

Gas system operators in joint effort to continue curbing emissions and to support the Global Methane Pledge



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Making climate neutrality a reality is a top priority for the European Commission, as it is for the European gas industry. Representing around 4% of total European¹ methane emissions, gas system operators have significantly decreased methane emissions since 1990, thanks to the implementation of several mitigation measures. To lower emissions even further, it is crucial to keep raising awareness while enhancing collaboration among sectors and regions. Improving detection and quantification technologies, mitigation techniques and sharing good practices represent a clear opportunity to continue paving the way towards climate neutrality via methane emissions reduction. Furthermore, there are clear efforts to facilitate the energy transition by preparing to accommodate low-carbon and renewable gases.

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¹ The data covers EU27+UK+Iceland

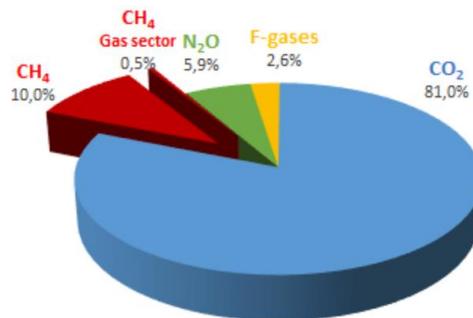
Context

To address this particular issue, in October 2020 the European Commission released its strategy to reduce methane emissions in the European Union. This year, policy options were submitted for feedback via public consultations. The collected information should enable the European Commission to publish a legislative proposal for the energy sector during the fourth quarter of 2021. In addition, on the 18th of September 2021, The European Union and the United States announced the Global Methane Pledge, an initiative to reduce global methane emissions to be launched at the UN Climate Change Conference (COP 26) in November in Glasgow. Gas system operators continue taking action to support the European Commission and to effectively and responsibly further address methane emissions.

Key figures and facts

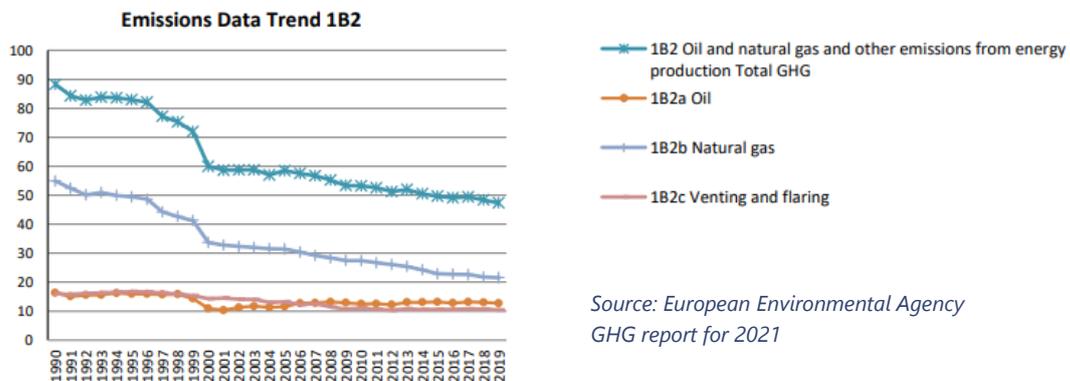
Methane emissions associated with gas system operators' activities represented less than 0.5% of the total EU greenhouse gas (GHG) emissions in 2019 and around 4% of total methane emissions². Since 1990 methane emissions from the gas sector decreased by 61%, partly thanks to mitigation measures. Gas system operators are firmly committed to undertake even stronger steps to achieve further emissions reductions.

GHG emissions in 2019 for EU and Iceland



Source: Elaborated based on European Environmental Agency GHG report published in 2021

Emissions trend in the EU and Iceland from oil and natural gas industry



Source: European Environmental Agency GHG report for 2021

² Source: European Environment Agency: Annual European Union greenhouse gas inventory 1990-2019 and inventory report 2021 <https://www.eea.europa.eu/publications/annual-european-union-greenhouse-gas-inventory-2021>
Details are included in the report and associated tables (Tables ES4 and ES5 of the report and Table1.B.2).

An example of the commitments and future efforts to achieve these reductions are the individual ambitious reduction targets announced by the companies. Gas infrastructure operators are implementing the best available techniques to mitigate emissions as soon as possible taking into account safety, technical, environmental and economic aspects.

Furthermore, European gas operators fully support the establishment of a robust Monitoring Reporting and Verification (MRV) system based on the OGMP 2.0³ and the creation of an independent International Methane Emissions Observatory (IMEO). These will bring a common, shared and reliable reporting of methane emissions data based on the best standard for reporting.

Important efforts are also being implemented to improve the reliability of the methane emissions data and to minimise them through mandatory and voluntary programmes and initiatives, such as OGMP 2.0 and the Methane Guiding Principles.

European and international gas associations are contributing to this purpose and are promoting collaboration within the industry, while organising dissemination activities and training sessions.

European gas system operators are currently deeply involved in the development of a European CEN technical specification to increase the accuracy of the quantification of methane emissions.

Technologies are evolving very fast and they will continue to evolve to support European gas system operators towards further curbing their methane emissions.

On top of further mitigating emissions, gas infrastructure operators also have an important role to play in the energy transition by accommodating low-carbon and renewable gases. This will further speed up the transition to a climate neutral economy.

