

## INCEPTION IMPACT ASSESSMENT

This combined evaluation roadmap/Inception Impact Assessment aims to inform citizens and stakeholders about the Commission's work in order to allow them to provide feedback on the intended initiative and to participate effectively in future consultation activities. Citizens and stakeholders are, in particular, invited to provide views on the Commission's understanding of the current situation, problem and possible solutions and to make available any relevant information that they may have, including on possible impacts of the different options.

<b>TITLE OF THE INITIATIVE</b>	<i>Proposal for a legislative act to reduce methane emissions in the oil, gas and coal sectors</i>
<b>LEAD DG – RESPONSIBLE UNIT – AP NUMBER</b>	DG ENER – B4
<b>LIKELY TYPE OF INITIATIVE</b>	<i>CORP - NEW – MAJOR</i>
<b>INDICATIVE PLANNING</b>	Q4 2021
<b>ADDITIONAL INFORMATION</b>	<a href="https://ec.europa.eu/energy/topics/oil-gas-and-coal/methane-emissions_en">https://ec.europa.eu/energy/topics/oil-gas-and-coal/methane-emissions_en</a> <a href="https://ec.europa.eu/energy/sites/ener/files/eu_methane_strategy.pdf">https://ec.europa.eu/energy/sites/ener/files/eu_methane_strategy.pdf</a>

### A. Context, Evaluation, Problem definition and Subsidiarity Check

#### **Context**

The context for this proposal for a legislative act to reduce methane emissions in the energy sector is the Communication on an EU strategy to reduce methane emissions, adopted on 14 October 2020 (hereafter 'the Communication')<sup>1</sup>, which announces that the Commission will deliver legislative proposals in 2021 on i) compulsory measurement, reporting, and verification (MRV) at company-level for all energy-related methane emissions, building on the Oil and Gas Methane Partnership (OGMP 2.0) methodology and ii) an obligation to improve detection and repair (LDAR) of leaks on all fossil gas infrastructure, as well as any other production, transport or use of fossil gas, including as a feedstock. In line with the Communication, the Commission will consider legislation on eliminating routine venting and flaring in the energy sector covering the full supply chain, up to the point of production.

As stated in the Communication, the Commission will also work on options for possible methane emission standards, targets or other incentives to tackle methane emissions in relation to fossil energy imported to the EU, taking into account the progress made in the context of the international dialogues, the International Methane Emissions Observatory and the methane supply index.

In addition, as signing party to the Paris Agreement of the United Nations Framework Convention on Climate Change (UNFCCC), the EU is required to provide a national inventory report of anthropogenic greenhouse gas emissions by sources, prepared using good practice methodologies accepted by the Intergovernmental Panel on Climate Change.

The legislative proposal is included in the Commission work programme for 2021 (COM(2020) 690 final) as 'Reducing methane emissions in the energy sector'.

#### **Evaluation**

There is no EU legislation which addresses specifically methane emissions of the energy system via either MRV, LDAR or limits on venting or flaring of methane to prompt a review of EU legislation. However, a number of EU instruments contribute to providing information on methane emissions from the energy system and to limiting methane emissions from some related activities. This includes Regulation 2006/166 on the E-PRTR and Directive

<sup>1</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on an EU strategy to reduce methane emissions (COM(2020) 663 final) [https://ec.europa.eu/energy/sites/ener/files/eu\\_methane\\_strategy.pdf](https://ec.europa.eu/energy/sites/ener/files/eu_methane_strategy.pdf)

2010/75 on industrial emissions, which are both being revised under the European Green Deal.

#### Problem the initiative aims to tackle

Methane is a powerful greenhouse gas, second only to carbon dioxide in its overall contribution to climate change. Although methane remains for a shorter time in the atmosphere, it has a significant effect on the climate. Reducing methane emissions contributes to slowing down climate change. The concentration of methane in the atmosphere contributes also to tropospheric ozone formation, a potent local air pollutant which itself causes serious health problems.

The impact assessment of the 2030 climate target plan (SWD(2020) 176 final) indicates that methane will continue to be the EU's dominant non-CO<sub>2</sub> greenhouse gas and concludes that stepping up the level of ambition for reductions in greenhouse gas emissions to at least 55% by 2030 compared to 1990 requires an accelerated effort to tackle methane emissions. It finds that a large number of the most cost-effective methane emission savings can be achieved in the energy sector.

The Communication highlights that there is currently no policy directly regulating the reduction of anthropogenic (man-made) methane emissions, around 19% of which come from the energy sector, though it recognises that Member States do have to meet methane emission reductions obligations in the Effort Sharing Regulation. The International Energy Agency estimates that roughly 40% of methane emissions in the oil and gas sector could be saved at no-net cost, and that if all abatement options were deployed throughout supply chains, a reduction of up to 75% is feasible. Similarly, the Climate and Clean Air Coalition (CCAC) Scientific Advisory Panel also estimates that almost 70% of emissions from the fossil fuel sector can be abated.

