



METHANE
GUIDING
PRINCIPLES

Methane Guiding Principles Signatory Reporting

Enagás

December 2022



COMPANY: **Enagás**

DATE: **December 2022**

YEAR OF JOINING METHANE GUIDING PRINCIPLES: **2019**

SENIOR REPRESENTATIVE: **Claudio Rodríguez Suárez**



Principle One: Continually reduce methane emissions

- Please state what specific activities or projects your company has undertaken to reduce methane emissions. Please refer to the previous year’s annual MGP reporting where applicable to refer to intended activity. Link to sustainability report where relevant to provide further detail.
- Describe how the reduction was achieved including description of the asset type, technology type, timeframe. What was the end result?
- Provide data to support your description e.g. the actual amount of emissions reduction achieved, or the reduction in methane intensity.

2022 completed activity	2023 intended activity
<p>In 2021, methane emissions represented 23% of Enagás' carbon footprint (Scopes 1 and 2).Methane emissions accounted for 2.221 tCH₄. Almost 71% of these emissions (1,241 tCH₄)were due to venting during operation, maintenance and safety works or from technical devices and pneumatic valves- and the remaining 29% (634 tCH₄)corresponded with uncontrolled and continuous gas leaks over time – fugitive emissions. In 2021, thanks to Enagás’ efforts to reduce venting and fugitive emissions, methane emissions decreased by 11% compared to 2020.</p> <p>The boundaries of our reported data covers all assets over which Enagas has operational control (i.e. Spanish facilities). To develop our methane inventory we follow the guidelines set by international recognized standards/organizations such as GHG Protocol, IPCC, ISO 14064,MARCOGAZ guides (e.g. “Assessment of methane emissions for Gas Transmission & Distribution System Operators”) and OGMP Technical Guidance Documents. Methane emissions are part of our carbon footprint which is annually verified by a third party (reasonable assurance).</p> <p>Regarding fugitive emissions, Leak Detection and Repair (LDAR) campaigns have been carried out since 2013 in our facilities according to</p>	<p>Enagás will continue implementing mitigation measures and best available techniques to minimize its methane emissions.</p> <p>To reduce fugitive emissions in 2023 Enagás will continue performing annual LDAR campaigns in all our facilities ensuring that fugitives emissions are identified and repaired as soon as possible.</p> <p>Enagás will proceed to repair part of the remaining emissions in flanges and valves, with different technologies available in the market.</p> <p>Regarding vents, Enagás is analyzing the feasibility to incorporate improvements in its equipment to reduce the release of natural gas into the atmosphere. Some examples include:</p> <ul style="list-style-type: none"> - Electrification of turbocompressors. - Analysis of viability to extend compressors’ pressurization time to reduce vents in compressor stations that have many stops / starts. - A portable compressor will be purchased to eliminate the venting generated during ILI inspections and maintenance of turbochargers at the Compressor Stations.



European standard **UNE-EN-15446** and **US EPA's Method 21** by internal and trained personnel. The leaking components repaired during 2022 allowed a reduction of 201 tCH₄.

In parallel with the LDAR campaigns, Enagás quantifies the detected fugitive emissions. It is worth highlighting that, from 2020 onwards, Enagás is carrying out annual LDAR campaigns at all its facilities, including the quantification of all the detected leaks.

Concerning MRV, Enagas also carries out external top-down and bottom-up sampling campaigns in the most representative facilities, in order to reconcile the data and identify all emissions.

Venting of natural gas is more difficult to prevent as it is linked to operation, maintenance and incidents, sometimes where venting is required for safety reasons.

Measures implemented aimed at minimizing methane emissions include, among others:

- Annual Leak Detection And Repair (LDAR) Campaigns (including the quantification and registration of all the detected leaks during the surveys).
- Detection, quantification and repair of fugitive emission points covering all our facilities, which has enabled us to avoid the emission of 200 t CH₄ e in 2021 and reduce fugitive emissions by 11% compared to last year
- Implementation of a vented gas recovery system at the Lumbier Compressor Station, which will lead to reductions of nearly 438 t CH₄ per year
- Continued replacement of pneumatic actuators with electric actuators in the



transmission network, which has prevented the emission of almost 7,15 t CH₄e into the atmosphere.

