

Eni integrated in its business model a decarbonization strategy aimed to achieve by 2030 the net zero carbon footprint on direct GHG emissions of upstream business, with the ambition to make the all the Company carbon neutral in the long term.

*ii. Explanation of whether your business strategy is linked to an emissions reductions target*

Currently all Eni's operated direct GHG emissions are covered by a reduction target. In particular, Eni Upstream business is committed to reducing GHG emission intensity from operated asset by 43% within 2025 compared to 2014 values. Moreover, Eni confirms its commitment to zeroing volumes sent to process flaring by 2025, and to reduce by 80% within 2025 Upstream fugitive methane emissions compared to 2014.

*iii. What have been the most substantial business decisions made during the reporting year that have been influenced by the climate change driven aspects of the strategy*

In July 2018 Eni's CEO announced the aim to be the first Oil&Gas Company to set an ambition of carbon neutrality. During the year a major internal project was launched, involving all relevant departments, in order to build net-zero carbon footprint pathways for the Upstream business. The project's findings were used to set the first net-zero carbon footprint target for the Upstream business of the entire Oil&Gas sector.

*iv. What aspects of climate change have influenced the strategy;*

The main drivers that have influenced Eni's strategy where: the entry into force of the Paris Agreement and the development of carbon pricing debate; the environmental advantages of flaring down, energy efficiency and methane fugitive reduction; the increase of low carbon and green products and renewables demand.

*v. How the short-term strategy has been influenced by climate change;*

In the short term Eni's strategy is based on the followings levers:

1. Energy efficiency and direct GHG emissions reduction of operated activities with the aim of reducing upstream emission intensity by 43% compared to 2014 by 2025. This objective will contribute to the target of improving the carbon efficiency index by 2% a year by 2021 compared to 2014, that will be pursued by all Eni business units;
2. Low carbon and resilient Oil & Gas portfolio: Eni's hydrocarbon portfolio has a high incidence of natural gas (>50%), a bridge fuel for a low-emission future. The main upstream projects underway have an average portfolio break-even at a Brent price of around \$25/barrel and are therefore resilient even in low-carbon scenarios;
3. Development of renewable sources and green business with a circular approach: the promotion of renewables aims to reach an installed electrical power of over 1.6 GW by 2022. With regard to green business, the start-up of the Gela biorefinery by 2019 and the completion of the second phase at Venice biorefinery by 2021 are expected.

*vi. How the long-term strategy has been influenced by climate change;*

Eni decarbonization strategy has been effectively integrated into business strategy through a series of public targets and ambitions for the medium and long term.

In the medium term Eni aims to achieve the net zero carbon footprint on direct emissions of upstream activities valued on an equity basis by 2030, increasing the efficiency of its upstream activities, reducing GHG emissions and developing forestry conservation projects. More levers of Eni's decarbonization strategies are the growth of low carbon sources (with an increase of biofuel in the portfolio and the ambition of achieving a gas share of 60% in the hydrocarbons production), an increase of the zero emissions sources (such as solar photovoltaic, wind and hybrid systems with the ambition of achieving an installed capacity of 10GW by 2030 from renewable sources) and a circular approach which maximizes waste used as feedstock and that transforms and extends assets useful life.



The path to decarbonization aims to make the Company carbon neutral in the long term, developing an integrated energy transition plan, from both the efficiency maximization and the direct emission reduction, promoting an energy mix with a low carbon impact, developing circular economy and offset initiatives through forestry projects development. Finally, a key role will be played by new technologies use for the capture and use of CO2.

*vii. How this is gaining a strategic advantage over your competitors*

One of the drivers used by Eni to pursue its decarbonization strategy is the Oil & Gas portfolio characterized by conventional projects developed in stages and with low CO2 intensity. The main upstream projects in progress, which account for about 45% of the total development investments in the sector in the four-year period 2019-22, show an overall break-even at a Brent price of \$25/barrel, which is therefore resilient even in the presence of a low-carbon scenario, and an internal rate of return (IRR) of 22%.

Furthermore, these projects have a positive cumulative Free Cash Flow as early as 2019, due to the cash in from the application of the Dual Exploration Model, which is the early monetization of exploration successes through the sale of minority stakes. The hydrocarbon equity resources at 31/12/2018 show that natural gas, a bridge solution towards a low carbon future, accounts for over 50%. The flexibility and adaptability in the use of Eni's investments, amounting to about €33 billion in the period 2019-22, are confirmed by the non-committed share of 50% already in the two-year period 2021-22.

*viii. How the Paris Agreement has influenced the business strategy*

All the aspects of decarbonization strategy has been influenced by the Paris Agreement goals. In particular, Eni recognizes the scientific evidence on climate change of the Intergovernmental Panel on Climate Change (IPCC) and was among the signers of Paris Pledge, supporting the objectives contained in the Paris Agreement.

### C3.1d

**(C3.1d) Provide details of your organization's use of climate-related scenario analysis.**

Climate-related scenarios	Details
IEA Sustainable development scenario	Eni portfolio resilience is ensured by the regular review of the assets portfolio and new investments in order to identify and assess potential emerging risks associated with changes in emissions regulations and in the physical conditions of operations. The return on the main investment projects is tested using a sensitivity to carbon pricing when the Final Investment Decisions (FID) is made and later during the six-monthly monitoring of projects, based on the following assumptions:

- scenario of hydrocarbon prices and CO2 cost of Eni (“Stress” scenario that considers the simultaneous and immediate adoption of a cost for CO2 equal to \$40 a ton in 2015 corrected for inflation);
- IEA SDS low-carbon scenario of hydrocarbon prices and cost of CO2.

The results of the most recent monitoring have highlighted marginal impacts on internal return rates.

In addition, the portfolio composition and decarbonization strategy minimises the risk of stranded assets in the upstream sector thanks to:

- a progressive reduction of the break-even of Oil & Gas projects by optimising the asset portfolio with a significant share of conventional gas;
- near field exploration;
- improved efficiency in development.

In this regard, the management has subjected to a complete lifecycle sensitivity analysis the book value of all CGUs (Cash Generating Units) in the upstream sector, adopting the IEA SDS scenario; this stress test highlighted the substantial retention of the asset book values and no impact on fair value.

Eni's Board of Directors examines on a half-year basis the results of sensitivities to Eni and IEA SDS carbon pricing and the results of the resilience test on all upstream Cash Generating Units (CGUs) applying the IEA SDS scenario.

In October 2018 the Intergovernmental Panel on Climate Change (IPCC) stated, in a new report, that in order to limit global warming to 1.5°C, the world economy would need to undertake a deeper and complex transformation. Eni recognizes that meeting this challenge in the next decades requires an even more rapid escalation, both in term of size and speed, of changes than were foreseen in the Paris Agreement. Currently, this scenario has yet to be complemented by a full set of pricing and other operating assumptions, which once available from the IPCC or other sources will be deeply analyzed by the Company for the purpose of updating stress-testing models and methodologies

## **C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e**

**(C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e) Disclose details of your organization's low-carbon transition plan.**

Eni integrated in its business model a decarbonization strategy which is developed in short, medium and long term actions, with a constant commitment in the implementation of its technological and scientific research activities (R&D) in order both to achieve the maximum efficiency in the decarbonization process and to find innovative solutions that ease energy transition. In the short term Eni's strategy is based on the followings levers:

1. Energy efficiency and direct GHG emissions reduction of operated activities with the aim of reducing upstream emission intensity by 43% compared to 2014 by 2025. This objective will contribute to the target of improving the carbon efficiency index by 2% a year by 2021 compared to 2014, that will be pursued by all Eni business units;
2. Low carbon and resilient Oil & Gas portfolio: Eni's hydrocarbon portfolio has a high incidence of natural gas (>50%), a bridge solution to a low-emission future. The main upstream projects underway have an average portfolio break-even at a Brent price of around \$25/barrel and are therefore resilient even in low-carbon scenarios;
3. Development of renewable sources and green business with a circular approach: the promotion of renewables aims to reach an installed electrical power of over 1.6 GW by 2022. With regard to green business, the start-up of the Gela biorefinery by 2019 and the completion of the second phase at Venice biorefinery by 2021 are expected.

In the medium term Eni aims to achieve the net zero carbon footprint on direct emissions of upstream activities valued on an equity basis by 2030, increasing the efficiency of its upstream activities, reducing GHG emissions and developing forestry conservation projects.

More levers of Eni's decarbonization strategies are the growth of low carbon sources (with an increase of biofuel in the portfolio and the ambition of achieving a gas share of 60% in the hydrocarbons production), an increase of the zero emissions sources (such as solar photovoltaic, wind and hybrid systems with the ambition of achieving an installed capacity of 10GW by 2030 from renewable sources) and a circular approach which maximizes waste used as feedstock and that transforms and extends assets useful life.

The path to decarbonization aims to make the Company carbon neutral in the long term, developing an integrated energy transition plan, from both the efficiency maximization and the direct emission reduction, promoting an energy mix with a low carbon impact, developing circular economy and offset initiatives through forestry projects development. Finally, a key role will be played by new technologies use for the capture and use of CO<sub>2</sub> emitted. Overall spending in the four-year period 2019-22 for decarbonization, the circular economy and renewables is approximately €3.6 billion (it includes

€0.5 billion for scientific and technological research activities designed to support these issues). In particular, these dedicated investments share is equal to the 9% of the total investments envisaged for the coming 4 years.

## C4. Targets and performance

### C4.1

**(C4.1) Did you have an emissions target that was active in the reporting year?**

Both absolute and intensity targets

#### C4.1a

**(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.**

---

**Target reference number**

Abs 1

**Scope**

Scope 1

**% emissions in Scope**

12.42

**Targeted % reduction from base year**

100

**Base year**

2014

**Start year**

2016

**Base year emissions covered by target (metric tons CO2e)**

5,327,942

**Target year**

2025

**Is this a science-based target?**

No, but we anticipate setting one in the next 2 years

**% of target achieved**

9.37

**Target status**

Underway

**Please explain**

This target refers to the commitment of Eni in the Global Gas Flaring Reduction (GGFR) "Zero Gas Flaring @2030" initiative. The target refers to routine flaring emissions and Eni is committed to anticipate this achievement in 2025. Despite this target refers to 2014 as base-year, Eni has been strongly committed for many years to implement flaring down projects and, compared with 2007, Eni has already reduced the total volume of flared gas by more than 70%.

---

**Target reference number**

Abs 2

**Scope**

Scope 1

**% emissions in Scope**

6.75

**Targeted % reduction from base year**

80

**Base year**

2014

**Start year**

2016

**Base year emissions covered by target (metric tons CO<sub>2</sub>e)**

2,894,206

**Target year**

2025

**Is this a science-based target?**

No, but we anticipate setting one in the next 2 years

**% of target achieved**

66.45

**Target status**

Underway

**Please explain**

This target refers to the engagement of Eni in reducing methane emissions associated with its industrial operation. Eni is committed to achieve a reduction of upstream fugitive methane emissions by 80% by 2025 compared to the estimated 2014 value, thanks to the start of specific campaigns to identify fugitive methane emissions from plants and related maintenance and leakage elimination (Leak Detection and Repair campaigns - LDAR).

## C4.1b

**(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).**

---

**Target reference number**

Int 1

**Scope**

Scope 1

**% emissions in Scope**

51.66

**Targeted % reduction from base year**

43

**Metric**

Other, please specify

Metric tons CO<sub>2</sub>e / kBoe

**Base year**

2014

**Start year**

2016

**Normalized base year emissions covered by target (metric tons CO<sub>2</sub>e)**

22,152,142

**Target year**

2025

**Is this a science-based target?**

No, but we anticipate setting one in the next 2 years

**% of target achieved**

47.5

**Target status**

Underway

**Please explain**

Eni ten-year Action Plan on climate change to 2025 foresees a reduction target of 43% of the GHG performance index on total gross operated hydrocarbon production compared to 2014. The target refers only to Upstream emissions, that in 2014 covered 55.8% of total Eni's GHG direct emissions.

**% change anticipated in absolute Scope 1+2 emissions**

0

**% change anticipated in absolute Scope 3 emissions**

0

---

**Target reference number**

Int 2

**Scope**

Scope 1+2 (location-based)

**% emissions in Scope**

98.5

**Targeted % reduction from base year**

13.2



**Metric**

Other, please specify

Metric tons CO<sub>2</sub>eq / kBoe

**Base year**

2014

**Start year**

2016

**Normalized base year emissions covered by target (metric tons CO<sub>2</sub>e)**

42,932,140

**Target year**

2021

**Is this a science-based target?**

No, but we anticipate setting one in the next 2 years

**% of target achieved**

100

**Target status**

Underway

**Please explain**

Eni is committed to progressively improve the carbon efficiency index of its production by an average of 2% in the period 2014-2021, equivalent to an overall reduction of 13,2% in the period. The boundary includes scope 1 and scope 2 emissions coming from Upstream, Refinery, Chemical and Power business of Eni. The production is expressed in barrel of oil equivalent converting the energy production of each business through Eni's specific conversion factors. For the Refinery business, the figure throughput was used as a proxy of oil products.

