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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 - General approach

I. INTRODUCTION

The Commission presented the proposal for a Regulation on methane emissions reduction in the energy sector on 15 December 2021, as a second part of the 'Fit for 55' legislative proposals that aims to implement the European Green Deal with a view to achieving climate neutrality in the Union by 2050. It was submitted together with the Regulation and Directive on the internal markets for renewable and natural gases and for hydrogen (Gas Package) as a part of new EU framework to decarbonise gas markets, promote hydrogen and reduce methane emissions.

II. WORK WITHIN THE EUROPEAN PARLIAMENT AND OTHER UNION BODIES

In the Parliament, the proposal has been referred to the Committee on Environment, Public Health and Food Safety, and the Industry, Research and Energy Committee. The committees appointed two rapporteurs: Jutta Paulus (Greens/EFA) and Silvia Sardone (ID). The European Economic and Social Committee delivered its opinion on 19 May 2022, while the Committee of the Regions delivered its opinion in the 151st plenary session, 10-12 October 2022.

III. WORK WITHIN THE COUNCIL

The Regulation, together with its impact assessment, was presented to the Working Party on Energy on 7 February 2022. Further meetings of the Energy Working Party during the first half of 2022, under the French Presidency, gave way to changes reflected in the first revision of the proposal published on 20 April 2022. The overall progress was summarized in the report published on 10 June 2022. In July, the Czech Presidency continued with negotiations on the working party level and their outcomes reflected to the second and third revision in the following months. The third revision was also submitted to the Coreper on 26 October 2022 in order to ask for guidelines on the new LDAR approach and on other most pressing issues. The fourth and fifth revisions followed reflecting most of the concerns raised by the Member States. The last political discussion on the fifth revision took place in the Coreper on 7 December, and on 8 December 2022 delegations further discussed the technical aspects of the regulation. Based on all comments made, the Presidency prepared a compromise text (revision 6) in view of the Coreper meeting of 13 December 2022.

Delegations are invited to consider the main changes made in revision 6:

- The new recital 61a was added to reflect the new provisions on standardisation and to ensure avoiding setting double standards on the same subjects.
- In Article 2, the definitions of both LDAR surveys (17a & 17b) were complemented to reflect the differentiations in Article 14 and Annex I.
- New definitions were also added for “production location”, “processing” and “leak detection rate” in order to reflect the addition of the risk-based approach provisions in Article 14.

- In Article 14, the new paragraph 2aa was added to incentivise operators in case the components of the infrastructure do not leak. Where operators provide evidence (based on five-year measurements) that less than 1 % of the components are leaking, the competent authority may approve different LDAR survey frequencies for the non-leaking components. For those components that leak, standard obligations apply.
- In Annex I the LDAR surveys frequencies were adjusted to reflect the average methane emission rate of some specific materials, consistently with the provisions of art. 14.
- In Article 2 and Article 14, detection limits and repair thresholds were slightly increased in order to address significant volumes of leaks rather than larger number of small leaks representing lower shares of emissions.
- Components under the seabed are now explicitly recognized in the regulation and reflected also in the table in the Annex I.
- When, for a set of exceptional cases, the implementation of Article 15 is not immediately possible, the period of the allowed delay was prolonged from one to two years. The obligation for operators to prove, to the competent authority, that such a delay is necessary still applies.
- In Article 18, changes were made in the wording to ensure the feasibility of the localisation of inactive wells, temporarily plugged wells, and permanently plugged and abandoned wells.
- Furthermore, Article 18 introduces a phase-in mechanism for Member States with an extensive number of wells on their territory. The mechanism foresees that eventually all wells are documented, still taking into account the administrative and financial feasibility of this activity. The timelines to document the wells have to be approved by the competent authority. The threshold of 70 years for inactive and abandoned wells, previously introduced, was removed to balance the approach in this area, and to ensure that all the wells are checked. Also, paragraph 10 was added in order to allow for flexibility of measurements if the wells are located between 200 and 700 meters below the sea level and when potential methane emissions do not reach the atmosphere. The Directives on Offshore Safety and on Marine Strategy Framework still apply.

- In Article 33, the new paragraph 2a, complemented by the new recital 66a, sets the task for the Commission to present a report on the possibility to extend the Regulation to the importers of fossil fuels to the EU. The report shall contain an assessment on possible impacts on energy prices and security of supply.

IV. CONCLUSION

The Permanent Representatives Committee is invited to examine the latest compromise text as revised by the Presidency and set out in the Annex to this note, with a view to reaching a general agreement at the TTE Council of 19 December 2022.

