

EU methane policy recommendations



Introduction

Cutting methane emissions is the **fastest way to slow global warming**. And the European Commission's proposal to limit energy sector methane emissions is a critical opportunity to **scale reductions globally**.

Over the last century, the amount of methane in the atmosphere has more than doubled¹ and has accounted for roughly 30% of global warming since pre-industrial times. It is proliferating faster than at any other time since record keeping began in the 1980s.² In its [Sixth Assessment Report](#), the UN Intergovernmental Panel on Climate Change underlined the urgent need for 'deep reductions' in short-lived but highly potent pollutants like methane to keep the Paris Agreement target within reach.

Moreover, research shows that a rapid, large-scale effort to tackle methane emissions, using current technologies, could [slow the worldwide rate of warming by 30%](#). Growing demand for robust, reliable methane emissions data on a global scale has given rise to a wave of remote-sensing technologies that is making it faster, easier and cheaper to control methane, including new satellites such as [MethaneSAT](#).

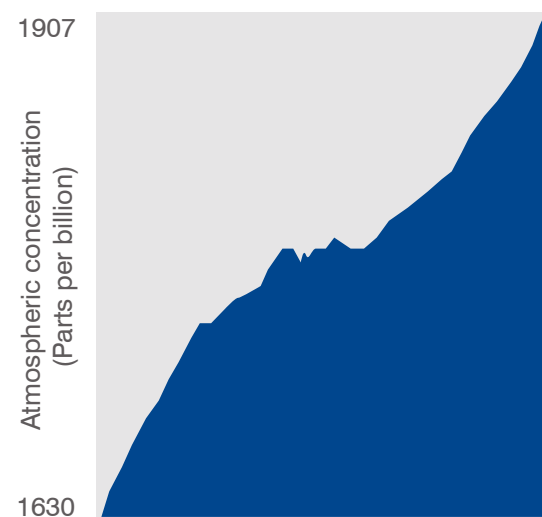
As the world's largest natural gas importer, with close to 90% of its consumption coming from outside its borders, **the EU has both the clout and responsibility to unlock major methane reductions** - not just within the bloc but around the globe. To do so, it must adopt a robust and comprehensive framework aimed at mitigating domestic and upstream emissions along the supply chain.

We welcome the proposed legislation and consider it a good starting point for the reduction of energy methane in the EU. However, to deliver a more comprehensive and effective tool, the adopted act should reflect the following points:

- Strong measuring, reporting and verification (MRV) rules supplemented by a solid framework for leak detection and repair (LDAR) and strong rules for limiting venting and flaring (LVF). This is essential to achieve the EU's goal to reducing greenhouse gas emissions to at least 55% below 1990 levels by 2030. For that reason, the **adopted act needs to – as a minimum – reflect best practice**.
- The EU is dependent on imports for 90% of gas and 97% of oil consumption. The legislation therefore needs to credibly tackle upstream emissions associated with these imports.
- The EU has pledged to become a leader in global climate action. The adopted act therefore needs meet the EU's **commitments under the [Global Methane Pledge](#)**, and ideally go further.

More methane today than ever before

Data Source: NOAA global monitoring laboratory



● Rise in atmospheric methane concentrations: 1983-2021

1 www.iea.org/reports/methane-tracker-2021/methane-and-climate-change.

2 www.unep.org/news-and-stories/story/methane-emissions-are-driving-climate-change-heres-how-reduce-them.

Detailed recommendations

CHAPTER 3 - METHANE EMISSIONS IN THE OIL AND GAS SECTOR

MONITORING AND REPORTING (ARTICLE 12)

Best Practice: For MRV this is the OGMP 2.0 framework developed by the [Oil and Gas Methane Partnership \(OGMP\)](#). The gold standard for MRV under this framework is Level 5, which requires direct measurements of source-level methane emissions, complemented by measurements of site-level methane emissions. That is reflected in Article 12(3) and (5). This level of granular reporting is needed, especially given chronic and significant underreporting.

Opportunity for improvement: Participating companies in OGMP 2.0 will already have achieved this Level 5 for operated assets by around 2023 and for non-operated assets by around 2025. The proposed Regulation only mandates reaching this level after 36 months for operated assets, which is very likely around mid-2027 and 48 months for non-operated assets (around mid-2028).

To make sure that the rules do indeed reflect best practice, **we recommend that the timeframes in this article are aligned with OGMP 2.0 and brought forward by two years.** An additional advantage will be that this timeframe for achieving OGMP 2.0 Level 5 aligns with the LDAR obligations under Article 14(2).

GENERAL MITIGATION OBLIGATION (ARTICLE 13)

This article puts a general obligation on operators to *'take all measures available to them to prevent and minimise methane emissions in their operations.'* This is an important provision, but its lack of detail will make it hard for authorities to enforce it.