**% change anticipated in absolute Scope 1+2 emissions**

0

**% change anticipated in absolute Scope 3 emissions**

0

## **C4.2**

**(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.**

---

**Target**

Methane reduction target

**KPI – Metric numerator**

100% operated metric tons of fugitive methane emissions from Upstream business

**KPI – Metric denominator (intensity targets only)**

Not applicable - Absolute target

**Base year**

2014

**Start year**

2016

**Target year**

2025

**KPI in baseline year**

115,768

**KPI in target year**

23,153

**% achieved in reporting year**

66.45

**Target Status**

Underway

**Please explain**

This target refers to the engagement of Eni in reducing methane emissions associated with its industrial operation. Eni is committed to achieve a reduction of upstream fugitive methane emissions by 80% by 2025 compared to the estimated 2014 value, thanks to the start of specific campaigns to identify fugitive methane emissions from plants and related maintenance and leakage elimination (Leak Detection and Repair campaigns - LDAR).

**Part of emissions target**

100% operated fugitive methane emissions from Upstream business.

**Is this target part of an overarching initiative?**

Reduce short-lived climate pollutants

## C-OG4.2a

**(C-OG4.2a) If you do not have a methane-specific emissions reduction target for your oil and gas activities or do not incorporate methane into your target(s) reported in C4.2 please explain why not and forecast how your methane emissions will change over the next five years.**

Eni has a specific methane emissions reduction target already reported in C4.2 and C4.1a.

## C4.3

**(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**

Yes

### C4.3a

**(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.**

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	41	2,679,461
Implementation commenced*	34	974,623
Implemented*	40	1,097,945
Not to be implemented	0	0

### C4.3b

**(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.**

**Initiative type**

Energy efficiency: Processes

**Description of initiative**

Other, please specify

Energy efficiency projects implemented in upstream activities

**Estimated annual CO2e savings (metric tonnes CO2e)**

767,690

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

104,656,323

**Investment required (unit currency – as specified in C0.4)**

14,172,000

**Payback period**

<1 year

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Projects ongoing in 22 affiliates involving the saving of 767.690 tCO<sub>2</sub>/y mostly of direct emissions. The investment was estimated since some projects were part of larger projects. Annual monetary savings were estimated assuming 354.3 \$/toe for fuels and 59 \$/MWh for electricity.

---

**Initiative type**

Energy efficiency: Processes

**Description of initiative**

Other, please specify

Energy efficiency projects implemented in refining activities

**Estimated annual CO<sub>2</sub>e savings (metric tonnes CO<sub>2</sub>e)**

7,512

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

887,167

**Investment required (unit currency – as specified in C0.4)**

9,781,042

**Payback period**

4 - 10 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

5 projects involving the saving of about 7500 tCO<sub>2</sub>/y mostly of direct emissions. Annual monetary savings were estimated assuming 354.3 \$/toe for fuels and 59 \$/MWh for electricity.

---

**Initiative type**

Energy efficiency: Processes

**Description of initiative**

Other, please specify

Energy efficiency projects implemented in petrochemical activities

**Estimated annual CO<sub>2</sub>e savings (metric tonnes CO<sub>2</sub>e)**

13,654

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

2,831,507

**Investment required (unit currency – as specified in C0.4)**

18,182,676

**Payback period**

4 - 10 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

3 projects involving the saving of 13654 tCO<sub>2</sub>/y (about 20% related to scope 2 emissions). Annual monetary savings were estimated assuming 354.3 \$/toe for fuels and 59 \$/MWh for electricity.

---

**Initiative type**

Energy efficiency: Processes

**Description of initiative**

Other, please specify

Energy efficiency projects implemented in power generation activities

**Estimated annual CO<sub>2</sub>e savings (metric tonnes CO<sub>2</sub>e)**

22,800

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

2,731,653

**Investment required (unit currency – as specified in C0.4)**

3,460,448

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

6 projects involving the saving of 3783 tCO<sub>2</sub>/y emissions due mostly to electric consumptions (savings of 5265 MWh). Annual monetary savings were estimated assuming 354.3 \$/toe for fuels and 59 \$/MWh for electricity.

---

**Initiative type**

Fugitive emissions reductions

**Description of initiative**

Oil/natural gas methane leak capture/prevention

**Estimated annual CO<sub>2</sub>e savings (metric tonnes CO<sub>2</sub>e)**

203,209

**Scope**

Scope 1



**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

0

**Investment required (unit currency – as specified in C0.4)**

4,000,000

**Payback period**

>25 years

**Estimated lifetime of the initiative**

1-2 years

**Comment**

LDAR (Leak Detection and Repair) monitoring campaigns are planned with an average frequency of 1-2 years at single asset. The investment figure refers to the first plan of campaigns, not yet finalized. The Annual monetary saving associated with these initiatives is negligible due to the fact that campaigns mostly highlighted that real natural gas leakages are very small compared to standard emission factors.

---

**Initiative type**

Other, please specify

Flaring Down Projects

**Description of initiative**

**Estimated annual CO2e savings (metric tonnes CO2e)**

63,000

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

0

**Investment required (unit currency – as specified in C0.4)**

100,000

**Payback period**

No payback

**Estimated lifetime of the initiative**

21-30 years

**Comment**

Early flaring down project implemented in Turkmenistan (Burun) by means of piping connection.

**C4.3c**

**(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Internal price on carbon	The return on the main investment projects is tested using a sensitivity to carbon pricing of 40 \$/ton CO <sub>2</sub> eq in actual terms in 2015, when the Final Investment Decisions (FID) is made and later during the six-monthly monitoring of projects
Dedicated budget for low-carbon product R&D	Research and Development is a key element for Eni's transformation into an integrated energy company for a low-carbon future and, in fact, the activities related to decarbonization account around 50% of the total research spending.

Dedicated budget for other emissions reduction activities	In the period 2019-2022 are planned investments to support the Upstream targets for emission reductions equal to more than \$ 644 Million (100% operated figure).
Employee engagement	On 5 June, in connection with UN World Environment Day, Eni held its first Safety and Environment Day; dedicated entirely to the behaviour and action of the company and its people in the area of safety and environmental protection. To reward the operating areas that have produced excellent results in the areas of safety and the environment, from this year, Eni has added to its Safety Award a new Environment Award.

## C4.5

**(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?**

Yes

### C4.5a

**(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.**

---

#### Level of aggregation

Product

#### Description of product/Group of products

The latest major milestone we have reached in the fuel sector is Green Diesel – the result of the innovative Ecofining™ technology developed in Eni's laboratories in collaboration with Honeywell UOP.

Green Diesel is produced in Eni's Venice biorefinery – the first example in the world of a 'green' conversion of a pre-existing refinery. When added to diesel, it gives rise to Eni Diesel+.

Testing and benchmarking against other fuels sold in Italy have confirmed the excellent properties of Eni Diesel +. Because 15 per cent of the

fuel is renewable (the innovative Green Diesel component), Eni Diesel+ significantly reduces polluting emissions, cutting unburnt hydrocarbons and carbon monoxide by up to 40 per cent. In addition, a more sustainable production cycle helps to reduce CO<sub>2</sub> emissions by an average of 5 per cent.

**Are these low-carbon product(s) or do they enable avoided emissions?**

Low-carbon product

**Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**

Climate Bonds Taxonomy

**% revenue from low carbon product(s) in the reporting year**

1.5

**Comment**

The percentage is calculated considering the share of Eni Diesel + product on the revenues of Refining & Market Business Unit.

## C-EU4.6

**(C-EU4.6) Describe your organization's efforts to reduce methane emissions from your activities.**

## C-OG4.6

**(C-OG4.6) Describe your organization's efforts to reduce methane emissions from your activities.**

**Eni continues its commitment to optimizing its monitoring and reporting processes and reducing methane emissions from Upstream operated assets.** Methane emissions are essentially concentrated in the upstream value chain (98 kton, equal to 94% of the Eni total) and are due to fugitive emissions, unburnt methane from flaring and process venting. As part of the **Oil and Gas Climate Initiative (OGCI) partnership, a collective target for reducing upstream methane intensity** (defined as the ratio of total methane emissions to net natural gas production) was announced in 2018 and envisages reaching a value of 0.25% by 2025. The reductions recorded so far have been achieved by implementing LDAR (Leak Detection and Repair) campaigns, which consist in carrying out on-site monitoring campaigns of plant components in order to identify and eliminate methane

leaks by scheduling appropriate maintenance. It is possible to control almost entirely fugitive emissions enabling savings and improving safety in operations. To date, **69% of Eni upstream assets (calculated on the basis of production levels) are already covered by LDAR programs.** To provide a concrete example of LDAR Application, our subsidiary in Congo achieved an absolute 85% reduction of fugitive methane emissions in 2018 vs 2014. In addition to the reduction due to the change of monitoring methodology (moving from an estimate based on literature emission factors to an estimate based on monitoring campaigns with infrared cameras), a relevant reduction is achievable through the maintenance on the leakers identified during the survey. In some cases, real reductions of over 80% have been achieved.

**Eni is also continuing its participation in the Climate and Clean Air Coalition (CCAC) Oil & Gas Methane Partnership**, a public-private partnership led by the UNEP, in which it develops appropriate plans to control methane emissions, based on the execution of monitoring campaigns and the assessment of mitigation opportunities.

## COG4.7

**(C-OG4.7) Does your organization conduct leak detection and repair (LDAR) or use other methods to find and fix fugitive methane emissions from oil and gas production activities?**

Yes

### C-OG4.7a

**(C-OG4.7a) Describe the protocol through which methane leak detection and repair or other leak detection methods, are conducted for oil and gas production activities, including predominant frequency of inspections, estimates of assets covered, and methodologies employed.**

LDAR programmes foresee campaigns to monitor the plant components in order to identify methane leaks and plan maintenance works. It is possible to control almost entirely fugitive emissions enabling product savings and improving safety in operations. An LDAR campaign is made up of three principale stages: Source Inventory, Monitoring and Maintenance:

#### **SOURCE INVENTORY**

- Analysis of the technical documentation (P&ID, process diagrams, activity parameters, etc.)
- Identification of potential sources
- Planning field activities

#### **MONITORING**

- On-site monitoring and identification of methane leaks

- The technology used – Optical Gas Imaging – requires the use of an infrared thermal camera to detect leaks

#### **MAINTENANCE**

- Immediate repair of leaks where possible
- Prioritization of works and definition of the annual maintenance plan
- Regular checks

## **C-OG4.8**

**(C-OG4.8) If flaring is relevant to your oil and gas production activities, describe your organization’s efforts to reduce flaring, including any flaring reduction targets.**

For years, Eni has implemented programs to reduce gas sent to flaring, through an emphasis on the production of electricity for local populations, distribution for domestic

consumption or export. Where these practices were not possible, Eni created re-injection systems in natural gas reservoirs. In 2014, after having consolidated a 75% reduction of volumes compared with 2007, most of the residual process flaring is today concentrated in Countries with difficult environments, such as Libya and Nigeria. Despite this, Eni confirms its commitment to zeroing volumes sent to process flaring by 2025, 5 years earlier than the timescale laid down by the Global Gas Flaring Reduction (GGFR) initiative promoted by the World Bank, of which Eni is a partner. To achieve this objective, an expenditure of \$0.64 billion (referred to 100% operated activities) has been budgeted for 2019-2022, to which further investment will be added in the 2023-2025 period.

In 2018, emissions from flaring fell by 8% compared to 2017 mainly due to zero flaring achieved in Turkmenistan (Burun field) and emergency flaring containment actions. In 2018, Eni invested \$46 million in flaring-down projects, especially in Nigeria and Libya

## **C5. Emissions methodology**

### **C5.1**

**(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).**

#### **Scope 1**

---

**Base year start**

January 1, 2014

**Base year end**

December 31, 2014

**Base year emissions (metric tons CO<sub>2</sub>e)**

42,883,588

**Comment**

2014 is the reference base year for all current Eni's GHG reduction targets on operated assets.

**Scope 2 (location-based)**

---

**Base year start**

January 1, 2014

**Base year end**

December 31, 2014

**Base year emissions (metric tons CO<sub>2</sub>e)**

687,553.5

**Comment**

2014 is the reference base year for Eni's GHG reduction target that includes scope 2.