Delegations will find attached a revised version of the Commission proposal, as prepared by the Presidency (REV6).

New deletions are marked in ~~strikethrough~~, new text is marked with **bold underline**.
Deletions that appeared in doc. 8192/22 ("REV 1"), doc. 11246/22 (“REV 2”), doc. 12875/22 (“REV3”), doc. 14615/22 (“REV4”) and 15319/22 (“REV5”) are marked in ~~*strikethrough.*~~
New text that appeared in doc. 8192/22 ("REV 1"), doc. 11246/22 (“REV 2”), doc. 12875/22 (“REV 3”), doc. 14615/22 (“REV4”) ”) and 15319/22 (“REV5”) is marked with **bold.**

2022/0423 (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)*~~ **192(1)** 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[1],

Having regard to the opinion of the Committee of the Regions[2],

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.

1 OJ C , , p. .
2 OJ C , , p. .

(2) ~~*On a molecular level,* **A**~~*a*lthough methane ~~*remains in the atmosphere for a shorter period*~~ **has a shorter average atmospheric residence time** (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 **at the latest**. The European Green Deal Communication[3] 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. In Regulation (EU) 2021/1119[4] ('European Climate Law'), the Union has enshrined into legislation the target of economy-wide climate neutrality by 2050 **at the latest** 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[5]. 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[6] on industrial emissions covers methane emissions from the refining of mineral oil and gas, it does not cover other activities in the energy sector.

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3 COM(2019) 640 final.

4 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).

5 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).

6 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).

(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 **liquefied** ~~*natural liquid fossil*~~ gas ~~*(LNG)*~~ terminals, as well as to operating underground and surface coal mines, closed and abandoned underground coal mines.

(8) Rules for accurate measurement, **monitoring,** 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 **this Regulation in accordance with the tasks specifically attributed to them therein** ~~*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 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[7] 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.

(12a) 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 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.

7 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).

(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 **and mitigation measures** 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. **Alternatively, the competent authorities may decide to instruct the operator or mine operator to submit to their approval a set of remedial actions to address the breaches.** 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[8].

(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.

8 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).

(15) A robust verification framework ~~can~~ improve**s** 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[9] **or otherwise authorised in a manner comparable to Regulation (EC) 765/2008 of the European Parliament and of the Council**.

(15a) Independent ~~accredited~~ verifiers should thus ensure that emissions reports prepared by operators and mine operators are correct and in compliance with the requirements set out in this Regulation. They should review the data in the emissions reports to assess their reliability, credibility and accuracy against **clear and harmonised measurement and quantification specifications. In the interest of harmonization and data reliability, credibility, accuracy and comparability, such specifications may be based or set by means of European standards or, in the absence of such standards, International standards. In the absence of suitable European standards, the Commission should consider requesting the relevant European standardisation organisations to adopt such standards in accordance with Regulation (EU) No 1025/2012 of the European Parliament and of the Council**[10]**.** ~~*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 **establishing** ~~*incorporating and setting out the applicability of*~~ *such* ~~*European or international standards*~~ **such specifications**.

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9 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).

10 Regulation (EU) No 1025/2012 of the European Parliament and of the Council of 25 October 2012 on European standardisation, amending Council Directives 89/686/EEC and 93/15/EEC and Directives 94/9/EC, 94/25/EC, 95/16/EC, 97/23/EC, 98/34/EC, 2004/22/EC, 2007/23/EC, 2009/23/EC and 2009/105/EC of the European Parliament and of the Council and repealing Council Decision 87/95/EEC and Decision No 1673/2006/EC of the European Parliament and of the Council (OJ L 316, 14.11.2012, p. 12).

(15b) 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*~~ **In performing their obligations and exercising their powers under this Regulation, verifiers, the competent authorities and the Commission should consider the information made available internationally, for example by** 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*~~ **operators or mine operators** 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[11] 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 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.

11 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).

(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[12].

(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.

12 IPCC (2019) 2019 Refinement to the 2006 IPCC guidelines for national greenhouse gas inventories.

(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 **and coal** companies should be required to measure and report methane emissions by source, and to make aggregated data 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 **latest** 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 **latest** 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. **A harmonised approach requires standardised specifications to conduct direct measurements or quantification for gas infrastructure which may be based or set by means of European standards or, in the absence of such standards, International standards. In the absence of suitable European standards, the Commission should consider requesting the relevant European standardisation organisations to adopt such standards in accordance with Regulation (EU) No 1025/2012 of the European Parliament and of the Council. The Commission should thus be empowered to adopt delegated acts for the purpose of establishing such specifications.**

(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**, temporarily plugged and permanently plugged and abandoned** 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 **appropriate mitigation** 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.