#### Basis for EU intervention (legal basis and subsidiarity check)

Article 194 of the Treaty on the Functioning of the European Union provides the legal basis for the legislative proposal.

Methane is a greenhouse gas and an ozone-precursor that knows no borders. When emitted in one country, it will have a climate and air quality impact in others. Moreover, the largest share of energy-related methane emissions associated with fossil fuels consumed in the EU are emitted outside of the EU borders, making international action necessary.

The initiative will create a new policy framework facilitating the reduction of methane emissions, which is key to achieving the EU's climate objectives and the zero pollution ambition, building on and complementing existing EU law already partially regulating methane emissions from the energy system. The challenges in reducing methane emissions require harmonised and coordinated approaches by all Member States. They cannot be addressed efficiently by individual Member States, making EU action necessary.

### B. Objectives and Policy options

The specific objectives of this policy proposal are i) to improve the availability and accuracy of information on the specific sources of methane emissions associated with energy consumed in the EU, and ii) to put in place EU level obligations on companies to mitigate those emissions across different segments of the energy supply chain in the areas of methane leakage, venting and flaring mitigation, which together cover the main sources of methane emissions in the energy sector.

Point i) **on improving information** relates to the actions outlined in the Communication on the methane strategy on compulsory measurement, reporting, and verification (MRV) for all energy-related methane emissions at company-level, building on the methodology of the existing global voluntary initiative called the Oil and Gas Methane Partnership (OGMP), which covers the upstream oil and gas sectors. As made clear in the Communication, the Commission is actively promoting the widespread implementation of the MRV framework devised by OGMP, considering it the best existing vehicle for improving MRV capability in the energy sector. In addition, the Communication announces that the Commission is working to extend the OGMP framework to more companies in the gas upstream, midstream and downstream (via OGMP 2.0), as well as to the coal sector and closed or abandoned sites.

There are different policy options to fulfil these objectives. The impact assessment will most likely look at the following options, to be assessed separately or in combination:

Option 1: No policy change (baseline scenario) : OGMP continues as a voluntary initiative

Option 2: Translating the OGMP framework into EU legislation applicable only to the intra-EU supply chain

Option 2.a: Sector coverage limited to upstream gas and oil (current OGMP)

Option 2.b: Sector coverage including upstream, midstream and downstream gas and oil (OGMP 2.0)

Option 2.c: Sector coverage including upstream, midstream and downstream gas and oil, coal and biogas/biomethane.

Option 3: Translating the OGMP framework into EU legislation applicable to the full supply chain.

Point ii) **on mitigation** relates to the action in the Communication on the methane strategy on an obligation to improve leak detection and repair (LDAR) of leaks on all fossil gas infrastructure, as well as any other production, transport or use of fossil gas, including as a feedstock; and to the action on eliminating routine venting and flaring in the energy sector covering the full supply chain, up to the point of production. The basis of all policy options to be assessed by the Commission in the area of mitigation will be measures to conduct leakage detection and repair and measures to eliminate routine venting and flaring according to prevailing and emerging best practices, including from industry, across different segments of the supply chain. Variations in options could be in terms of sectoral scope (thus, going beyond the scope of fossil gas and also including oil, coal and biogas/biomethane) and supply chain coverage (including or not including imports), as illustrated above for MRV, as well as the types of methodologies and/or some of the key elements of methodologies, such as the frequency of checks, standards, as appropriate.

The design of options will take into account existing EU law already partially regulating methane emissions from the energy system, which is also currently under review.

## C. Preliminary Assessment of Expected Impacts

### Likely economic impacts

The energy sector stands to benefit from increased reporting on methane emissions as it provides companies the opportunity to monitor, assess, and communicate their emissions profile and contributions towards the European climate objectives. For owners of the energy, mitigation techniques such as LDAR programmes or reduced venting can lead to benefits in terms of extra revenues from the gas saved and subsequently sold.

The costs associated with mitigation measures are borne primarily by regulated or commercial entities and include, inter alia, costs related to monitoring equipment, repairing leaks/capturing and storing the methane (rather than flaring or venting it), and reporting. The frequency of monitoring will also have an effect on cost. All of these elements and any other relevant expenditures need to be taken into account in assessing the overall cost to industry. As regards the magnitude of costs of such measures, the International Energy Agency's Methane Tracker (which contains detailed information on the costs of different methane emission mitigation techniques) indicates that around 40% of energy related methane emissions can be abated at no-net cost. This includes a range of mitigation measures targeted at different parts of energy supply chains. Nevertheless, the costs associated with such measures could in some instances lead to higher operating costs for energy companies with the distinct possibility of being passed on to consumers. The options covering also imports should attempt to adequately assess the specific impacts on energy partners of implementing such legislation. Particular attention will be paid in the impact assessment to the costs of methane recovery in the coal sector.

