



METHANE  
GUIDING  
PRINCIPLES

# Methane Guiding Principles Signatory Reporting

Enagás

January 2022





COMPANY: **Enagás**

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.

2021 completed activity	2022 intended activity
<p>In <b>2020</b>, methane emissions represented 26.1% of Enagás' carbon footprint (Scopes 1 and 2). Almost 63.5% of these emissions were due to venting during operation, maintenance and safety works or from technical devices and pneumatic valves- and the remaining 36.5% corresponded with uncontrolled and continuous gas leaks over time – fugitive emissions. In 2020, thanks to Enagás’ efforts to reduce venting and fugitive emissions, <b>methane emissions decreased by 20.6% compared to 2019</b>.</p> <p>In <b>2020</b>, methane emissions accounted for <b>1,955 tCH<sub>4</sub></b>. 63.3% correspond with vents (1,241) whereas fugitive emissions represents 26.5% (714 tCH<sub>4</sub>) of total methane emissions. The following describes the emissions <b>breakdown</b> by type of facility:</p> <ul style="list-style-type: none"> <li>• Liquefied Natural Gas (LNG) terminals (3): 7%</li> <li>• Underground gas storage (3): 7%</li> <li>• Gas transmission (including compressor stations and reduction &amp; regulating stations, measurement stations, valve stations): 86%</li> </ul> <p>The <b>boundaries</b> of our reported data covers all assets over which Enagas has operational control (i.e. Spanish facilities). To develop our</p>	<p>Enagás will continue implementing mitigation measures and best available techniques to minimize its methane emissions.</p> <p>To reduce <b>fugitive</b> emissions in 2022 Enagás will continue performing annual Leak Detection and Repair (LDAR) campaigns in all our facilities ensuring that fugitives emissions are identified and repaired as soon as possible.</p> <p>Regarding <b>vents</b>, 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"> <li>- Electrification of turbocompressors,</li> <li>- Analysis of viability to extend compressors’ pressurization time to reduce vents in compressor stations that have many stops / starts.</li> </ul>





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).

Regarding fugitive emissions, LDAR campaigns have been carried out since 2013 in our facilities according to European standard **UNE-EN-15446** and **US EPA’s Method 21**. The leaking components repaired during 2020 allowed a reduction of 291 tCH<sub>4</sub>.

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

Venting of natural gas is more difficult to prevent as it is linked to operational, maintenance and incidents events sometimes linked to safety.

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

- Annual LDAR campaigns (including the quantification of all the detected leaks during the surveys),
- Use of Boil-Off Gas (BOG) compressors in LNG regasification plants,
- Predominant use of air-operated or electric valves in regasification plants
- Use of electric pumps in all our facilities,
- Minimisation of vents by optimising the use of natural gas analysers (gas



analysers shutdown in periods of non-use) and natural gas valves removal,

- Gas recovery system for natural gas vented in a compressor station, including the recovery of natural gas after each non-emergency stop and the natural gas from the primary seal.

## 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.

2021 completed activity	2022 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 2021, the following were of note:</p> <ul style="list-style-type: none"> <li>• 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 <b>MARCOGAZ’s Methane Emissions and Sustainability Reports Working Groups</b> among others. Within the framework of the “Methane Emission Working Group”, we participated in the development of CH<sub>4</sub> emissions quantification methodologies for the gas sector that will allow provision of reliable information to governments, EU institutions, regulatory bodies and civil society.</li> </ul> <p>In this context, in 2021, Enagás, together with MARCOGAZ and GIE, led the publication of the Methane Emissions Glossary.  <a href="#">PR Methane Emissions Glossary 22_03_2021.pdf (gie.eu)</a></p> <ul style="list-style-type: none"> <li>• In addition, in 2021 MARCOGAZ and GIE prepared a questionnaire to gather information on the current practices on LDAR and on venting &amp; flaring. Based on that MARCOGAZ prepared technical recommendations.</li> </ul>	<p>Enagás will continue <b>collaborating and participating with associations</b> related to methane emissions to engage industry players. Some examples are:</p> <ul style="list-style-type: none"> <li>• European Gas Research Group (GERG) project to assess accuracy and performance of most promising top-down/site-level technologies. A new phase of the project will be launched in 2022, with measurements in operating sites to assess reconciliation of bottom up and top down approaches.</li> <li>• Finalise MARCOGAZ analysis to set a European methane emissions reduction target covering</li> </ul>



In 2021 MARCOGAZ published the documents:

“Technical recommendations on LDAR campaigns “  
<https://www.marcogaz.org/publications/recommendations-on-ldar-campaigns/>