(33a) A harmonised approach requires standardised specifications to identify or detect methane releases using different instruments and technologies and which may be based or set by means of European standards or, in the absence of such standards, International standards. In the absence of suitable European standards, the Commission should consider requesting the relevant European standardisation organisations to adopt such standards in accordance with Regulation (EU) No 1025/2012 of the European Parliament and of the Council. The Commission should thus be empowered to adopt delegated acts for the purpose of establishing such ~~*methodologies and procedures*~~ **specifications.**

(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*~~ **impose changes in LDAR programme such as** 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*~~; **I** ~~*i*~~n 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 **devices**. Where appropriate, continuous monitoring may be used in the context of this Regulation.

(34a) Repair or replacement should take place immediately after detection or as soon as possible thereafter. Albeit the need to consider exceptional safety, administrative and technical aspects, the necessary evidence to justify any delays in repair should be provided. Moreover, 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.

(34b) Small connected systems as defined in Directive (EU) 2019/944 may face security of supply and grid stability issues in the case of a system shutdown. Therefore, to avoid such risks for the security of supply, repair or replacement works should be carried out when the next shutdown is scheduled.

~~*(34a) It is in the interest of the functioning of the internal market to have standards which have been harmonised at Union level. Once the reference to such a standard has been published in the Official Journal of the European Union, compliance with it should raise a presumption of conformity with the corresponding requirements set out in the implementing measure adopted on the basis of this Regulation, although other means of demonstrating such conformity should be permitted. In line with Article 10 of Regulation 1025/2012, the European Commission can request European standardisation organisations to develop technical specifications, European standards and harmonised European standards. One of the main roles of standards should be to help operators in applying the implementing measures adopted under this Regulation*~~

(35) ~~*Venting consists of*~~**is** ~~*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 **and strictly necessary**. **To ensure that operators do not use equipment designed to vent, technology standards should be adopted that allow for the use of lower-emitting alternatives.**

(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 **and gas** ~~*or fossil gas and as a result of insufficient*~~ **in the absence of sufficient** facilities or amenable geology to re-inject **the produced gas** ~~*methane*~~*,* utilise it on-site, or dispatch it to a market, **flaring** ~~*it*~~ is considered **as** 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 **which has a lower global warming potential**.

(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 **an auto-igniter or** 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 **annually** 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*~~ **European standards or, in the absence of such standards, International standards. In the absence of suitable European standards, the Commission should consider requesting the relevant European standardisation organisations to adopt standards in accordance with Regulation (EU) No 1025/2012 of the European Parliament and of the Council. The Commission should thus be empowered to adopt delegated acts for the purpose of incorporating and setting out the applicability of such standards**.

(40) Methane emissions from inactive, **temporarily plugged and permanently plugged and abandoned** oil and gas wells pose public health, safety and environmental risks. Therefore, monitoring**, including quantification and pressure monitoring, where such monitoring equipment exists on wellheads,** 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.

(40a) The number of inactive wells, temporarily plugged wells and permanently plugged and abandoned wells located on the territory of the Member States vary significantly, with some Member States having a very high density of these wells on their territories. Those Member States with very high number of wells located on their territory should therefore be allowed to apply a more gradual approach to fulfilling obligations regarding the establishment of inventories of all of inactive wells, temporarily plugged wells and permanently plugged and abandoned wells and their updates on their territory or under their jurisdiction in order to ensure the proportionality of the costs and administrative burden associated with the inventory of these wells.

(40b) **Operators or, where appropriate, licensees or owners, should reduce the methane leaks from wells to as low as reasonably practicable levels, meaning to the point where the cost of further leak reduction would be grossly disproportionate to the benefits of such reduction in curbing methane emissions to the atmosphere. The reasonable practicability of leak reduction measures should be kept under review in the light of new knowledge and technology developments. In assessing whether the time, cost and effort would be grossly disproportionate to the benefits of further reducing methane leaks, regard should be had to best practice compatible with the repair operations being considered, as well as the overall efforts that can be taken at Union level to reduce methane leaks from other sources in the energy sector.**

