



METHANE
GUIDING
PRINCIPLES

Methane Guiding Principles Signatory Reporting

Eni S.p.A.

January 15th 2021





COMPANY: **Eni S.p.A.**

DATE: **January 15th 2021**

YEAR OF JOINING METHANE GUIDING PRINCIPLES: **2017**

SENIOR REPRESENTATIVE: **Rosanna Fusco Head Climate Strategy and Positioning**



Principle One:
Continually reduce methane emissions

Historical completed activity	2021 intended activity
<p>Our actions and commitment to achieve reductions in methane emissions, as well as performance achieved, are described and reported in the following public documentation:</p> <ol style="list-style-type: none"> 1. Eni For - Carbon Neutrality in the long term Link: https://www.eni.com/assets/documents/eng/just-transition/2019/Eni-for-2019-Carbon-neutrality-in-the-long-term.pdf 2. CDP Climate Change Questionnaire Link: https://www.eni.com/assets/documents/eng/just-transition/2020/EniSpA-CDP-Climate-Change-Questionnaire-2020-submitted.pdf 3. Eni GHG Emissions Statement Link: https://www.eni.com/assets/documents/eng/just-transition/2020/Eni-GHG-Reasonable-Assurance-Statement-2019.pdf 	<p>In 2021 we will continue to improve our field monitoring surveys using an Optical Gas Imaging (OGI) camera implementing the requirement of yearly DI&M campaign in all our sites worldwide. This will lead to a further reduction of fugitive emissions.</p> <p>Methane emissions will be covered again by 3rd party reasonable assurance; we will continue the training program of local personnel for the Infrared Cameras in order to increase the frequency of Leak Detection And Repair (LDAR) campaigns.</p> <p>We are also planning and performing a first test with GHG-Sat to monitor with satellite the emissions from one subsidiary to assess the detection capacity of this technology.</p>



What are your organisation's total methane emissions?

Historical completed activity	2021 intended activity
<p>Methane Emissions: 65309 tCH₄</p> <p>Reporting Year: 2019</p> <p>Boundary: 100% operated - according to this approach, Eni reports 100% of GHG emissions from assets over which it has operational control, that is where Eni is able to enforce its own policies and procedures, even when it holds less than 100% of the value (for example in a joint venture). With respect to Upstream Methane Emissions (63958 tCH₄, equal to 98% of Eni's overall methane emissions), these are split into the following categories:</p> <ul style="list-style-type: none"> • Combustion and industrial processes 5,824 • Fugitives 21,940 • Flaring (incomplete combustion) 20,543 • Venting 15,291 <p>Emissions are estimated through a combination of methodologies: i) not combusted methane are estimated on the basis of metered fuel consumption and gas composition; for flaring, combustion efficiency of 98% is applied; ii) fugitive emissions are estimated with Leak Detection and Repair (LDAR) programs, using mainly infrared camera and sniffing techniques, or by applying literature emission factors to plant components; to date, about 90% of assets (in terms of operated production) are covered by LDAR programs; iii) venting emissions are directly measured or estimated on the basis of equipments configuration, mainly following the methodology described in the Climate and Clean Air Coalition Oil and Gas Methane Partnership Technical Guidances.</p> <p>Methane emissions data are third party verified within the overall GHG assurance review. Eni conduct a dedicated assurance process for GHG figures, additional to the one related to Sustainability KPIs. Since 2019, GHG Scope 1 and Scope 2 emissions (including methane) are subjected to a reasonable assurance by an auditing firm (PWC).</p> <p>More information on methodologies applied and verification process are available in the following documentation:</p> <ol style="list-style-type: none"> 1. Eni For - Carbon Neutrality in the long term Link: https://www.eni.com/assets/documents/eng/just-transition/2019/Eni-for-2019-Carbon-neutrality-in-the-long-term.pdf 2. CDP Climate Change Questionnaire Link: https://www.eni.com/assets/documents/eng/just-transition/2020/EniSpA-CDP-Climate-Change-Questionnaire-2020-submitted.pdf 3. Eni GHG Emissions Statement Link: https://www.eni.com/assets/documents/eng/just-transition/2020/Eni-GHG-Reasonable-Assurance-Statement-2019.pdf 	

Does your organisation report methane intensity?
If so, please specify the intensity.

Historical completed activity	2021 intended activity
<p>Upstream Methane Intensity: 0,10%</p> <p>Reporting Year: 2019</p> <p>Boundary: 100% operated - according to this approach, Eni reports 100% of GHG emissions from assets over which it has operational control, that is where Eni is able to enforce its own policies and procedures, even when it holds less than 100% of the value (for example in a joint venture).</p> <p>Eni reports Methane Intensity according with methodology defined within the Oil & Gas Climate Initiative Reporting Framework, available at the following link: http://vklb72qn0p747zkmy18w0m8g-wpengine.netdna-ssl.com/wp-content/uploads/2020/10/OGCI-Reporting-Framework-3.3-October-2020.pdf</p> <p>The numerator includes all operated methane emissions associated with upstream activities; denominator include the gas production sold (marketed gas).</p>	



Do you have a methane emission target?