**Scope 2 (market-based)**

---

**Base year start**

**Base year end**

## Base year emissions (metric tons CO<sub>2</sub>e)

### Comment

## C5.2

### **(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.**

American Petroleum Institute Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry, 2009  
European Union Emission Trading System (EU ETS): The Monitoring and Reporting Regulation (MMR) – General guidance for installations  
IPCC Guidelines for National Greenhouse Gas Inventories, 2006  
IPIECA's Petroleum Industry Guidelines for reporting GHG emissions, 2nd edition, 2011  
ISO 14064-1  
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)  
US EPA Climate Leaders: Direct Emissions from Stationary Combustion  
US EPA Climate Leaders: Direct Emissions from Mobile Combustion Sources  
Other, please specify

## C5.2a

### **(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.**

In addition to reference selected in the question C5.2, the following reference are also considered:

- US Environmental Protection Agency (EPA), Protocol for Equipment Leak Emission Estimates;
- US Environmental Protection Agency (EPA), Climate Leaders GHG inventory Protocol Core Module Guidance: Optional emissions from commuting, business travel and product transport, May 2008;
- IEA, CO<sub>2</sub> Emissions from Fuel Combustion (2018 Edition);



- Climate and Clean Air Coalition - Oil & Gas Methane Partnership Technical Guidances on core methane emissions sources;
- Specific internal procedures developed by Eni's business units that are not well represented in the recognized standards.

## C6. Emissions data

### C6.1

#### (C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO<sub>2</sub>e?

##### Reporting year

---

##### Gross global Scope 1 emissions (metric tons CO<sub>2</sub>e)

43,347,351

##### Start date

January 1, 2018

##### End date

December 31, 2018

##### Comment

In 2018, GHG direct emissions, calculated on all Eni activities, amounted to 43.3 million tonCO<sub>2</sub>eq (figure for 100% operated assets) and were stable (+0.5%) compared to 2017, while compared to 2010 they decreased by 26%. Compared to the individual emission categories, in 2018 there was an upward trend in combustion and process emissions, since the increases recorded in the E&P, R&M and Chemical sectors due to increased production levels were only partially offset by decreases in G&P due to lower electricity production and lower quantities of gas transported.

Emissions from flaring fell by 8% compared to 2017 mainly due to zero flaring achieved in Turkmenistan (Burun field) and emergency flaring containment actions.

In 2018 upstream fugitive methane emissions amounted to 38.8 kton CH<sub>4</sub> (-66% vs 2014), unchanged compared to 2017 but in line overall with

the target. In this area, monitoring and maintenance campaigns (Leak Detection And Repair - LDAR) continued in the upstream sector, as well as in the mid-downstream sector (Sergaz), with a 6% reduction in total Eni fugitive methane emissions compared to 2017.

## C6.2

### (C6.2) Describe your organization’s approach to reporting Scope 2 emissions.

#### Row 1

##### Scope 2, location-based

We are reporting a Scope 2, location-based figure

##### Scope 2, market-based

We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

##### Comment

Currently, Eni is not able to collect information on electricity supply emission factors for a relevant part of its operations. Eni is working to collect all the necessary information for the next reporting cycles.

## C6.3

### (C6.3) What were your organization’s gross global Scope 2 emissions in metric tons CO2e?

#### Reporting year

##### Scope 2, location-based

671,111

##### Start date

January 1, 2018

**End date**

December 31, 2018

**Comment**

As regards emissions from purchases of electricity, steam and heat from third parties (so-called Scope 2), they are quantitatively negligible in Eni (about 0.7 MtCO<sub>2</sub>eq), since in most cases electricity generation takes place through its own installations and the related associated GHG emissions are recorded among direct emissions. Nonetheless, Eni has included Scope 2 emissions within the scope of the target of improving carbon efficiency by 2% a year by 2021.

## C6.4

**(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?**

No

## C6.5

**(C6.5) Account for your organization's Scope 3 emissions, disclosing and explaining any exclusions.**

### **Purchased goods and services**

---

**Evaluation status**

Relevant, calculated

**Metric tonnes CO<sub>2</sub>e**

1,156,201

**Emissions calculation methodology**

This estimation is the results of EEIO (Environmentally-Extended Input-Output) analysis of purchased goods and services and GHG data collection of O&G drilling contractors, which operated for Eni in the reporting year. The EEIO analysis is composed by the following stages/steps:

- 1) procurement data collection and analysis;
  - 2) procurement data classification by goods and services according to UN ISIC ver 3.1 2004;
  - 3) calculation of 2018 spending vector
  - 4) the 2018 spending vector is multiplied for the environmental satellite WIOD (World Input-Output Database) matrix;
  - 5) the total GHG are splitted proportionally between 2018 spending for goods and services and capital goods.
- GHG data from drilling contractors (about 220 ktCO<sub>2</sub>eq in 2018) are calculated separately by using actual data of fuel consumption. Engines emissions are calculated based on API Compendium methodologies.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

#### **Explanation**

Eni applies EEIO analysis to its purchased goods and services making use of WIOD matrix in accordance with both WBCSD-WRI “Corporate Value Chain (Scope 3) Accounting and Reporting Standard” and IPIECA/API Estimating petroleum industry value chain (Scope 3) GHG emissions. GHG from purchased drilling operations quality/accuracy is comparable to scope 1 and scope 2 quality/accuracy. In order to improve in defining a consistent accounting and reporting system for Scope 3 emissions, Eni has developed its own procedure according to WBCSD-WRI “Corporate Value Chain (Scope 3) Accounting and Reporting Standard” and IPIECA overview of methodologies.

### **Capital goods**

---

#### **Evaluation status**

Relevant, calculated

#### **Metric tonnes CO<sub>2</sub>e**

836,678

#### **Emissions calculation methodology**

This estimation is the results of EEIO (Environmentally-Extended Input-Output) analysis of capital goods. The EEIO analysis is composed by the following stages/steps:

- 1) procurement data collection and analysis;
- 2) procurement data classification by goods and services according to UN ISIC ver 3.1 2004;

- 3) calculation of 2018 spending vector
- 4) the 2018 spending vector is multiplied for the environmental satellite WIOD (World Input-Output Database) matrix;
- 5) the total GHG are splitted proportionally between 2018 spending for goods and services and capital goods.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Explanation**

Eni applies EEIO analysis to its purchased goods and services making use of WIOD matrix in accordance with both WBCSD-WRI “Corporate Value Chain (Scope 3) Accounting and Reporting Standard” and IPIECA/API Estimating petroleum industry value chain (Scope 3) GHG emissions. In order to improve in defining a consistent accounting and reporting system for Scope 3 emissions, Eni has developed its own procedure according to WBCSD-WRI “Corporate Value Chain (Scope 3) Accounting and Reporting Standard” and IPIECA overview of methodologies.

**Fuel-and-energy-related activities (not included in Scope 1 or 2)**

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**Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

5,493,651

**Emissions calculation methodology**

This figure refers to GHG emissions from generation of electricity purchased and sold to end users (trading activity). The activity data refer to purchase of electric energy from third party (about 15.45 TWh). the following hypothesis have been made: It has been generated in Italy; It encompasses energy generated from either renewable sources or fossil fuels. Average GHG Emissions factors for CO2 published by IEA, and API Compendium 2009 for CH4 and N2O have been used.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Explanation**

## Upstream transportation and distribution

---

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

1,793,152

### Emissions calculation methodology

The figure refers to GHG emissions from road and maritime transportation and distribution of oil products. According to the Eni methodology for accounting and reporting Scope 3 GHG, (i) for the maritime sector, emissions calculation is based on fuel consumptions and on emission factors derived by International Maritime Organization. Activity data are provided by Eni trading and shipping division. (ii) for the road sector, the activity data (as distance, tonnes of products transported and number of trips) are provided by the logistic unit of Eni refining and marketing division. Regarding the emission factors, Eni refers to US-EPA Climate Leaders/ Optional Emissions from Commuting, Business Travel and Product Transport, may 2008 (updated on march 2018). In addition, since 2016, in this category are accounted for GHG from transportation of equipment and materials by vessels, services purchased by Eni's Upstream business line.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Explanation

## Waste generated in operations

---

### Evaluation status

Not relevant, calculated

### Metric tonnes CO2e

81,958

**Emissions calculation methodology**

Data on waste generated in Eni operations and disposed by third parties are recorded by Eni as: 1)Waste incinerated - at third party facilities 2)Waste sent to landfill - landfill owned by third party 3)Waste sent to chemical/physical/biologic treatment - externally 4)Waste sent to other treatment - externally 5)Waste reused/recycled - at third party facilities. The quantity of each waste disposal type is the activity data. GHG emission factors on Waste Disposal of Industrial Waste are derived from DEFRA (Department for Environment, Food and Rural Affairs, UK), 2016 Government GHG Conversion Factors for Company Reporting.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Explanation**

**Business travel**

---

**Evaluation status**

Not relevant, calculated

**Metric tonnes CO2e**

30,235

**Emissions calculation methodology**

The figure refers to GHG emissions estimated on business trips travelled by plane, car or train recorded by Eni's Business Travel Management Unit. In order to increase the accuracy of the GHG estimation, trip distances by plane are broken down into three categories: Trip Distance Long  $d > 2.300$  miles; Medium  $300 < d < 2300$  miles; Short  $d < 300$  miles.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Explanation**

Eni, in order to reduce environment impact from business travel, included GHG emissions, is encouraging videoconferencing system. Since 2005, Eni headquarters can rely on fixed videoconferencing systems in meeting rooms and smaller portable systems that have been installed video calls, integrated with the VoIP phone system, are also available.

## Employee commuting

---

### Evaluation status

Not relevant, calculated

### Metric tonnes CO2e

202,669

### Emissions calculation methodology

The estimation method has been set up on the following assumptions: 1) Every employee drives an average daily trip of 30 km (two ways), with a city car and typical city traffic; 2) Every employee works 220 days/year. These information allow to get the activity data (kilometers driven by all Eni's employees in one year). In addition, since 2016, in this category are accounted for the GHG from onshore/offshore trips of Eni employees and its contractors by helicopter and by vehicles, recorded by Eni's Upstream business line. Regarding the emission factors, Eni refers to US-EPA Climate Leaders/ Optional Emissions from Commuting, Business Travel and Product Transport, may 2008 (updated on march 2018).

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Explanation

Several actions are in place with the purpose to reduce these emissions: the main is the institution of the Eni Mobility Management Service, in order to address in an integrated way the management of mobility home-work of the Eni's employee, in a perspective oriented to the environmental protection and to the reduction of CO2 emissions caused by individual travelling. Specific agreements regarding bike sharing, car sharing and discounts on public transport card have been signed since 2010. Furthermore, since 2012 a dedicated service for employees moving from airport to Eni's office in Milan is available.

## Upstream leased assets

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### **Evaluation status**

Not relevant, explanation provided

### **Explanation**

According to the IPIECA/API overview of methodologies for estimating Scope 3 emissions from O&G Industry, emissions from this category are not expected to be material and relevant for the Oil&Gas industry. Eni reports GHG emissions with the operational control approach, whenever an asset leased by Eni fall within its operational boundary, their GHG emissions are accounted as Scope 1 and those from electric or other energy consumptions as Scope 2 emissions.

## **Downstream transportation and distribution**

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### **Evaluation status**

Not relevant, explanation provided

### **Explanation**

Emissions related to transportation and distribution of products sold by Eni are accounted in the Scope 3 category "upstream transportation and distribution", because the transportation occurs before they are sold to final customers. Indeed, most of Eni's products are fuels, so when they are sold to final customers they are not transported or distributed.

Moreover, this category is not expected to be material, also according to the recent IPIECA/API overview of methodologies for estimating Scope 3 emissions from O&G Industry.

## **Processing of sold products**

---

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

11,349,730

### **Emissions calculation methodology**

GHG emissions from processing carried out by third parties of Eni's sold products are the results of natural gas, LNG and crude oil sold to third parties considering they are processed with the same technologies as those currently used by Eni. GHG Emissions factors are found in: SGI-IC

“Methane and CO2 emissions from the natural gas supply chain“, limited to Transmission, Storage and Distribution stages; and Exergia Consultancy “Study on actual GHG data for diesel, petrol, kerosene and natural gas“.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Explanation**

**Use of sold products**

---

**Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

231,013,634

**Emissions calculation methodology**

GHG emissions from final use of Eni’s sold products are estimated as all sold products would be burned in 2018. In order to set the activity data, IPIECA/API “net volume accounting” method has been used, considering the upstream net hydrocarbon production (equity based) as the most representative point of the value chain. The IEA refining conversion rates from the standard oil barrel have been used in order to calculate final products share. GHG emissions are estimated by multiplying the amount of single oil products (derived from crude oil) and natural gas, by the relevant average emission factor, using the same recognized for EU Emission Trading Scheme Regulation.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Explanation**

As explained in the methodology box, the estimation is based on upstream net equity production of crude oil and natural gas. In order to improve clearness, consistency and transparency, Eni has done also the calculation of Scope 3 GHG emissions based on the retail sales (natural gas and refined oil products) that are commercialized with the Eni Brand. On this basis, and excluding any contribution derived from trading activities, the GHG emissions estimated would be about 186 million tonnes CO2eq.

