Council of the
European Union

Brussels, 10 March 2022
(OR. en)

15063/1/21
REV 1

Interinstitutional File:
2021/0423(COD)

ENER 559
CLIMA 454
ENV 1009
IND 387
COMPET 913
RECH 564
AGRI 643
RELEX 1103
CODEC 1655
IA 206

PROPOSAL

No. Cion doc.:	COM(2022) 805 final/2
Subject:	Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on methane emissions reduction in the energy sector and amending Regulation (EU) 2019/942

Delegations will find attached document COM(2022) 805 final/2.

Encl.: COM(2022) 805 final/2

EUROPEAN
COMMISSION

Brussels, 3.3.2022
COM(2022) 805 final/2

2021/0423 (COD)

CORRIGENDUM
This document corrects document COM(2021) 805 final of 15.12.2021.
Concerns all language versions.
The Legislative Financial Statement was missing and has been added.
The text shall read as follows:

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on methane emissions reduction in the energy sector and amending Regulation (EU) 2019/942

(Text with EEA relevance)

{SEC(2021) 432 final} - {SWD(2021) 459 final} - {SWD(2021) 460 final}

EXPLANATORY MEMORANDUM

1. CONTEXT OF THE PROPOSAL

• Reasons for and objectives of the proposal

The European Green Deal puts the Union on a path to climate neutrality by 2050 through the deep decarbonisation of all sectors of the economy. It also aims to protect, conserve and enhance the EU's natural capital, and protect the health and well-being of citizens from environment-related risks and impacts. Methane is a powerful greenhouse gas, second only to carbon dioxide in its overall contribution to climate change and responsible for about a third of current climate warming. Although it remains in the atmosphere for a shorter period than carbon dioxide (10-12 years before oxidizing into carbon dioxide that continues to trap heat), on a molecular level, methane is a far more powerful climate forcer (with a global warming potential of 28 times that of carbon dioxide over 100 years and of 86 over 20 years). In addition, methane contributes to ozone formation, which is a potent air pollutant that causes serious health problems.

Approximately 60% of global methane emissions are anthropogenic, of which the largest sources, based on estimations, are fossil fuel production and use (between a fourth and a third), waste (around a quarter) and agriculture (around half of total methane emissions), in particular linked to intensive production.

The Intergovernmental Panel on Climate Change (IPCC) notes that deep reductions in methane emissions must be achieved by 2030 for the world to stay below the 1.5°C (or even the 2°C) 2050 global temperature target[1]. The most recent IPCC report underlines the role of methane as one of the main greenhouse gases responsible for climate change. The report outlines that methane levels are at an all-time high and well above the emission levels compatible with limiting warming to 1.5°C. There is thus a need for a sharp, rapid and sustained reduction in methane emissions to slow down global warming and improve air quality. It is important to note that the report concludes that the increase of methane in the atmosphere is the result of human activity and that fossil fuels have been a large contributor to the growth in methane emissions at least since 2007, alongside agriculture (mainly livestock) and wastewater.

The 2030 Climate Target Plan's impact assessment indicates that in the EU the most cost-effective methane emission savings can be achieved in the energy sector. These emissions are a transboundary problem and uncoordinated regulatory treatment across Member States and sectors creates gaps and inefficiencies and may impair the functioning of the Union's single market for energy. As the majority of methane emissions linked to fossil energy consumed within the Union occur outside its borders, only joint action by Member States could present results in this field.

In September 2021 the Union and the United States announced the Global Methane Pledge which represents a political commitment to reduce global methane emissions across all methane-emitting sectors by 30% by 2030 (from 2020 levels), launched at the UN Climate Change Conference (COP 26) in November 2021 in Glasgow. Over one hundred countries have committed to support the Pledge, representing nearly half of global anthropogenic

[1] IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution
of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press. In Press.

methane emissions. The Global Methane Pledge includes a commitment to move towards using best available inventory methodologies to quantify methane emissions, with a particular focus on high emission sources.

The general objective of the Regulation is, in the context of the functioning of the internal market for energy and while ensuring security of supply in the Union, to preserve and improve the environment by reducing methane emissions from fossil energy produced or consumed in the Union.

The specific objectives are the following:

(i) Improve the accuracy of information on the main sources of methane emissions associated with energy produced and consumed within the EU. The goal is to ensure the availability of asset-level data and robust quantification of emissions, and thereby increase the accuracy of measurements – including the reporting of greenhouse gas ('GHG') inventories data to the United Nations Framework Convention on Climate Change ('UNFCCC') – as well as the scope for appropriate measures for mitigation.

(ii) Ensure further effective reduction of methane emissions across the energy supply chain in the EU. This specific objective addresses the market failures leading to insufficient mitigation of methane emissions by companies.

(iii) Improve the availability of information to provide incentives for the reduction of methane emissions related to fossil energy imported to the EU. As the majority of methane emissions linked to fossil energy consumed within the EU occur outside the EU, this specific objective seeks to set incentives to reduce methane emissions in partner countries by creating transparency in the market.

- **Consistency with existing policy provisions in the policy area**

In Regulation (EU) 2021/1119 ('European Climate Law'), the Union has enshrined into legislation the target of economy-wide climate neutrality by 2050 and also established a binding Union domestic reduction commitment of net greenhouse gas emissions (emissions after deduction of removals) of at least 55% below 1990 levels by 2030.

The proposal builds on the Union's 2030 Climate Target Plan and its impact assessment. The Climate Target Plan showed, on the basis of modelled scenarios, that achievement of an increased climate target of at least 55% net greenhouse gas emissions reduction in 2030 is feasible and would enable a smooth trajectory to climate neutrality in 2050. It also highlights the need to step-up reductions in methane emissions.

The European Green Deal combines a comprehensive set of mutually reinforcing measures and initiatives aimed at achieving climate neutrality in the Union by 2050. The European Green Deal Communication[2] indicates that the decarbonisation of the gas sector will be facilitated, including by addressing the issue of energy-related methane emissions. The Commission adopted an EU strategy to reduce methane emissions ('the Methane Strategy') in October 2020 setting out measures to cut methane emissions in the EU, including in the energy sector, and internationally.

Regulation (EU) 2018/1999 (Governance Regulation) requires Member States to establish national inventory systems to estimate anthropogenic emissions of greenhouse gases and to report those national projections. This reporting is done using IPCC guidelines, and is often

[2] COM(2019) 640 final.

based on default emission factors rather than direct source-level measurements, implying uncertainties regarding the precise origin, frequency and magnitude of emissions.

Methane emissions occurring at the level of oil and fossil gas exploration and production, fossil gas gathering and processing, transmission, distribution, underground storage and liquid fossil gas (LNG) terminals, as well as operating, closed or abandoned coal mines are not specifically regulated at the Union level.

Directive 2010/75/EU (Industrial Emissions Directive, IED), currently under revision, regulates pollutant emissions from industrial installations, notably by setting emission limit values based on best available techniques as permit conditions. The IED covers the refining of mineral oil and gas but not fossil gas upstream, mid and downstream (LNG, underground gas storage, transmission, distribution) or coal mining.

Closely related to the IED, Regulation (EC) 166/2006[3] (European Pollutant Release and Transfer Register, E-PRTR), requires 'Underground mining and related operations' to report pollutant releases, including methane when exceeding a reporting threshold of 100,000 kg/year. For measuring methane releases, Appendix 3 of the E-PRTR guidance[4] refers to an ISO standard in preparation (by ISP/TC 146/SC 1/WG 22). The E-PRTR is also currently under revision. The revision of the IED and the E-PRTR will take into account the need to avoid double regulation. This proposal is thus complementary to those two acts as it addresses methane emissions along the entire fossil energy supply chain.

On 14 July 2021 the European Commission adopted a series of legislative proposals setting out how it intends to achieve climate neutrality in the EU by 2050, including the intermediate target of an at least 55% net reduction in greenhouse gas emissions by 2030. In this context, the following initiatives have relevant links with methane emission measurement and mitigation:

Regulation (EU) 2018/842 (the Effort Sharing Regulation, ESR) contains binding annual greenhouse gas emission targets at country level for Member States from 2021 to 2030 for sectors including transport (without aviation), buildings, agriculture, waste, industry and the parts of the energy sector not covered by the existing EU Emissions Trading System (ETS). It includes methane in its scope and this is maintained in the proposal for revision adopted on 14 July 2021. This initiative is complimentary to the ESR as it introduces specific measures for the reduction of methane emissions, as the ESR does not prescribe such measures and leaves some margin to Member States on how best to achieve the required greenhouse gas emission reductions. Those measures will contribute to Member States fulfilling their targets and can also contribute to increasing the cost-effectiveness of achieving the ESR's targets due to the trading potential in the ESR between Member States.

The proposal to amend Regulation (EU) 2018/841 (LULUCF Regulation) as part of the 'Fit for 55' package sets an overall EU target for carbon removals by natural sinks, national targets will require Member States to care for and expand their carbon sinks. The proposal also determines the Union target of climate neutrality for 2035 in the land use, forestry and agriculture sectors, including also agricultural non-CO2 emissions, i.e. methane.

Directive (EU) 2018/2001 (Renewable Energy Directive, REDII) is the main EU instrument dealing with the promotion of energy from renewable sources and will facilitate the gradual replacement of fossil energy sources by renewables. It furthermore contains default

[3] Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC (OJ L 33, 4.2.2006)

[4] Guidance Document for the implementation of the European PRTR, European Commission (2006)

greenhouse gas savings values including estimations of methane losses in the production of biogas and biomethane, which can be relevant for the sustainability of biogas and biomethane. These default values can be used by producers in their reporting of the greenhouse gas savings of their production to demonstrate that they meet REDII sustainability requirements and indirectly provide incentives for the reduction of methane emissions.

Methane emissions occurring in space heating and cooling appliances are covered in several ecodesign and energy labelling regulations, which provide rules for improving the environmental performance of products, such as household appliances, information and communication technologies or engineering.

Finally, the European Commission is also proposing to revise Directive 2009/73/EC and Regulation (EC) 715/2009 to facilitate the emergence of decarbonised hydrogen and gas markets, by establishing a new market design, facilitating access for renewable and low-carbon gases to pipelines so as to, on the one hand, create the conditions for a hydrogen market and, on the other hand, remove barriers to the decarbonisation of existing natural gas grid. The proposal is complementary as it will improve the climate performance of fossil gas during the period in which it will be gradually replaced by renewable and low-carbon gases.

- **Consistency with other Union policies**

This proposal is complementary to action taken in the fields of agriculture and waste to reduce methane emissions.

As regards the agriculture sector, several challenges are addressed in the 'Farm to Fork'[5] strategy. The Commission has set up an expert group to analyse life-cycle methane emissions metrics. In cooperation with sectoral experts and Member States, the Commission is developing an inventory of best practices and available technologies to explore and promote the wider uptake of innovative mitigating actions. To encourage carbon-balance calculations at farm level, by 2022 the Commission will provide a digital carbon navigator template and guidelines on common pathways for the quantitative calculation of greenhouse gas emissions and removals. The Commission will promote the uptake of mitigation technologies through the wider deployment of 'carbon farming' in Member States and their Common Agricultural Policy Strategic Plans, as from 2021. In the Horizon Europe strategic plan 2021-2024, the Commission is proposing targeted research on the different factors that effectively lead to greenhouse gases emission reductions, focusing on technology and nature-based solutions as well as on the factors leading to dietary shift. The Commission is also considering bringing part of the cattle rearing within the scope of the IED, which may contribute to curbing methane emissions of the sector.

Methane emissions in the waste sector are covered by existing and upcoming planned reviews of environmental legislation. Directive (EU) 2018/850 (the Landfill Directive) requires landfill operators to manage landfill gas by either using it to generate energy or flaring it. In the review of the Landfill Directive foreseen for 2024, the Commission will consider further action to improve the management of landfill gas, minimise its harmful climate effects, and harness any of its potential energy gains. Furthermore, the ongoing review of the IED is also considering the adoption of conclusions on BAT for landfilling that would inter alia address methane emissions. Recent changes to EU waste legislation (2018) introduced an obligation to collect biodegradable waste separately by 2024, and set a new target of a maximum 10% landfilling of waste by 2035. As a result of these changes, it is expected that methane emissions from landfills will decrease further. Concerning the treatment and use of

[5] COM/2020/381 final

wastewater and sewage sludge under the current regulatory framework, namely the Urban Waste Water Treatment Directive[6] and the Sewage Sludge Directive[7], emissions of greenhouse gases are not specifically tackled. The implementation of the Urban Waste Water Treatment Directive has, however, helped to prevent significant methane emissions due to the collection and treatment of wastewater inefficient centralised facilities. The Urban Waste Water Treatment Directive is currently being reviewed. The Sewage Sludge Directive regulates the use of sewage sludge to protect the environment, and in particular soil, against the harmful effects of contaminated sludge when used in agriculture.

2. LEGAL BASIS, SUBSIDIARITY AND PROPORTIONALITY

- **Legal basis**

The legal basis of this initiative is Article 194(2) of the Treaty on the Functioning of the European Union (TFEU), which empowers the Union to establish the measures necessary to achieve the objectives of the Union with regard to policy on energy. The proposal concerns the energy sector only and it contributes to the Union's energy policy objectives as outlined in Article 194(1), in particular the functioning of the energy market by harmonizing monitoring, reporting and abatement rules on methane, which contributes to preserve and improve the environment.

- **Subsidiarity (for non-exclusive competence)**

Methane emissions in the energy sector are a transboundary problem and vary across national and regional levels of the Union. They are relevant in all Member States to a varying degree, depending on their energy mix and natural endowments, e.g. how many underground coalmines are operated or sealed, how much fossil gas is produced or transported. The scale of gas infrastructure demonstrates the Union wide aspect, with roughly 190,000 km of transmission pipelines across all Member States.

The level of reporting of emissions and the scope of mitigation measures differs by Member State and sub-sector. There are several private and voluntary initiatives, these are, however, insufficient due to limitations in scope, participation and enforceability. Diverse national approaches may lead to inconsistencies in regulatory treatment across Member States, increasing the administrative burden on companies operating in more than one Member State, potentially impeding the functioning of the internal market through the creation of barriers to operators, as well as complicating the collection of comparable data across the Union.

In addition, as the majority of methane emissions linked to fossil energy consumed within the Union occur outside its borders, joint action by Member States would be more likely to deliver results for those parts of the supply chain and preserve the integrity of the internal energy market.

In light of the above, the reduction of methane emissions across the Union would benefit from a homogeneous policy approach at the Union level. The impacts of measures aimed at methane measurement and mitigation and related effects on innovation, cost-effectiveness, and a level-playing field in maintenance of a well-functioning internal market warrant coordination across Member State borders. Coordinated Union policies have a much higher chance of leading to further reductions in methane emissions in the energy sector than

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6 Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment

7 Council Directive 86/278/EEC of 12 June 1986 on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture

fragmented national efforts. Coordinated action at the Union level furthermore facilitates the full consideration of the different capabilities to act among Member States and private entities. It also affords operators the benefits of a single regulatory regime, facilitating adherence and reducing administrative burden relative to the application of fragmented rules across Member States.

Union-level methane policy adds significant value for international climate action. By developing legislation to minimise methane emissions in the energy sector, the Union is sending a strong political signal to external actors, increasing the awareness of the harmful effects of methane emissions on the climate. This signal will not only encourage Union partners to address the problem of methane emissions in the energy sector, but also lead to the creation of an international partnership and thus give the Union a leadership role in addressing methane emissions.

In conclusion, the challenges in reducing methane emissions hence require a harmonised and coordinated approach and cannot be addressed efficiently by individual Member States. Union action is thus justified on grounds of subsidiarity in line with Article 194 TFEU.

- **Proportionality**

The proposal strikes a careful balance between, on the one hand, the regulatory autonomy Member States have for national corrective actions, setting incentives for technological innovation or deciding on the level of dedicated resources and, on the other hand, the need to address the problems concerning methane emissions that have to be tackled at Union level.

As described in Chapter 6 of the Impact Assessment, the costs and regulatory burdens associated with this proposal have been kept as limited as possible. The measures foreseen in this proposal do not extend beyond what is necessary to solve the identified problems and to achieve the objectives set. The foreseen costs for the Commission and Member States are considered as acceptable, also bearing in mind the positive net economic impacts linked to an environmentally and socially cost effective abatement level.

- **Choice of the instrument**

A Regulation is the appropriate legal instrument for this legislative proposal as it imposes clear and detailed rules which do not give room for divergent transposition by Member States. A Regulation ensures that legal requirements are applicable at the same time throughout the Union, therefore it would avoid the inefficiencies and regulatory costs/burdens related to an inconsistent implementation of the methane emission reduction provisions across the Union.

In addition, a Regulation is the adequate instrument to impose direct obligations on economic operators and national authorities. This would be required in order to have clear obligations to quantify report and verify data, as well as to employ measures to mitigate methane emissions, including the phasing out of harmful industry practices such as venting and flaring.

In order to have consistent and comparable data, it is crucial to have harmonised measurement and reporting requirements. This can be best done via a Regulation, as shown by related EU legal acts, such as Regulation (EU) 2015/757[8], Regulation (EC) 166/2006 or Implementing

[8] Regulation (EU) 2015/757 of the European Parliament and of the Council of 29 April 2015 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport, and amending Directive 2009/16/EC, OJ L 123, 19.5.2015, p. 55

Regulation (EU) 2018/2066[9]. On this subject, the level of discretion left to Member States in a Directive would be incompatible with the need for comparable and therefore harmonised data.