“Technical recommendations on venting & flaring – mid and downstream infrastructures.  
<https://www.marcogaz.org/publications/recommendations-on-venting-and-flaring/>

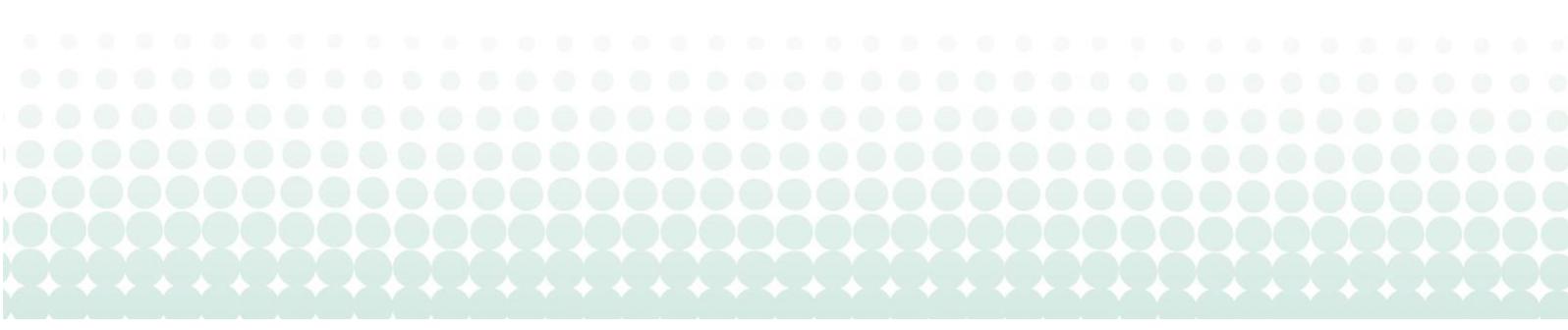
- Moreover, during 2021, MARCOGAZ prepared a questionnaire to collect methane emissions data from midstream and downstream companies. This work was led by Enagás. The aim is to analyse the possibility to establish a European methane reduction target covering mid and/or downstream. Up to date data received is under analysis.
- In 2021, Enagás also led the preparation of “Joint declaration on methane emissions: Gas system operators in joint effort to continue curbing emissions and to support the Global Methane Pledge” ([link](#)).
- 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

midstream and/or downstream.

- Enagás, together with GIE and MARCOGAZ will continue disseminating information and raising awareness within the gas industry.
- Continue the work under the framework of CEN to finalise the Technical Specification on the quantification of methane emissions by midstream operators.

Additionally, as already mentioned, Enagás will work with its affiliates in order to improve our engagement and their methane emissions data. To this end a follow-up plan will be approved.



methane targets, methane reduction initiatives and how they are reporting methane figures.

In 2021, Enagás 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 taken up to now. This award is part of the first report of IMEO (International Methane Emissions Observatory). ([Link](#))

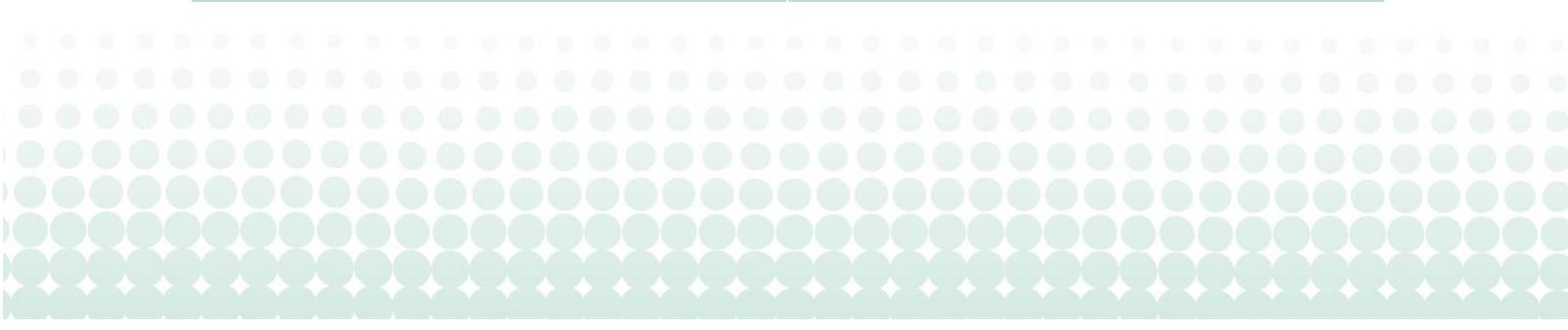
- Enagás also holds the presidency of the **UNECE Group** of Gas Experts within which one of the lines of work is methane emissions. In this field, the study “[Best Practice Guidance for Effective Methane Management in the Oil and Gas Sector: MRV and Mitigation](#)” and Enagás was a member of the Steering Committee.
- Additionally, Enagás is also part of the CEN TC234 WG14, a CEN working group currently working on the **development of a Technical Specification for the quantification of methane emissions by midstream operators in Europe**. In 2021 a draft Technical Specification has been developed, which will be subject to consultation during 1Q 2022 within CEN and the different national normalization bodies.
- Enagás is a member of the Board of the European Gas Research Group (**GERG**) which is meant 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.