Recovery of part of the compressor venting from the regasification plants, which has prevented the emission of approximately 4 t CH₄

Principle Two:

Advance strong performance across the gas supply chain

Please include answers to the following questions:

1. Did you participate in any methane research or plan to do so?
 2. Did you conduct any outreach on methane management?
- Describe what action you have taken to engage industry players across the value chain to better understand how to achieve robust methane emissions management. Outreach activity could include training sessions, participation in webinars, influencing of NOJV partners, or publication of guidance. Activity could also include commercial incentives or engagement with investors to drive better performance by others.
 - Provide details of any outcomes that resulted from your action.

2022 completed activity	2023 intended activity
<p>Enagás participates in a number of associations actively collaborating in the preparation of reports, studies and research related to methane emissions to engage industry players. During 2022, the following were of note:</p> <ul style="list-style-type: none"> • Enagás is an active member of GIE (Gas Infrastructure Europe) and MARCOGAZ. We are members of the Board of both organizations. In GIE we chair the methane emissions group. Enagás has the Presidency of the Sustainability Committee of MARCOGAZ. Enagás is also an active member of MARCOGAZ’s Methane Emissions and Sustainability Reports Working Groups among others. Within the framework of the “Methane Emission Working Group”, we participated in the development of CH₄ emissions quantification methodologies for the gas sector that will allow providing reliable information to governments, EU institutions, regulatory bodies and the civil society. <p>In this context, in 2021, Enagás, together with MARCOGAZ and GIE, led the publication of the Methane Emissions Glossary. PR Methane Emissions Glossary 22 03 2021.pdf (gie.eu)</p>	<p>Enagás will continue collaborating and participating with associations related to methane emissions to engage industry players. Some examples are:</p> <ul style="list-style-type: none"> • Finalise MARCOGAZ analysis to set a European methane emissions reduction target covering midstream and/or downstream. • Enagás, together with GIE and MARCOGAZ will continue disseminating information and raising awareness among the gas industry. • Collaboration with IMEO in a proposal of project for a reconciliation assessment of Compressor Stations in EU. <p>Additionally, as already mentioned, Enagás will work with its affiliates in order to improve our engagement and their methane emissions data.</p> <p>Enagas will collaborate with SATLANTIS for the calibration of its optical camera</p>



- In addition, in 2021 MARCOGAZ and GIE prepared a questionnaire to gather information on the current practices on LDAR and on venting&flaring. Based on that MARCOGAZ prepared the technical recommendation.

MARCOGAZ published in 2022 the documents:
“Technical recommendations on LDAR campaigns“
<https://www.marcogaz.org/wp-content/uploads/2021/04/Recommendation-on-LDAR-campaigns.pdf>

“Technical recommendations on venting & flaring – mind and downstream infrastructures.
<https://www.marcogaz.org/wp-content/uploads/2021/04/Recommentations-on-Venting-and-Flaring.pdf>

- In November 2020 Enagás joined the **Oil and Gas Methane Partnership (OGMP)**. The OGMP is a Climate and Clean Air Coalition initiative led by the UN Environment Programme, in partnership with the European Commission, the Environmental Defense Fund, and leading oil and gas companies. The **OGMP 2.0** is the new **gold standard** reporting framework that will improve the reporting accuracy and transparency of anthropogenic methane emissions in the oil and gas sector. In this context, Enagás together with GIE, MARCOGAZ and other gas companies have been collaborating with the European Commission (EC), UN Environment Programme and the Environmental Defense Fund, with the aim of having a common methane emissions reporting framework and a guideline to fill in the reporting template covering transmission networks, LNG regasification terminals, underground gas storages and distribution networks.

Within the OGMP 2.0 Framework Enagás has developed and sent a questionnaire on methane emissions to its affiliates to assess whether or not affiliates have set methane targets, methane

that aims to detect emissions from a satellite



reduction initiatives and how they are reporting methane figures.

In 2022, Enagás has achieved the Gold Standard awarded by OGMP 2.0, this awards the establishment of a credible path for decarbonization at Enagás as well as for the efforts which have been done up to now.