Furthermore, with respect to mitigation measures and restrictions on industrial practices, Regulation is the adequate instrument to ensure that provisions target companies directly and a minimum level-playing field is established in those practices.

Finally, a Regulation allows the urgency of dealing with methane emissions to be addressed in a more direct and conducive manner, in the context of the climate emergency and the Union's climate neutrality target, as explained in section 1 above.

The choice of a Regulation ensures that the identified problems and objectives are addressed in the most effective, efficient and proportionate way. It ensures a careful balance between, on the one hand, the regulatory autonomy Member States have for national corrective actions, setting incentives for technological innovation, or deciding on the level of dedicated resources and, on the other hand, the need to address the problems concerning methane emissions that have to be tackled at Union level.

3. RESULTS OF EX-POST EVALUATIONS, STAKEHOLDER CONSULTATIONS AND IMPACT ASSESSMENTS

- **Stakeholder consultations**

In line with the Better Regulation Guidelines for impact assessments, the Commission carried out a comprehensive stakeholder consultation based on a consultation strategy that included a range of methods and tools. The consultation strategy aimed to ensure that all relevant evidence was taken into account, including data about costs, societal impact, and the potential benefits of the initiative. The strategy was designed in line with the intervention logic and combined both backward and forward-looking elements. Several consultation tools were employed: an online public consultation, a targeted consultation on costs of implementing monitoring, reporting and verification (MRV) regulation based on the Oil and Gas Methane Partnership[10], in-depth interviews and (three) online stakeholder webinars.

The open public consultation (OPC) received 131 responses, of those 126 were submitted by at least partial completion of the online questionnaire and five additional contributions were received in the form of email submissions.

In particular, the Agency for the Cooperation of Energy Regulators (ACER) and the Council of European Energy Regulators (CEER) submitted a survey among their members as informal contribution to the open public consultation, expressing the view that "national regulatory authorities broadly support an EU-level harmonized approach to methane emissions monitoring and detection, based in particular on mandatory monitoring of methane emissions."

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9 Commission Implementing Regulation (EU) 2018/2066 of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 601/2012, OJ L334, 31.12.2018, p.1.

10 The Oil and Gas Methane Partnership (OGMP), launched in 2014, was created by the Climate and Clean Air Coalition (CCAC) and the United Nations Environmental Programme (UNEP) as a voluntary initiative to help companies with regards measuring and reporting of methane emissions. The OGMP focuses on establishing best-practices to improve the availability of global information on methane emissions quantification and management and to drive mitigation actions to reduce methane emissions. To date, over 60 companies have signed up to OGMP, covering 30% of global oil and gas production and assets in five continents.

Stakeholders expressed widespread support for developing a robust MRV standard for methane emissions in the energy sector. In the OPC, 78% of responses supported basing the oil and gas part of the MRV proposal on the methodology of the Oil and Gas Methane Partnership, which was also backed by all the EU oil and gas trade associations. There was also wide support, including by the coal industry, for including MRV provisions for coal (96% of responses to the OPC). Those aspects are included in this proposal.

There was broad support for legislative measures to mitigate emissions in the oil, fossil gas and coal sectors. All oil and gas industry associations that provided a response to the OPC expressed support for putting into Union law an obligation on leak detection and repair (LDAR). NGOs were also widely supportive of such an obligation. All NGOs and industry respondents to the OPC believed that it is feasible to phase out routine venting and flaring associated with energy produced and consumed in the EU. As regards the inclusion of mitigation measures for coalmine methane, the public consultation yielded strong support (80% of responses). Those aspects are included in this proposal.

Ninety-two percent of responses to the OPC were supportive of Union legislation on methane emissions in the energy sector covering oil and gas placed in the Union market. Specifically, 96% of responses supported the development of a methane transparency tool at the Union and international levels. This element is included in this proposal.

72% of responses considered that Union legislation on methane emissions in the energy sector should extend obligations to companies importing fossil energy into the Union. 65% of responses considered it feasible to impose the same obligations with respect to MRV, LDAR and venting and flaring on all actors of the oil and gas value chain for oil and gas consumed in the Union. To respond to this, the proposal includes a review clause explicitly referring to the Commission's prerogative to submit amending legislative proposals to impose more stringent measures on importers once better global methane emission data are available.

- **Collection and use of expertise**

The proposal and its underpinning impact assessment draw on evidence from the stakeholder input to the extensive consultations carried out in this respect, specific workshops, as well as literature review, analysis and modelling. The literature review included the results of a series of topical studies on key elements of the methane emissions regulations in different countries and EU Member States, limiting methane emissions in the energy sector, as well as evaluations and assessments carried out in the framework of other relevant Commission initiatives.

- **Impact assessment**

Throughout the impact assessment work, a range of measures was considered across all areas to address the identified problems and problem drivers in order to reach the objectives of the initiative. All policy areas included a business as usual option. Preferred options have been identified for three policy areas. Following an assessment of their effectiveness, efficiency, coherence and proportionality, a package of preferred options was found to be best suited to contribute to the set objectives. The package of preferred options includes the following main provisions:

Policy area 1 considers options to improve the accuracy of measuring and reporting of methane emissions in the energy sector by obliging operators to carry out asset-level measurements and report direct emissions of methane for economic activities in the EU

territory. This includes compulsory monitoring, reporting and verification for oil and gas, compulsory monitoring, reporting and verification for oil, gas and coal, and compulsory monitoring, reporting and verification for oil, gas and coal covering also indirect emissions.

The preferred option for policy area 1 is to impose detailed (asset-level) measuring and reporting obligation on methane emissions from oil, gas and coal in the EU energy sector. The key benefit is that this will improve the level of reporting of such emissions and will increase understanding of the sources and magnitude of those emissions which will lead to more effective abatement of associated emissions.

Policy area 2 contains options for the mitigation of methane emissions in the EU, through leak detection and repair measures and limits on venting and flaring. They aim to ensure further effective mitigation of methane emissions across the energy supply chain. The options include Commission guidance or mandatory measures on mitigation of methane emissions in the oil and fossil gas sectors, mandatory measures on mitigation of methane emissions in the oil, fossil gas and coal sectors as well as indirect emissions and legislative measure to achieve a certain reduction in methane emissions via a performance requirement.

The preferred option for policy area 2 is to impose obligations to mitigate methane emissions from oil, gas and coal in the EU energy sector, in terms of leak detection and repair measures and to ban venting and flaring. These will lead to greater abatement of methane emissions compared to a business as usual scenario, with associated environmental and social benefits in terms of slowing climate change and reducing air pollution.

Policy area 3 contains options that aim at reducing methane emissions related to imported fossil energy. It includes options on measuring, reporting and mitigating methane emissions linked to EU fossil fuel consumption but occurring outside the EU, including the use of diplomatic action and transparency tools, mandatory measuring, reporting and mitigation applying to all methane emissions from fossil energy consumed in the EU covering the value chain, the establishment of a transparency database on methane emissions and a global high methane emitting monitoring tool, as well as an obligation to achieve a certain amount of methane emissions reduction applying to all fossil energy consumed in the EU covering the value chain.

The preferred option for policy area 3 is to put forward various instruments to improve information on methane emission sources from companies exporting fossil energy to the EU as well as incentives for countries to reduce their methane emissions. Similarly to policy area 2, reducing global methane emissions will have environmental and social benefits, for the EU in particular in terms of slowing climate change.

- **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.

4. BUDGETARY IMPLICATIONS

The proposal includes a number of requirements with budgetary implications. First, the requirement for the European Union Agency for the Cooperation of Energy Regulators (ACER) to establish and make publicly available a set of indicators and corresponding

reference values for the comparison of unit investment costs linked to measurement, reporting and abatement of methane emissions for comparable projects, once every three years. While so far ACER has not dealt with costs of network operators due to measurement, reporting and abatement of methane emissions, the additional tasks and their workload for ACER are estimated to be sufficiently covered by 1 additional FTE.

Second, the requirement for the Union to establish and maintain a methane transparency platform including information on imports of fossil energy into the Union, with updates to be provided every quarter, as well as to establish a global methane monitoring tool that regularly publishes the results of aerial monitoring of large emitters of methane from energy sources, with updates to be provided every month. The additional tasks and their workload for the Commission are estimated to require 2 extra full-time officials.

Section 3 of the Legislative Financial Statement outlines the proposal's budgetary implications and the human and administrative resources required.

5. OTHER ELEMENTS

- **Implementation plans and monitoring, evaluation and reporting arrangements**

EU climate and energy legislation provides a comprehensive framework to achieve progress towards EU targets, and to track that progress, to which this proposal will contribute. The overarching framework is provided by the European Climate Law and a detailed integrated monitoring and reporting framework is provided by the Regulation on the Governance of the Energy Union and Climate Action. Data collected in the context of that Regulation is to be made publicly accessible on an e-platform, including indicators for monitoring progress towards the Union's energy and climate objectives.

Member States national policies and measures to achieve their targets under the Effort Sharing Regulation are checked by the Commission every five years. The implementation and effectiveness of the provisions contained in the proposal will therefore be also tracked under the target achievement under the ESR. The established control mechanisms for the quality of national submissions will also allow an evaluation of the effectiveness of the provisions of this proposal in achieving improvements in data accuracy. In this context, the Regulation on the Governance of the Energy Union and Climate Action sets out the requirements for national and Union inventory systems for GHG emissions, policies, measures and projections, calling for their continuous improvement. The establishment of such systems is required internationally and is meant to support the implementation of national energy and climate plans with regard to the decarbonisation dimension.

Methane emissions are increasingly subject to public attention, including scientific and stakeholder campaigns to detect and quantify emissions. Supported by increasing spatial and temporal resolution of satellite data, such public scrutiny is a valuable resource in monitoring the impact of the proposal and identifying shortcomings in implementation.

As regards monitoring and evaluation of the obligations set out in this proposal, the main responsibility in ensuring application of the provisions will lie with the national competent authorities. With respect to emissions data verification, this proposal provides for the role of independent accredited verifiers. The International Methane Emission Observatory[11] will provide additional scrutiny of submitted methane emissions data, including the possibility to cross-reference them with other sources such as satellite imaging and products.

[11] https://www.unep.org/explore-topics/energy/what-we-do/international-methane-emissions-observatory

The Commission will monitor the implementation of the legal act, through checking the correct application of the measures by the obligated parties and if necessary taking enforcement action. This proposal includes a review clause whereby the Commission will submit a report on the evaluation and review of the Regulation.

- **Detailed explanation of the specific provisions of the proposal**

The proposed regulation consists of six chapters comprising 35 articles.

Chapter 1 – General provisions
This chapter sets out the scope and the main terms used in the proposed regulation. It also includes a provision recognising the costs of network operators in implementing the Regulation.

Chapter 2 – Competent authorities and independent verification
This chapter lays down the compliance provisions of the Regulation, in addition to the penalties provisions in Chapter 6. It sets out the tasks of competent authorities, in particular the rules concerning inspections and complaints, as well as the role and procedures for independent accredited verifiers with respect to verification of methane emissions data reported by operators.

Chapter 3 – Methane emissions in the oil and gas sectors
This chapter lays down the obligations of operators and Member States with respect to measurement and reporting of methane emissions data, as well as obligations for the abatement of methane emissions in the relevant sites.

Chapter 4 – Methane emissions in the coal sector
This chapter is divided in three sections to cover the following: monitoring and reporting of methane emissions in operating mines; mitigation of methane emissions in operating underground mines and methane emissions in closed and abandoned underground mines.
Each section lays down the obligations of operators and Member States with respect to measurement and reporting of methane emissions data, as well as obligations for the abatement of methane emissions in the relevant sites.

Chapter 5 – Methane emissions occurring outside the Union
This chapter introduces transparency tools for methane emissions occurring outside the Union: an information obligation by importers of fossil fuels with regards to methane emissions, a transparency list of Union companies and countries and companies exporting fossil energy to the Union, including information on their international reporting obligations with respect to methane emissions and a global monitoring tool to divulge the magnitude, recurrence and location of methane emitters globally.
In addition, to account for imports of fossil energy into the Union, the chapter sets out importer information requirements, as well as the Commission's prerogative to submit amending legislative proposals to impose more stringent measures on importers once better global methane emission data are available and ensuring compliance with the applicable international obligations of the Union.

Chapter 6 – Final provisions
This chapter provides in particular for a system of penalties: while recognising that establishing penalties is a national competence, it sets out guiding principles for penalties, in particular criteria for setting penalties, the types of infringements to be penalised, criteria on maximum ceilings, as well as the possibility to impose periodic penalty payments.

It also contains empowerment provisions for the adoption of delegated and implementing acts, as well as a review clause.

2021/0423 (COD)

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on methane emissions reduction in the energy sector and amending Regulation (EU) 2019/942

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 194(2) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee[12],

Having regard to the opinion of the Committee of the Regions[13],

Acting in accordance with the ordinary legislative procedure,

Whereas:

(1) Methane, the main component of natural gas, is second only to carbon dioxide in its overall contribution to climate change and is responsible for approximately a third of current warming.

(2) On a molecular level, although methane remains in the atmosphere for a shorter period (10 to 12 years) than carbon dioxide (hundreds of years), its greenhouse effect on the climate is more significant and it contributes to ozone formation which is a potent air pollutant that causes serious health problems. The amount of methane in the atmosphere globally has risen sharply over the last decade.

(3) According to recent estimates by the United Nations Environment Programme and the Climate and Clean Air Coalition, methane emission reductions of 45% by 2030, based on available targeted measures and additional measures in line with the United Nations ('UN') priority development goals, could avoid 0.3°C of global warming by 2045.

(4) According to the Union's greenhouse gas ('GHG') inventories data, the energy sector is estimated to be responsible for 19% of methane emissions within the Union. This does not include methane emissions linked to the Union's fossil energy consumption which are occurring outside the Union.

(5) The European Green Deal combines a comprehensive set of mutually reinforcing measures and initiatives aimed at achieving climate neutrality in the Union by 2050. The European Green Deal Communication[14] indicates that the decarbonisation of the

[12] OJ C , , p. .
[13] OJ C , , p. .
[14] COM(2019) 640 final.

gas sector will be facilitated, including by addressing the issue of energy-related methane emissions. The Commission adopted an EU strategy to reduce methane emissions ('the Methane Strategy') in October 2020 setting out measures to cut methane emissions in the EU, including in the energy sector, and internationally. In Regulation (EU) 2021/1119[15] ('European Climate Law'), the Union has enshrined into legislation the target of economy-wide climate neutrality by 2050 and also established a binding Union domestic reduction commitment of net greenhouse gas emissions (emissions after deduction of removals) of at least 55% below 1990 levels by 2030. To achieve that level of GHG emission reductions, methane emissions from the energy sector should decrease by around 58% by 2030 compared to 2020.

(6) Methane emissions are included in the scope of the Union greenhouse gas reduction targets for 2030 set out in the European Climate Law and the binding national emission reduction targets under Regulation (EU) 2018/842[16]. However, there is currently no Union level legal framework setting out specific measures for the reduction of anthropogenic methane emissions in the energy sector. In addition, whilst Directive 2010/75[17] on industrial emissions covers methane emissions from the refining of mineral oil and gas, it does not cover other activities in the energy sector.

(7) In this context, this Regulation should apply to the reduction of methane emissions in oil and fossil gas upstream exploration and production, fossil gas gathering and processing, gas transmission, distribution, underground storage and liquid fossil gas (LNG) terminals, as well as to operating underground and surface coalmines, closed and abandoned underground coal mines.

(8) Rules for accurate measurement, reporting and verification of methane emissions in the oil, gas and coal sectors, as well as for the abatement of those emissions, including through leak detection and repair surveys and restrictions on venting and flaring, should be addressed by an appropriate Union legal framework. Such a framework should contain rules to enhance transparency with regard to fossil energy imports into the Union, thus improving the incentives for a wider uptake of methane mitigation solutions across the globe.

(9) Compliance with the obligations under this Regulation is likely to require investments by regulated operators and the costs associated with such investments should be taken into account in tariff setting, subject to efficiency principles.

(10) Each Member State should appoint at least one competent authority to oversee that operators effectively comply with the obligations laid down in this Regulation and should notify the Commission about such appointment and any changes thereof. The competent authorities appointed should take all the necessary measures to ensure compliance with the requirements set out in this Regulation. Taking into account the cross-border character of energy sector operations and methane emissions, competent authorities should cooperate with each other and the Commission. In this context, the Commission and the competent authorities of the Member States should form together

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15 Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law') (OJ L 243, 9.7.2021).

16 Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013 (OJ L 156, 19.6.2018).

17 Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (OJ L 334, 17.12.2010).

a network of public authorities applying this Regulation to foster close cooperation, with the necessary arrangements for exchanging information and best practices and allow for consultations.

(11) In order to ensure a smooth and effective implementation of the obligations laid down in this Regulation, the Commission supports Member States through the Technical Support Instrument[18] providing tailor-made technical expertise to design and implement reforms, including those promoting the reduction of methane emissions in the energy sector. The technical support, for example, involves strengthening of administrative capacity, harmonising the legislative frameworks and sharing of relevant best practices.

(12) In order to ensure the performance of their tasks, operators should provide the competent authorities with all assistance necessary. In addition, operators should take all the necessary actions identified by the competent authorities within the period determined by the competent authorities or any other period agreed with the competent authorities.