## End of life treatment of sold products

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### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

171,154

### Emissions calculation methodology

Most of the Eni's sold products are fuels and so end of life associated emissions are not applicable. Therefore, the only products included in the emissions' category estimation are lubricants, asphalts and chemicals (handled as they would be plastics products). GHG emissions factors are taken from databases by Ecometrica and from the Sustainability Report of Italian National service for collection of exhausted lubricants.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Explanation

Regarding lubricants, the collection of exhausted lubricants is managed by a national service and its proper disposal can take place through re-refining, combustion or incineration methods. Furthermore, the consortium promotes public awareness initiatives, which encourage citizens to adopt a more eco-friendly conduct.

## Downstream leased assets

---

### Evaluation status

Not relevant, explanation provided

### Explanation

Emissions from this category are not expected to be material and relevant for the Oil&Gas industry. Eni doesn't account Scope 3 emissions related to facilities and buildings not owned and not operated by Eni. The reasons is that, besides the data difficult to retrieve, Eni cannot control the emissions and hasn't the opportunity to implement reduction project, so this source should be assumed as not relevant. At this moment, Eni has estimated the GHG emissions from the initiative Enjoy (a car sharing free floating with the objective of developing products and services for sustainable mobility), and they are not material.

## Franchises

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### Evaluation status

Not relevant, calculated

### Metric tonnes CO<sub>2</sub>e

224,679

### Emissions calculation methodology

GHG emissions from Eni's fuel stations in Italy and across Europe comes mainly from electric energy consumption rates [kWh/year]. This amount has been calculated using the total number of Eni's fuel stations and a yearly average electric energy consumption by a fuel station of ordinary size (with n.4 fuels dispenser and n.2 car washing).

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Explanation

## Investments

---

### Evaluation status

Not relevant, explanation provided

### Explanation

Investment emissions are potentially material only for those companies with significant joint ventures that are not captured in their scope 1 and 2 inventory. In the case of Eni, GHG inventory is based on the operational approach and includes also 100% emissions of joint ventures investments in which Eni is the operator. This leads to an already conservative estimation because operated production is far higher than equity production.

## Other (upstream)

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### Evaluation status

**Explanation**

**Other (downstream)**

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**Evaluation status**

**Explanation**

**C6.7**

**(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?**

No

**C6.10**

**(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO<sub>2</sub>e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

---

**Intensity figure**

0.000484

**Metric numerator (Gross global combined Scope 1 and 2 emissions)**

44,018,462

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

90,863,778,000

**Scope 2 figure used**

Location-based

**% change from previous year**

11.29

**Direction of change**

Decreased

**Reason for change**

As financial emissions intensity, we use the GHG Scope 1 and Scope 2 emissions per USD of company revenues (net sales from operations and other income and revenues). Eni's total revenues for 2018 were 76938 million € (ref. Eni Fact Book 2018, page 87), equal to 90864 million \$ (exchange rate 1.181). This performance indicator has decreased by 11.29% in 2018 respect to 2017, due to the combined effect of the increased price of oil barrel (that affects company's revenues), the increased exchange rate EUR/USD (1.13 in 2017) and the big effort of Eni for the implementation of specific strategies to reduce greenhouse gas emissions (flaring down and methane reduction campaigns) and improvement actions designed to increase energy efficiency, The details of the reduction initiatives are described in question 7.9a. Note that KPI for 2017 has been revised according to the review of the historical series of GHG emissions (methane venting have been revised following the fine-tuning of the estimation methodology); the updated value is now 0.000546.

## C-OG6.12

**(C-OG6.12) Provide the intensity figures for Scope 1 emissions (metric tons CO2e) per unit of hydrocarbon category.**

---

**Unit of hydrocarbon category (denominator)**

Other, please specify

Thousand barrels of crude oil equivalent

**Metric tons CO2e from hydrocarbon category per unit specified**

21.44

**% change from previous year**

6

**Direction of change**

Decreased

**Reason for change**

The upstream GHG intensity index, expressed as the ratio between direct emissions in tonnes of CO2eq and thousands of barrels of oil equivalent, recorded a decrease of 6% in 2018 compared to 2017, reaching 21.44 tCO2eq/kboe. This is a 20% reduction compared to 2014, which is in line with the 2025 reduction target. The improvement in the index in 2018 is mainly due to the reduction in flaring emissions, the contribution to production of the gas fields in Egypt (Zohr) and Indonesia (Jangkrik) and the return to full operation in Norway (Goliat). Overall, these activities have a lower emission intensity compared to the portfolio average.

**Comment**

---

**Unit of hydrocarbon category (denominator)**

Other, please specify

Thousand tonnes of refinery throughput

**Metric tons CO2e from hydrocarbon category per unit specified**

253

**% change from previous year**

2

**Direction of change**

Decreased

**Reason for change**

Scope 1 - R&M Key Performance Indicator (GHG emissions/crude oil processing and semi-processed oil), expressed in terms of tCO<sub>2</sub> equivalent per thousand tonnes of refinery throughput. The figure includes CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O emissions. The reduction (2%) respect to 2017 (258 tCO<sub>2</sub>eq/kt) reflects the effort of Eni for the implementation of specific strategies to reduce greenhouse gas emissions and improvement actions designed to increase energy efficiency.

**Comment**

## C-OG6.13

**(C-OG6.13) Report your methane emissions as percentages of natural gas and hydrocarbon production or throughput.**

---

**Oil and gas business division**

Upstream

**Estimated total methane emitted expressed as % of natural gas production or throughput at given division**

0.16

**Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division**

0.9

**Comment**

The first figure refers to Upstream methane emissions vs marketed gas production, expressed as % volume (bcm/bcm). The second figure refers to Upstream methane emissions vs marketed hydrocarbons production. In this case, both numbers (numerator and denominator) are converted into barrel of oil equivalent, using internal conversion factors.



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**Oil and gas business division**

Chemicals

**Estimated total methane emitted expressed as % of natural gas production or throughput at given division**

0.006

**Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division**

0.006

**Comment**

The figure refers to all methane emissions from petrochemical plants, divided by the amount of petrochemical products. The split between natural gas production and hydrocarbon production is not material

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**Oil and gas business division**

Midstream

Downstream

**Estimated total methane emitted expressed as % of natural gas production or throughput at given division**

0.008

**Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division**

0.001

**Comment**

The first figure (0.008%) refers to methane emissions associated with natural gas transported by Eni (on an operated basis). The second figure (0.001%) refers to overall methane emissions from oil refineries, vs throughput.

## C7. Emissions breakdowns

### C7.1

**(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?**

Yes

#### C7.1a

**(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

Greenhouse gas	Scope 1 emissions (metric tons of CO <sub>2</sub> e)	GWP Reference
CO <sub>2</sub>	40,533,698	IPCC Fourth Assessment Report (AR4 - 100 year)
CH <sub>4</sub>	2,602,353	IPCC Fourth Assessment Report (AR4 - 100 year)
N <sub>2</sub> O	211,300	IPCC Fourth Assessment Report (AR4 - 100 year)

#### C-EU7.1b

**(C-EU7.1b) Break down your total gross global Scope 1 emissions from electric utilities value chain activities by greenhouse gas type.**

	Gross Scope 1 CO <sub>2</sub> emissions (metric tons CO <sub>2</sub> )	Gross Scope 1 methane emissions (metric tons CH <sub>4</sub> )	Gross Scope 1 SF <sub>6</sub> emissions (metric tons SF <sub>6</sub> )	Gross Scope 1 emissions (metric tons CO <sub>2</sub> e)	Comment
Fugitives					
Combustion (Electric utilities)					

Combustion (Gas utilities)					
Combustion (Other)					
Emissions not elsewhere classified					

### C-OG7.1b

**(C-OG7.1b) Break down your total gross global Scope 1 emissions from oil and gas value chain production activities by greenhouse gas type.**

**Emissions category**

Combustion (excluding flaring)

**Value chain**

Upstream

**Product**

Unable to disaggregate

**Gross Scope 1 CO2 emissions (metric tons CO2)**

14,450,734

**Gross Scope 1 methane emissions (metric tons CH4)**

5,892

**Total gross Scope 1 emissions (metric tons CO2e)**

14,704,697

**Comment**

Emissions refer to all operated assets with oil and gas production. Total gross Scope 1 emissions (CO<sub>2</sub>e) include also N<sub>2</sub>O emissions.

---

**Emissions category**

Combustion (excluding flaring)

**Value chain**

Downstream

**Product**

Oil

**Gross Scope 1 CO<sub>2</sub> emissions (metric tons CO<sub>2</sub>)**

4,981,172

**Gross Scope 1 methane emissions (metric tons CH<sub>4</sub>)**

89

**Total gross Scope 1 emissions (metric tons CO<sub>2</sub>e)**

5,006,558

**Comment**

Emissions reported refer only to refining activities; emissions from petrochemical production are reported in another row.

---

**Emissions category**

Combustion (excluding flaring)

**Value chain**

Other (please specify)

Petrochemicals production

**Product**

Oil

**Gross Scope 1 CO2 emissions (metric tons CO2)**

3,153,702

**Gross Scope 1 methane emissions (metric tons CH4)**

147

**Total gross Scope 1 emissions (metric tons CO2e)**

3,181,000

**Comment**

Emissions reported refer only to petrochemical production; emissions from refining activities are reported in another row.

---

**Emissions category**

Combustion (excluding flaring)

**Value chain**

Other (please specify)  
power generation

**Product**

Unable to disaggregate

**Gross Scope 1 CO2 emissions (metric tons CO2)**

10,339,673

**Gross Scope 1 methane emissions (metric tons CH4)**

189

**Total gross Scope 1 emissions (metric tons CO<sub>2</sub>e)**

10,462,203

**Comment**

Emissions reported refer to power generation plants operated by Eni's subsidiary Enipower.

---

**Emissions category**

Flaring

**Value chain**

Upstream

**Product**

Unable to disaggregate

**Gross Scope 1 CO<sub>2</sub> emissions (metric tons CO<sub>2</sub>)**

5,727,929

**Gross Scope 1 methane emissions (metric tons CH<sub>4</sub>)**

21,259

**Total gross Scope 1 emissions (metric tons CO<sub>2</sub>e)**

6,259,416

**Comment**

---

**Emissions category**

Venting

**Value chain**

Upstream

**Product**

Unable to disaggregate

**Gross Scope 1 CO2 emissions (metric tons CO2)**

1,327,510

**Gross Scope 1 methane emissions (metric tons CH4)**

31,849

**Total gross Scope 1 emissions (metric tons CO2e)**

2,123,723

**Comment**

---

**Emissions category**

Fugitives

**Value chain**

Upstream

**Product**

Unable to disaggregate

**Gross Scope 1 CO2 emissions (metric tons CO2)**

0

**Gross Scope 1 methane emissions (metric tons CH4)**

38,831

**Total gross Scope 1 emissions (metric tons CO2e)**

970,767

**Comment**

---

**Emissions category**

Fugitives

**Value chain**

Downstream

**Product**

Oil

**Gross Scope 1 CO2 emissions (metric tons CO2)**

0

**Gross Scope 1 methane emissions (metric tons CH4)**

26.13

**Total gross Scope 1 emissions (metric tons CO2e)**

653

**Comment**

Emissions reported refer only to refining activities; emissions from petrochemical production are reported in another row.



---

**Emissions category**

Fugitives

**Value chain**

Other (please specify)

Petrochemicals production

**Product**

Oil

**Gross Scope 1 CO2 emissions (metric tons CO2)**

0

**Gross Scope 1 methane emissions (metric tons CH4)**

192.46

**Total gross Scope 1 emissions (metric tons CO2e)**

4,811

**Comment**

Emissions reported refer only to petrochemical production; emissions from refining activities are reported in another row.

---

**Emissions category**

Fugitives

**Value chain**

Midstream

**Product**

Gas

**Gross Scope 1 CO2 emissions (metric tons CO2)**

0

**Gross Scope 1 methane emissions (metric tons CH4)**

4,088.9

**Total gross Scope 1 emissions (metric tons CO2e)**

102,222

**Comment**

Emissions reported refer to gas transportation and distribution operated activities.