- Enagás also holds the presidency of the **UNECE Group** of Gas Experts within which one of the lines of work is methane emissions. In this field, the study "[Best Practice Guidance for Effective Methane Management in the Oil and Gas Sector: MRV and Mitigation](#)" and Enagás was a member of the Steering Committee.
- Enagás is a member of the European Gas Research Group (**GERG**) which aims to promote innovation in gas technology as a vital contributor to Europe's energy future. GERG is developing roadmaps in 3 important topics for the gas sector: [methane emissions](#), biomethane and hydrogen. Enagás coordinated and lead with GERG an innovation project aimed to provide guidelines on how source and site level reconciliation is to be performed. Following a Technology Benchmark of most promising site level technologies that took place in 2021, ([Link](#)), in 2022 a first pilot project on reconciliation took place, including tests with site and source level technologies in a Compressor Station in operation in Belgium.

Principle Three:

Improve accuracy of methane emissions data

- Describe action taken to improve methane emissions data collection methodologies. This could be application of new technology at an operated site(s), investment and participation in R&D initiatives, development of monitoring/modelling software, or support to research that improves the accuracy of the quantification of methane emissions.

- Where new technology /software has been piloted or adopted, it is helpful to describe how it works, the reasons it was selected, and how it was deployed. Any data that can be shared to demonstrate improvements is useful.
- How these new methods/technologies has been adopted into your accounting process if at all.

2022 completed activity	2023 intended activity
<p>To improve accuracy of methane emissions data, Enagás has been working on:</p> <ul style="list-style-type: none"> • Leak Detection and Repair (LDAR) campaigns, including measurements, which have been carried out since 2013 in our facilities. At first, frequency of inspections have varied depending, among other factors, on the size and age of our installations, prioritizing those with the oldest equipment and with the biggest size. It is worth highlighting that from 2020 onwards Enagás is carrying out annual LDAR campaigns (including measurement) at all its facilities, thus increasing the frequency of LDAR campaigns and hence improving the accuracy of its data. In addition, in 2022 a shorter period has been introduced for fixing leaks detected in the campaigns and in addition, reparation of non-remaining emissions has been classified as environmentally counterproductive and technically unfeasible. This will allow a faster and more efficient reduction of emissions and planned repairs. • Additionally, in 2022, Enagás in line with Global Methane Alliance, are committed to reducing methane emissions from our activity by 45% by 2025 and 60% by 2030 with respect to 2015 figures. • During 2022, Enagás has been working on the digitalization of its carbon footprint aiming at automating and improving data 	<p>In the context of the OGMP 2.0, three task forces are established (Reporting Template Task Force, Technical Guidance Task Force, Uncertainty and Reconciliation Task Force). In 2023 Enagás will continue taking part in the Reporting Template Task Force and will also lead and actively participate in the midstream and downstream mirror group created to follow-up actions in all task forces. Enagás has also joined the recently created Implementation TF.</p> <p>Additionally, Enagás is also part of the CEN TC234 WG14 that will develop a Technical Report to quantify methane emissions.</p> <p>Enagás will also continue with collaborative projects related to site-level measurements in order to compare the site level measurements with available information on different sources of emissions.</p> <p>These activities will enable Enagás to improve its understanding on methane emissions and its data by integrating more accurate methodologies in our current quantification methodology.</p> <p>In addition, Enagás will continue to closely work with its affiliates to engage in methane reduction initiatives as well as in improving methane reporting.</p>



consistency and traceability. These activities will enable Enagás to improve its understanding on methane emissions and its data by integrating more accurate methodologies in our current quantification methodology.



Principle Four:

Advocate sound policy and regulations on methane emissions

Advocacy consists of active participation in legal consultation processes, external policy statements, and direct engagement with government

- Consider providing details on the region or regulation involved, how you undertook your advocacy, others involved, and the outcome.

2022 completed activity	2023 intended activity
<p>Enagás has participated in the workshops and public consultations organized by the European Commission to gather information for the EU strategy to reduce methane emissions. In this context, Enagás, in close cooperation with experts from the GIE and MARCOGAZ, ENTSOG, Eurogas and GERG community has been participating in bilateral meetings with the EC to provide sectorial information, real emissions data, best practices, etc. This work is paramount in the context of the upcoming EU Methane Emissions Regulation to be adopted in 2023.</p> <p>Enagás has actively participated in the Methane Guiding Principles in the development of the EU policy recommendations published in 2022, coordinating the one on LDAR campaigns.</p> <p>During 2022, Enagás, through MARCOGAZ and GIE, participated in the following events:</p> <ul style="list-style-type: none"> • Workshop on a regulatory approach on leak detection and repair of methane emissions in the oil and gas sectors. An initiative from the Methane Guiding Principles • Workshop on “Mitigating methane emissions: the role of the gas sector” • Workshop and contributing to build the OGMP 2.0 community of practice 	<p>Enagás is fully committed to support the European authorities with the development of the Methane Emissions Regulation. In this sense during 2023, Enagás will continue interacting with the relevant gas associations and exchanging with the European legislators as requested.</p>