(13) The main mechanism available to the competent authorities should be inspections, including examination of documentation and records, emissions measurements and site checks. Inspections should take place regularly, on the basis of an appraisal of the environmental risk conducted by the competent authorities. In addition, inspections should be carried out to investigate substantiated complaints and occurrences of non-compliance and to ensure that repairs or replacements of components are carried out in accordance with this Regulation. Where they identify a serious breach of the requirements of this Regulation, competent authorities should issue a notice of remedial actions to be taken by the operator. Competent authorities should keep records of the inspections and the relevant information should be made available in accordance with Directive 2003/4/EC of the European Parliament and of the Council[19].

(14) In light of the proximity of some methane emission sources to urban or residential areas, natural or legal persons harmed by breaches of this Regulation should be able to lodge duly substantiated complaints with the competent authorities. Complainants should be kept informed of the procedure and decisions taken and should receive a final decision within a reasonable time of lodging the complaint.

(15) A robust verification framework can improve the credibility of reported data. In addition, the level of detail and technical complexity of methane emissions measurements requires proper verification of methane emissions data reported by operators and mine operators. While self-verification is possible, third party verification ensures greater independence and transparency. In addition, it allows for a harmonized set of competences and level of expertise that may not be available to all public entities. Verifiers should be accredited by accreditation bodies in accordance with Regulation (EC) 765/2008 of the European Parliament and of the Council[20]. Independent accredited verifiers should thus ensure that emissions reports prepared by operators and mine operators are correct and in compliance with the requirements set

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18 Regulation (EU) 2021/240 of the European Parliament and of the Council of 10 February 2021 establishing a Technical Support Instrument (OJ L 57, 18.2.2021).

19 Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC (OJ L 41, 14.2.2003).

20 Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93 (OJ L 218, 13.8.2008).

out in this Regulation. They should review the data in the emissions reports to assess their reliability, credibility and accuracy against free and publicly available European or international standards developed by independent bodies and made applicable by the Commission. The Commission should thus be empowered to adopt delegated acts for the purpose of incorporating and setting out the applicability of such European or international standards. Verifiers are separate from competent authorities and should be independent from the operators and mine operators, who should provide them with all assistance necessary to enable or facilitate the performance of the verification activities, notably as regards access to the premises and the presentation of documentation or records.

(16) The information in the emission reports submitted to the competent authorities should be provided to the Commission in view of a verification role to be attributed to the International Methane Emissions Observatory (IMEO), in particular with regards to methodologies for data aggregation and analysis and verification of methodologies and statistical processes employed by companies to quantify their emissions reported data. The reference criteria in that respect may include the OGMP standards and guidance documents. The information produced by the IMEO should be made available to the public and the Commission should use such information to address any identified shortcomings with regards to the measurement, reporting and verification of methane emissions data.

(17) The IMEO was set up in October 2020 by the Union in partnership with the United Nations Environmental Programme, the Climate and Clean Air Coalition and the International Energy Agency, and launched at the G20 Summit in October 2021. The IMEO has been tasked with collecting, reconciling, verifying and publishing anthropogenic methane emissions data at a global level. The IMEO is part of the United Nations Environment Programme, which concluded a Memorandum of Understanding with the European Union. Its role is crucial for verification of methane emissions data in the energy sector and appropriate relations should be established in order to put into effect the entrustment of verification tasks. As the IMEO is not a Union body and is not subject to Union law, it is essential to provide that IMEO takes appropriate measures to ensure the protection of the interests of the Union and its Member States.

(18) As party to the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement, the Union is required to provide annually an inventory report of anthropogenic greenhouse gas emissions constituting an aggregate of the member States national greenhouse gas inventories, prepared using good practice methodologies accepted by the Intergovernmental Panel on Climate Change (IPCC).

(19) Regulation (EU) 2018/1999 of the European Parliament and of the Council[21] requires Member States to report greenhouse gas inventory data to the Commission and to report their national projections. Pursuant to Article 17(2) of Regulation (EU) 2018/1999 reporting is to be undertaken using UNFCCC reporting guidelines, and is

[21] Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council (OJ L 328, 21.12.2018, p. 1).

often based on default emission factors rather than direct source-level measurements, implying uncertainties on the origin, frequency and magnitude of emissions.

(20) Country data reported pursuant to UNFCCC reporting provisions is submitted to the UNFCCC secretariat according to different tiers of reporting in line with the IPCC guidelines. In this context, the IPCC generally suggests using higher tier methods for those emission sources which have a significant influence on a country's total inventory of greenhouse gases in terms of absolute level, trend or uncertainty.

(21) A tier represents a level of methodological complexity. Three tiers are available. Tier 1 methods typically use IPCC default emission factors and require the most basic, and least disaggregated, activity data. Higher tiers usually utilise more elaborate methods and source-specific, technology-specific, region-specific or country-specific emission factors, which are often based on measurements, and normally require more highly disaggregated activity data. Specifically, tier 2 requires country-specific, instead of default, emission factors to be used, while tier 3 requires plant-by-plant data or measurements and comprises the application of a rigorous bottom-up assessment by source type at the individual facility level. Progressing from tier 1 to tier 3 represents an increase in the certainty of measurements of methane-related emissions[22].

(22) Member States have different practices as concerns the tier level at which they report their energy related methane emissions to the UNFCCC. Reporting at tier 2 for large emission sources is in line with IPCC reporting guidelines as tier 2 is considered a higher tier method. Consequently, estimation methodologies and reporting of energy related methane emissions varies across Member States, and reporting at the lowest, tier 1, level is still very common in several Member States for methane emissions from coal, gas and oil.

(23) Currently, voluntary industry-led initiatives remain the principal course of action for methane emissions quantification and mitigation in many countries. A key energy sector led initiative is the Oil and Gas Methane Partnership ('OGMP'), a voluntary initiative on measuring and reporting of methane emissions created in 2014 by the United Nations Environmental Programme (UNEP) and the Climate and Clean Air Coalition (CCAC), in whose board the Commission is represented. The OGMP focuses on establishing best-practices to improve the availability of global information on methane emissions quantification and management and to drive mitigation actions to reduce methane emissions. To date, over 60 companies have signed up to OGMP, covering 30% of global oil and gas production and assets in five continents. The OGMP's work on developing standards and methodologies involves governments, civil society and business. The OGMP 2.0 framework is the latest iteration of a dynamic methane emissions standard and it can provide a suitable basis for methane emissions standards, based on sound scientific norms.

(24) Against this background, it is necessary to improve the measurement and quality of reported data of methane emissions, including on the main sources of methane emissions associated with energy produced and consumed within the Union. Moreover, the availability of source-level data and robust quantification of emissions should be ensured, thereby increasing the reliability of reporting as well as the scope for appropriate measures for mitigation.

(25) For measuring and reporting to be effective, oil and gas companies should be required to measure and report methane emissions by source, and to make aggregated data

[22] IPCC (2019) 2019 Refinement to the 2006 IPCC guidelines for national greenhouse gas inventories.

available to Member States in order for Member States to be able to improve the accuracy of their inventories reporting. In addition, effective verification of company reported data is necessary and, to minimise the administrative burden for operators, reporting should be organised on an annual basis.

(26) This Regulation builds on the OGMP 2.0 framework insofar as it meets the criteria referred to in Recitals 24 and 25, to contribute towards the collection of reliable and robust data that would form a sufficient basis for monitoring methane emissions and if necessary to build additional action to further curb methane emissions.

(27) The OGMP 2.0 framework has five levels of reporting. Source-level reporting begins at level 3, which is considered comparable with UNFCCC tier 3. It allows generic emission factors to be used. OGMP 2.0 level 4 reporting requires direct measurements of source-level methane emissions. It allows the use of specific emission factors. OGMP 2.0 level 5 reporting requires the addition of complementary site-level measurements. In addition, the OGMP 2.0 framework requires companies to report direct measurements of methane emissions within three years of joining OGMP 2.0 for operated assets and within five years for non-operated assets. Building on the approach taken in OGMP 2.0 with regard to source-level reporting and taking into account that a large number of Union companies had already signed up to OGMP 2.0 in 2021, Union operators should be required to deliver direct source-level measurements of their emissions within 24 months for operated assets and within 36 months for non-operating assets. In addition to source level quantification, site-level quantification allows assessment, verification and reconciliation of source-level estimates aggregated by site, thereby providing improved confidence in reported emissions. As in OGMP 2.0, this Regulation requires site-level measurements to reconcile source-level measurements.

(28) According to data from the Union's GHG inventory, more than half of all direct energy sector methane emissions is due to unintentional release of emissions into the atmosphere. In the case of oil and gas, that represents the largest share of methane emissions.

(29) Unintentional leaks of methane into the atmosphere can occur during drilling, extraction as well as during processing, storage, transmission and distribution to end-use consumers. They can also occur in inactive oil or gas wells. Some emissions result from imperfections in, or ordinary wear and tear of, technical components such as joints, flanges and valves, or from damaged components, for example in the case of accidents. Corrosion or damage can also cause leaks from the walls of pressurised equipment.

(30) While venting of methane is typically intentional, resulting from processes or activities and devices designed for that purpose, it can also be unintentional, as in the case of a malfunction.

(31) In order to reduce those emissions, operators should take all measures available to them to minimise methane emissions in their operations.

(32) More specifically, methane emissions from leaks are most commonly reduced by methane leak detection and repair ('LDAR') surveys, carried out to identify leaks and followed by repair of such leaks. Operators should therefore conduct at least periodic LDAR surveys and these should also cover surveying of components that vent methane, to survey for unintentional venting of methane.

(33) For that purpose, a harmonised approach to ensure a level-playing field for all operators in the Union should be set up. That approach should include minimum requirements for LDAR surveys, while leaving an adequate degree of flexibility to Member States and operators. This is essential to allow innovation and the development of new LDAR technologies and methods, thus preventing the lock-in of technology, to the detriment of environmental protection. New technologies and detection methods continue to emerge and Member States should encourage innovation in this sector, so that the most accurate and cost-effective methods can be adopted.

(34) Obligations on LDAR surveys should reflect a number of good practices. LDAR surveys should be primarily aimed at finding and fixing leaks, rather than quantifying them, and those areas with a higher risk of leaks should be checked more frequently; the frequency of surveys should be guided not only by the need to repair components from which methane is escaping above the methane emission threshold but also by operational considerations, taking into account risks to safety. Thus, where a higher risk to safety or higher risk of methane losses is identified, the competent authorities should be allowed to recommend a higher frequency of surveys for the relevant components; all leaks irrespective of size should be recorded and monitored, as small leaks can develop into larger ones; leak repairs should be followed by confirmation that they have been effective; in order to allow for future, more advanced methane emissions detecting technologies to be used, the size of methane loss at or above which a repair is warranted should be specified, while allowing operators the choice of detection device. Where appropriate, continuous monitoring may be used in the context of this Regulation.

(35) Venting consists of the release of uncombusted methane into the atmosphere either intentionally from processes or activities or devices designed to do it, or unintentionally in the case of a malfunction. In light of its potent GHG emission effect, venting should be banned except in the case of emergencies, malfunction or during certain specific events where some venting is unavoidable.

(36) Flaring is the controlled combustion of methane for the purpose of disposal in a device designed for said combustion. When carried out during the normal production of oil or fossil gas and as a result of insufficient facilities or amenable geology to re-inject methane, utilise it on-site, or dispatch it to a market, it is considered routine flaring. Routine flaring should be banned. Flaring should only be permissible when it is the only alternative to venting and where venting is not prohibited. Venting is more harmful to the environment than flaring as the released gas typically contains high-levels of methane, whereas flaring oxidises methane into carbon dioxide.

(37) Using flaring as an alternative to venting requires that flaring devices are efficient at combusting methane. For that reason, a combustion efficiency requirement should also be included for the cases in which flaring is admissible. Use of pilot burners, which give more reliable ignition as they are not affected by wind, should also be required.

(38) Re-injection, utilisation on-site or dispatch of the methane to a market should always be preferable to flaring - and therefore venting - of methane. Operators that vent should provide proof to the competent authorities that neither re-injection, utilisation on-site or dispatch of the methane to a market nor flaring were possible and operators that flare should provide proof to the competent authorities that re-injection, utilisation on-site or dispatch of the methane to a market was not possible.

(39) Operators should notify major venting and flaring events without delay to the competent authorities and submit more comprehensive reports on all venting and flaring events. They should also ensure that equipment and devices comply with the standards laid down in Union law.

(40) Methane emissions from inactive oil and gas wells pose public health, safety and environmental risks. Therefore, monitoring and reporting obligations should still apply and those wells and well sites should be reclaimed and remediated. In such cases, Member States should have a predominant role, in particular to establish an inventories and mitigation plans.

(41) EU GHG inventory data shows that coalmine methane emissions are the biggest single source of methane emissions in the Union's energy sector. In 2019, direct emissions from the coal sector represented 31% of methane emissions, almost equal to the percentage of direct methane emissions from fossil gas and oil combined, of 33%.

(42) Currently, there is no Union-wide specific regulations limiting methane emissions from the coal sector, despite availability of a wide array of mitigation technologies. There is no Union or international coal-specific monitoring, reporting and verification standard. In the Union, reporting of methane emissions from the coal industry is part of the GHG emission reporting by Member States and data from underground mines is also included in the European Pollutant Release and Transfer Register established by Regulation (EC) No 166/2006[23].

(43) Methane emissions are primarily linked to underground mining activities, both in active and abandoned mines[24]. In active underground mines, methane concentration in the air is continuously controlled, as it constitutes a health and safety hazard. In the case of underground coal mines, the vast majority of the methane emissions occur through ventilation and drainage or degasification systems, which represent the two main ways of lowering methane concentrations in a mine's airways.

(44) Once production is halted and a mine is closed or abandoned, it continues to release methane, referred to as abandoned mine methane (AMM). These emissions typically occur at well-defined point sources, such as ventilation shafts or pressure-relief vents. With increased climate ambition and shifting energy production to less carbon-intensive energy sources, AMM emissions are likely to increase in the Union. It is estimated that even 10 years after mining is ceased, methane from non-flooded mines continues to be emitted at levels attaining approximately 40% of emissions recorded at the time of closure[25]. Moreover, treatment of AMM remains fragmented due to different ownership and exploitation rights across the EU. Member States should thus establish inventories of closed and abandoned coal assets and, either them or the identified responsible party, should be required to install devices for measurement of methane emissions.

(45) Operating surface coal mines in the Union produce lignite and emit less methane than underground coal mines. According to the Union GHG inventory, in 2019 operating

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[23] Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the
establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC (OJ L 33, 4.2.2006)

[24] (2020) N. Kholod et al Global methane emissions from coal mining to continue growing even with declining coal production, Journal of Cleaner Production, Volume 256, 120489

[25] (2020) N. Kholod et al Global methane emissions from coal mining to continue growing even with declining coal production, Journal of Cleaner Production, Volume 256, 120489

surface mines emitted 166 kilotonnes compared to 828 kilotonnes for underground coal mines[26]. Measurement of surface coal mine methane emissions is challenging due to their diffuse nature over a wide area. Therefore, and despite available technology[27], emissions from surface mines are rarely measured. Methane emissions from surface mines can be derived using basin-specific coal emission factors[28] and, with greater precision, using mine- or deposit-specific emission factors, since coal basins have deposits with different methane-bearing capacity[29]. Emission factors can be derived from measuring gas content of the seams sampled from exploration borehole cores[30]. Mine operators should thus perform measurements of methane emissions in surface coal mines using such emission factors.

(46) Therefore, mine operators should perform continuous measurement and quantification of methane emissions from ventilation shafts in underground coal mines, continuous measurement of vented and flared methane in drainage stations and use specific emission factors as regards surface coal mines. They should report that data to the competent authorities.

(47) Currently, mitigation of methane emissions can be best achieved in operating and closed or abandoned underground coal mines. Effective mitigation of methane emissions from operating and closed or abandoned surface mines is currently limited by technology. However, in order to support research and development on mitigation technologies of such emissions in the future, there should be effective and detailed monitoring, reporting, and verification of the scale of those emissions.

(48) Underground mines are either thermal or coking coal mines. Thermal coal is used primarily as an energy source and coking coal is used as a fuel and as a reactant in the process of steelmaking. Both coking coal and thermal coal mines should be subject to measuring, reporting and verification of methane emissions.

(49) For operating underground coal mines, mitigation of methane emissions should be implemented through a phase out of venting and flaring. For closed or abandoned underground coal mines, while flooding the mine can prevent methane emissions, this is not systematically done and has environmental risks. Venting and flaring in these mines should also be phased out. As geological constraints and environmental considerations prevent a one-size-fits-all approach to mitigate methane emissions from abandoned underground coal mines[31], Member States should establish their own mitigation plan, taking into consideration those constraints and the technical feasibility of AMM mitigation.

(50) Following a Commission proposal, on 28 June 2021, the Council adopted the new legal base of the Research Fund for Coal and Steel[32] which foresees support for

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26 Methane emissions for the energy sector in Kilotonnes, disaggregated by emission category source, as reported to UNFCC in April 2021 by EEA on behalf of the EU

27 Best Practice Guidance for Effective Management of Coal Mine Methane at National Level: Monitoring, Reporting, Verification and Mitigation, ECE Energy Series No. 71, UNECE 2021 (Forthcoming)

28 2006 IPCC guidelines for national greenhouse gas inventories.