According to the IEA, prescriptive approaches like LDAR and zero non-emergency venting and flaring would achieve less than 40% points of the 70% total methane mitigation potential.³ Robust measurement-based monitoring regimes combined with additional regulations will therefore be needed to realise all technically feasible abatement.⁴

Opportunity for improvement: This obligation should be made more specific so that it can be enforced. It is also an opportunity to increase the level of methane reductions beyond those that will be achieved by applying the rules for LDAR and LVF. For that reason, **we recommend that this article includes a performance standard:**

- There is precedent for the potential level of a performance standard in the 2025 methane intensity standard of ‘well below 0.2%’ set by the Oil and Gas Climate Initiative (OGCI). Leading companies in this group, including many headquartered in Europe, have committed to lower methane intensity to 0.2% by 2025 and begun deploying mitigation efforts.⁵ The OGCI standard applies to upstream emissions, but we recommend emission performance standards apply to the entire supply chain (with segment-specific emission intensity targets). This article should focus on operators in the EU, whereas Chapter 5, relating to imports, should introduce the standards to upstream emissions. The amended general mitigation obligation in Article 13 would thus read:

‘Operators shall take all measures available to them to prevent and minimise methane emissions in their operations **to an emission intensity level of at most [X]%**.’⁶

LEAK DETECTION AND REPAIR (ARTICLE 14)

Leak detection and repair (LDAR) is the basis for leak prevention. Leaks are unpredictable and widespread, with several causes including improperly fitted connection points, deteriorated seal and gaskets, pressure changes, mechanical stresses, poor maintenance or operating practices.

Best practice: for LDAR we expect to see – as a minimum – a reflection of existing regulations in some US States such as Colorado and New Mexico. Both states have adopted strong, comprehensive policies to require frequent LDAR inspections at nearly all well production facilities. In addition, US EPA has proposed rules requiring quarterly LDAR as the baseline for new and existing oil and gas wells across the country.

³ IEA, 2022.

⁴ IEA, 2021, p. 27-30.

⁵ Also see e.g., SEC. 136. Methane fee from petroleum and natural gas systems in the Build Back Better Act: www.congress.gov/bill/117th-congress/house-bill/5376/text. Emission intensity standards – with segment specific targets - would ideally be defined also for processing, boosting and gathering facilities and for the mid-and downstream segments as well.

⁶ The intensity levels will need to be specified for the specific segments.

Frequency of inspections (Article 14(2))

Regular and frequent surveys are a key strategy for reducing methane emissions. The frequency of surveys directly correlates to leak reduction. According to US regulators, the potential methane emission reductions due to the frequency of LDAR surveys are as follows: 40% for annual surveys, 60% for semi-annual surveys, 80% for quarterly surveys and 90% for monthly surveys.⁷

Best practice: There is precedent for quarterly inspections – as proposed in Article 14(2) – in Colorado and California and the soon-to-be finalised rules in New Mexico. What is interesting about the Colorado approach are the nuances brought into the regulations. For example, they have recently adopted a new monthly inspection programme for new well sites (upstream segment). For existing sites, they have a tiered LDAR program, meaning inspection frequency is tied to emissions. The sites with the largest emissions get inspected monthly while the smallest sites get inspected annually. Most well production facilities in Colorado are subject to at least quarterly LDAR inspections.

Opportunity for improvement: The frequency of checks should be increased to monthly⁸, not quarterly, unless continuous monitoring is undertaken. This conforms to the gold standard for LDAR programmes and would capture an additional 10% of methane emissions.

Permitted devices (Article 14(3))

As advanced monitoring capabilities improve and become more widely available, they should supplement traditional optical gas imaging LDAR.

Best practice: What Colorado does (and many other US States as well) is to require the use of an optical gas imaging (OGI) camera, method 21 device or ‘other approved technology or method of leak detection.’ In addition, US EPA has proposed allowing operators to combine frequent (6 times per year) aerial screenings of facilities (to identify super-emitters) with less-frequent (annual), ground-based OGI or Method 21 inspections. This combination of technologies represents the most effective strategy for catching both functional super-emitters and smaller, ubiquitous leaks.

Opportunity for improvement: The language in Article 14(3) could be read as only permitting devices that can detect leaks of 500ppm. We support an LDAR program that requires detection of small leaks, i.e., 500 ppm. To allow for emerging technology like aerial surveys, the regulation should allow operators to apply a different technology

⁷ www.govinfo.gov/content/pkg/FR-2021-11-15/pdf/2021-24202.pdf

⁸ www.socalgas.com/regulatory/documents/r-15-01-008/SB1371_SoCalGas_2018_Amended_Compliance_Plan-FINAL-7-20-18.pdf

or method provided the alternative can achieve equivalent emission reductions as the approved method. **We therefore recommend adding similar wording as in the EPA proposal allowing operators to adopt an aerial screening program in conjunction with annual, ground based OGI inspections.**

Repair obligation (Article 14(4))

Best practice: The legislation in Colorado requires the first attempt at repair within 5 days. Annual reports from operators to the Colorado administration show that 99% of leaks are repaired immediately.