Historical completed activity	2021 intended activity
<p>Eni has in place two methane specific targets, namely:</p> <p>Reduction of upstream fugitive methane emissions of 80% by 2025 against 2014: in 2019, upstream fugitive methane emissions were 21.9 kton CH₄, decreasing by 44% against 2018, due to Leak Detection and Repair (LDAR) campaigns carried out in the assets at Zohr (Egypt) and Jangkrik (Indonesia) and improved accounting approach for El Feel and Bouri (Libya). The reduction achieved has made it possible to attain the 2025 target six years in advance.</p> <p>Oil and Gas Climate Initiative (OGCI) collective methane intensity target of reducing the upstream methane intensity from 0.32% in 2017 to 0.25% in 2025, with an ambition of 0.20%. The Eni's upstream methane emissions intensity (0,10% in 2019) decreased by 37% vs. 2018. Results have been achieved mainly with the implementation of Leak Detection and Repair (LDAR) campaigns which consist in on-site monitoring of plant components to identify and eliminate methane leaks by scheduling appropriate maintenance.</p> <p>In addition, other Eni's targets like the upstream GHG emissions intensity (-43% by 2025 vs 2014) and the Carbon Efficiency Index (-2% Year-on-Year 2014-2021) also include the contribution from methane emissions.</p> <p>More detailed information on Eni's target are available at the following link:</p> <ol style="list-style-type: none"> 1. Eni For - Carbon Neutrality in the long term Link: https://www.eni.com/assets/documents/eng/just-transition/2019/Eni-for-2019-Carbon-neutrality-in-the-long-term.pdf 2. CDP Climate Change Questionnaire Link: https://www.eni.com/assets/documents/eng/just-transition/2020/EniSpA-CDP-Climate-Change-Questionnaire-2020-submitted.pdf 3. Eni GHG Emissions Statement Link: https://www.eni.com/assets/documents/eng/just-transition/2020/Eni-GHG-Reasonable-Assurance-Statement-2019.pdf 	

Principle Two:

Advance strong performance across the gas supply chain

Historical completed activity	2021 intended activity
<p>In 2020 Eni confirmed its commitment to engage with industry players and stakeholders on methane emission management, mainly through active participation in several initiatives and organizations.</p> <p>Within the Methane Guiding Principles (MGP) Initiative, Eni sponsored, in collaboration with Snam, the Italian edition of the Global Outreach Programme, organizing the virtual executive and masterclass course, aimed at providing to executives and operational manager the right knowledge about methane management, best practices and opportunities to reduce emissions. Most of the Transmission System Operators, Distribution System Operators and upstream operators in Italy joined the event.</p> <p>Moreover, under MGP Eni together with other multinational companies in the sector and some of the most important organisations in the academic and non-profit worlds, sent to the European Commission a document with short-, medium- and long-term recommendations for the upcoming European methane regulation(see principle four).</p> <p>In 2020, Eni worked collectively with UN Environment Programme (UNEP), the European Union and other oil and gas companies in order to deliver the standardization of the Oil and Gas Methane Partnership (OGMP) 2.0 framework for methane reporting. The initiative was officially launched on November 23rd</p> <p>Under the Oil & Gas Climate Initiative, Eni continued to support UNEP-led initiatives like the Global Methane Alliance and the International Methane Studies.</p> <p>Under MGP, in addition to the effort provided within the Policy working Group, Eni joined the initiative aimed at engaging with Non-Operated Joint Venture (NOJV) partners, participating in three webinars organized in June.</p>	<p>In 2021 Eni will continue to collaborate with industry players, and stakeholders in order to enable the improvement of the methane performance across the full gas value chain.</p> <p>The main vehicle will be the active participation within the international partnerships and associations.</p> <p>Within OGCI, Eni will support projects aimed at improving knowledge and technologies on methane detection and quantification, as well as methane reduction (e.g. participation in the International Association of Oil and Gas Producers (IOGP)/IPIECA/OGCI review of detection & quantification recommended practices, OGCI support to the update of Global Methane Budget, review of OGCI intensity target, etc)</p> <p>Under MGP Eni will continue to support MGP initiatives, and in particular the NOJV engagement activities.</p> <p>Under OGMP 2.0, Eni will participate in technical working groups in synergy with downstream operators.</p>