---

**Emissions category**

Fugitives

**Value chain**

Other (please specify)

Power Generation

**Product**

Unable to disaggregate

**Gross Scope 1 CO2 emissions (metric tons CO2)**

0

**Gross Scope 1 methane emissions (metric tons CH4)**

14.54

**Total gross Scope 1 emissions (metric tons CO2e)**

363

**Comment**

**C7.2**

**(C7.2) Break down your total gross global Scope 1 emissions by country/region.**

Country/Region	Scope 1 emissions (metric tons CO2e)
Italy	19,241,655
Europe	1,297,519
Africa	18,956,013
Americas	631,672
Asia, Australasia	2,600,554
Other, please specify Rest of the World	619,938

**C7.3**

**(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

- By business division
- By facility
- By activity

**C7.3a**

**(C7.3a) Break down your total gross global Scope 1 emissions by business division.**

Business division	Scope 1 emissions (metric ton CO2e)
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Exploration and Production	24,058,972
Gas and Power	11,083,580
Refining and Marketing and Chemicals	8,193,022
Other activities	11,777

## C7.3b

**(C7.3b) Break down your total gross global Scope 1 emissions by business facility.**

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Enipower Bolgiano power plant	107,998	45.418631	9.284037
Enipower Brindisi power plant	2,432,711	40.628796	18.004071
Enipower Ferrara Erbognone power plant	2,829,740	45.099562	8.865494
Livorno Refinery power plant	672,054	43.582846	10.344003
Enipower Ravenna power plant	1,709,384	44.442163	12.237733
Enipower Ferrara power plant	1,559,622	44.864227	11.594317
Enipower Mantova power plant	1,760,131	45.15046	10.835494
Livorno Refinery	426,766	43.582846	10.344003
Sannazzaro Refinery	2,374,928	45.099562	8.865494
Taranto Refinery	824,042	40.489672	17.19311
Taranto Refinery power plant	289,722	40.489672	17.19311
Venezia Refinery	350,403	45.46131	12.269648
Gela Refinery	33,374	37.060975	14.277732
Versalis Brindisi plant	463,230	40.628796	18.004071

Versalis Ferrara plant	24,340	44.859662	11.59578
Versalis Mantova plant	198,151	45.145804	10.832987
Versalis Porto Marghera plant	723,265	45.445007	12.250774
Versalis Porto Torres plant	70,266	40.832826	8.378123
Versalis Priolo plant	855,115	37.162464	15.199051
Versalis Ragusa plant	14,112	36.907854	14.728829
Versalis Ravenna plant	41,031	44.442336	12.235117
Versalis Dunquerque plant	674,372	51.026147	2.243813
Versalis Grangemouth plant	61,126	56.004147	-3.677479
e&p Barbara T1 platform	23,931	44.076476	13.78212
e&p Barbara T2 platform	78,772	44.076476	13.78212
e&p Cervia K platform	30,911	44.294722	12.639166
e&p Garibaldi K platform	1,356	44.531389	12.515833
e&p Firenze FPSO plant	50,512	40.923889	18.326208
e&p Casal Borsetti plant	45,708	44.555915	12.264303
e&p Fano plant	36,109	43.808211	13.042845
e&p Trecate plant	27,828	45.432963	8.783472
e&p Val d'Agri plant	638,752	40.314292	15.898084
e&p Crotone plant	48,736	39.105148	17.105979
e&p Gela Enimed plant	20,284	37.066613	14.295542
e&p Torrente Tona plant	101,626	41.741158	15.054249
e&p Hewett plant	33,005	51.490693	0.150303

e&p Goliat plant	69,039	58.889463	5.697797
RSI Sistema Rete Torce	1,083	44.442581	12.233768
LBOC - Point of Ayr Terminal	54,304	53.344974	-3.323073
LBOC - Douglas	204,648	53.344952	-3.323641
LBOC - Oil Storage Installation	3,891	53.344952	-3.323641
All other operated facilities	23,380,974	41.827065	12.47152

### C7.3c

**(C7.3c) Break down your total gross global Scope 1 emissions by business activity.**

Activity	Scope 1 emissions (metric tons CO2e)
Combustion and Process	33,689,559
Flaring	6,259,416
Non-combusted methane and fugitive emissions	1,274,654
Venting	2,123,723

### C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

**(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.**

	Gross Scope 1 emissions, metric tons CO2e	Comment
Electric utility generation activities	10,462,566	

Oil and gas production activities (upstream)	24,058,603	
Oil and gas production activities (downstream)	8,295,244	Fugitive emissions from midstream activities (as reported in C-OG7.1b) are included in this category, as suggested in the methodology.

## C7.5

**(C7.5) Break down your total gross global Scope 2 emissions by country/region.**

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Italy	361,594		1,723,742	
Europe	108,970		989,256	
Africa	194,663		361,150	
Americas	1,597		4,428	
Asia, Australasia	4,287		6,334	

## C7.6

**(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.**

- By business division
- By facility
- By activity

### C7.6a

**(C7.6a) Break down your total gross global Scope 2 emissions by business division.**

Business division	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Exploration and Production	225,297	
Gas and Power	23,243	
Refining and Marketing and Chemicals	348,194	
Other activities	74,377	

## C7.6b

**(C7.6b) Break down your total gross global Scope 2 emissions by business facility.**

Facility	Scope 2 location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Versalis Priolo Plant	127,785	
Versalis Porto Marghera Plant	55,685	
Versalis Oberhausen Plant	49,227	
Versalis Dunquerke Plant	17,009	
Taranto Refinery	3,834	
Versalis Grangemouth Plant	15,851	
Versalis Szazhalombatta Plant	12,898	
Enipower Ravenna Plant	12,847	
Livorno Refinery	21,593	
Venice Refinery	2,306	
Versalis Sarroch Plant	2,582	
Enipower Brindisi Plant	3,072	



All other operated facilities	346,422	
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## C7.6c

**(C7.6c) Break down your total gross global Scope 2 emissions by business activity.**

Activity	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Oil and Gas Production activities	225,297	
Oil Refining	65,654	
Petrochemical Production	282,539	
Midstream and Other activities	97,621	

## C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

**(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.**

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Oil and gas production activities (upstream)	225,297		
Oil and gas production activities (downstream)	348,194		This figure includes also Scope 2 emissions from petrochemical activities

## C7.9

**(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**

Increased

### C7.9a

**(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year.**

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption				
Other emissions reduction activities	1,097,945	Decreased	2.51	<p>Last year 1097945 tCO2e were reduced by Eni's emissions reduction projects, and the total Scope 1 and Scope 2 emissions in the previous year was 43801420 tCO2e, therefore Eni performed a reduction of 2.51%: <math>(1097945 / 43801420) * 100 = 2.51\%</math>.</p> <p>Various inter-related measures have been adopted to reduce emissions in the production processes including programmes to increase energy efficiency and specific projects to reduce methane fugitives emissions.</p> <p>In 2018, Eni invested about €10 million in energy efficiency projects, which, once in full operation, will yield energy savings of around 313 ktoe/year, amounting to a reduction in emissions of about 812 ktCO2eq.</p> <p>Emissions from routine flaring have been further reduced in 2018, mainly due to zero flaring achieved in Turkmenistan (Burun field), that allowed a saving of about 63 ktCO2eq.</p> <p>Regarding fugitive emissions, in absolute terms, Eni achieved a reduction of almost 2 MtCO2eq in upstream fugitive methane emissions compared to 2014, in line with the target of an 80% reduction by 2025. Emissions are stable in 2018 vs. 2017 as the progressive implementation of on-site campaigns (that allowed a further</p>

				reduction of 203 ktCO <sub>2</sub> eq) has been offset by new fields recently started up (Zohr, Jangkrik), so the campaigns will be carried out in 2019.
Divestment				
Acquisitions				
Mergers				
Change in output	1,314,988	Increased	3	Absolute Scope 1+2 GHG Emission in 2018 has increased overall by 0.5% respect to 2017; the increase is mainly driven by the growth of the production level.
Change in methodology				
Change in boundary				
Change in physical operating conditions				
Unidentified				
Other				

### C7.9b

**(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Location-based

## C8. Energy

### C8.1

**(C8.1) What percentage of your total operational spend in the reporting year was on energy?**

More than 5% but less than or equal to 10%

### C8.2

**(C8.2) Select which energy-related activities your organization has undertaken.**

	Indicate whether your organization undertakes this energy-related activity
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

### C8.2a

**(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.**

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	151,530,295	151,530,295
Consumption of purchased or acquired electricity		0	1,918,733	1,918,733

Consumption of purchased or acquired heat		0	37,601	37,601
Consumption of purchased or acquired steam		0	76,982	76,982
Consumption of self-generated non-fuel renewable energy		22,125.92		22,125.92
Total energy consumption		22,125.92	153,563,611	153,585,737

## C8.2b

**(C8.2b) Select the applications of your organization’s consumption of fuel.**

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

## C8.2c

**(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

**Fuels (excluding feedstocks)**

Natural Gas

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

56,224,759

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

6,932,923

**MWh fuel consumed for self-generation of steam**

261,954

**MWh fuel consumed for self-cogeneration or self-trigeneration**

49,029,883

**Comment**

---

**Fuels (excluding feedstocks)**

Fuel Gas

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

62,924,865

**MWh fuel consumed for self-generation of electricity**

30,203,935

**MWh fuel consumed for self-generation of heat**

23,282,200

**MWh fuel consumed for self-generation of steam**

9,438,730

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Comment**

Fuel gas is mainly used in Upstream sector

---

**Fuels (excluding feedstocks)**

Refinery Gas

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

26,367,572

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

18,680,575

**MWh fuel consumed for self-generation of steam**

2,150,732

**MWh fuel consumed for self-cogeneration or self-trigeneration**

5,536,265

**Comment**

---

**Fuels (excluding feedstocks)**

Liquefied Petroleum Gas (LPG)

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

42,062

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

26,915

**MWh fuel consumed for self-generation of steam**

9,095

**MWh fuel consumed for self-cogeneration or self-trigeneration**

6,053

**Comment**

---

**Fuels (excluding feedstocks)**

Light Distillate



**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

170,549

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

170,549

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Comment**

---

**Fuels (excluding feedstocks)**

Diesel

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

3,809,304

**MWh fuel consumed for self-generation of electricity**

1,171,895

**MWh fuel consumed for self-generation of heat**

1,956,954

**MWh fuel consumed for self-generation of steam**

680,455

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Comment**

---

**Fuels (excluding feedstocks)**

Fuel Oil Number 1

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

191,017

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

82,280

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-cogeneration or self-trigeneration**

108,737

**Comment**

---

**Fuels (excluding feedstocks)**

Jet Gasoline

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

17,817

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

17,817

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Comment**

Jet fuel A1

---

**Fuels (excluding feedstocks)**

Kerosene

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

30,436

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

30,436

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Comment**

---

**Fuels (excluding feedstocks)**

Fuel Oil Number 2

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

570,147

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

376,632

**MWh fuel consumed for self-generation of steam**

112,067

**MWh fuel consumed for self-cogeneration or self-trigeneration**

81,448

**Comment**

FOK

---

**Fuels (excluding feedstocks)**

Petroleum Coke

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

897,665

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

897,665

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Comment**

FCC

---

**Fuels (excluding feedstocks)**

Other, please specify

Minor contribution of other carriers recovered from processes

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

284,102

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

284,102

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Comment**

**C8.2d**

**(C8.2d) List the average emission factors of the fuels reported in C8.2c.**

**Diesel**

---

**Emission factor**

3.155

**Unit**

metric tons CO<sub>2</sub>e per metric ton

**Emission factor source**

EU-ETS Reg. 601/2012 / Monitoring and Reporting Guidelines

**Comment**

**Fuel Gas**

---

**Emission factor**

0.228

**Unit**

metric tons CO<sub>2</sub>e per MWh

**Emission factor source**

EU-ETS Reg. 601/2012 / Monitoring and Reporting Guidelines and source specific emission factor based on the fuel composition

**Comment**

### Fuel Oil Number 1

---

**Emission factor**

3.144

**Unit**

metric tons CO2e per metric ton

**Emission factor source**

EU-ETS Reg. 601/2012 / Monitoring and Reporting Guidelines and source specific emission factor based on the fuel composition

**Comment**

### Fuel Oil Number 2

---

**Emission factor**

3.144

**Unit**

metric tons CO2e per metric ton

**Emission factor source**

EU-ETS Reg. 601/2012 / Monitoring and Reporting Guidelines and source specific emission factor based on the fuel composition