Opportunity for improvement: All components found to be leaking methane during a survey should be repaired or replaced as soon as possible (unless a facility shutdown is required), not just leaks above 500 parts per million as outlined in the proposed legislation. This is important since small leaks can quickly become big leaks. Importantly the Colorado experience shows this is entirely feasible.

LIMITS TO VENTING AND FLARING (ARTICLE 15)

Best practice: For the limits to venting and flaring (LVF) we expect to see, as a minimum, a reflection of existing legislation in some US States such as Colorado and New Mexico, as well as the legislation of the US EPA. This article is broadly in line with rules adopted by the New Mexico Oil Conservation Commission, 19.15.27.8. New Mexico Administrative Code and the Colorado Oil and Gas Conservation Commission, R.912.

Opportunity for improvement: The New Mexico rules provide some additional requirements for the list of exceptions to the ban on venting that EU member states and the European Parliament may want to look to when adopting the act. In particular, **the prohibition on venting should be strengthened to allow venting only in case of emergency, when flaring risks endangering the safety of operations or personnel**, in line with recently proposed EPA standards. EPA has also proposed to require routing of associated gas to sales line but allows for flaring if sales line is unavailable.

CHAPTER 5 METHANE EMISSIONS OCCURRING OUTSIDE THE UNION

The EU is often quoted as the world's largest fossil fuel importer, given its dependence on imports for 90% of its gas consumption and 97% of its oil consumption. The EU therefore plays a significant role in driving methane emissions globally. This is particularly critical, as the 'methane footprint' from emissions arising from gas before it reaches the EU border, is estimated to be between three and eight times the emissions from the domestic EU gas supply chain. The EU as the consumer of these fossil fuels therefore has a clear responsibility – and opportunity – addressing these emissions. **The proposed legislation must thus be amended to address the reduction of methane emissions imports.**

There is no EU precedent for import rules related to energy methane, but in California the Low Carbon Fuel Standard provides a model for covering the GHG footprint of imported fuels including methane emissions. Moreover, the EU has well-tested regimes for imports in other areas, such as food and agricultural products, chemicals, cars, illegally harvested timber and unsustainable biofuels; as well as in recent legislative proposals on commodity-driven deforestation and the CBAM.

We recommend that:

- The regulatory framework for MRV, LDAR and LVF also applies *to operators exporting fossil fuels to the EU*
- The emission performance standard proposed for Article 13 applies to imported gas as well, so that the standard covers *all gas consumed in the EU*, both produced locally and imported. This can be done by adding an obligation on all EU gas shippers to procure gas with an upstream emission intensity of no more than 0.2%^{9, 10}
- This should be complemented with measures for non-compliance such as proportional penalties which can be crafted without threatening security of supply.

It is not clear how the Commission's proposed establishment of a publicly available methane transparency database based on importers' submitted data will influence company behaviour and deliver meaningful reductions in methane emissions. This is why we have proposed the approach above.

9 See Mohlin, Piebalgs and Olczak, 2020

10 methaneguidingprinciples.org/wp-content/uploads/2021/10/EU-Methane-Policy-Addressing-methane-emissions-v5.pdf. Some members of the Methane Guiding Principles organisation have expressed their belief that 'targets form an integral part of a comprehensive set of policies aiming to address emissions from all gas consumed in the EU' and 'We agree with the EU methane strategy that minimum methane emission standards, targets or other such incentives based on robust scientific analysis can play an effective role to ensure methane emission reductions in the EU and globally.'

However, if the co-legislators prefer to follow the Commission's approach then it should be strengthened by **adding a mechanism to verify importer information**, particularly emissions data. Currently, the proposal only requires the name of the entity that performed independent verification of the reports. We consider a better approach would be to only accept EU-certified verifiers, or to develop a means to cross-check emissions data submitted with other available data sources.

We welcome the review clause. However, we are concerned that the review date is too late: if the European Commission were to propose new measures, the legislative process may extend to 2027-2028. This means that from the publication of the current proposal in December 2021 to inception of import measures, there is **7 years of lost action on the bulk of methane emissions consumed in the EU**. We therefore **recommend that the review clause gives the European Commission the mandate to adopt delegated acts announcing appropriate measures** as referred to in this article. The last paragraph of Article 27(3) should therefore be amended to read:

'Where appropriate and based on the necessary evidence to secure full compliance with the applicable international obligations of the Union, the Commission shall ***adopt delegated acts in accordance with Article 31 to supplement this Regulation by incorporating and setting out the requirements*** applicable to importers with the view to ensure a comparable level of effectiveness with respect to measurement, reporting and verification and mitigation of energy sector methane emissions.