### Likely social impacts

Methane is the primary precursor to tropospheric ozone formation, a local air pollutant that is responsible for respiratory issues that cause premature deaths. Reducing energy-related methane emissions will help to alleviate the costs incurred for medical treatment and other social costs due to air pollution, such as working days lost from illness, reduced productivity (labour and agricultural yields) and associated social security payments.

Methane leakages can cause considerable health and safety risks in operations in the energy supply chain. Better and more widespread methane leakage detection and repair will contribute to reducing the risk of accidents

related to such leakages.

Nevertheless, there is the distinct possibility that the costs associated with such measures could in some instances lead to higher operating costs (related to the MRV actions) for energy companies that could be passed on as higher energy prices for consumers..

#### **Likely environmental impacts**

The benefits from improved measuring, reporting and verification (MRV) of methane emissions through EU legislation come from the fact that OGMP pushes for the highest possible current standards of reporting and measuring of such emissions in the energy sector. Having EU legislation would therefore obligate all companies in the energy sector involved in methane-emitting activities not only to do MRV (not all companies have signed up to OGMP), but also to reach the highest possible levels of MRV. The overall results would be an increased understanding of where and how emissions occur in the energy sector. This understanding can form the basis for effective mitigation through LDAR and, together with the elimination of routine venting and flaring, would lead to the achievement of larger reductions in methane emissions in that sector, with all the associated beneficial consequences in environmental, health and safety terms. The benefits would increase with the scope of the legislation in terms of sector coverage and in terms of supply chain. Most of the fossil fuels consumed in the EU are imported, and 75-90% of the methane emissions associated with these fuels are emitted before reaching the EU's borders. In principle, obligating non-EU entities supplying energy to the EU as well as EU actors would therefore considerably increase the benefits of such legislation, both in terms of improving information on methane emissions and mitigating them.

Fugitive emissions from leaking equipment, infrastructure or closed and abandoned sites as well as emissions from venting and incomplete combustion of methane represent the majority of methane emissions in the energy sector, so enshrining into EU law mitigation measures based on best practices targeting those areas of methane emissions could potentially lead to significant methane emission reductions in the energy sector.

#### **Likely impacts on fundamental rights**

The initiative is fully in line with Article 37 of the Charter of Fundamental Rights of the European Union, which requires that a high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development.

#### **Likely impacts on simplification and/or administrative burden**

In order to limit the administrative burden, the options that will be considered will build on existing and/or emerging best practice methodologies, to the extent that these are available and suitable for translating into EU policies.

### **D. Evidence base, Data collection and Better Regulation Instruments**

#### **Impact assessment**

An impact assessment will support the preparation of this initiative and contribute to informing the Commission's decision as regards the direction of regulatory activities on this issue. The impact assessment will build on studies and research already undertaken in the context of the Commission's EU Methane Strategy.

#### **Evidence base and data collection**

Existing and forthcoming scientific literature, studies and other data available inside and outside the Commission will be used.

#### **Consultation strategy**

A broad consultation process will be organised with different stakeholder groups (Member States, industry, social partners, NGOs, academia and citizens) in order to gather feedback and views on what legislative action can most effectively and feasibly support progress towards the EU's climate and clean air objectives. Given the technical nature of the subjects at hand, inputs from specialists in the field, whether from industry, regulators and international bodies, or NGOs, are expected to be especially relevant.

This inception impact assessment will be published for comments for a 5-week period. A 12-week public consultation will then be launched in February 2021 in accordance with the better regulation policy. It will contain multiple choice as well as open questions (replies in any of the 24 EU official languages will be possible) covering

a wide range of specified issues. Once published, it will be possible to send a reply via the Commission's central public consultations page ([Have Your Say](#)).

Dedicated workshops on specific topics will also be organised with the relevant stakeholder groups to contribute to the impact assessment.

The Commission will also consider all of the public feedback received during the three workshops which took place on March 20, June 9 and July 17, 2020 as well as responses to the public consultation, all of which preceded finalisation and adoption of the Communication on the methane strategy.

The Commission will also seek targeted feedback in the context of the established regulatory fora such as the Gas Regulatory Forum (Madrid).

#### **Will an implementation plan be established?**

No implementation plan will be established. The initiative proposed is expected to be well-targeted and therefore an implementation plan is not considered necessary.

Once the initiative is adopted, the Commission will use the usual instruments (e.g. guidance on new provisions or discussions with Member States) to ensure correct and timely transposition and implementation.