29 Bilans Zasobow Zloz Kopalin, stan na 31.12.2020', State Geological Surowce mineralne (pgi.gov.pl)

30 Best Practice Guidance for Effective Management of Coal Mine Methane at National Level: Monitoring, Reporting, Verification and Mitigation, ECE Energy Series No. 71, UNECE 2021 (Forthcoming)

31 Best Practice Guidance for Effective Methane Recovery and Use from Abandoned Mines (UNECE, 2019)

32 Council Decision (EU) 2021/1094 of 28 June 2021 amending Decision 2008/376/EC on the adoption of the Research Programme of the Research Fund for Coal and Steel and on the multiannual technical

research and innovation for repurposing of the formerly operating coal mines or coal mines in the process of closure and related infrastructure in line with the overall objective of moving away from the coal and the Just Transition Mechanism. In this context, one of the main objectives for the new Research Fund for Coal and Steel programme for the coming years will be to minimise the environmental impacts of coal mines in transition, in particular with regard to methane emissions.

(51) The Union is dependent on imports for 70% of its hard coal consumption, 97% of its oil consumption, and 90% of its fossil gas consumption. There is no precise knowledge on the magnitude, origin or nature of methane emissions linked to fossil energy consumed in the Union but occurring in third countries.

(52) Global warming effects caused by methane emissions are cross-border. Although some fossil energy producing countries are beginning to act domestically to reduce methane emissions from their energy sectors, many exporters are not subject to any regulations in their respective domestic markets. Such operators need clear incentives to act on their methane emission, hence transparent information on methane emissions should be made available to the markets.

(53) Currently there is limited accurate data (UNFCCC Tier 3 or equivalent) on international methane emissions. Many fossil exporting countries have so far not submitted full inventory data to the UNFCCC. At the same time, there is evidence of large increases of methane emissions from oil and gas production activities globally from 65 to 80 Mt/year in the last 20 years[33].

(54) As announced in the Communication on the EU Methane Strategy[34], the Union is committed to working in cooperation with its energy partners and other key fossil energy importing countries to tackle methane emissions globally. Energy diplomacy on methane emissions has already yielded important outcomes. In September 2021, the Union and the United States announced the Global Methane Pledge, which represents a political commitment to reduce global methane emissions by 30% by 2030 (from 2020 levels), launched at the UN Climate Change Conference (COP 26) in November 2021 in Glasgow. Over one hundred countries have committed their support, representing nearly half of global anthropogenic methane emissions. The Global Methane Pledge includes a commitment to move towards using best available inventory methodologies to quantify methane emissions, with a particular focus on high emission sources.

(55) Further, the International Methane Emissions Observatory (IMEO) will play an important and lead role to increase transparency on global energy sector methane emissions. Support for setting up the IMEO was provided by the Council in its January 2021 conclusions on Climate and Energy Diplomacy[35].

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guidelines for this programme, OJ L 236/69. Council Decision (EU) 2021/1207 of 19 July 2021 amending Decision 2003/77/EC laying down multiannual financial guidelines for managing the assets of the ECSC in liquidation and, on completion of the liquidation, the Assets of the Research Fund for Coal and Steel. Council Decision (EU) 2021/1208 of 19 July 2021 amending Decision 2003/76/EC establishing the measures necessary for the implementation of the Protocol, annexed to the Treaty establishing the European Community, on the financial consequences of the expiry of the ECSC Treaty and on the Research Fund for Coal and Steel, OJ L 261/54.

33 Global Assessment of Oil and Gas Methane 1 Ultra-Emitters; T. Lauvaux, C. Giron, M. Mazzolini, A. d'Aspremont, R. Duren, D. Cusworth, D. Shindell, P. Ciais; April 2021.

34 COM(2020) 663 final

35 5263/21 TI/eb 1 RELEX.1.C

(56) The Commission will work with the IMEO to set up a 'Methane Supply Index', as explicitly referred to in the Communication on the EU Methane Strategy[36]. It would provide methane emission data from different sources of fossil energy from around the globe - including from source-level estimations and measurements as well as from aerial/satellite monitoring - thereby empowering buyers of fossil energy to make informed purchasing decisions on the basis of the methane emissions of fossil energy sources.

(57) In parallel to continuing its successful diplomatic work to achieve such global commitments, the Union is further encouraging significant methane emissions abatement globally, and in particular in the countries supplying fossil energy to the Union.

(58) Therefore, importers of fossil energy to the Union should be required to provide Member States with information on measures related to measurement, reporting and mitigation of methane emissions undertaken by exporters, in particular the application of regulatory or voluntary measures to control their methane emissions, including measures such as leak detection and repair surveys or measures to control and restrict venting and flaring of methane. The levels of measurement and reporting set out in the information requirements applied to importers correspond to the ones to be required from Union operators in this Regulation, as outlined in Recitals 24 to 26 and 46. The information on measures to control methane emissions is not more burdensome than that required from Union operators.

(59) Member States should communicate that information to the Commission. On the basis of that information, the Union should set up and manage a transparency database for fossil energy imports into the Union, detailing whether the exporting companies have signed up to the OGMP for oil and gas companies and to the extent that it is set up, an equivalent, internationally or Union recognised standard for coal companies. Such information should demonstrate the degree of commitment of companies in exporting countries to measure, report and have verified their methane emissions according to tier 3 methods of UNFCCC reporting. Such a transparency database would serve as a source of information for the purchasing decisions of importers of fossil energy to the Union as well as for other stakeholders and the public. The transparency database should also reflect the efforts undertaken by companies in the Union and companies exporting fossil energy to the Union to measure and report as well as reduce their methane emissions. It should also include information on the measurement, reporting and mitigation regulatory actions by countries where fossil energy is produced.

(60) In addition, the Union should put in place a global methane emitter monitoring tool, providing information on the magnitude, recurrence and location of high methane-emitting sources. This should further encourage real and demonstrable results from the implementation of methane regulations and effective mitigation actions by companies in the Union and companies supplying fossil energy to the Union. The tool should pool data from several certified data providers and services, including the Copernicus component of the EU Space Programme and the IMEO. The tool should inform the Commission's bilateral dialogues with the countries concerned to discuss the different scenarios envisaged for methane emissions policies and measures.

(61) In combination, the measures referred to in Recitals 58 to 60 should enhance transparency for buyers, enabling them to make informed sourcing decisions and improve the possibility of wider uptake of methane mitigation solutions across the

[36] COM(2020) 663 final

globe. In addition, they should further incentivise international companies to sign up to international methane measurement and reporting standards such as OGMP or to adopt effective measurement, reporting and mitigation measures. These measures are designed as the basis for a stepwise approach to increase the level of stringency of the measures applicable to imports. The Commission should thus be empowered to amend or add to the reporting requirements of importers. Furthermore, the Commission should evaluate the implementation of those measures and, if it deems appropriate, submit proposals for review to impose more stringent measures on importers and to ensure a comparable level of effectiveness of measures applicable in third countries to monitor, report, verify and mitigate methane emissions. The evaluation should take into account the work undertaken by the IMEO, including the Methane Supply Index, the transparency database and the global methane emitter monitoring tool. Should the Commission find it appropriate to increase the level of stringency of the measures applicable to imports, it is of particular importance that the Commission carries out appropriate consultations during its preparatory work including consulting relevant third countries.

(62) Member States should ensure that infringements of this Regulation are sanctioned by effective, proportionate and dissuasive penalties, which may include fines and periodic penalty payments, and take all measures necessary to ensure that they are implemented. In order to play a significant deterrent effect, penalties should be adequate to the type of infringement, to the possible advantage for the operator and to the type and gravity of the environmental damage. When imposing penalties, due regard should be given to the nature, gravity and duration of the infringement in question. The imposition of penalties should be proportionate and should comply with Union and national law, including with applicable procedural safeguards and with the principles of the Charter of fundamental rights.

(63) In order to ensure more consistency, a list of the types of infringements that should be subject to penalties should be set out. In order to facilitate the more consistent application of penalties, common non-exhaustive and indicative criteria for the application of penalties should be set out. The deterrent effect of penalties should be reinforced by the possibility to publish the information related to the penalties imposed by Member States, in compliance with the data protection requirements set out in Regulations (EU) 2016/679[37] and (EU) 2018/1725 of the European Parliament and the Council[38].

(64) As a result of the provisions requiring investments by regulated operators to be taken into account in tariff setting, Regulation (EU) 2019/942 of the European Parliament and of the Council[39] should be amended to entrust ACER with the task of making available a set of indicators and reference values for the comparison of unit investment costs linked to measurement, reporting and abatement of methane emissions for comparable projects.

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[37] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (OJ L 119, 4.5.2016, p. 1).

[38] Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC (OJ L 295, 21.11.2018, p. 39).

[39] Regulation (EU) 2019/942 of the European Parliament and of the Council of 5 June 2019 establishing a European Union Agency for the Cooperation of Energy Regulators (OJ L 158, 14.6.2019).

(65) In order to define the elements of the phase out of venting and flaring in coking coal mines, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission to supplement this Regulation by setting out restrictions on venting methane from ventilation shafts for coking coal mines. In addition, in order to allow for further information to be required from importers, as proved necessary, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission to supplement this Regulation by amending or adding to the information to be provided by importers. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement on Better Law-Making of 13 April 2016. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.

(66) In order to ensure uniform conditions for implementation, implementing powers should be conferred on the Commission to adopt detailed rules with regard to common formats for reporting, in accordance with Article 291 of the Treaty on the Functioning of the European Union. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council[40].

(67) Operators and competent authorities should be given a reasonable period in order to take the necessary preparatory actions to meet the requirements of this Regulation.

(68) Since the objective of this Regulation, namely the accurate measurement, reporting, verification and the reduction of methane emissions in the energy sector, cannot be achieved by the Member States individually and can therefore, by reason of its scale, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Regulation does not go beyond what is necessary in order to achieve that objective,

HAVE ADOPTED THIS REGULATION:

Chapter 1

General Provisions

Article 1

Subject matter and scope

1. This Regulation lays down rules for the accurate measurement, reporting and verification of methane emissions in the energy sector in the Union, as well as

[40] Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13).

the abatement of those emissions, including through leak detection and repair surveys and restrictions on venting and flaring. This Regulation also lays down rules on tools ensuring transparency of methane emissions from imports of fossil energy into the Union.

2. This Regulation applies to:

(a) oil and fossil gas upstream exploration and production, fossil gas gathering and processing;

(b) gas transmission, distribution, underground storage and liquid gas (LNG) terminals operating with fossil and/or renewable (bio-or synthetic) methane;

(c) operating underground and surface coalmines, closed and abandoned underground coal mines.

3. This Regulation applies to methane emissions occurring outside the Union in what relates to importer information requirements, to the methane transparency database and to the methane emitters monitoring tool.

Article 2

Definitions

For the purposes of this Regulation, the following definitions apply:

(1) 'methane emissions' means all direct emissions occurring from all components that are potential sources of methane emissions, whether as a result of intentional or unintentional venting, incomplete combustion in flares or from other components and unintentional leaks;

(2) 'transmission system operator' has the meaning attributed to it by [Article 2(4) of Directive 2009/73/EC of the European Parliament and of the Council[41]] [*to be adapted as per ongoing recast proposal*];

(3) 'distribution system operator' has the meaning attributed to it by [Article 2(6) of Directive 2009/73/EC] [*to be adapted as per ongoing recast proposal*];

(4) 'operator' means any natural or legal person who operates or controls an asset or, where provided for in national legislation, to whom decisive economic power over the technical functioning of an asset has been delegated;

(5) 'mine operator' means any natural or legal person who operates or controls a coal mine or, where provided for in national legislation, to whom decisive economic power over the technical functioning of a coal mine has been delegated;

(6) 'verification' means the activities carried out by a verifier to assess the conformity of the reports transmitted by the operators and mine operators;

(7) 'verifier' means a legal person different from the competent authorities appointed in accordance with Article 4 of this Regulation which carries out verification activities and which is accredited by a national accreditation body pursuant to Regulation (EC) No 765/2008 or a natural person otherwise authorised, without prejudice to Article 5(2) of that Regulation, at the time a verification statement is issued;

[41] Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC (OJ L 211, 14.8.2009, p. 94).

(8) ‘source’ means a component or a geological structure that releases methane into the atmosphere whether intentionally or unintentionally, intermittently or persistently;

(9) ‘asset’ means a business or operating unit, which can be composed of several facilities or sites, including assets under the operational control of the operator (operated assets) and assets which are not under the operational control of the operator (non-operated assets);

(10) ‘emission factor’ means a coefficient that quantifies the emissions or removals of a gas per unit activity, which is often based on a sample of measurement data, averaged to develop a representative rate of emission for a given activity level under a given set of operating conditions;

(11) ‘generic emission factor’ means a standardised emission factor for each type of emission source which is derived from inventories or databases, but in any case not verified through direct measurements;

(12) ‘specific emission factor’ means an emission factor derived from direct measurements;

(13) ‘direct measurement’ means direct quantification of the methane emission at source-level with a methane measuring device;

(14) ‘site-level methane emissions’ means all sources of emissions within an asset;

(15) ‘site-level measurement’ means a top-down measurement and typically involves the use of sensors mounted on a mobile platform, such as vehicles, drones, aircrafts, boats and satellites or other means to capture a complete overview of emissions across an entire site;

(16) ‘undertaking’ means a natural or legal person carrying out at least one of the following functions: upstream oil and fossil gas exploitation, exploration and production, fossil gas gathering and processing and gas transmission, distribution and underground storage, including LNG;

(17) ‘leak detection and repair survey’ means a survey to identify sources of methane emissions, including leaks and unintentional venting;

(18) ‘venting’ means the release of uncombusted methane into the atmosphere either intentionally from processes, activities or devices designed for such a purpose, or unintentionally in the case of a malfunction or geological constraints;

(19) ‘flaring’ means the controlled combustion of methane for the purpose of disposal in a device designed for said combustion;

(20) ‘emergency’ means a temporary, unexpected, infrequent situation in which the methane emission is unavoidable and necessary to prevent an immediate and substantial adverse impact on human safety, public health or the environment, but does not include situations arising from or related to the following events:

(a) failure of the operator to install appropriate equipment of sufficient capacity for the expected or actual rate and pressure of production;

(b) failure of the operator to limit production where the production rate exceeds the capacity of the related equipment or gathering system, except where the excess production is due to a downstream emergency, malfunction, or unscheduled repair and lasts for no longer than eight hours from the time of notification of the downstream capacity issue;

(c) scheduled maintenance;

(d) operator negligence;

(e) repeated failures, that is to say four or more failures within the preceding 30 days, of the same piece of equipment;

(21) ‘malfunction’ means a sudden, unavoidable failure or breakdown of equipment beyond the reasonable control of the operator that substantially disrupts operations but does not include a failure or breakdown that is caused entirely or in part by poor maintenance, careless operation or other preventable equipment failure or breakdown;

(22) ‘routine flaring’ means flaring during the normal production of oil or fossil gas and in the absence of sufficient facilities or amenable geology to re-inject methane, utilise it on-site, or dispatch it to a market;

(23) ‘flare stack’ means a device equipped with a burner used to flare methane;

(24) ‘inactive well’ means an oil or gas well or well site where operations for exploration or production have ceased for at least one year;

(25) ‘remediating’ means the process of cleaning up contaminated water and soil;

(26) ‘reclaiming’ means the process of returning a well or well site to having soil and vegetation conditions similar to those that existed before it was disturbed;

(27) ‘coal mine’ means a site where coal mining occurs or has occurred, including lands, excavations, underground passageways, shafts, slopes, tunnels and workings, structures, facilities, equipment, machines and tools situated on the surface or underground and used in, or resulting from the work of extracting lignite, subbituminous coal, bituminous coal, or anthracite from its natural deposits in the earth by any means or method, including the work of preparing the coal to be extracted;

(28) ‘operating coal mine’ means a coal mine where the majority of its revenue comes from the work of extracting lignite, subbituminous coal, bituminous coal or anthracites, and where at least one of the following conditions apply:

(a) mine development is underway.

(b) coal has been produced within the last 90 days.

(c) mine ventilation fans are operative.

(29) ‘underground coal mine’ means a coal mine where coal is produced by tunnelling into the earth to the coalbed, which is then mined with underground mining equipment such as cutting machines and continuous, longwall and shortwall mining machines, and transported to the surface;

(30) ‘surface coal mine’ means a coal mine where coal lies near the surface and can be extracted by removing the covering layers of rock and soil;

(31) ‘ventilation shaft’ means a vertical passage used to move fresh air underground or to remove methane and other gases from an underground coal mine;

(32) ‘drainage station’ means a station collecting methane from a coal mine gas drainage system;

(33) ‘drainage system’ means a system, which may comprise multiple methane sources and which drains methane-rich gas from coal seams or surrounding rock strata and transports it to a drainage station;

(34) ‘post-mining activities’ are activities carried out after coal has been mined and brought to the surface, including coal handling, processing, storage, and transport;

(35) ‘continuous measurement’ means a measurement where the reading is taken at least every minute;

(36) ‘ventilation air methane’ means methane emitted from coal seams and other gas-bearing strata and which enters the ventilation air and is exhausted from the ventilation shaft;

(37) ‘coal deposit’ is an area of the land containing significantly mineable quantities of coal, defined according to the Member State’s methodology on documenting geological mineral deposits;

(38) ‘closed coal mine’ means a coal mine with an identified operator, owner or licensee and closed according to the applicable licensing requirements or other regulations;

(39) ‘abandoned coal mine’ means a coal mine where an operator, owner or licensee cannot be identified, or that has not been closed in a regulated manner;

(40) ‘coking coal mine’ means a mine where at least 50% of the production output averaged over the last three available years is coking coal, as defined in Annex B of Regulation (EC) no 1099/2008 of the European Parliament and of the Council[42];

(41) ‘importer’ means a natural or legal person established in the Union who, in the course of a commercial activity, places fossil energy from a third country on the Union market.