Principle Three: Improve accuracy of methane emissions data

Historical completed activity	2021 intended activity
<p>In the 2020 a new Operating Instruction has been issued for the Upstream sector in order to improve our management and accounting of methane emissions. In detail, this document aims at providing:</p> <ul style="list-style-type: none"> • Methodological criteria for the identification and inventory of potential methane emission sources in the upstream production facilities; • Procedures and applicable tools for conducting emissions surveys, including emission detection and quantification equipment; • Methodological criteria for performing a uniform and consistent accounting of methane emissions among Upstream subsidiaries; • Direct Inspection & Maintenance programs with respect to methane emission sources; • Best Practice, Best Available Techniques (BAT) and Best Available Techniques Reference Documents (BREFs) for methane emissions monitoring and management. <p>Another step performed in 2020 was the signing and application of four framework agreements with OGI Camera providers in order to allow our subsidiaries worldwide to purchase these instruments with ease: with OGI Camera the subsidiaries are able now to perform LDAR campaigns more frequently in their sites.</p> <p>At the end of 2020, more than 10 of our subsidiaries worldwide have access to an OGI Camera.</p> <p>Due to the Covid 19 situation, in 2020 we changed our “infield training” for the LDAR campaign with a complete online training program developed internally and provided to different sites to allow these teams to perform field surveys this year with the new OGI Cameras.</p> <p>We are also planning and performing a first test with GHGSat to monitor with satellite the emissions from one subsidiary to assess the detection capacity of this technology.</p> <p>In collaboration with the other Business Units of Eni, we have developed a new tool for the accounting and monitoring of fugitive emissions in our facilities. This tool is a new online database that allows the accounting of all the possible sources of fugitive emissions from site and the monitoring results of the field survey (including leaks); the tool will provide an automatic quantification of emissions, and in collaboration with maintenance tools, will send automatically to the team an alert email to communicate the need for repair. After the repair, the data is updated in the database, where it is also possible to store picture and video of the field monitoring and maintenance activities.</p>	<p>Methane emissions will be covered again by 3rd party reasonable assurance; we will continue the training program of local personnel for the Infrared Cameras in order to increase the frequency of LDAR campaigns.</p>



Principle Four:

Advocate sound policy and regulations on methane emissions

Historical completed activity	2021 intended activity
<p>Eni is partner of several initiatives which envisage the implementation of voluntary actions for the reduction of methane emissions along the entire oil & gas production process and which promote the implementation of regulations and objectives on the reduction of methane emissions along the supply chain of the natural gas; for more information see section on Partnerships in ‘Eni For - Carbon Neutrality in the long term’ (p.38).</p> <p>Link: https://www.eni.com/assets/documents/eng/just-transition/2019/Eni-for-2019-Carbon-neutrality-in-the-long-term.pdf</p> <p>Natural gas will play a central role in the energy transition. It is therefore fundamental that energy companies reduce their methane emissions. For this reason Eni, in 2020, together with other multinational companies in the sector and some of the most important organisations in the academic and non-profit world, has sent a document with short-, medium- and long-term recommendations to the European Commission. It contains a series of policy suggestions to reduce methane emissions within the scope of the European Green Deal, in order to achieve climate neutrality by 2050.</p> <p>Link: https://www.eni.com/assets/documents/ita/low-carbon/Methane-policy-recommendations-for-the-European-Union-3.pdf</p> <p>Eni also supports actions for the introduction of mechanisms (e.g. EPS at European level) that favour the use of fuels with lower emission intensities and lower consumption of natural gas.</p> <p>The progressive mitigation of its carbon impact makes gas a fundamental energy source for accompanying the transition towards a low carbon content energy mix together with substitution of the more polluting fossil fuels in electricity generation and in energy-intensive industries. It will also contribute to guaranteeing the balancing of the electric system by integrating the intermittance of renewable sources.</p>	<p>As 2021 is the year of COP26, Eni will be in favour of global action on the issue of reducing methane emissions.</p> <p>In 2021 we will continue to collaborate with our partners for the most appropriate and constructive engagement with governments to support the implementation of a methane regulation, both in the European context and in oil & gas producing countries (e.g. supporting UNEP initiatives).</p>



Principle Five: Increase transparency

Historical completed activity	2021 intended activity
<p>Eni reports relevant information on methane emissions management through several frameworks. In particular, information on data and methodologies are available at the following links:</p> <ol style="list-style-type: none"> 1. Eni For - Carbon Neutrality in the long term <p>Link: https://www.eni.com/assets/documents/eng/just-transition/2019/Eni-for-2019-Carbon-neutrality-in-the-long-term.pdf</p> <ol style="list-style-type: none"> 2. CDP Climate Change Questionnaire <p>Link: https://www.eni.com/assets/documents/eng/just-transition/2020/EniSpA-CDP-Climate-Change-Questionnaire-2020-submitted.pdf</p> <p>In 2020, Eni worked collectively with UNEP, EU and other oil and gas companies in order to deliver the standardization of the OGMP 2.0 framework for methane reporting. The initiative was officially launched on November 23rd.</p> <p>By Joining OGMP 2.0, Eni makes a relevant step forward in terms of commitment on methane reduction, improvement of quality of data reported and transparency on disclosure.</p>	<p>In 2021, Eni will continue to report information on methane management practices, methane data and other challenges across the public reports and through voluntary disclosure frameworks (e.g. CDP). In addition, Eni will report within the new framework OGMP 2.0, as well as continuing to collaborate with partners and other companies within the international partnerships to enable a better transparency and harmonization in oil and gas methane disclosure.</p>

Commentary:

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