(40c) **It follows from available scientific data that the potential of methane leakage from offshore wells to reach the surface decreases with water depth, and that deeper leakage has less potential to reach the atmosphere since it is absorbed or oxidised as it ascends the water column. Research surveys suggest that methane does not reach the surface from water depths greater than 150m under normal circumstances. However, in specific circumstances such as blow-out accidents during oil and gas operations, presence of oil leaks or hydrates, methane may reach the atmosphere to some degree even from greater depths. The environmental impact assessments conducted before drilling can indicate such situations where methane can leak to the atmosphere, or such conditions can arise accidentally during operations. Considering that the resources necessary to survey and intervene in offshore wells are higher in comparison to onshore wells and other parts of the energy sector, and that these resources increase with increasing water depth and distance from shore, exemptions from the obligations under this regulation should be considered for offshore wells located at water depth between 200 meters and 700 meters, unless there is a documented risk of migration of methane leaks to the atmosphere .**

(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[13].

(43) Methane emissions are primarily linked to underground mining activities, both in active and abandoned mines[14]. 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.

13 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)

14 (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

(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[15]. Moreover, treatment of AMM remains fragmented due to different ownership and exploitation rights **and obligations** across the EU. Member States should thus establish inventories of closed and abandoned ~~*coal assets*~~ **underground coal** ~~*assets*~~ **mines where operations have ceased since …** ***[50 years prior to the date of entry into force of this Regulation]*** and, either them or the identified responsible party, should be required to install devices for measurement of methane emissions.

15 (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

(45) Operating surface coal mines in the Union produce lignite and emit less methane than underground coal mines. **Lignite mines in the EU are predominantly opencast surface mines, with the exception of one lignite underground mine in one Member State**. According to the Union GHG inventory, in 2019 operating surface mines emitted 166 kilotonnes compared to 828 kilotonnes for underground coal mines[16]. Measurement of surface coal mine methane emissions is challenging due to their diffuse nature over a wide area. Therefore, and despite available technology[17], emissions from surface mines are rarely measured. Methane emissions from surface mines can be derived using basin-specific coal emission factors[18] and, with greater precision, using mine- or deposit-specific emission factors, since coal basins have deposits with different methane-bearing capacity[19]. Emission factors can be derived from measuring gas content of the seams sampled from exploration borehole cores[20]. Mine operators should thus perform ~~*measurements*~~ **quantification** 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.

16 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

17 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)

18 2006 IPCC guidelines for national greenhouse gas inventories.

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

20 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)

(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) **Operating** ~~*U*~~ **u**nderground 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. **Mitigation of methane emissions should be implemented through a phase out of venting and flaring.**

(49) ~~*For operating underground coal mines, mitigation of methane emissions should be implemented through a phase out of venting and flaring. For c*~~ **C**losed or abandoned underground coal mines **should be subject to measuring, reporting and verification of methane emissions. For mitigation of methane emissions in those 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[21], Member States should establish their own mitigation plan, taking into consideration those constraints and the technical feasibility of AMM mitigation.

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

~~(50) Following a Commission proposal, on 28 June 2021, the Council adopted the new legal base of the Research Fund for Coal and Steel[22] which foresees support for 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 **operators importing fossil energy to the Union** ~~exporters~~ are not subject to any regulations in **the country of origin of this energy**~~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.

~~22 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 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.~~

(53) Currently there is limited accurate data (UNFCCC Tier 3 or equivalent) on international methane emissions. Many countries exporting fossil energy *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[23].

(54) As announced in the Communication on the EU Methane Strategy[24], 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[25].

23 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.
24 COM(2020) 663 final
25 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[26]. 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.

~~26 COM(2020) 663 final~~

(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**s global** 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 **methane transparency database and the methane emitters global monitoring tool** ~~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 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.

(61a) To ensure a harmonised approach based on common specification, the Commission should be empowered to adopt delegated acts that comply with the requirements of this regulation and avoid redundancy with existing suitable European standards. In the absence of such suitable European standards, the Commission should consider requesting the relevant European standardisation organisations to adopt such standards in accordance with Regulation (EU) No 1025/2012 of the European Parliament and of the Council.

(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**, impact on human safety and public health**. 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*[27] *and (EU) 2018/1725 of the European Parliament and the Council*[28]~~**subject to compliance with Union law on the protection of personal data where the penalties are imposed on natural persons**.

~~*27 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).*~~

~~*28 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).*~~

(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[29] 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, **monitoring,** reporting, **verification** and abatement of methane emissions for comparable projects.

(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.

29 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).

(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[30].