Article 3

Costs of regulated operators

1. When fixing or approving transmission or distribution tariffs or the methodologies to be used by transmission system operators, distribution system operators, LNG terminal operators or other regulated companies including where applicable underground gas storage operators, regulatory authorities shall take into account the costs incurred and investments made to comply with the obligations under this Regulation, insofar as they correspond to those of an efficient and structurally comparable regulated operator.

2. Every three years, the European Union Agency for the Cooperation of Energy Regulators (ACER) shall establish and make publicly available a set of indicators and corresponding reference values for the comparison of unit investment costs linked to measurement, reporting and abatement of methane emissions for comparable projects.

[42] Regulation (EC) No 1099/2008 of the European Parliament and of the Council of 22 October 2008 on energy statistics (OJ L 304, 14.11.2008, p. 1)

Chapter 2

Competent authorities and independent verification

Article 4

Competent authorities

1. Each Member State shall designate one or more competent authorities responsible for monitoring and enforcing the application of this Regulation.

Member States shall notify the Commission of the names and contact details of the competent authorities by … [*3 months after the date of entry into force of this Regulation*]. Member States shall notify the Commission without delay of any changes to the names or contact details of the competent authorities.

2. The Commission shall make a list of the competent authorities publicly available and shall regularly update that list.

3. Member States shall ensure that the competent authorities have adequate powers and resources to perform the obligations set out in this Regulation.

Article 5

Tasks of the competent authorities

1. The competent authorities shall take the necessary measures to ensure compliance with the requirements set out in this Regulation.

2. Operators and mine operators shall provide the competent authorities with all assistance necessary to enable or facilitate the performance of the tasks of the competent authorities referred to in this Regulation, notably as regards access to the premises and the presentation of documentation or records.

3. The competent authorities shall cooperate with each other and with the Commission and as necessary with authorities of third countries, in order to ensure compliance with this Regulation. The Commission may set up a network of competent authorities to foster cooperation, with the necessary arrangements for exchanging information and best practices and allow for consultations.

4. Where reports are to be made public in accordance with this Regulation, the competent authorities shall make them publicly available free of charge, on a designated website and in freely accessible, downloadable and editable format.

Where information is kept confidential in accordance with Article 4 of Directive 2003/4/EC, the competent authorities shall indicate the type of information that has been withheld and the reason therefor.

Article 6

Inspections

1. The competent authorities shall carry out periodic inspections to check the compliance of operators or mine operators with the requirements set out in this Regulation. The first inspection shall be completed by … [*18 months after the date of entry into force of this Regulation*].

2. Inspections shall include, where relevant, site checks or field audits examination of documentation and records that demonstrate compliance with the requirements of this Regulation, methane emissions detection and concentration measurements and any follow-up action undertaken by or on behalf of the competent authority to check and promote compliance of sites or facilities with the requirements of this Regulation.

Where an inspection has identified a serious breach of the requirements of this Regulation, the competent authorities shall issue a notice of remedial actions to be undertaken by the operator or mine operator, as part of the report referred to in paragraph 5.

3. After the first inspection referred to in paragraph 1, the competent authorities shall draw up programmes for routine inspections. The period between inspections shall be based on an appraisal of the environmental risk and shall not exceed two years. Where an inspection has identified a serious breach of the requirements of this Regulation, the subsequent inspection shall take place within one year.

4. The competent authorities shall carry out non-routine inspections:

(a) to investigate substantiated complaints referred to in Article 7 and occurrences of non-compliance as soon as possible after the date the competent authorities become aware of such complaints or non-compliance;

(b) to ensure that leak repairs or replacements of components were carried out in accordance with Article 14.

5. Following each inspection, the competent authorities shall prepare a report describing the legal basis for the inspection, the procedural steps followed, the relevant findings and recommendations for the further action by the operator or mine operator.

The report shall be notified to the operator concerned and made publicly available within two months of the date of the inspection. Where the report was triggered by a complaint made in accordance with Article 7, the competent authorities shall notify the complainant once the report is publicly available.

The report shall be made publicly available by the competent authorities in accordance with Directive 2003/4/EC. Where information is kept confidential in accordance with Article 4 of Directive 2003/4/EC, the competent authorities shall indicate in the report the type of information that has been withheld and the reason thereof.

6. Operators and mine operators shall take all the necessary actions set out in the report referred to in paragraph 5 within the period determined by the competent authorities or any other period agreed with the competent authorities.

Article 7

Complaints lodged with the competent authorities

1. Any natural or legal person which considers that it has suffered injury as a result of a breach of the requirements of this Regulation by operators or mine operators, may lodge a written complaint with the competent authorities.

2. The complaints shall be duly substantiated and contain sufficient evidence of the alleged breach and of the injury resulting therefrom.

3. Where it becomes apparent that the complaint does not provide sufficient evidence to justify pursuing an investigation, the competent authorities shall inform the complainant of the reasons for their decision not to pursue an investigation.

4. Without prejudice to the rules applicable pursuant to national law, the competent authorities shall keep the complainant informed of the steps taken in the procedure and, where applicable, inform them of appropriate alternative forms of redress, such as recourse to national courts or any other national or international complaints procedure.

5. Without prejudice to the rules applicable pursuant to national law and on the basis of comparable procedures, the competent authorities shall establish and make publicly available indicative periods to take a decision on complaints.

Article 8

Verification activities and verification statement

1. Verifiers shall assess the conformity of the emissions reports submitted to them by operators or mine operators in accordance with this Regulation. They shall assess the conformity of the reports with the requirements laid down this Regulation and review all data sources and methodologies used in order to assess their reliability, credibility and accuracy, in particular the following points:

(a) the choice and employment of emission factors;

(b) the methodologies, calculations, samplings, statistical distributions and levels of materiality leading to the determination of methane emissions;

(c) any risks of inappropriate measuring or reporting;

(d) any quality control or quality assurance systems applied by the operators or mine operators.

2. In carrying out the verification activities referred to in paragraph 1, verifiers shall use free and publicly available European or international standards for methane emissions quantification as made applicable by the Commission in accordance with paragraph 5. Until such date where the applicability of those standards is determined by the Commission, verifiers shall use existing European or international standards for quantification and verification of greenhouse gas emissions.

Verifiers may conduct site checks to determine the reliability, credibility and accuracy of the data sources and methodologies used.

3. Verifiers shall issue a verification statement verifying the conformity of the emissions report and specifying the verification work carried out, once their assessment concludes with

reasonable assurance that the emissions report complies with the requirements of this Regulation.

The verifiers shall only issue the verification statement where reliable, credible and accurate data and information enable the methane emissions to be determined with a reasonable degree of certainty and provided the reported data is coherent with the estimated data, complete and free of inconsistencies.

Where the assessment concludes that the emissions report does not comply with the requirements of this Regulation, the verifiers shall inform the operator or the mine operator thereof and the operator or the mine operator shall submit a revised emissions report to the verifier without delay.

4. Operators and mine operators shall provide the verifiers with all the assistance necessary to enable or facilitate the performance of the verification activities, notably as regards access to the premises and the presentation of documentation or records.

5. The Commission shall be empowered to adopt delegated acts in accordance with Article 31 to supplement this Regulation by incorporating and setting out the applicability of European or international standards on methane emissions quantification and measurement for the purposes of this Regulation.

Article 9

Independence and accreditation of verifiers

1. Verifiers shall be independent from the operators and mine operators and shall carry out the activities required under this Regulation in the public interest. For that purpose, neither the verifiers nor any part of the same legal entity shall be an operator or mine operator, the owner of an operator or mine operator, or be owned by them, nor shall the verifiers have relations with operators or mine operators that could affect their independence and impartiality.

2. Verifiers shall be accredited by a national accreditation body pursuant to Regulation (EC) No 765/2008.

3. Where no specific provisions concerning the accreditation of verifiers are laid down in this Regulation, the relevant provisions of Regulation (EC) No 765/2008 shall apply.

Article 10

International Methane Emissions Observatory

1. Provided the interest of the Union is protected, the International Methane Emissions Observatory shall be attributed a verification role with respect to methane emissions data, in particular with regard to the following tasks:

(a) aggregation of methane emissions data in accordance with appropriate statistical methods;

(b) verification of methodologies and statistical processes employed by companies to quantify methane emissions data;

(c) development of data aggregation and analysis methodologies in accordance with scientific and statistical good practice to ensure a higher level of accuracy of emission estimates, with appropriate characterization of the uncertainty;

(d) publication of aggregated company reported data by core source and by level of reporting, classified by operated and non-operated assets, in compliance with competition and confidentiality requirements;

(e) reporting of findings on major discrepancies between data sources.

2. The Commission may submit methane emissions data to the International Methane Emissions Observatory, as made available to it by the competent authorities in accordance with this Regulation.

3. The information produced by the International Methane Emissions Observatory shall be made available to the public and the Commission.

Chapter 3

Methane emissions in the oil and gas sectors

Article 11

Scope

This Chapter applies to the activities referred to in points (a) and (b) of Article 1(2).

Article 12

Monitoring and reporting

1. By … [*12 months from the date of entry into force of this Regulation*], operators shall submit a report to the competent authorities containing source-level methane emissions estimated using generic but source-specific emission factors for all sources.

2. By … [*24 months from the date of entry into force of this Regulation*], operators shall also submit a report to the competent authorities containing direct measurements of source-level methane emissions for operated assets. Reporting at such level may involve the use of source-level measurement and sampling as the basis for establishing specific emission factors used for emissions estimation.

3. By … [*36 months from the date of entry into force of this Regulation*] and by 30 March every year thereafter, operators shall submit a report to the competent authorities containing direct measurements of source-level methane emissions for operated assets referred to in paragraph 2, complemented by measurements of site-level methane emissions, thereby allowing assessment and verification of the source-level estimates aggregated by site.

Before submission to the competent authorities, operators shall ensure that the reports set out in this paragraph are assessed by a verifier and include a verification statement issued in accordance with Articles 8 and 9.

4. By … [*36 months from the date of entry into force of this Regulation*], undertakings established in the Union shall submit a report to the competent authorities containing direct

measurements of source-level methane emissions for non-operated assets. Reporting at such level may involve the use of source-level measurement and sampling as the basis for establishing specific emission factors used for emissions estimation.

5. By … [*48 months from the date of entry into force of this Regulation*] and by 30 March every year thereafter, undertakings established in the Union shall submit a report to the competent authorities containing direct measurements of source-level methane emissions for non-operated assets as set out in paragraph 4, complemented by measurements of site-level methane emissions, thereby allowing assessment and verification of the source-level estimates aggregated by site.

Before submission to the competent authorities, undertakings shall ensure that the reports set out in this paragraph are assessed by a verifier and include a verification statement issued in accordance with Articles 8 and 9.

6. The reports provided for in this Article shall cover the last available calendar year period and include at least the following information:

(a) emission source type and location;

(b) data per detailed, individual, emission source type;

(c) detailed information on the quantification methodologies employed to measure methane emissions;

(d) all methane emissions for operated assets;

(e) share of ownership and methane emissions from non-operated assets multiplied by the share of ownership;

(f) a list of the entities with operational control of the non-operated assets.

The Commission shall, by means of implementing acts, lay down a reporting template for the reports under paragraphs 2, 3, 4 and 5. Those implementing acts shall be adopted in accordance with the procedure referred to in Article 32(2).

7. For site-level measurements referred to in paragraphs 3 and 5, appropriate quantification technologies shall be used which can provide such measurements.

8. In the case of significant discrepancies between the emissions quantified using source-level methods and those resulting from site-level measurement, additional measurements shall be carried out within the same reporting period.

9. Methane emissions measurements for gas infrastructure shall be conducted according to appropriate European (CEN) or international (ISO) standards for methane emissions quantification.

10. Where information is kept confidential in accordance with Directive (EU) 2016/943 of the European Parliament and of the Council[43], operators shall indicate in the report the type of information that has been withheld and the reason thereof.

11. The competent authorities shall make the reports set out in this Article available to the public and the Commission, within three months from submission by operators and in accordance with Article 5(4).

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[43] Directive (EU) 2016/943 of the European Parliament and of the Council of 8 June 2016 on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure (OJ L 157, 15.6.2016)

Article 13

General mitigation obligation

Operators shall take all measures available to them to prevent and minimise methane emissions in their operations.

Article 14

Leak detection and repair

1. By … [*3 months from the date of entry into force of this Regulation*], operators shall submit a leak detection and repair programme to the competent authorities which shall detail the contents of the surveys to be carried out in accordance with the requirements in this Article.

The competent authorities may require the operator to amend the programme taking into account the requirements of this Regulation.

2. By … [*6 months from the date of entry into force of this Regulation*], operators shall carry out a survey of all relevant components under their responsibility in accordance with the leak detection and repair programme referred in paragraph 1.

Thereafter, leak detection and repair surveys shall be repeated every three months.

3. In carrying out the surveys, operators shall use devices that allow detection of loss of methane from components of 500 parts per million or more.

4. Operators shall repair or replace all components found to be emitting 500 parts per million or more of methane.

The repair or replacement of the components referred to in the first subparagraph shall take place immediately after detection, or as soon as possible thereafter but no later than five days after detection, provided operators can demonstrate that safety or technical considerations do not allow immediate action and provided operators establish a repair and monitoring schedule.

Safety and technical considerations that do not allow immediate action, as referred to in the second subparagraph, shall be limited to taking into account safety to personnel and humans in proximity, environmental impacts, concentration of methane loss, accessibility to component, availability of replacement of the component. Environmental impact considerations may include instances whereby repair could lead to a higher level of methane emissions than in the absence of the repair.

Where a system shutdown is required before the repair or replacement can be undertaken, operators shall minimise the leak within one day of detection and shall repair the leak by the end of the next scheduled system shutdown or within a year, whichever is sooner.

5. Notwithstanding paragraph 2, operators shall survey components that were found to be emitting 500 parts per million or more of methane during any of the previous surveys as soon as possible after the repair carried out pursuant to paragraph 4, and no later than 15 days thereafter to ensure that the repair was successful.

Notwithstanding paragraph 2, operators shall survey components that were found to be emitting below 500 parts per million of methane, no later than three months after the emissions were detected, to check whether the size of loss of methane has changed.

Where a higher risk to safety or a higher risk of methane losses is identified, the competent authorities may recommend that surveys of the relevant components take place more frequently.

6. Without prejudice to the reporting obligations pursuant to paragraph 7, operators shall record all identified leaks, irrespective of their size, and shall continually survey them to ensure that they are repaired in accordance with paragraph 4.

Operators shall keep the record for at least ten years and shall provide that information to competent authorities upon their request.

7. Within one month after each survey, operators shall submit a report with the results of the survey and a repair and monitoring schedule to the competent authorities of the Member State where the relevant assets are located. The report shall include at least the elements set out in Annex I.

The competent authorities may require the operator to amend the report or the repair and monitoring schedule taking into account the requirements of this Regulation.

8. Operators may delegate any of the tasks set out in this Article. Delegated tasks shall not affect the responsibility of operators and shall not impact the effectiveness of supervision by the competent authorities.

9. Member States shall ensure that certification, accreditation schemes or equivalent qualification schemes, including suitable training programmes, are available for service providers with respect to the surveys.

Article 15

Limits to venting and flaring

1. Venting shall be prohibited except in the circumstances provided for this Article. Routine flaring shall be prohibited.

2. Venting shall only be allowed in the following situations:

(a) in case of an emergency or malfunction; and

(b) where unavoidable and strictly necessary for the operation, repair, maintenance or testing of components or equipment and subject to the reporting obligations set out in Article 16.

3. Venting under point (b) of paragraph 2 shall include the following specific situations where venting cannot be completely eliminated:

(a) during normal operations of certain components, provided that the equipment meets all the specified equipment standards and it is properly maintained and regularly inspected to minimise methane losses;

(b) to unload or clean-up liquid holdup in a well to atmospheric pressure;

(c) during gauging or sampling a storage tank or other low-pressure vessel;

(d) during loading out liquids from a storage tank or other low-pressure vessel to a transport vehicle in compliance with applicable standards;

(e) during repair and maintenance, including blowing down and depressurizing equipment to perform repair and maintenance;

(f) during a bradenhead test;

(g) during a packer leakage test;

(h) during a production test lasting less than 24 hours;

(i) where methane does not meet the gathering pipeline specifications, provided the operator analyses methane samples twice per week to determine whether the specifications have been achieved and routes the methane into a gathering pipeline as soon as the pipeline specifications are met;

(j) during commissioning of pipelines, equipment or facilities, only for as long as necessary to purge introduced impurities from the pipeline or equipment;

(k) during pigging, blow-down to repair or purging a gathering pipeline for repair or maintenance, and only where the gas cannot be contained or redirected into an unaffected portion of the pipeline.

4. Where venting is allowed pursuant to paragraphs 2 and 3, operators shall vent only where flaring is not technically feasible or risks endangering safety of operations or personnel. In such a situation, as part of the reporting obligations set out in Article 16, operators shall demonstrate to the competent authorities the necessity to opt for venting instead of flaring.

5. Flaring shall only be allowed where either re-injection, utilisation on-site or dispatch of the methane to a market are not feasible for reasons other than economic considerations. In such a situation, as part of the reporting obligations set out in Article 16, operators shall demonstrate to the competent authorities the necessity to opt for flaring instead of either re-injection, utilisation on-site or dispatch of the methane to a market.