Principle Five: Increase transparency

Please include answers to the following question:

1. Are you participating in OGMP 2.0 or do you intend to do so? If you are participating in OGMP 2.0 you may provide a link to the website.
 - Describe what activity you have carried out e.g. providing information in relevant external reports on methane emissions data, methodologies, and progress and challenges in methane emissions management.
 - If you have contributed towards the standardisation of comparable external methane reporting describe the activity you have taken.

2022 completed activity	2023 intended activity
<p>To increase transparency on methane emissions we include relevant information on our mainstream report Annual Report and on our website. During 2022 we updated our website and included a specific section for methane emissions. Our response to CDP Climate Change Questionnaire includes methane data.</p> <p>Enagás has also achieved the ‘Gold Standard’ in the OGMP, in recognition of its efforts to report and reduce methane emissions and establishing a credible path to reduce them towards 2030.</p> <p>CEN Technical Report to quantify methane emissions: Enagás participated in the drafting of a Technical Report within CEN, aimed to standardise the methodology for methane emissions quantification for gas transmission, distribution and storage systems and LNG terminals (FprCEN/TS 17874).</p> <p>In addition, we collaborate with several initiatives in sharing best practices and providing methane data which are included as cases studies in public publications.</p> <p>Enagás has been included for the 15th consecutive year in the Dow Jones Sustainability Index World (DJSI).</p>	<p>Enagás, as a leading company in the management of GHG and methane emissions, will continue providing information on external reports (i.e. annual report, website, OGMP) and in public publications made by organizations.</p> <p>CEN Technical Report to quantify methane emissions: FprCEN/TS 17874 will be published next year after a 2nd consultation takes place within CEN and its national mirror committees.</p>





In 2022 Enagás obtained the highest ESG classification in the FTSE4Good sustainability index. This ranking has chosen between more than 7200 companies the most sustainable ones, using economic, environmental and social criteria.



Methane Emissions

<p>Do you report absolute methane emissions within your sustainability report?</p> <p><i>If so provide link.</i></p>	Yes / No
<p>Do you report a methane intensity within your sustainability report?</p> <p><i>If so provide link.</i></p>	Yes / No
<p>What are your organisation’s total absolute methane emissions?</p> <p>Provide a figure in tonnes.</p> <p>Provide latest data publicly available.</p>	In 2021, methane emissions accounted for 2.211 tCH ₄ . (Link)
<p>State your methodology.</p>	To develop our methane inventory we follow the guidelines set by international recognized standards/organizations such as GHG Protocol, IPCC, ISO 14064, MARCOGAZ guides (e.g. “ Assessment of methane emissions for Gas Transmission & Distribution System Operators ”) and OGMP Technical Guidance Documents. Methane emissions are part of our carbon footprint which is annually verified by a third party (reasonable assurance).
<p>State your reporting boundary.</p>	The boundaries of our reported data cover all assets over which Enagás has operational control (i.e. Spanish facilities).
<p>What are your organisation’s methane intensity?</p> <p>Provide latest data publicly available.</p>	We do not report methane intensity data.
<p>State your methodology.</p>	We do not report methane intensity data.
<p>State your reporting boundary.</p>	We do not report methane intensity data.
<p>Do you have a methane emission target?</p> <p>If yes, please state what it is, including the boundaries and methodology.</p> <p>If no, are you developing such a target? Please state your intended timeline.</p>	<p>Yes, in 2020, Enagás set a specific methane annual target that was achieved thanks to the implementation of methane reduction measures such as LDAR campaigns.</p> <p>In 2021, a specific methane reduction target was established, and they were met by 100% and 85%, respectively.</p>

Commentary





Use this space to provide any general context or statements around the information and data provided.