³ The Oil and Gas Methane Partnership is a voluntary initiative to help companies reduce methane emissions in the oil and gas sector. See <https://www.ccacoalition.org/en/resources/oil-and-gas-methane-partnership-ogmp-20-framework>

Giving the floor



"Methane emissions account for a quarter of today's global warming. Their climate impact is second only to carbon dioxide, so managing methane emissions is an imperative for achieving climate-neutrality. Reducing methane emissions will benefit society, the environment, and the economy by reducing the costs of the energy transition. European energy infrastructure has a crucial role to play in managing methane emissions and enabling the needed transition."

Scott Foster, Director of the Sustainable Energy Division, UNECE



"The Oil and Gas Methane Partnership 2.0 - the most reliable and transparent standard for measuring and reporting methane emissions across the oil and gas value chain - allows for tracking and comparing performance across operators. We look forward to continue supporting the oil and gas industry as it makes deep reductions in methane emissions over the next decade in a way that is credible and accessible to governments, investors, and civil society organizations."

Giulia Ferrini, Associated Programme Officer, UNEP



"Methane emissions reduction from the fossil fuel value chains is a key short-term climate opportunity. International Methane Emissions Observatory will help to use it fully by combining ambition action with reliable data. European gas operators can play an important role in this process by embracing best practices and technologies."

Andris Piebalgs, Professor at Florence School of Regulation (FSR)



"In line with a famous quote attributed to Peter Drucker '[only] what gets measured, gets managed', a robust MRV system together with additional R&D efforts on to refine detection, measurement and mitigation technologies are necessary to tackle methane emissions. The findings will benefit not only gas infrastructure operators, but the lessons-learned in Europe could be shared with companies operating in other jurisdictions aiming to address methane emissions. The voluntary OGMP2.0 framework offers a great example. In fact, raising awareness, sharing knowledge and fostering collaboration are the fundamentals of the decarbonisation process."

Maria Olczak, Florence School of Regulation & Queen Mary University of London



What is OGMP 2.0? How gas sector supports it?

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. [Learn more on this initiative.](#)

On a voluntary basis, a major part of the EU gas system operators has committed to report methane emissions data with the best reporting standard. They had shown their full support to the establishment of a robust MRV system based on OGMP 2.0.



Source: United Nations Environment Programme (UNEP)

What is the Methane Guiding Principles initiative?

The MGP is a voluntary international multi-stakeholder partnership established in 2017 by a coalition of industry, international institutions, non-governmental organisations and academics. It focuses on areas of action to reduce methane emissions. The five Methane Guiding Principles are: 1) Continually reduce methane emissions; 2) Advance strong performance across the gas supply chain; 3) Improve accuracy of methane emissions data; 4) Advocate sound policy and regulations on methane emissions; 5) Increase transparency. [Learn more on this initiative.](#)

R&D projects

Over the past decades, gas system operators have consistently worked on development & testing of new technologies and methodologies, first for leak detection and repair (LDAR) then also explicitly for methane emissions reporting and reduction.

The transition from leak detection to emissions quantification opens the new challenge of reducing measurement uncertainties, reconciling methods and finding innovative technological solutions to quantify emissions in all conditions, reaching a reliable level of reporting in line with reporting requirements. R&D efforts are central to implementing a European methane emissions reporting and reduction system for gas infrastructure, as well as providing estimates of related abatement costs.

While the lack of data does not hold back efforts to target methane emissions by implementing quick-win actions, further research remains paramount to improving methane leak detection, estimation and quantification, and the European gas sector is pulling together to reach those objectives.

Do you want to learn more?

The tools

- [Report "Potential ways the gas industry can contribute to the reduction of methane emissions"](#) (2019)
- [COM \(2020\) 663 final – Communication from the Commission on an EU strategy to reduce methane emissions](#)
- [Glossary on Methane Emissions](#) (2021)
- [Action Plan on Methane Emissions](#) (2017, rev. 12/2020)
- [Guidelines for Methane Emissions target setting](#) (2020)
- [MARCOGAZ' methane Emissions in the European Natural Gas mid/downstream sectors](#) (2017)
- [MARCOGAZ' survey Methane Emissions for Gas Transmission in Europe](#) (2018)
- [MARCOGAZ' survey Methane Emissions for LNG Terminals in Europe](#) (2018)
- [MARCOGAZ' survey Methane Emissions for Underground Gas Storage \(UGS\) facilities in Europe](#) (2018)
- [MARCOGAZ' survey Methane Emissions for Gas Distribution in Europe](#) (2018)
- [GERG Report Methane Emission Estimation Method for the Gas Distribution Grid \(MEEM\)](#) (2018)
- [MARCOGAZ' assessment of methane emissions for gas transmission and distribution system operators](#) (2019)
- [MARCOGAZ technical recommendations on LDAR campaigns](#) (2021)
- [MARCOGAZ technical recommendations on venting & flaring – mid and downstream infrastructures](#) (2021)
- [MGP Reducing Methane Emissions Best Practice Guides](#)
- [GERG 'Technology Benchmark for site level methane emissions quantification' – Phase I and Phase II.A](#) (2021)

Visual materials

Eurogas: Kayrros, a geospatial analytics firm headquartered in Paris, specialising in detecting value chain methane emissions:

<https://www.youtube.com/watch?v=Kr6UnyUV2JI>

Eurogas: Picarro, a leading provider of asset management solutions for the natural gas industry: <https://www.youtube.com/watch?v=XUBP3XkN2bU>

Interview with Marcogaz' President on methane emissions:

<https://www.marcogaz.org/interview-with-marcogaz-president-on-methane-emissions-work/>

Snam accepts the global challenge: Methane emissions:

https://www.snam.it/en/Sustainability/acting_for_the_environment/methane_emissions.html