**Comment**

### Jet Gasoline

---

**Emission factor**



0.07

**Unit**

metric tons CO2e per GJ

**Emission factor source**

API Compendium 2009

**Comment**

**Kerosene**

---

**Emission factor**

3.149

**Unit**

metric tons CO2e per metric ton

**Emission factor source**

EU-ETS Reg. 601/2012 / Monitoring and Reporting Guidelines

**Comment**

**Light Distillate**

---

**Emission factor**

0.073

**Unit**

metric tons CO2e per GJ

**Emission factor source**

API Compendium

**Comment**

**Liquefied Petroleum Gas (LPG)**

---

**Emission factor**

3.026

**Unit**

metric tons CO<sub>2</sub>e per metric ton

**Emission factor source**

EU-ETS Reg. 601/2012 / Monitoring and Reporting Guidelines

**Comment**

**Natural Gas**

---

**Emission factor**

0.00203

**Unit**

metric tons CO<sub>2</sub>e per m<sup>3</sup>

**Emission factor source**

EU-ETS Reg. 601/2012 / Monitoring and Reporting Guidelines and site specific emission factor based on the fuel composition

**Comment**

### Petroleum Coke

---

**Emission factor**

3,426

**Unit**

metric tons CO<sub>2</sub>e per metric ton

**Emission factor source**

EU-ETS Reg. 601/2012 / Monitoring and Reporting Guidelines

**Comment**

### Refinery Gas

---

**Emission factor**

2.71

**Unit**

metric tons CO<sub>2</sub>e per metric ton

**Emission factor source**

EU-ETS Reg. 601/2012 / Monitoring and Reporting Guidelines and source specific emission factor based on the fuel composition

**Comment**

### Other

---

**Emission factor**

0.074

**Unit**

metric tons CO2e per GJ

**Emission factor source**

API Compendium 2009

**Comment**

## C8.2e

**(C8.2e) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.**

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	69,709,500	50,874,827	22,125.92	22,125.92
Heat	52,746,141	52,739,047	0	0
Steam	29,081,748	27,600,035	0	0
Cooling	0	0	0	0

## C-EU8.2e

**(C-EU8.2e) For your electric utility activities, provide a breakdown of your total power plant capacity, generation, and related emissions during the reporting year by source.**

**Coal – hard**

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO2e)**

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

**Lignite**

---

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO2e)**

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

## Oil

---

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO<sub>2</sub>e)**

**Scope 1 emissions intensity (metric tons CO<sub>2</sub>e per GWh)**

**Comment**

## Gas

---

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO<sub>2</sub>e)**

**Scope 1 emissions intensity (metric tons CO<sub>2</sub>e per GWh)**

**Comment**

**Biomass**

---

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO<sub>2</sub>e)**

**Scope 1 emissions intensity (metric tons CO<sub>2</sub>e per GWh)**

**Comment**

**Waste (non-biomass)**

---

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO2e)**

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

**Nuclear**

---

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO2e)**

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**



## Geothermal

---

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO<sub>2</sub>e)**

**Scope 1 emissions intensity (metric tons CO<sub>2</sub>e per GWh)**

**Comment**

## Hydroelectric

---

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO2e)**

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

**Wind**

---

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO2e)**

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

**Solar**

---

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO2e)**

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

**Other renewable**

---

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO2e)**

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

**Other non-renewable**

---

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO<sub>2</sub>e)**

**Scope 1 emissions intensity (metric tons CO<sub>2</sub>e per GWh)**

**Comment**

**Total**

---

**Nameplate capacity (MW)**

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO2e)**

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

## **C8.2f**

**(C8.2f) Provide details on the electricity, heat, steam and/or cooling amounts that were accounted for at a low-carbon emission factor in the market-based Scope 2 figure reported in C6.3.**

---

**Basis for applying a low-carbon emission factor**

No purchases or generation of low-carbon electricity, heat, steam or cooling accounted with a low-carbon emission factor

**Low-carbon technology type**

**Region of consumption of low-carbon electricity, heat, steam or cooling**

**MWh consumed associated with low-carbon electricity, heat, steam or cooling**

**Emission factor (in units of metric tons CO2e per MWh)**

**Comment**

## C-EU8.4

(C-EU8.4) Does your electric utility organization have a transmission and distribution business?

## C9. Additional metrics

### C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

### C-OG9.2a

(C-OG9.2a) Disclose your net liquid and gas hydrocarbon production (total of subsidiaries and equity-accounted entities).

	In-year net production	Comment
Crude oil and condensate, million barrels	319.97	The figure includes natural gas liquids and is equity based.
Natural gas liquids, million barrels	0	Included in crude oil and condensate.
Oil sands, million barrels (includes bitumen and synthetic crude)	0	
Natural gas, billion cubic feet	1,665	The figure is equity based.

### C-OG9.2b

(C-OG9.2b) Explain which listing requirements or other methodologies you use to report reserves data. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries, please explain this.

Eni has adopted comprehensive classification criteria for the estimate of proved, proved developed and proved undeveloped oil&gas reserves in accordance with applicable U.S. Securities and Exchange Commission (SEC) regulations, as provided for in Regulation S-X, Rule 4-10. Proved oil&gas reserves are those quantities of liquids (including condensates and natural gas liquids) and natural gas which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, under existing economic conditions, operating methods, and government regulations prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain.

## C-OG9.2c

**(C-OG9.2c) Disclose your estimated total net reserves and resource base (million boe), including the total associated with subsidiaries and equity-accounted entities.**

	Estimated total net proved + probable reserves (2P) (million BOE)	Estimated total net proved + probable + possible reserves (3P) (million BOE)	Estimated net total resource base (million BOE)	Comment
Row 1	12,349	14,343	25,636	All Figures are equity based. The figure of total resource base includes 3P and contingent resources.

## C-OG9.2d

**(C-OG9.2d) Provide an indicative percentage split for 2P, 3P reserves, and total resource base by hydrocarbon categories.**

	Net proved + probable reserves (2P) (%)	Net proved + probable + possible reserves (3P) (%)	Net total resource base (%)	Comment
Crude oil / condensate / Natural gas liquids	48	49	48	
Natural gas	52	51	52	
Oil sands (includes bitumen and synthetic crude)	0	0	0	

## C-OG9.2e

(C-OG9.2e) Provide an indicative percentage split for production, 1P, 2P, 3P reserves, and total resource base by development types.

---

### Development type

Onshore

### In-year net production (%)

47

### Net proved reserves (1P) (%)

31

### Net proved + probable reserves (2P) (%)

29

### Net proved + probable + possible reserves (3P) (%)

28

### Net total resource base (%)

24

### Comment

Figures are equity based.

---

### Development type

Shallow-water

### In-year net production (%)



39

**Net proved reserves (1P) (%)**

59

**Net proved + probable reserves (2P) (%)**

57

**Net proved + probable + possible reserves (3P) (%)**

59

**Net total resource base (%)**

60

**Comment**

Figures are equity based.

---

**Development type**

Deepwater

**In-year net production (%)**

14

**Net proved reserves (1P) (%)**

10

**Net proved + probable reserves (2P) (%)**

14

**Net proved + probable + possible reserves (3P) (%)**

13

**Net total resource base (%)**

16

**Comment**

Figures are equity based.

**C-OG9.3a****(C-OG9.3a) Disclose your total refinery throughput capacity in the reporting year in thousand barrels per year.**

	Total refinery throughput capacity (Thousand barrels per day)
Capacity	548

**C-OG9.3b****(C-OG9.3b) Disclose feedstocks processed in the reporting year in million barrels per year.**

	Throughput (Million barrels)	Comment
Oil	169.55	Refinery throughputs on own account in Italy and outside Italy
Other feedstocks	1.82	Green Refinery throughputs
Total	171.37	

**C-OG9.3c****(C-OG9.3c) Are you able to break down your refinery products and net production?**

Yes

**C-OG9.3d****(C-OG9.3d) Disclose your refinery products and net production in the reporting year in million barrels per year.**

Product produced	Refinery net production (Million barrels) *not including products used/consumed on site
Gasolines	43.58
Diesel fuels	64.3
Kerosenes	11.68
Fuel oils	16.42
Liquified petroleum gas	3.07
Lubricants	4.31
Other, please specify Petrochemical Feedstock and Other	14.6

### C-OG9.3e

(C-OG9.3e) Please disclose your chemicals production in the reporting year in thousand metric tons.

Product	Production, Thousand metric tons	Capacity, Thousand metric tons
Other, please specify Total chemical production	9,483	12,445

### C-EU9.5a

(C-EU9.5a) Break down, by source, your total planned CAPEX in your current CAPEX plan for power generation.

Primary power generation source	CAPEX planned for power generation from this source	Percentage of total CAPEX planned for power generation	End year of CAPEX plan	Comment
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### C-EU9.5b

(C-EU9.5b) Break down your total planned CAPEX in your current CAPEX plan for products and services (e.g. smart grids, digitalization, etc.).

Products and services	Description of product/service	CAPEX planned for product/service	Percentage of total CAPEX planned products and services	End of year CAPEX plan
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### C-CO9.6/C-EU9.6/C-OG9.6

(C-CO9.6/C-EU9.6/C-OG9.6) Disclose your investments in low-carbon research and development (R&D), equipment, products, and services.

**Investment start date**

January 1, 2018

**Investment end date**

December 31, 2018

**Investment area**

R&D

**Technology area**

Other, please specify  
Low Carbon R&D

**Investment maturity**

Applied research and development

**Investment figure**

87,409,540

**Low-carbon investment percentage**

21-40%

**Please explain**

Research and Development is a key element for Eni’s transformation into an integrated energy company for a low-carbon future and, in fact, the activities related to decarbonization account for around 38% of the total research spending.

The low-carbon R & D investments in 2018 include: renewables, green chemistry, biorefinery, natural gas promotion, energy efficiency, emissions reduction initiatives.

**C-OG9.7**

**(C-OG9.7) Disclose the breakeven price (US\$/BOE) required for cash neutrality during the reporting year, i.e. where cash flow from operations covers CAPEX and dividends paid/ share buybacks.**

55

**C10. Verification**

**C10.1**

**(C10.1) Indicate the verification/assurance status that applies to your reported emissions.**

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

**C10.1a**

**(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 and/or Scope 2 emissions and attach the relevant statements.**

**Scope**

Scope 1

**Verification or assurance cycle in place**

Annual process


**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

 Eni GHG Assurance Statement - 2018.pdf

**Page/ section reference**

Page 1-2-3-4

**Relevant standard**

ISAE 3410

**Proportion of reported emissions verified (%)**

100

---

**Scope**

Scope 2 location-based

**Verification or assurance cycle in place**

Annual process


**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

 Eni GHG Assurance Statement - 2018.pdf

**Page/ section reference**

Page 1-2-3-4

**Relevant standard**

ISAE 3410

**Proportion of reported emissions verified (%)**

100

## C10.1b

**(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.**

---

**Scope**

Scope 3- all relevant categories


**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Attach the statement**

 Eni GHG Assurance Statement - 2018.pdf

**Page/section reference**

Page 1-2-3-4

**Relevant standard**

ISAE 3410


## C10.2


**(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**

Yes

## C10.2a

**(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?**

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C6. Emissions data	Year on year emissions intensity figure	ISAE 4310	Year on year emissions intensity figures reported in C-OG6.12 are included in the GHG statement assurance attached in question C10.1a.  1

 1Eni GHG Assurance Statement - 2018.pdf



## C11. Carbon pricing

### C11.1

**(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

Yes

#### C11.1a

**(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.**

EU ETS

#### C11.1b

**(C11.1b) Complete the following table for each of the emissions trading systems in which you participate.**

##### EU ETS

---

**% of Scope 1 emissions covered by the ETS**

46

**Period start date**

January 1, 2018

**Period end date**

December 31, 2018

**Allowances allocated**

7,246,314

**Allowances purchased**

12,720,763

**Verified emissions in metric tons CO2e**

19,966,377

**Details of ownership**

Facilities we own and operate

**Comment**

## C11.1d

### **(C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?**

In order to manage the compliance obligation under the EU Emissions Trading Scheme, Eni has centralized the activity within Eni Trading & Shipping, a wholly owned subsidiary based in London.

Eni Trading & Shipping is the wholesale market interface in the emissions market for all business units and subsidiaries of Eni. Through its dedicated trading desk, Eni Trading & Shipping manages the price exposure and co-ordinates the compliance activity of the business units.

Example on how we apply this strategy: Eni Trading & Shipping signed a Master Agreement (MA) with each of the Eni's Business Unit (BU) involved in the EU-ETS. The main aim of the MA (excl. the power sector) is to transfer to Eni Trading & Shipping the CO2 price risk, while leaving the volume risk with the BUs. Therefore, the BUs will just pay a CO2 price as close as possible to the average CO2 price of the relevant year. On the other side, the power sector hedging strategy is based on the assessment of the Clean Spark Spread (CSS). A positive CSS will incentivize the Power Portfolio Unit to sell electricity and buy the corresponding free allowances, locking in the profit. Any kind of speculative trading, aiming at taking advantage of the CO2 price fluctuation is executed by Eni Trading & Shipping and based on the Eni Trading & Shipping vision on the market evolution.