Article 16

Reporting of venting and flaring events

1. Operators shall notify the competent authorities of venting and flaring events:

(a) caused by an emergency or a malfunction;

(b) lasting a total of 8 hours or more within a 24 hour period from a single event.

The notification referred to in the first subparagraph shall be made without delay after the event and at the latest within 48 hours from the start of the event or the moment the operator became aware of it.

2. Operators shall submit to the competent authorities quarterly reports of all venting and flaring referred to in paragraph 1 and in Article 15 in accordance with the elements set out in Annex II.

3. The competent authorities shall make the reports set out in this Article available to the public and the Commission annually and in accordance with Article 5(4).

Article 17

Requirements for flaring standards

1. Where a facility is built, replaced or refurbished, or where new flare stacks or other combustion devices are installed, operators shall install only combustion devices with an auto-igniter or continuous pilot and a complete destruction removal efficiency for hydrocarbons.

2. Operators shall ensure that all flare stacks or other combustion devices comply with the requirements of paragraph 1 by … [*12 months from the date of entry into force of this Regulation*].

3. Operators shall conduct weekly inspections of flare stacks in accordance with the elements set out in Annex III.

Article 18

Inactive wells

1. By … [*12 months from the date of entry into force of this Regulation*], Member States shall establish and make publicly available an inventory of all inactive wells on their territory or under their jurisdiction, including at least the elements set out in Annex IV.

2. By … [*18 months of the date of entry into force of this Regulation*], equipment for measurement of methane emissions shall be installed on all inactive wells.

3. Reports containing the measurements referred to in paragraph 2 shall be submitted to the competent authorities by … [*24 months of the date of entry into force of this Regulation*] and by 30 March every year thereafter and cover the last available calendar year. Before submission to the competent authorities, the reports set out in this paragraph shall be assessed by a verifier and include a verification statement issued in accordance with Articles 8 and 9.

4. The competent authorities shall make the reports set out in this Article available to the public and the Commission, within three months from submission by operators and in accordance with Article 5(4).

5. Member States shall be responsible for fulfilling the obligations laid down in paragraphs 2 and 3, except where a responsible party can be identified, in which case that party shall bear responsibility.

6. Member States shall develop and implement a mitigation plan to remediate, reclaim and permanently plug inactive wells located in their territory.

Mitigation plans shall use the inventories referred to in paragraph 1 to determine priority for activities including:

(a) remediating, reclaiming and permanently plugging wells;

(b) reclaiming related access roads;

(c) restoring land, water and habitat impacted by wells and the prior operations;

(d) yearly checks to ensure plugged wells are no longer a source of methane emissions.

Chapter 4

Methane emissions in the coal sector

SECTION I

MONITORING AND REPORTING IN OPERATING MINES

Article 19

Scope

1. This Section applies to operating underground and surface coal mines.

2. Methane emissions from operating underground coal mines include the following emissions:

(a) methane emissions from all ventilation shafts in use by the mine operator;

(b) methane emissions from drainage stations and from the methane drainage system, whether occurring as a result of intentional or unintentional venting, or incomplete combustion in flares;

(c) methane emissions occurring during post-mining activities.

3. Methane emissions from operating surface coal mines include the following emissions:

(a) methane emissions occurring at the coal mine during the mining process;

(b) methane emissions occurring during post-mining activities.

Article 20

Monitoring and reporting

1. For underground coal mines, mine operators shall perform continuous ventilation air methane emissions measurement and quantification on all exhaust ventilation shafts used by the mine operator, using apparatus with a methane concentration sensitivity threshold of at least 100 parts per million. They shall also take monthly sample-based measurements.

2. Drainage stations operators shall perform continuous measurements of volumes of vented and flared methane, regardless of the reasons for such venting and flaring activity.

3. As regards surface coal mines, mine operators shall use deposit-specific coal mine methane emission factors to quantify emissions resulting from mining operations. Mine operators shall establish those emission factors on a quarterly basis, in accordance with appropriate scientific standards and take into account methane emissions from surrounding strata.

4. The measurements and quantification referred to in paragraphs 1 to 3 shall be undertaken in accordance with an appropriate European or international standards.

As regards continuous measurements referred to in paragraphs 1 and 2, where part of the measuring equipment is not operating for a period, readings taken during periods when the equipment was operating may be used to estimate data on a pro rata basis for the period that the equipment was not operating.

The equipment used for continuous measurements referred to in paragraphs 1 and 2 shall operate for more than 90% of the period for which it is used to monitor an emission, excluding downtime taken for re-calibration.

5. Mine operators shall estimate coal post-mining emissions using coal post-mining emission factors, updated annually, based on deposit-specific coal samples and in accordance with appropriate scientific standards.

6. By… [12 *months from the date of entry into force of this Regulation*] and by 30 March every year thereafter, mine operators and drainage station operators shall submit a report to the competent authorities containing yearly source-level methane emissions data in accordance with the provisions of this Article.

The report shall cover the last available calendar year period and include the elements set out in Part 1 of Annex V for operating underground coal mines, Part 2 of Annex V for operating surface coal mines and Part 3 of Annex V for drainage stations.

Before submission to the competent authorities, mine operators and drainage stations operators shall ensure that the reports set out in this paragraph are assessed by a verifier and include a verification statement issued in accordance with Articles 8 and 9.

7. The competent authorities shall make the reports set out in this Article available to the public and the Commission, within three months from submission by operators and in accordance with Article 5(4).

SECTION II

MITIGATION OF METHANE EMISSIONS FROM OPERATING UNDERGROUND COAL MINES

Article 21

Scope

This Section applies to the methane emissions from underground coal mines referred to in Article 19(2).

Article 22

Mitigation measures

1. Venting and flaring of methane from drainage stations shall be prohibited from [1 January 2025], except in the case of an emergency, a malfunction or where unavoidable and strictly necessary for maintenance. In such cases, drainage station operators shall vent only if flaring is not technically feasible or risks endangering safety of operations or personnel. In such a situation, as part of the reporting obligations set out in Article 23, drainage station

operators shall demonstrate to the competent authorities the necessity to opt for venting instead of flaring.

2. Venting of methane through ventilation shafts in coal mines emitting more than 0.5 tonnes of methane/kilotonne of coal mined, other than coking coal mines, shall be prohibited from 1 January 2027.

3. By … [*three years from the date of entry into force of this Regulation*] the Commission shall adopt a delegated act in accordance with Article 31 to supplement this Regulation by setting out restrictions on venting methane from ventilation shafts for coking coal mines.

Article 23

Reporting of venting and flaring events

1. From [1 January 2025], drainage station operators shall notify the competent authorities of all venting and flaring events:

(a) caused by an emergency or a malfunction,

(b) occurring unavoidably due to maintenance of the drainage system.

That notification shall be made without delay after the event and at the latest within 48 hours from the start of event or the moment the operator became aware of it, in accordance with the elements set out in Annex VI.

2. The competent authorities shall make the information submitted to them pursuant to this Article available to the public and the Commission annually and in accordance with Article 5(4).

SECTION III

METHANE EMISSIONS FROM CLOSED AND ABANDONED UNDERGROUND COAL MINES

Article 24

Scope

This Section applies to the following methane emissions from abandoned and closed underground coal mines where coal production has been discontinued:

(a) methane emissions from all ventilation shafts which continue emitting methane;

(b) methane emissions from coal mining equipment, use of which has been discontinued;

(c) methane emissions from other well-defined point emission sources as outlined in Part 1 of Annex VII.

Article 25

Monitoring and reporting

1. By … [*12 months from the date of entry into force of this Regulation*] Member States shall set up and make publicly available an inventory of all closed coal mines and abandoned coal mines in their territory or under their jurisdiction, in accordance with the methodology and including at least the elements set out in Part 1 of Annex VII.

2. Methane concentration measurements shall be taken in accordance with appropriate scientific standards and at least on an hourly basis from all elements listed in part 1(vi) of Annex VII which were found to emit methane.

From … [*18 months from the date of entry into force of this Regulation*], measurement equipment shall be installed on all elements listed in point (v) of Part 1 of Annex VII for closed coal mines and abandoned coal mines where operations have ceased since … [*50 years prior to the date of entry into force of this Regulation*].

The sensitivity threshold of the measurement equipment used for the measurements referred to in paragraph 2 shall be at least 10,000 parts per million.

The measurement equipment must operate for more than 90% of the period for which it is used to monitor the emissions, excluding downtime taken for re-calibration.

3. Reports containing estimates of yearly source-level methane emissions data shall be submitted to the competent authorities by … [*24 months of the date of entry into force of this Regulation*] and by 30 March every year thereafter.

The reports shall cover the last available calendar year and include the elements set out in Part 3 of Annex VII.

Before submission to the competent authorities, the reports set out in this paragraph shall be assessed by a verifier and include a verification statement issued in accordance with Articles 8 and 9.

4. Mine operators shall be responsible for the requirements referred to in paragraphs 2 and 3 as regards closed mines. Member States shall be responsible for the requirements referred to in paragraphs 2 and 3 as regards abandoned mines.

5. The competent authorities shall make the reports set out in this Article available to the public and the Commission, within three months from submission by operators and in accordance with Article 5(4).

Article 26

Mitigation measures

1. On the basis of the inventory referred to in Article 25, Member States shall develop and implement a mitigation plan to address methane emissions from abandoned coal mines.

The mitigation plan shall be submitted to competent authorities by … [*36 months from the date of entry into force of this Regulation*] and include at least the elements set out in Part 4 of Annex VII.

2. Venting and flaring from equipment referred to in Article 25(2) shall be prohibited from 1 January 2030, unless utilisation or mitigation is not technically feasible or risks endangering environmental safety or safety of operations or personnel. In such a situation, as part of the reporting obligations set out in Article 25, mine operators or Member States shall demonstrate the necessity to opt for venting or flaring instead of utilisation or mitigation.

Chapter 5

Methane emissions occurring outside the Union

Article 27

Importer requirements

1. By … [*9 months from the date of entry into force of the Regulation*] and by 31 December every year thereafter, importers shall provide the information set out in Annex VIII to the competent authorities of the importing Member State.

The Commission shall be empowered to adopt delegated acts in accordance with Article 31 to supplement this Regulation by amending or adding to the information to be provided by importers.

2. By … [*12 months from the date of entry into force of the Regulation*] and by 30 June every year thereafter, Member States shall submit to the Commission the information provided to them by importers.

The Commission shall make the information available in accordance with Article 28.

3. By 31 December 2025, or earlier if the Commission considers that sufficient evidence is available, the Commission shall examine the application of this Article, considering in particular:

(a) reporting of the available methane emissions data collected in the context of the global methane monitoring tool referred to in Article 29;

(b) methane emission data analysis by the IMEO;

(c) information on monitoring, reporting, verification and mitigation measures of operators located outside of the Union and from whom energy is imported into the Union; and

(d) security of supply and the level playing field implications in case of possible additional obligations, including mandatory measures such as methane emission standards or targets, taking into account the oil, gas and coal sectors separately.

Where appropriate and based on the necessary evidence to secure full compliance with the applicable international obligations of the Union, the Commission shall propose amendments to this Regulation to strengthen 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.

Article 28

Methane transparency database

1. By … [*18 months after the date of entry into force of the Regulation*] the Commission shall establish and maintain a methane transparency database containing the information submitted to it pursuant to Article 27 and Articles 12(11), 16(3), 18(4), 20(7), 23(2) and 25(5).

2. In addition to the information referred to in paragraph 1, the database shall include the following information:

(a) a list of countries where fossil energy is produced and exported to the Union;

(b) for each country referred in point (a) information about the following points:

(i) whether it has mandatory regulatory measures in place on energy sector methane emissions, covering the elements set out in this Regulation regarding measurement, reporting and verification and mitigation of energy sector methane emissions;

(ii) whether it has signed the Paris Agreement on climate change;

(iii) whether it is delivering national inventories in accordance with the requirements of the United Nations Framework Convention on Climate Change, where applicable;

(iv) whether the national inventories submitted pursuant to the United Nations Framework Convention on Climate Change include tier 3 reporting of energy methane emissions, where applicable;

(v) the amount of energy sector methane emissions according to the national inventories submitted pursuant to the United Nations Framework Convention on Climate Change, where applicable, and whether the data was subject to independent verification.

(vi) the list of companies exporting fossil energy into the Union

(vii) a list of importers of fossil energy into the Union

2. The transparency database shall be available to the public online, free of charge and at least in English.

3. This Article shall apply without prejudice to the provisions of Directive (EU) 2016/943.

Article 29

Methane emitters global monitoring tool

1. By … [*two years after the date of entry into force of the Regulation*], the Commission shall establish a global methane monitoring tool based on satellite data and input from several certified data providers and services, including the Copernicus component of the EU Space Programme.

The tool shall be made available to the public and provide regular updates at least on the magnitude, recurrence and location of high methane-emitting sources of energy.

2. The tool shall inform the Commission's bilateral dialogues with respect to methane emissions policies and measures. Where the tool identifies a new major emission source, the Commission shall alert the relevant country with a view to promoting awareness and remedial actions.

3. This Article shall be subject to the provisions of Directive (EU) 2016/943.

Chapter 6

Final provisions

Article 30

Penalties

1. Member States shall lay down the rules on penalties applicable to infringements of the provisions of this Regulation and shall take all measures necessary to ensure that they are implemented.

2. The penalties provided for must be effective, proportionate and dissuasive and may include:

(a) fines proportionate to the environmental damage, calculating the level of such fines in such way as to make sure that they effectively deprive those responsible of the economic benefits derived from their infringements and gradually increasing the level of such fines for repeated serious infringements;

(b) periodic penalty payments to compel operators to put an end to an infringement, comply with a decision ordering remedial actions or corrective measures, supply information or submit to an inspection, as applicable.

Member States shall notify the rules on penalties to the Commission by [*3 months from the date of entry into force of the Regulation*]. In addition, Member States shall notify any subsequent amendment affecting such rules to the Commission without delay.

3. At least the following infringements shall be subject to penalties:

(a) failure of operators or mine operators to provide the competent authorities or the verifiers with the assistance necessary to enable or facilitate the performance of their tasks in accordance with this Regulation;

(b) failure of operators or mine operators to carry out the actions set out in the inspections report referred to in Article 6;

(c) failure of operators of mine operators to submit the methane emissions reports as required by this Regulation, including the verification statement issued by independent verifiers in accordance with Articles 8 and 9;

(d) failure of operators to carry out a leak detection and repair survey in accordance with Article 14;

(e) failure of operators to repair or replace components, to continuous survey components and to record leaks in accordance with Article 14;

(f) failure of operators to submit a report in accordance with Article 14;

(g) venting or flaring by operators or mine operators beyond the situations provided for in Articles 15, 22 and 26, as applicable;

(h) routine flaring by operators;

(i) failure of operators or mine operators to demonstrate the necessity to opt for venting instead of flaring and to demonstrate the necessity to opt for flaring instead of either re-injection, utilisation on-site or dispatch of the methane to a market, in the case of operators, or utilisation or mitigation, in the case of mine operators, in accordance with Articles 15, 22 and 26;

(j) failure of operators or mine operators to notify or report on venting and flaring events in accordance with Articles 16, 23 and 26, as applicable;

(k) use of flare stacks or combustion devices in breach of the requirements laid down in Article 17;

(l) failure of importers to provide the information required in accordance with Article 27 and Annex VIII.

4. Member States shall take into account at least the following indicative criteria for the imposition of penalties, as appropriate:

(a) the duration or temporal effects, the nature and the gravity of the infringement;

(b) any action taken by the undertaking, operator or mine operator to timely mitigate or remedy the damage;

(c) the intentional or negligent character of the infringement;

(d) any previous infringements by the undertaking, operator or mine operator;

(e) the financial benefits gained or losses avoided directly or indirectly by the undertaking, operator or mine operator due to the infringement, if the relevant data are available;

(f) the size of the undertaking, operator or mine operator;

(g) the degree of cooperation with the authority;

(h) the manner in which the infringement became known to the authority, in particular whether, and if so to what extent, the operator timely notified the infringement;

(i) any other aggravating or mitigating factor applicable to the circumstances of the case.

5. Member States shall publish annually information on the type and the size of the penalties imposed under this Regulation, the infringements and the operators upon which penalties have been imposed.

Article 31

Exercise of the delegation

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.

2. The power to adopt delegated acts referred to in Articles 8(5), 22(3) and 27(1) shall be conferred on the Commission for an indeterminate period of time from … [*date of entry into force of the Regulation*].

3. The delegation of power referred to in Articles 8(5), 22(3) and 27(1) may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the Official Journal of the European Union or at a

later date specified therein. It shall not affect the validity of any delegated acts already in force.

4. Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement on Better Law-Making of 13 April 2016.

5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.

6. A delegated act adopted pursuant to Articles 8(5), 22(3) and 27(1) shall enter into force only if no objection has been expressed either by the European Parliament or by the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

Article 32

Committee procedure

1. The Commission shall be assisted by the Energy Union Committee established by Article 44 of Regulation (EU) 2018/1999.

2. Where reference is made to this paragraph, Article 4 of Regulation (EU) No 182/2011 shall apply.

Article 33

Review

1. Every five years the Commission shall submit a report on the evaluation of this Regulation to the European Parliament and to the Council and shall, if appropriate, submit legislative proposals to amend this Regulation. The reports shall be made public.

2. For the purpose of this Article, the Commission may request information from Member States and competent authorities and shall take into account notably the information provided by Member States in their integrated National Energy and Climate Plans, updates thereof and in their National Energy and Climate progress reports pursuant to Regulation (EU) 2018/1999.