The GERG project ‘Technology benchmark for site level emissions quantification’ is coordinated and lead by Enagás. This innovation project aims to assess accuracy and performance of most promising top-down/site-level technologies ([Link](#)).

### 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.

2021 completed activity	2022 intended activity
<p>To improve accuracy of methane emissions data, Enagás has been working on:</p> <ul style="list-style-type: none"> <li>• 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 the biggest size. It is worth highlighting that from 2020 onwards Enagás is carrying out <b>annual LDAR campaigns at all its facilities, including measurement of each identified leak</b>, thus increasing the frequency of LDAR campaigns and hence <b>improving the accuracy of its data</b>.</li> <li>• In 2020 Enagás led the ‘Reporting template task force’ of OGMP 2.0. During 2021, a review of the template has been carried out. To this end, Enagás sent a short survey to OGMP members after the first reporting cycle to gather improvement proposal for the next reporting cycle in may 2022.</li> <li>• In 2021 Enagás has joined the “Methane from flaring working group” coordinated by the Methane Guiding Principles, whose aim</li> </ul>	<p>In the context of the <b>OGMP 2.0</b>, three task forces are established (Reporting Template Task Force, Technical Guidance Task Force, Uncertainty and Reconciliation Task Force). In 2022 Enagás will continue leading the Reporting Template Task Force and will also lead and actively participate in the mirror group created to follow-up actions in all task forces.</p> <p>Enagas will continue its active participation in the CEN TC 234 WG 14, to finalise the CEN Technical Specification on the quantification of methane emissions by midstream operators.</p> <p>Enagás will also continue with collaborative <b>projects related to site-level measurements</b> (wheeled vehicles, drones, satellites, etc) in order to reconcile bottom up and top down estimations, improving thus the accuracy of our data. <b>Enagas will launch early next year the new phase of the GERG project on site-level quantification</b>. This new phase will <b>be focused on the implementation of bottom up and top down measurements to assess how reconciliation should be approached</b> by operators.</p> <p>In addition, during 2022 Enagás will work in the digitalization of its carbon footprint aiming at</p>



is to compile best methods used to more accurately calculate methane emissions from flaring and identify opportunities to improve the destruction efficiency of flares.

- Another important measure is the development in 2019 of a **procedure and specific technical instructions** for the measurement and quantification of fugitive emissions, guaranteeing homogeneity in the measurements across all our facilities.
- Additionally, in 2021, Enagás has developed an **in-house IT tool** to gather and calculate methane emissions of vent events from our transmission infrastructure.
- Additionally, Enagás is also part of the CEN TC234 WG14, a CEN working group currently working on the development of a **Technical Specification for the quantification of methane emissions by midstream operators in Europe**.
- In 2021, Enagás has performed several **collaborative projects related to site-level measurements**, including:
  - Measurement campaign carried out using the National Physical Laboratory's (NPL) Differential Absorption Lidar system (DIAL) at three LNG regasification plants and one compressor station.
  - Use of a drone (a SeekIR-UAS system) to detect and quantify emissions at one underground gas storage.
  - GERG project on top-down/site-level detection / measurement technologies: Enagas coordinated and lead an innovation project to assess accuracy of site level

automating and improving data 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.

In addition, Enagás will continue to closely work **with its affiliates** to engage in methane reduction initiatives as well as in improving methane reporting.



methodologies for the quantification of methane emissions: 'GERG Technology benchmark for site level emissions quantification'.

Results from these projects will help to reconcile bottom-up and top-down quantification approaches.

- Additionally, Enagás has joined the "Methane from flaring working group" coordinated by the Methane Guiding Principles, whose aim is to compile best methods used to more accurately calculate methane emissions from flaring and identify opportunities to improve the destruction efficiency of flares.