The central Health, Safety, Environment and Quality (HSEQ) department of Eni is responsible for aggregating the verified emissions data, providing emissions forecasts to Eni Trading and Shipping and managing the certification process.

In addition to participating in the European Emission Trading system, from time to time, Eni evaluates the possibility to use carbon credits from the GHG reduction projects based on the Kyoto flexible mechanisms, in order to reduce the compliance cost.

Lastly, Eni estimates the short and mid-term carbon price within its Reference Scenario, which provides the business lines with an outlook for all the energy-related strategic variables. Specifically, the forecasts of the carbon prices are determined on a regular basis through analysis based on European Emissions Trading and political and regulatory developments.

## C11.2

**(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?**

Yes

## C11.2a

**(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.**

---

**Credit origination or credit purchase**

Credit purchase

**Project type**

Hydro

**Project identification**

VN5030

**Verified to which standard**

CDM (Clean Development Mechanism)

**Number of credits (metric tonnes CO<sub>2</sub>e)**

2,000

**Number of credits (metric tonnes CO<sub>2</sub>e): Risk adjusted volume**

2,000

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Compliance

---

**Credit origination or credit purchase**

Credit purchase

**Project type**

Hydro

**Project identification**

CN3415

**Verified to which standard**

CDM (Clean Development Mechanism)

**Number of credits (metric tonnes CO2e)**

500,000

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

500,000

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Compliance

---

**Credit origination or credit purchase**

Credit purchase

**Project type**

Hydro

**Project identification**

CN4150

**Verified to which standard**

CDM (Clean Development Mechanism)

**Number of credits (metric tonnes CO2e)**

298,000

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

298,000

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Compliance

---

**Credit origination or credit purchase**

Credit purchase

**Project type**

Hydro

**Project identification**

CN4159

**Verified to which standard**

CDM (Clean Development Mechanism)

**Number of credits (metric tonnes CO2e)**

11,500

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

11,500

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

---

**Credit origination or credit purchase**

Credit purchase

**Project type**

Hydro

**Project identification**

CN4159

**Verified to which standard**

CDM (Clean Development Mechanism)

**Number of credits (metric tonnes CO2e)**

83,000

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

83,000

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

---

**Credit origination or credit purchase**

Credit purchase

**Project type**

Hydro

**Project identification**

CN8341

**Verified to which standard**

CDM (Clean Development Mechanism)

**Number of credits (metric tonnes CO2e)**

100,000

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

100,000

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

**Credit origination or credit purchase**

Credit purchase

**Project type**

Hydro

**Project identification**

LA5583

**Verified to which standard**

CDM (Clean Development Mechanism)

**Number of credits (metric tonnes CO2e)**

67,000

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

67,000

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

---

**Credit origination or credit purchase**

Credit purchase

**Project type**

Energy efficiency: service

**Project identification**



UZ3910

**Verified to which standard**

CDM (Clean Development Mechanism)

**Number of credits (metric tonnes CO2e)**

99,900

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

99,900

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

---

**Credit origination or credit purchase**

Credit purchase

**Project type**

Energy efficiency: service

**Project identification**

UZ5176

**Verified to which standard**

CDM (Clean Development Mechanism)

**Number of credits (metric tonnes CO2e)**

4,859

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

4,859

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

---

**Credit origination or credit purchase**

Credit purchase

**Project type**

Energy efficiency: supply side

**Project identification**

IN4334

**Verified to which standard**

CDM (Clean Development Mechanism)

**Number of credits (metric tonnes CO2e)**

42,641

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

42,641

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

---

**Credit origination or credit purchase**

Credit purchase

**Project type**

Coal mine/bed CH4

**Project identification**

CN8006

**Verified to which standard**

CDM (Clean Development Mechanism)

**Number of credits (metric tonnes CO2e)**

55,000

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

55,000

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

---

**Credit origination or credit purchase**

Credit purchase

**Project type**

Energy efficiency: service

**Project identification**

UZ3910

**Verified to which standard**

CDM (Clean Development Mechanism)

**Number of credits (metric tonnes CO2e)**

100

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

100

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

---

**Credit origination or credit purchase**

Credit purchase

**Project type**

Hydro

**Project identification**

CN4159

**Verified to which standard**

CDM (Clean Development Mechanism)

**Number of credits (metric tonnes CO2e)**

80,500

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

80,500

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

---

**Credit origination or credit purchase**

Credit purchase

**Project type**

Fossil fuel switch

**Project identification**

IN1116

**Verified to which standard**

CDM (Clean Development Mechanism)

**Number of credits (metric tonnes CO2e)**

450,000

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

450,000

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

---

**Credit origination or credit purchase**

Credit purchase

**Project type**

Hydro

**Project identification**

CN7977

**Verified to which standard**

CDM (Clean Development Mechanism)

**Number of credits (metric tonnes CO2e)**

150,000

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

150,000

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

**Credit origination or credit purchase**

Credit purchase

**Project type**

Hydro

**Project identification**

CN4150

**Verified to which standard**

CDM (Clean Development Mechanism)

**Number of credits (metric tonnes CO<sub>2</sub>e)**

490,000

**Number of credits (metric tonnes CO<sub>2</sub>e): Risk adjusted volume**

490,000

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

**C11.3**

**(C11.3) Does your organization use an internal price on carbon?**

Yes

**C11.3a**

**(C11.3a) Provide details of how your organization uses an internal price on carbon.**

---

**Objective for implementing an internal carbon price**

Drive energy efficiency  
Drive low-carbon investment  
Stress test investments

**GHG Scope**

Scope 1

**Application**

To test the resilience of new projects, Eni assesses potential costs associated with GHG emissions when evaluating all new major capital projects before taking the final investment decision.

All major projects during their construction phase, are bi annually stress-tested and impacts on main KPI assessed (eg: Internal Rate of Return, Net Present Value), against two sets of assumptions:

- i) a uniform cost per ton of carbon dioxide equivalent to the total emissions of each project;
- ii) the hydrocarbon prices and cost of CO<sub>2</sub> emissions adopted in the International Energy Agency (IEA) Sustainable Development Scenario (SDS). This stress test is performed both when the final investment decision is made and, on a regular basis, to monitor the progress of each project.

Futhermore, on an annual basis all Upstream cash generating units are stress-tested against the oil and CO<sub>2</sub> price assumptions of the IEA SDS scenario to verify the impacts on their fair value also under this stress test scenario.

**Actual price(s) used (Currency /metric ton)**

40

**Variance of price(s) used**

Eni carbon pricing is expressed in terms of 2015 Real Terms USD (40\$/tCO<sub>2</sub>eq) and is inflated by 2% on a yearly basis.  
As per IEA SDS cost of CO<sub>2</sub>, the figures are updated on a yearly basis with the publication of IEA's World Energy Outlook

**Type of internal carbon price**



Shadow price

### **Impact & implication**

The review performed at the end of 2018 indicated that the internal rates of return of Eni's ongoing projects in aggregate should not be substantially affected by a carbon pricing mechanism (-0.5 percentage points on internal return rates). The majority of the projects have GHG intensity targets that allow them under current assumptions to compete in a more CO2 regulated future.

## **C12. Engagement**

### **C12.1**

#### **(C12.1) Do you engage with your value chain on climate-related issues?**

Yes, our suppliers

Yes, our customers

### **C12.1a**

#### **(C12.1a) Provide details of your climate-related supplier engagement strategy.**

---

#### **Type of engagement**

Compliance & onboarding

#### **Details of engagement**

Included climate change in supplier selection / management mechanism

Code of conduct featuring climate change KPIs

#### **% of suppliers by number**

84

**% total procurement spend (direct and indirect)**

98

**% Scope 3 emissions as reported in C6.5**

**Rationale for the coverage of your engagement**

Eni has always been committed in selecting suppliers and external partners who recognize, accept and share the company's values. The selection of reliable partners is an essential process in order to create value for shareholders, for ensuring innovation and to protect Eni's integrity.

Eni is carrying out many actions to involve its value chain on climate-related issues.

All Suppliers are required to report information on their "carbon management strategy" with a survey (which includes questions about GHG targets and reduction projects, Carbon Footprint, energy efficiency initiatives) as a part of a wider investigation of the vendor.

Information and feedback are collected and analyzed to define the supplier's qualification status. In this way, Eni ensures a list of selected, qualified and constantly monitored suppliers.

By the end of the year Eni will publish a "Supplier Code of Conduct", that requires commitment to its suppliers for managing and monitoring the main environmental aspects on which they may have influence (energy optimization, GHG reduction), supporting Eni in the challenging process towards "carbon neutrality".

The Code of Conduct will cover all Eni Supply Chain, so all the suppliers will be required to follow the contents.

The percentages (which refers to qualification process) are calculated with respect to the total number of suppliers subject to qualification assessment about HSE aspects carried out by Eni Spa in 2018.

For what concerns the Code of Conduct, the percentages of coverage in the future will be 100%, because all Eni suppliers will be impacted by this document.

**Impact of engagement, including measures of success**

According to Eni internal procurement procedures all the suppliers are subject to the so-called qualification process which introduces a "risk based" approach to supplier's qualification by integrating HSE criticality as a risk category (linked to the specific nature of each single Commodity Class). The survey includes a specific HSE section, with questions on carbon emissions, as well on relevant environmental aspects. For those suppliers identified as "riskier", a further assessment is conducted which can be followed with an on-site audit.

In order to guarantee the correct application of “Supplier Code of Conduct”, Eni constantly monitors the respect of principles included in the Code and can verify the truthfulness of the supplier’s commitment in order to assess its real engagement.

## Comment

---

### Type of engagement

Information collection (understanding supplier behavior)

### Details of engagement

Other, please specify

Collect climate change and carbon information from suppliers at least every five years

### % of suppliers by number

20

### % total procurement spend (direct and indirect)

20

### % Scope 3 emissions as reported in C6.5

### Rationale for the coverage of your engagement

The percentages expressed are an estimate of the qualified suppliers which will be assessed by an International Assessment Platform. All suppliers will be assessed according to the Integrated-Risk-Based Model implemented by Eni, in order to identify the “riskiest suppliers” related to environmental aspects (climate-change included).

Not all the suppliers have the same environmental impacts and associated-risk, so the model implementation, allows Eni to identify those suppliers with the highest impact for its core activities.

All the suppliers are subject to the so-called qualification process, aimed at evaluating, verifying and monitoring their capabilities, compliance with safety and environmental requirements, and other sustainability, ethical and financial related aspects. This process is carried out through a questionnaire, which includes a specific HSE section dedicated to environmental aspects (e.g. climate change, decarbonization, GHG mitigation strategy). All the answers are then analysed by the vendor management unit and collected in a specific sheet for each supplier: in this way Eni has information about any supplier's environmental footprint. Engagement activities with vendors defined as "qualified", according to Eni internal procedures, are prioritised on the basis of a Risk-Based Model. The initial selection is based on answers to the "Code of Conduct", feedbacks and Due Diligence Counterpart. All the suppliers worth looking into, will receive a detailed self-assessment questionnaire, that will soon be managed by means of an international assessment platform (selection on going) through which Eni will be able to easily assess supplier performances on environmental issues. The final result will be a supplier's ranking which will help Eni to identify the most critical suppliers and thus intervene in order to mitigate risks with less costs and greater efficiency. Finally, for those suppliers ranked as "High Risk" (those with a negative outcome from the self-assessment) the final step could be an onsite audit with the adoption of a specific remedy/improvement plan.

### **Impact of engagement, including measures of success**

According to the risk-based model explained above, suppliers will be demanded to complete a self-assessment survey on the platform and will receive back a rank about their environmental performance and indications on areas of improvement. As a measure of success, this ranking will help Eni to identify which are the riskiest suppliers for environmental performance. The suppliers are thus encouraged to improve their environmental footprint and reputation toward Eni, in order to get a better rank/score.

### **Comment**

---

#### **Type of engagement**

Engagement & incentivization (changing supplier behavior)

#### **Details of engagement**

Climate change performance is featured in supplier awards scheme

#### **% of suppliers by number**

100

**% total procurement spend (direct and indirect)**

100

**% Scope 3 emissions as reported in C6.5**

**Rationale for the coverage of your engagement**

Eni is developing a green sourcing project with the purpose to measure the environmental impacts of Eni commodity codes and evaluate suppliers on the basis of their environmental footprint. With this project Eni is developing selection criteria for assessment and selection of products and services in accordance with the principles of the Circular Economy and environmental sustainability. The outcome of the project is the measurement of the environmental impacts of Eni' purchases through the supply chain and to estimate the suppliers' share on Eni's total emissions.