Article 34

Amendments to Regulation (EU) 2019/942

In Article 15 of Regulation (EU) 2019/942 of the European Parliament and of the Council the following paragraph 5 is added:

"5. Every three years ACER shall establish and make publicly available a set of indicators and corresponding reference values for the comparison of unit investment costs linked to measurement, reporting and abatement of methane emissions for comparable projects. It shall issue recommendations on indicators and reference values for unit investment costs for

complying with the obligations under [*this Regulation*] pursuant to Article 3 of [*this Regulation*]".

Article 35

Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the European Parliament	*For the Council*
The President	*The President*

LEGISLATIVE FINANCIAL STATEMENT 'AGENCIES'

1. FRAMEWORK OF THE PROPOSAL/INITIATIVE

1.1. Title ohezaf the proposal/initiative

This present LFS concerns a number of requirements included in the Commission proposal on a methane legislative proposal, as follows:

1. The requirement for the European Union Agency for the Cooperation of Energy Regulators (ACER) to establish and make publicly available a set of indicators and corresponding reference values for the comparison of unit investment costs linked to measurement, reporting and abatement of methane emissions for comparable projects, once every three years.

2. The requirement for the Union to establish and maintain a methane transparency platform including information on imports of fossil energy into the Union, with updates to be provided every quarter.

3. The requirement for the Union to establish a global methane monitoring tool that regularly publishes the results of aerial monitoring of large emitters of methane from energy sources, with updates to be provided every month.

1.2. Policy area(s) concerned

Policy area: Energy

Activity: European Green Deal

1.3. The proposal relates to

X **a new action**

☐ **a new action following a pilot project/preparatory action**[44]

☐ **the extension of an existing action**

☐ **a merger of one or more actions towards another/a new action**

1.4. Objective(s)

1.4.1. General objective(s)

The general objective of the initiative is, in the context of the functioning of the internal market for energy and while ensuring security of supply in the Union, to preserve and improve the environment by reducing methane emissions from fossil energy produced or consumed in the EU. This objective contributes to the 'Fit for 55' package[45], specifically to the greenhouse gas emissions reduction targets of at least 55% by 2030 compared to 1990 as set out by the European Climate Law Regulation and to the EU's objective of achieving climate neutrality by 2050.

1.4.2. Specific objective(s)

To achieve the general objective, three specific objectives are addressed by this initiative:

[44] As referred to in Article 58(2)(a) or (b) of the Financial Regulation.

[45] See Annex 5 for interlinkages with other initiatives

i. Improve the accuracy of information on the main sources of methane emissions associated with energy produced and consumed within the EU. The goal is to ensure the availability of asset-level data and robust quantification of emissions, and thereby increase the reliability of reporting – including the reporting of GHG inventories data to the UNFCCC – as well as the scope for appropriate measures for mitigation. This specific objective creates the basis for future improvements on specific objective ii).

ii. Ensure further effective mitigation of methane emissions across the energy supply chain in the EU. This specific objective addresses the market failure leading to insufficient mitigation of methane emissions by companies.

iii. Reduce methane emissions related to fossil energy imported to the EU. As the majority of methane emissions linked to fossil energy consumed within the EU occur outside the EU, this specific objective seeks to tackle methane emissions in cooperation with partner countries and international organisations.

Requirement 1 is linked to objectives i and ii, while requirements 2 and 3 are linked to objective iii.

As regards requirement 1, in the proposal, both transmission and distribution system operators are obligated to measure, report and abate methane emissions according to certain specific requirements. The proposal therefore requires regulatory authorities to take into account the costs incurred and investments made to comply with these obligations included when fixing or approving transmission or distribution tariffs or their methodologies by transmission system operators or distribution system operators, insofar as they correspond to those of an efficient and structurally comparable network operator. Tasking ACER to establish and make publicly available a set of indicators and corresponding reference values for the comparison of unit investment costs linked to measurement, reporting and abatement of methane emissions for comparable projects would allow national regulators to derive and take into account appropriate and comparable levels of costs when fixing or approving transmission or distribution tariffs. One FTE (AD) at ACER is expected to cover the needs of collecting, analysing and reporting data.

As regards requirements 2, it tasks the Union to set up and manage a transparency list for fossil energy consumed in the Union, informing whether there is regulatory equivalence with the mandatory requirements on measurement, reporting and verification and mitigation of energy sector methane emissions under Union law in the country of origin supplying the oil, fossil gas or coal to the Union. Furthermore, the transparency list should also explain whether operators have signed up to an international standard methane emission and reporting standard for oil and gas companies (the Oil and Gas Methane Partnership) and to such an equivalent, internationally or Union recognised standard for coal companies, when one is eventually set up. One FTE (AD) at DG ENER along with 100,000 EUR/year to subcontract gathering and analysis of information would be necessary.

As regards requirement 3, it tasks the Union to put in place a global methane super emitter monitoring tool, providing information on the magnitude, recurrence and location of high methane-emitting sources. This should further encourage real and demonstrable results from the implementation of equivalent methane regulations and effective mitigation actions by companies supplying fossil energy to the Union. The tool should pool data from the European Space Agency's Copernicus programme as well as other satellites and services that regularly publish the results of aerial monitoring of super emitters from around the world. The term 'super-emitter' refers to a specific site or facility with disproportionately high-emissions for a

site or facility of that kind. One FTE (AD) at DG ENER along with 200 000 EUR/year to subcontract gathering and analysis of information would be necessary.

1.4.3. Expected result(s) and impact

Specify the effects which the proposal/initiative should have on the beneficiaries/groups targeted.

As regards requirement 1, the additional resources will allow the agency to carry out the tasks necessary to fulfil its mandate under EU legislation as per the requirement under this legislative proposal namely to allow national regulators to derive and take into account appropriate and comparable levels of costs when fixing or approving transmission or distribution tariffs.

As regards requirements 2 and 3, these measures in combination would enhance transparency for buyers to take informed sourcing decisions and improve the possibility of wider uptake of methane mitigation solutions across the globe. In addition, they would further incentivise international companies to sign up to international methane measurement and reporting standards such as the Oil and Gas Methane Partnership or to adopt similar measurement, reporting and mitigation measures existing in the Union.

1.4.4. Indicators of performance

Specify the indicators for monitoring progress and achievements.

Requirement 1: the availability of estimations of appropriate and comparable levels of costs when fixing or approving transmission or distribution tariffs.

Requirements 2 and 3: increased fossil buying decisions on the basis of information related to methane emissions reporting, abatement and existence of adequate methane regulations and wider uptake of methane measurement, reporting and mitigation across the globe.

1.5. Grounds for the proposal/initiative

1.5.1. Requirement(s) to be met in the short or long term including a detailed timeline for roll-out of the implementation of the initiative

The European Green Deal Communication indicates that the decarbonisation of the gas sector will be facilitated, including by addressing the issue of energy-related methane emissions. It also calls on the EU to engage with third countries on cross-cutting climate and environment issues, including via action to reduce methane emissions. In addition, and in response to the request expressed in Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action (the Governance Regulation) , the Commission adopted an EU strategy to reduce methane emissions ('the Methane Strategy') in October 2020.

The Methane Strategy announces that:

- The Commission will deliver legislative proposals in 2021 on:

o Compulsory measurement, reporting, and verification (MRV) for all energy-related methane emissions, building on the Oil and Gas Methane Partnership (OGMP 2.0) methodology .

o Obligation to improve leak detection and repair (LDAR) of leaks on all fossil gas infrastructure, as well as any other infrastructure that produces, transports or uses fossil gas, including as a feedstock.

- 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 part of the EU's diplomatic and external relations action, the Commission will address methane emission reductions in all relevant sectors with partner countries and promote global coordination of efforts to address energy-sector methane emissions.
- The Commission will support the establishment of a detection-and-alert process for methane super-emitters using EU satellite capability, and share this information internationally through the foreseen international methane emissions observatory.

1.5.2. Added value of Union involvement (it may result from different factors, e.g. coordination gains, legal certainty, greater effectiveness or complementarities). For the purposes of this point 'added value of Union involvement' is the value resulting from Union intervention which is additional to the value that would have been otherwise created by Member States alone.

The reduction of methane emissions across the European Union would benefit from a homogeneous policy approach at the EU level given the strong interlinkage between Member States through cross-border infrastructure – in this context particularly gas infrastructure – and the integrated EU energy market. The impacts of measures aimed at methane measurement and mitigation and related effects on innovation, cost-effectiveness, and a level-playing field in maintenance of a well-functioning internal market warrant coordination across Member State borders. Coordinated EU policies have a much higher chance of leading to further reductions in methane emissions in the energy sector. Coordinated action at the EU level furthermore facilitates the full consideration of the different capabilities to act among Member States and private entities. It also affords operators the benefits of a single regulatory regime, facilitating adherence and reducing administrative burden relative to the application of fragmented rules across Member States.

The EU and its Member States are part of a global oil market in which collective action carries more weight vis-à-vis exporters than individual national measures. The EU is also the biggest gas import market in the world and can thus influence global methane emissions through its purchasing power, provided a harmonised approach towards such imports. The EU gas market allows for flexible and short-term (spot) trading of gas. While long-term contracts with specific suppliers still exist, the 'hydrogen and gas market decarbonisation package', which is part of the Fit-for-55 package, addresses such contracts and seeks to limit their duration to avoid locking-in fossil gas use and to send a signal to decarbonise the gas sector in line with the European Green Deal. Hence, an increasing part of imports may become subject to methane emission considerations in purchasing decisions.

EU-level methane policy adds significant value for international climate action. By working to develop a legislation to minimize methane emissions in the energy sector, the EU is sending a strong political signal to external actors, increasing the awareness of the harmful effects of methane emissions on the climate. This signal will not only encourage EU partners to address the problem of methane emissions in the energy sector, but also lead to the creation of an international partnership and thus give the EU a leadership role in addressing methane emissions.

1.5.3. 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.Lessons learned from similar experiences in the past

Not applicable

1.5.4. Compatibility with the Multiannual Financial Framework and possible synergies with other appropriate instruments

This initiative is included in the Commission work programme for 2021 (COM(2020) 690 final) under point g) 'Reducing methane emissions in the energy sector' of the European Green Deal 'Fit For 55' Package' and will contribute to the greenhouse gas emissions reduction targets of at least 55% by 2030 compared to 1990 as set out by the European Climate Law Regulation and to the EU's objective of achieving climate neutrality by 2050 also included in the 'Fit for 55' Package.

1.5.5. Assessment of the different available financing options, including scope for redeployment

See point 2.2.1

1.6. Duration and financial impact of the proposal/initiative

☐ **limited duration**

☐ Proposal/initiative in effect from [DD/MM]YYYY to [DD/MM]YYYY

☐ Financial impact from YYYY to YYYY

X **unlimited duration**

Implementation with a start-up period from YYYY to YYYY,

followed by full-scale operation.

1.7. Management mode(s) planned[46]

☒ **Direct management** by the Commission through

☐ executive agencies

☐ **Shared management** with the Member States

☒ **Indirect management** by entrusting budget implementation tasks to:

☐ international organisations and their agencies (to be specified);

☐the EIB and the European Investment Fund;

☒ bodies referred to in Articles 70 and 71;

☐ public law bodies;

☐ bodies governed by private law with a public service mission to the extent that they provide adequate financial guarantees;

☐ bodies governed by the private law of a Member State that are entrusted with the implementation of a public-private partnership and that provide adequate financial guarantees;

[46] Details of management modes and references to the Financial Regulation may be found on the BudgWeb site: https://myintracomm.ec.europa.eu/budgweb/EN/man/budgmanag/Pages/budgmanag.aspx.

☐ persons entrusted with the implementation of specific actions in the CFSP pursuant to Title V of the TEU, and identified in the relevant basic act.

Comments

[…] […]

2. MANAGEMENT MEASURES

2.1. Monitoring and reporting rules

Specify frequency and conditions.

Concerning Requirement 1: According to their financial regulation, ACER has to provide, in the context of their Programming Document, an annual Work Programme including details on resources, both financial and human, per each of the activities carried out. The Agency reports monthly to DG ENER on budget execution, including commitments, and payments by budget title, and vacancy rates by type of staff. In addition, DG ENER is directly represented in the governance bodies of ACER. Through its representative in the Administrative Board, DG ENER will be informed of the use of the budget and the establishment plan at each of their meetings during the year. Finally, also in line with financial rules, the Agency is subject to annual requirements for reporting on activities and the use of resources through the Administrative Board and its Annual Activity Report. Concerning Requirements 2 and 3: The tasks directly implemented by DG ENER will follow the annual cycle of planning and monitoring, as implemented in the Commission and the executive agencies, including reporting the results through the Annual Activity Report of DG ENER.

2.2. Management and control system(s)

2.2.1. Justification of the management mode(s), the funding implementation mechanism(s), the payment modalities and the control strategy proposed

Concerning Requirement 1: Due to its mandate, ACER is best placed to establish expertise related to the implementaiton of Requirement #1, as well as to ensure that the regulatory authorities of Member States take into account its recommendations on indicators and reference values for the comparison of unit investment costs. DG ENER established a control strategy for managing its relations with ACER, part of the 2017 Internal Control Framework of the Commission. The Agency revised and adopted its own Internal Control Framework in December 2018. Concerning Requirements 2 and 3: The legislative proposal clearly sets out that the tasks under requirements #2 and #3 will be assigned to the Commission, especially considering that (i) the amounts needed to implement the methane transparency list and the methane monitoring tool will remain to be clarified as

part of the implementation process and (ii) during implementation DG ENER needs to ensure close coordination and support with other mechanisms established under Green Deal initiatives.

Subject to decision taken during the implementation, these tasks may be carried out internally or outsourced to an external service provider, via a public procurement procedure. In the case the tasks are procured from a service provider, the procurement will be implemented under direct management, in full application of the provisions of the Financial Regulation. The control strategy for procurements in DG ENER includes specific ex-ante legal, operational and financial controls on the procurement procedure (review by the advisory committee for procurement and contracts) as well as on the signature of contracts. In addition, expenditure made to procure goods and services is subject to ex ante and, when necessary, ex-post and financial controls.

2.2.2. Information concerning the risks identified and the internal control system(s) set up to mitigate them

Concerning Requirement 1:

Risk 1: In order to avoid future understaffing, it is essential that ACER gets adequate additional resources for tasks stemming from new legislation like this proposal.

While so far ACER has not dealt with costs of network operators due to measurement, reporting and abatement of methane emissions, the additional tasks and their workload for ACER are estimated to be sufficiently covered by 1 additional FTE.

Concerning Requirements 2 and 3:

The main policy and implemenattion risks related to these tasks are

1) Delay in the development and operation of the methane transparency list and the methane monitoring tool

2) A lack of reliable or sufficient data

3) Absence of sufficient internal capacity to manage the data and publish the results

4) Cyber-attacks on the publicly available IT infrastructure

2.2.3. Estimation and justification of the cost-effectiveness of the controls (ratio of "control costs ÷ value of the related funds managed"), and assessment of the expected levels of risk of error (at payment & at closure)

The allocation of additional tasks for the existing mandate of ACER is not expected to generate specific additional controls at the Agency, therefore, the ratio of control costs over value of funds managed will remain unaltered for ACER.

Similarly, the tasks assigned for DG ENER will not result in additional controls or change in the ratio of control costs.

2.3. Measures to prevent fraud and irregularities

Specify existing or envisaged prevention and protection measures, e.g. from the Anti-Fraud Strategy.

ACER applies the anti-fraud principles of decentralised EU Agencies, in line with the Commission approach.

In March 2019 the Agency adopted a new Anti-Fraud Strategy, repealing Decision 13/2014 of the Administrative Board of the Agency. The new strategy, spanning over a three-year period, is based on the following elements: an annual risks assessment, the prevention and management of conflicts of interest, internal rules on whistleblowing, the policy and procedure for the management of sensitive functions, as well as measures related to ethics and integrity.

DG ENER also adopted a revised Anti-fraud Strategy in 2020. The ENER AFS is based on the Comission Antifraud Strategy and a specific risk assessment carried out internally to identify the areas most vulnerable to fraud, the controls already in place and the actions necessary to improve DG ENER's capacity to prevent, detect and correct fraud.

Both the ACER regulation and the contractual provisions applicable to public procurement ensure that audits and on-the-spot checks can be carried out by the Commission services, including OLAF, using the standard provisions recommended by OLAF.

3. ESTIMATED FINANCIAL IMPACT OF THE PROPOSAL/INITIATIVE

3.1. Heading(s) of the multiannual financial framework and expenditure budget line(s) affected

- Existing budget lines

In order of multiannual financial framework headings and budget lines.

Heading of multiannual financial framework	Budget line	Type of expenditure	Contribution			
	Number	Diff./Non-diff.[47]	from EFTA countries [48]	from candidate countries[49]	from third countries	within the meaning of Article 21(2)(b) of the Financial Regulation
02	[02 10 06]	Diff./	YES	NO	NO	NO
02	02 20 04 02	Diff.	NO	NO	NO	NO

- New budget lines requested

In order of multiannual financial framework headings and budget lines.

Heading of multiannual financial framework	Budget line	Type of expenditure	Contribution			
	Number	Diff./non-diff.	from EFTA countries	from candidate countries	from third countries	within the meaning of Article 21(2)(b) of the Financial Regulation
	[XX.YY.YY.YY]		YES/NO	YES/NO	YES/NO	YES/NO

[47] Diff. = Differentiated appropriations / Non-diff. = Non-differentiated appropriations.
[48] EFTA: European Free Trade Association.
[49] Candidate countries and, where applicable, potential candidates from the Western Balkans.