## 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.

2021 completed activity	2022 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, together with GIE and MARCOGAZ, has been participating in bilateral meetings with the EC to provide sectorial information, real emissions data, best practices, etc.</p> <p>Enagás has actively participated in the Methane Guiding Principles in the development of the EU policy recommendations published in 2021, coordinating the one on LDAR campaigns.</p> <p>During 2021, Enagás, through MARCOGAZ and GIE, participated in the following events:</p> <ul style="list-style-type: none"> <li>• Workshop on a regulatory approach on leak detection and repair of methane emissions in the oil and gas sector (<a href="#">link</a>).</li> <li>• Seminar on “Corporate &amp; Policy experiences related to quantification, mitigation &amp; reporting of methane emissions: Lessons for the future” (<a href="#">link</a>)</li> <li>• Workshop on “The upcoming EU legislation on methane emissions – what should be in it?” (<a href="#">link</a>) _ Florence School of Regulation and EC.</li> <li>• Workshop on “Mitigating methane emissions: the role of the gas sector” (<a href="#">link</a>)</li> <li>• GIE Annual Conference 2021</li> </ul>	<p>Enagás is fully committed to support the European Authorities with the development of the legislation on methane emissions. In this sense, during 2022 Enagás will continue actively participating in EC public consultations as well as workshops.</p>



- Participation on the Energy Community: "Monthly Methane Mondays webinar series"
- Participation on the "Webinar on the Rules to Prevent Methane Leakage in the Energy Sector: Focus on Possible Actions" organized by ACER (European Union Agency for the Cooperation of Energy Regulators) and CEER (Council of European Energy Regulators) ([link](#))



## 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.

2021 completed activity	2022 intended activity
<p>To increase transparency on methane emissions we include relevant information on our mainstream report <a href="#">Annual Report</a> and on our <a href="#">website</a>. During 2021 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 by 2030.</p> <p>In addition, we collaborated with several initiatives in sharing best practices and providing methane data which are included as case studies in public publications.</p> <p>Enagás has been included for the 14<sup>th</sup> consecutive year in the Dow Jones Sustainability Index World (DJSI). (<a href="#">Link</a>)</p> <p>In 2021 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. (<a href="#">Link</a>)</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>In 2022 global restructuring of the Enagás website is envisaged, where transparency in climate action matters will be reinforced, including the management of methane emissions.</p>



## Methane Emissions

<p><b>Do you report absolute methane emissions within your sustainability report?</b></p> <p><i>If so provide link.</i></p>	<p>Yes</p> <p><a href="#">(Link)</a></p>
<p><b>Do you report a methane intensity within your sustainability report?</b></p> <p><i>If so provide link.</i></p>	<p>No</p>
<p><b>What are your organisation’s total absolute methane emissions?</b></p> <p><b>Provide a figure in tonnes.</b></p> <p><b>Provide latest data publicly available.</b></p>	<p>In 2020, methane emissions accounted for 1,955 tCH<sub>4</sub>. <a href="#">(Link)</a></p>
<p><b>State your methodology.</b></p>	<p>To develop our methane inventory we follow the <b>guidelines</b> set by <b>international recognized standards/organizations</b> such as GHG Protocol, IPCC, ISO 14064, MARCOGAZ guides (e.g. <a href="#">“Assessment of methane emissions for Gas Transmission &amp; Distribution System Operators”</a>) and OGMP Technical Guidance Documents. Methane emissions are part of our carbon footprint which is <b>annually verified by a third party</b> (reasonable assurance). Enagas is actively participating in the development of a CEN Technical Specification with a harmonized quantification methodology that could be applied for operators across Europe (when published, will be applicable to transmission and distribution systems, LNG terminals and Underground Gas Storage).</p>
<p><b>State your reporting boundary.</b></p>	<p>The <b>boundaries</b> of our reported data covers all assets over which Enagas has operational control.</p>
<p><b>What are your organisation’s methane intensity?</b></p> <p><b>Provide latest data publicly available.</b></p>	<p>We do not report methane intensity data.</p>
<p><b>State your methodology.</b></p>	<p>We do not report methane intensity data.</p>
<p><b>State your reporting boundary.</b></p>	<p>We do not report methane intensity data.</p>
<p><b>Do you have a methane emission target?</b></p> <p><b>If yes, please state what it is, including the boundaries and methodology.</b></p> <p><b>If no, are you developing such a target? Please state your intended timeline.</b></p>	<p>Yes, in 2019, Enagás committed to reduce its methane emissions by 45 % in 2025 and 60 % in 2030 with respect to 2015 figures, according to the United Nations Global Methane Alliance initiative. In this sense, given that our methane emission reduction target is an absolute target, we <b>report and follow up absolute KPI figures</b> to ensure that we are well in track to achieve set targets.</p>



In addition, in 2020, Enagás set a **specific methane annual target** that was achieved thanks to the implementation of methane reduction measures such as LDAR campaigns.





## Commentary

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