Green Sourcing project is based on the Life Cycle Assessment methodology which evaluates the environmental footprint of selected Eni's commodity codes and deals with the potential environmental impacts during the product lifecycle, according to the principle "from cradle to grave". LCA methodology relies upon a methodological approach called PEF (Product Environmental Footprint) which is the most robust method in order to conduct an LCA analysis and guarantees a wide measurement of the environmental impacts of products and services. The environmental footprint of a product/service takes into account 17 impact categories, which includes: climate change from fossil; climate change from biogenic origin; climate changes associated to the change of use/transformation of soil.

The coverage of supplier's engagement is, at the moment, difficult to estimate: in the early stages of the project 200 commodity codes have been selected for the analysis, on the basis of their environmental footprint and economics impact on Eni value chain. The pilot phase focused on two commodity codes (tubes and road transport for oil products) with the purpose to assess how they impact on the global GHG emissions of Eni (with respect of scope 3) and how the suppliers perform. In the near future, Green Sourcing analysis will be extended to all Eni's suppliers and to all the commodity codes (that's why the inserted percentage is 100%). These green requirements will then be included in the tender's scoring model, aiming to encourage all the suppliers to adopt greener and more environmental-friendly behaviors.

**Impact of engagement, including measures of success**

This program will be implemented both through the issue of specific internal operating guidelines, aimed at managing needs linked to “energy-intensive” goods, and through a campaign to raise awareness on the topic among the suppliers to integrate the principles of Green sourcing in their own operating models and procurement. As a measure of success, when green requirements will be inserted in the scoring models that compose a tender, suppliers will be engaged to make an offer in line with the technical specifications used for their evaluation: in this way Eni will drive its supply chain towards a greener footprint. Indeed, the final outcome of the project is the measurement of the environmental impacts of Eni’ purchases through the supply chain, that will allow to verify how much an engagement initiative can help to decrease the suppliers’ share of Eni’s total GHG emissions.

### Comment

## C12.1b

**(C12.1b) Give details of your climate-related engagement strategy with your customers.**

---

### Type of engagement

Education/information sharing

### Details of engagement

Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

### % of customers by number

### % Scope 3 emissions as reported in C6.5

35

### Please explain the rationale for selecting this group of customers and scope of engagement

Eni has several customers’ categories that are linked to the different businesses.

With reference to the most important products sold by Eni, revenue is generally recognised for:

- crude oil, upon shipment;
- natural gas and electricity, upon delivery to the customer;
- petroleum products sold to retail distribution networks, upon delivery to the service stations, whereas all other sales of petroleum products are recognised upon shipment; and
- chemical products and other products, upon shipment.

For years now, Eni has been committed to promoting constant, open and transparent dialogue on issues linked with climate change, which represent an integral part of its strategy and are therefore communicated to all stakeholders. For each stakeholder category we follow different ways of engagement, and for B2C customers we run engagement campaigns to educate them about the impacts of our products and service.

Rationale and scope of the engagement:

In 2018 the main engagement campaign has been conducted towards Italian customers of petroleum products sold to retail distribution networks due to the relevance of this specific category in terms of number, also because Eni is a leader in the Italian retail market of refined products with a 24% market share (as of December 31, 2018, Eni's retail network in Italy consisted of 4,223 service stations while in the rest of Europe consisted of 1,225 units).

For refined products Eni decided to communicate the environmental impacts of Eni Diesel +, a fuel that significantly reduces polluting emissions (cutting unburnt hydrocarbons and carbon monoxide by up to 40 per cent) and that has a more sustainable production cycle that helps to reduce CO2 emissions by an average of 5 per cent.

#### **Impact of engagement, including measures of success**

Eni decided to communicate the environmental impacts of Eni Diesel +, a fuel that significantly reduces polluting emissions (cutting unburnt hydrocarbons and carbon monoxide by up to 40 per cent) and that has a more sustainable production cycle that helps to reduce CO2 emissions by an average of 5 per cent. Eni measured the success of this campaign through the increase of sales of Diesel+ and between 2017 and 2018 the increase has been equal to 10.5%.

## **C12.3**

**(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?**

Direct engagement with policy makers

Trade associations  
 Funding research organizations  
 Other

## C12.3a

### (C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Cap and trade	Support with minor exceptions	Eni is directly involved with the policymakers in the discussions about the structural reform of European Emission Trading Scheme (EU-ETS) and, more generally, about the debate of the European framework for climate and energy policies.	Eni supports EU-ETS as a central pillar of the European climate policy and believes that it can drive industrial choices in favour of energy efficiency and low carbon fuels without compromising the EU's competitiveness. For this reason Eni supported the structural reform of the EU-ETS for the IV phase, aiming at giving a strong price signal for low carbon investments and establishing a clear framework regarding free allocation for industrial installations facing carbon leakage risk.
Clean energy generation	Support with minor exceptions	Eni has actively participated in the CCS Advisory Group (CAG) to support the UK policymakers to develop a comprehensive legislation capable of deploying the CCS technology, along all the value chain in UK.	According to the IPCC, CCS is a key technology to achieve the targets of the Paris Agreement. Along with others members of the CAG, Eni has proposed a detailed Regulatory & Policy framework to deploy the CCS at commercial scale in UK.
Climate finance	Support with minor exceptions	Eni participated in the public consultation launched by the European Commission about the Innovation Fund: one of the world's largest funding programmes for demonstration of innovative low-carbon technologies.	In the public consultation, Eni suggested a list of the 5 most important highly innovative technologies that will be key to decarbonise the industry and power sectors in the EU and therefore need to be demonstrated over the coming decade. In addition, Eni also indicated all the operational details to make the Innovation Fund fully functional.



## C12.3b

**(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?**

Yes

## C12.3c

**(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.**

---

**Trade association**

IPIECA

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

IPIECA (International Petroleum Industry Environmental Conservation Association) established its Climate Change Working Group (CCWG) in 1988. Since then the group has monitored the climate science and policy discussions, engaging with international governmental bodies and other stakeholders. It now also focuses on providing best practice guidance on GHG emissions monitoring, reporting and management. IPIECA welcomes the Paris Agreement and sees it as a crucial step in global efforts to address climate change.

Since the Paris Agreement was made in December 2015, IPIECA has continued to work on the topic of low-emissions pathways, holding a workshop for members exploring technologies and perspectives on low emissions futures and holding a series of webinars on carbon pricing. Moreover, Eni actively participate in drafting the IPIECA's paper on Low emissions transport, which shows all most sustainable transport options, highlighting advantages and the main barriers.

In the run up to Paris COP-21, IPIECA created the Paris Puzzle, a series of papers intended to address what is seen as key components of efforts to address climate change and demonstrate our commitment to meeting the challenge. Collectively, these papers highlight the fundamental role and contribution of the oil and gas industry in addressing the challenge of a transition to a low-emissions future.

**How have you influenced, or are you attempting to influence their position?**

Eni's SVP Climate Change Energy Efficiency and New Issues is the Executive Committee Champion for Climate Change. Eni takes actively part in Climate Change Working Group and in all the Task Forces related to climate issues (e.g. Reporting, Carbon offsets, etc.).

---

### **Trade association**

IETA

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association's position**

IETA works for the development of an active, global greenhouse gas market, consistent across national boundaries and involving all flexibility mechanisms: the Clean Development Mechanism, Joint Implementation and emissions trading; the creation of systems and instruments that will ensure effective business participation. IETA is the main voice for the business community on emissions trading, the objectives for the organization are to: promote an integrated view of the emissions trading system as a solution to Climate Change; participate in the design and implementation of national and international rules and guidelines; and provide the most up-to-date and credible source of information on emissions trading and greenhouse gas market activity. IETA periodically holds workshop and carries out position papers on relevant topics submitted to the relevant policymakers (e.g. national coal phase out policies). In particular, IETA is monitoring and influencing the developments of EU ETS Phase 4 implementation rules (e.g. dynamic allocation) to secure industrial competitiveness and the functionality of the market. IETA is also currently following within the EU Working Group the evolution of the European debate on increasing the GHG reduction ambition by 2030 and the carbon neutrality by 2050. On the other hand, the International Working Group is engaged in the UN talks around article 6 of the Paris Agreement.

### **How have you influenced, or are you attempting to influence their position?**

Eni has been member of IETA for many years and participates in the EU and International Working Groups activities.

## C12.3d

**(C12.3d) Do you publicly disclose a list of all research organizations that you fund?**

Yes

## C12.3e

**(C12.3e) Provide details of the other engagement activities that you undertake.**

Eni is among the five companies that in 2015 founded the **Oil and Gas Climate Initiative (OGCI)**, a voluntary CEO-led initiative, whose mission is to be the catalyst of actions and investments to mitigate GHG emissions from the Oil & Gas sector and explore new business and new technologies. OGCI is investing up to \$1 billion in 10 years in low carbon technologies, through the OGCI Climate Investment (OGCI CI) vehicle. These are additional investments compared to the commitments of the individual companies and a multiplier effect is expected thanks to the development of low carbon technologies. In addition, in 2018 OGCI set a target for reducing methane emissions to enhance the role of natural gas.

Eni has also been a forerunner in joining the initiative **Global Gas Flaring Reduction** for the progressive elimination of flaring gas and the **Climate and Clean Air Coalition - O&G Methane Partnership** aimed at reducing methane emissions in the O&G sector. Moreover, Eni is the only company among the Peers to be part of the **Task Force on Climate-related Financial Disclosures (TCFD)**, which in 2017 published voluntary recommendations to encourage disclosure of the financial implications of climate change.

## C12.3f

**(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

Eni has set up a strong process in order to ensure that all direct and indirect activities that influence policy are consistent with the overall climate change strategy.

Eni takes part in the activities of several trade associations that interact with national and international institutions on climate and energy regulations. Eni representatives in these associations are constantly in contact with the central HSEQ department, in which there is a dedicated function for climate change which coordinates the definition of Eni's climate strategy and the development of the portfolio of related initiatives in line with international climate agreements). In addition, the central HSEQ and the regulatory affairs department constantly monitor regulatory evolutions in order to identify

directly potential risks and opportunities.

When a new regulation development is envisaged, the central HSEQ department coordinates the work to assess thoroughly risks/opportunities along with the Business Units and the other relevant departments (e.g. regulatory affairs, investor relations, O&G scenarios, planning and control, trading & shipping, sustainability). The consistency with Eni's Business strategies is ensured by dedicated working groups focused on climate issues such as the Climate Change Programme Committee, which involves all the interested departments. In addition, climate issues are also in the agenda of the COHSE, which is the Health Safety and Environmental Committee, composed by the HSE managers of Eni's subsidiaries. Eni's positions are transmitted to the policymakers through the representatives in trade associations (indirect interaction) or the regulatory affairs department (direct interactions).

## C12.4

**(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

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**Publication**

In mainstream reports, incorporating the TCFD recommendations

**Status**

Complete

**Attach the document**

 Annual-Report-2018.pdf

**Page/Section reference**

Pag. 108-111

**Content elements**

Governance

Strategy  
Risks & opportunities  
Emissions figures  
Emission targets

**Comment**

Eni's 2018 Consolidated Disclosure of Non-Financial Information include a specific section dedicated to the Path to Decarbonization, that is structured around the four topic areas covered by TCFD recommendations: governance, risk management, strategy and metrics and targets. For a complete analysis please refer to Eni for 2018 Report - Path to Decarbonization.

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**Publication**

In other regulatory filings

**Status**

Complete

**Attach the document**

 Annual-Report-On-Form-20-F-2018.pdf

**Page/Section reference**

pag 29-30

**Content elements**

Strategy

**Comment**

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**Publication**

In voluntary sustainability report

**Status**

Complete

**Attach the document**

 EniFor-2018-Decarbonization.pdf

**Page/Section reference**

All the document.

**Content elements**

Governance  
Strategy  
Risks & opportunities  
Emissions figures  
Emission targets  
Other metrics

**Comment**

The document is organised based on the Task Force on Climate-related Financial Disclosures recommendations.

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**Publication**

In voluntary sustainability report

**Status**

Complete

**Attach the document**

 EniFor-2018-eng.pdf

**Page/Section reference**

Pag. 18-21

**Content elements**

Strategy  
Emissions figures  
Emission targets

**Comment**

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**Publication**

In other regulatory filings

**Status**

Complete

**Attach the document**

 2019-2022-strategy.pdf

**Page/Section reference**

Pag. 5-6, 20-24, 31

**Content elements**

Strategy

Emission targets

**Comment**

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**Publication**

In voluntary communications

**Status**

Complete

**Attach the document**

 Fact-Book-2018-eng.pdf

**Page/Section reference**

pag. 4-5

**Content elements**

Emissions figures

Emission targets

**Comment**



## C14. Signoff

### C-FI

**(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.**

### C14.1

**(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

	<b>Job title</b>	<b>Corresponding job category</b>
Row 1	Chief Executive Officer	Chief Executive Officer (CEO)