3.2. Estimated impact on expenditure

3.2.1. Summary of estimated impact on expenditure on ACER

EUR

Heading of multiannual financial framework	2	European Strategic Investments - Agency for the Cooperation of Energy Regulators (ACER)

ACER			Year **2023**	Year **2024**	Year **2025**	Year **2026**	Year **2027**	**TOTAL**
Title 1:	Commitments	(1)	152 000	152 000	152 000	152 000	152 000	**760 000**
	Payments	(2)	152 000	152 000	152 000	152 000	152 000	**760 000**
Title 2:	Commitments	(1a)						
	Payments	(2a)						
Title 3:	Commitments	(3a)						
	Payments	(3b)						
TOTAL appropriations for ACER	Commitments	=1+1a +3a	152 000	152 000	152 000	152 000	152 000	**760 000**
	Payments	=2+2a +3b	152 000	152 000	152 000	152 000	152 000	**760 000**

3.2.2. Summary of estimated impact on expenditure on DG ENER

DG ENER			Year **2023**	Year **2024**	Year **2025**	Year **2026**	Year **2027**	**TOTAL**
Operational Expenditure	Commitments	(3a)	300 000	300 000	300 000	300 000	300 000	**1 500 000**
	Payments	(3b)	100 000	300 000	300 000	300 000	500 000	**1 500 000**

TOTAL appropriations for DG ENER (Not administrative)	Commitments	=1+1a +3a	300 000	300 000	300 000	300 000	300 000	**1 500 000**
	Payments	=2+2a +3b	100 000	300 000	300 000	300 000	500 000	**1 500 000**

Heading of multiannual financial framework	7	'Administrative expenditure'

EUR

		Year **2023**	Year **2024**	Year **2025**	Year **2026**	**Year 2027**	**TOTAL**
DG: ENER							
• Human Resources		304 000	304 000	304 000	304 000	304 000	**1 520 000**
• Other administrative expenditure							
TOTAL DG <…….>	Appropriations	304 000	304 000	304 000	304 000	304 000	**1 520 000**

TOTAL appropriations under HEADING 7 of the multiannual financial framework	(Total commitments = Total payments)	304 000	304 000	304 000	304 000	304 000	**1 520 000**

EUR

		Year **2023**	Year **2024**	Year **2025**	Year **2026**	Year **2027**	**TOTAL**
TOTAL appropriations under HEADINGS 1 to 7 of the multiannual financial framework	Commitments	756 000	756 000	756 000	756 000	756 000	**3 780 000**
	Payments	556 000	756 000	756 000	756 000	956 000	**3 780 000**

3.2.3. *Estimated impact on ACER and DG ENER's appropriations*

– ☐ The proposal/initiative does not require the use of operational appropriations

– ☒ The proposal/initiative requires the use of operational appropriations, as explained below:

Commitment appropriations in EUR

Indicate objectives and outputs ⇩			Year **2023**		Year **2024**		Year **2025**		Year **2026**		Year **2027**		**TOTAL**	
	OUTPUTS													
	Type 50	Average cost	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost	Total No	Total cost
SPECIFIC OBJECTIVE No 1[51]…														
- Accurate information on the main sources of methane emissions associated with energy produced and consumed within the EU		152 000		152 000		152 000		152 000		152 000		152 000		760 000
Subtotal for specific objective No 1														
SPECIFIC OBJECTIVE No 2 ...														

50 Outputs are products and services to be supplied (e.g.: number of student exchanges financed, number of km of roads built, etc.).

51 As described in point 1.4.2. 'Specific objective(s)…'

- Effective mitigation of methane emissions across the energy supply chain in the EU		252 000		252 000		252 000		252 000		252 000		252 000		1 260 000
Subtotal for specific objective No 2														
- Reduction of methane emissions related to fossil energy imported to the EU		352 000		352 000		352 000		352 000		352 000		352 000		1 760 000
Subtotal for specific objective No 3														
TOTAL COST				756 000		756 000		756 000		756 000		756 000		3 780 000

The operational appropriations are needed to outsource work to gather necessary data in a regular and comprehensive manner.

Data is provided until the end of the current MFF, but the activity is expected to have unlimited duration.

Th

3.2.4. Estimated impact on ACER's human resources

3.2.4.1. Summary

– ☒ The proposal/initiative does not require the use of appropriations of an administrative nature

– ☐ The proposal/initiative requires the use of appropriations of an administrative nature, as explained below:

EUR

	Year **2023**	Year **2024**	Year **2025**	Year **2026**	Year **2027**	**TOTAL**
Temporary agents (AD Grades)	152 000	152 000	152 000	152 000	152 000	**760 000**
Temporary agents (AST grades)						
Contract staff						
Seconded National Experts						
TOTAL	**152 000**	**152 000**	**152 000**	**152 000**	**152 000**	**760 000**

Staff requirements (FTE):

	Year **2023**	Year **2024**	Year **2025**	Year **2026**	Year **2027**	**TOTAL**
Temporary agents (AD Grades)	1	1	1	1	**1**	**1**
Temporary agents (AST grades)						
Contract staff						
Seconded National Experts						
TOTAL	**1**	**1**	**1**	**1**	**1**	**1**

Please indicate the planned recruitment date and adapt the amount accordingly (if recruitment occurs in July, only 50 % of the average cost is taken into account) and provide further explanations.

3.2.5. Estimated requirements of human resources for the parent DG

– ☐ The proposal/initiative does not require the use of human resources.

– ☒The proposal/initiative requires the use of human resources, as explained below:

Estimate to be expressed in full amounts (or at most to one decimal place)

		Year **2023**	Year **2024**	Year **2025**	Year **2026**	Year **2027**
• **Establishment plan posts (officials and temporary staff)**						
20 01 02 01 and 20 01 02 02 (Headquarters and Commission's Representation Offices)		2	2	2	2	2
20 01 02 03 (Delegations)						
01 01 01 01 (Indirect research)						
10 01 05 01 (Direct research)						
• **External staff (in Full Time Equivalent unit: FTE)**[52]						
20 02 01 (AC, END, INT from the 'global envelope')						
20 02 03 (AC, AL, END, INT and JPD in the Delegations)						
Budget line(s) (specify)[53]	- at Headquarters[54]					
	- in Delegations					
01 01 01 02 (AC, END, INT – Indirect research)						
10 01 05 02 (AC, END, INT – Direct research)						
Other budget lines (specify)						
TOTAL		**2**	**2**	**2**	**2**	**2**

The human resources required will be met by staff from the DG who are already assigned to management of the action and/or have been redeployed within the DG, together if necessary with any additional allocation which may be granted to the managing DG under the annual allocation procedure and in the light of budgetary constraints.

Description of tasks to be carried out:

[52] AC = Contract Staff; AL = Local Staff; END = Seconded National Expert; INT = agency staff; JPD = Junior Professionals in Delegations.

[53] Sub-ceiling for external staff covered by operational appropriations (former 'BA' lines).

[54] Mainly for the EU Cohesion Policy Funds, the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime Fisheries and Aquaculture Fund (EMFAF).

Officials and temporary staff	Supervise completeness and quality of data gathering. Analysis of data.
External staff	

Description of the calculation of cost for FTE units should be included in the Annex V, section 3.

3.2.6. Compatibility with the current multiannual financial framework

– ☐ The proposal/initiative is compatible the current multiannual financial framework.

– ☒ The proposal/initiative will entail reprogramming of the relevant heading in the multiannual financial framework.

Explain what reprogramming is required, specifying the budget lines concerned and the corresponding amounts.
The Fit for 55 initiative was not factored in the calculation of MFF headings. This specific initiative being new, it will require reprogramming both for the line of the contribution to ACER, and the lines that would support additional work within DG ENER.

☐ The proposal/initiative requires application of the flexibility instrument or revision of the multiannual financial framework[55].

Explain what is required, specifying the headings and budget lines concerned and the corresponding amounts.
[…]

3.2.7. Third-party *contributions*

– The proposal/initiative does not provide for co-financing by third parties.

– The proposal/initiative provides for the co-financing estimated below:

EUR million (to three decimal places)

	Year **N**	Year **N+1**	Year **N+2**	Year **N+3**	Enter as many years as necessary to show the duration of the impact (see point 1.6)			Total
Specify the co-financing body								
TOTAL appropriations co-financed								

3.3.

[55] See Articles 12 and 13 of Council Regulation (EU, Euratom) No 2093/2020 of 17 December 2020 laying down the multiannual financial framework for the years 2021 to 2027.

3.4. Estimated impact on revenue

– ☒ The proposal/initiative has no financial impact on revenue.

– ☐ The proposal/initiative has the following financial impact:

  – ☐ on own resources

  – ☐ on other revenue

  – ☐ please indicate, if the revenue is assigned to expenditure lines

EUR million (to three decimal places)

Budget revenue line:	Appropriations available for the current financial year	Impact of the proposal/initiative[56]						
		Year **N**	Year **N+1**	Year **N+2**	Year **N+3**	Enter as many years as necessary to show the duration of the impact (see point 1.6)		
Article …….								

For miscellaneous 'assigned' revenue, specify the budget expenditure line(s) affected.

[…]

Specify the method for calculating the impact on revenue.

[…]

[56] As regards traditional own resources (customs duties, sugar levies), the amounts indicated must be net amounts, i.e. gross amounts after deduction of 20 % for collection costs.

ANNEX
to the LEGISLATIVE FINANCIAL STATEMENT

Name of the proposal/initiative:

Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on methane emissions reduction in the energy sector

1. NUMBER AND COST OF HUMAN RESOURCES CONSIDERED NECESSARY

2. COST OF OTHER ADMINISTRATIVE EXPENDITURE

3. TOTAL ADMINISTRATIVE COSTS

4. METHODS OF CALCULATION USED FOR ESTIMATING COSTS

4.1. Human resources

4.2. Other administrative expenditure

This annex must accompany the legislative financial statement when the inter-services consultation is launched.

The data tables are used as a source for the tables contained in the legislative financial statement. They are strictly for internal use within the Commission.

1. COST OF HUMAN RESOURCES CONSIDERED NECESSARY

☐ The proposal/initiative does not require the use of human resources

X The proposal/initiative requires the use of human resources, as explained below:

EUR million (to three decimal places)

HEADING 7 of the multiannual financial framework		2023		2024		2025		2026		2027		2028		2029		TOTAL	
		FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations
• Establishment plan posts (officials and temporary staff)																	
20 01 02 01 - Headquarters and Representation offices	AD	2	0,304	2	0,304	2	0,304	2	0,304	2	0,304					2	1,520
	AST																
20 01 02 03 - Union Delegations	AD																
	AST																
• External staff [57]																	
20 02 01 and 20 02 02 – External personnel – Headquarters and Representation offices	AC																
	END																
	INT																
20 02 03 – External personnel - Union Delegations	AC																
	AL																
	END																
	INT																
	JPD																
Other HR related budget lines (*specify*)																	
Subtotal HR – HEADING 7		2	0,304	2	0,304	2	0,304	2	0,304	2	0,304					2	1,520

These are new tasks, for which there is currently no staff assigned within DG ENER. The human resources required might be met by staff who have been redeployed within the DG, together if necessary with any additional allocation which may be granted to the managing DG under the annual allocation procedure and in the light of budgetary constraints.

[57] AC = Contract Staff; AL = Local Staff; END = Seconded National Expert; INT= agency staff; JPD= Junior Professionals in Delegations.

Outside HEADING 7 of the multiannual financial framework			2023		2024		2025		2026		2027		2028		2029		2030	
			FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations
• Establishment plan posts (officials and temporary staff)																		
01 01 01 01 Indirect Research[58] 01 01 01 11 Direct Research Other (please specify)		AD																
		AST																
• External staff [59]																		
External staff from operational appropriations (former 'BA' lines).	- at Headquarters	AC																
		END																
		INT																
	- in Union delegations	AC																
		AL																
		END																
		INT																
		JPD																
01 01 01 02 Indirect Research 01 01 01 12 Direct research Other (please specify)[60]		AC																
		END																
		INT																
Other budget lines HR related (*specify*)																		
Subtotal HR – Outside HEADING 7																		
Total HR (all MFF Headings)			2	0,304	2	0,304	2	0,304	2	0,304	2	0,304					2	1,520

These are new tasks, for which there is currently no staff assigned within DG ENER. The human resources required might be met by staff who have been redeployed within the DG, together if necessary with any additional allocation which may be granted to the managing DG under the annual allocation procedure and in the light of budgetary constraints.

58 Please choose the relevant budget line, or specify another if necessary; in case more budget lines are concerned, staff should be differentiated by each budget line concerned

59 AC = Contract Staff; AL = Local Staff; END = Seconded National Expert; INT= agency staff; JPD= Junior Professionals in Delegations.

60 Please choose the relevant budget line, or specify another if necessary; in case more budget lines are concerned, staff should be differentiated by each budget line concerned

2. COST OF OTHER ADMINISTRATIVE EXPENDITURE

X The proposal/initiative does not require the use of administrative appropriations
☐ The proposal/initiative requires the use of administrative appropriations, as explained below:

EUR million (to three decimal places)

HEADING 7 of the multiannual financial framework	Year N[61]	Year N+1	Year N+2	Year N+3	Year N+4	Year N+5	Year N+7	Total
At headquarters or within EU territory:								
20 02 06 01 - Mission and representation expenses								
20 02 06 02 - Conference and meeting costs								
20 02 06 03 - Committees[62]								
20 02 06 04 Studies and consultations								
20 04 – IT expenditure (corporate)[63]								
Other budget lines non-HR related (*specify where necessary*)								
In Union delegations								
20 02 07 01 - Missions, conferences and representation expenses								
20 02 07 02 - Further training of staff								
20 03 05 – Infrastructure and logistics								
Other budget lines non-HR related (*specify where necessary*)								
Subtotal Other - HEADING 7 of the multiannual financial framework								

61 Year N is the year in which implementation of the proposal/initiative starts. Please replace "N" by the expected first year of implementation (for instance: 2021). The same for the following years

62 Specify the type of committee and the group to which it belongs.

63 The opinion of DG DIGIT – IT Investments Team is required (see the Guidelines on Financing of IT, C(2020)6126 final of 10.9.2020, page 7)

EUR million (to three decimal places)

Outside HEADING 7 of the multiannual financial framework	**Year N**[64]	**Year N+1**	**Year N+2**	**Year N+3**	**Year N+4**	**Year N+5**	**Year N+7**	**Total**
Expenditure on technical and administrative assistance (not including external staff) from operational appropriations (former 'BA' lines):								
- at Headquarters								
- in Union delegations								
Other management expenditure for research								
Policy IT expenditure on operational programmes[65]								
Corporate IT expenditure on operational programmes[66]								
Other budget lines non-HR related (*specify where necessary*)								
Sub-total Other – Outside HEADING 7 of the multiannual financial framework								
Total Other admin expenditure (all MFFHeadings)								

64 Year N is the year in which implementation of the proposal/initiative starts. Please replace "N" by the expected first year of implementation (for instance: 2021). The same for the following years

65 The opinion of DG DIGIT – IT Investments Team is required (see the Guidelines on Financing of IT, C(2020)6126 final of 10.9.2020, page 7)

66 This item includes local administrative systems and contributions to the co-financing of corporate IT systems (see the Guidelines on Financing of IT, C(2020)6126 final of 10.9.2020)

3. TOTAL ADMINISTRATIVE COSTS (ALL HEADINGS MFF)

EUR million (to three decimal places)

Summary	2023	2024	2025	2026	2027	2028	2029	TOTAL
Heading 7 - Human Resources	0.304	0.304	0.304	0.304	0.304			1,520
Heading 7 – Other administrative expenditure								
Sub-total Heading 7	0.304	0.304	0.304	0.304	0.304			1,520
Outside Heading 7 – Human Resources								
Outside Heading 7 – Other administrative expenditure								
Sub-total Other Headings								
TOTAL HEADING 7 and Outside HEADING 7	0.304	0.304	0.304	0.304	0.304			1,520

These are entirely new tasks. The administrative appropriations required might be met by budget that might be redeployed within the DG, together if necessary with any additional allocation which may be granted to the managing DG under the annual allocation procedure and in the light of budgetary constraints.

4. METHODS OF CALCULATION USED TO ESTIMATE COSTS

4.1. Human resources

This part sets out the method of calculation used to estimate the human resources considered necessary (workload assumptions, including specific jobs (Sysper 2 work profiles), staff categories and the corresponding average costs)

HEADING 7 of the multiannual financial framework
NB: The average costs for each category of staff at Headquarters are available on BudgWeb: https://myintracomm.ec.europa.eu/budgweb/EN/pre/legalbasis/Pages/pre-040-020_preparation.aspx
• Officials and temporary staff 2 AD posts to monitor the implementation of the Regulation: - Supervision of and coordination with ACER - Supervise completeness and quality of data gathering. - Analysis of data. - Set up and manage a transparency list for fossil energy imports into the Union - Put in place a global methane super emitter monitoring tool The average costs come from the note Ares(2020)7207955.
• External staff

Outside HEADING 7 of the multiannual financial framework
• Only posts financed from the research budget
• External staff

4.2. Other administrative expenditure

Give details of the method of calculation used for each budget line and in particular the underlying assumptions (e.g. number of meetings per year, average costs, etc.)

HEADING 7 of the multiannual financial framework

Outside HEADING 7 of the multiannual financial framework