(66a) In order to fulfil the objectives of this Regulation and to contribute to the goal set out in the Global Methane Pledge to reduce global methane emissions by 30% until 2030, the European Union should consider extending the requirements set out in this Regulation to imports from third countries. By [*12 months after the date of entry into force of this Regulation*], the European Commission should submit to the European Parliament and the Council a report on the implications of a possible extension of the requirements under this Regulation to the energy supply chain and production of fossil fuels imported into the Union. When preparing the report, the European Commission should put particular focus on the methane mitigation potential, consequences for energy prices, security of energy supply and availability of energy resources on the EU market.

(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, **monitoring,** 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,

30 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).

HAVE ADOPTED THIS REGULATION:

Chapter 1

General Provisions

Article 1

Subject matter and scope

1. This Regulation lays down rules for the accurate measurement, **quantification, monitoring**, reporting and verification of methane emissions in the energy sector in the Union, as well as the abatement of those emissions, including through leak detection and repair surveys**, repair obligations** 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, **including inactive wells, temporarily plugged wells, permanently plugged and abandoned wells, and** fossil gas gathering and processing;

(b) **fossil and/or renewable** gas transmission, distribution **(excluding** ~~*ept*~~ **metering systems at final consumption points and service lines between the distribution network and metering system),** underground storage and ~~*liquid*~~ **liquefied** gas ~~*(LNG)*~~ terminals ~~*operating with fossil and/or renewable (bio-or synthetic) methane;*~~

(c) operating underground and surface coal mines, closed **underground coal mines** 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;

(1a) 'transmission' means transmission as defined in point (3) of Article 2 of Directive 2009/73/EC of the European Parliament and of the Council[31] [*to be adapted as per ongoing recast proposal*];

(2) 'transmission system operator' **means transmission system operator as defined in point (4) of** ~~*has the meaning attributed to it by* [~~Article 2~~*(4)*~~ of Directive 2009/73/EC of the European Parliament and of the Council[32]~~]~~ [*to be adapted as per ongoing recast* proposal];

(2a) 'distribution' means distribution as defined in point (5) of Article 2 of Directive 2009/73/EC [*to be adapted as per ongoing recast proposal*];

(3) 'distribution system operator' **means distribution system operator as defined in point (6) of** ~~*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;

31 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).

32 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).

(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;

(5a) ‘component’ means any part or element of equipment used in oil or gas sites or infrastructure that could be the source of fugitive emissions or venting of methane, including but not limited to, valves, connectors and flanges, open-ended lines, pressure release valves, thief hatches, walls of vessels or ~~*pipes*~~ aboveground or underground pipelines;

(5b) ‘site’ means a collection of components with some relation to one another as a subdivision of an asset, including but not limited to a production battery, compressor station, processing plant, transmission station, pipeline segment, a pipeline network, or a liquefaction plant;

(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;

(7a) ‘quantification’ means operations to determine the quantity of methane emissions, based on direct measurements and ~~only~~ where those are not feasible, based *on* ~~*a combination of direct measurements and*~~ other methods such as simulation tools and other detailed engineering calculations or a combination of such methods.

(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 **of** activity, which is ~~*often*~~ **either** based on a sample of measurement data **or other methods such as simulation tools and detailed engineering calculations**, 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 **measurement** - of the methane emission at source-level with ~~*a methane*~~ measuring **devices allowing to obtain credible estimates of parameters needed for the quantification of methane emission rates** ~~*device*~~*;*

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

(15) ‘site-level measurement’ means a ~~*top-down*~~ measurement **that captures a complete overview of the emissions occurring across an entire site,** ~~or in the case of~~ **including, for a pipeline network,** ~~the~~ **emissions from segments of such a network,** 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*~~ **activities**: ~~upstream~~ oil and fossil gas ~~*exploitation,*~~ exploration and production, fossil gas gathering and processing and gas transmission, distribution and underground storage, including ~~*LNG*~~ **with regard to liquified gas** ~~*terminals*~~;

(17) 'leak detection and repair survey' means a survey to identify ~~*sources of methane emissions, including*~~ **and detect sources of methane** leaks and **other** unintentional **methane emissions**~~*venting;*~~

(17a) '~~remote~~**Type 1** ~~*LDAR*~~**leak detection and repair survey' means a leak detection and repair survey undertaken with a minimum detection limit and a minimum leak threshold of 7000 parts per million or** ~~[~~**17**~~]~~ **grams per hour**~~ and a minimum leak threshold of [17] grams per hour~~**;**

(17b) '~~contact~~**Type 2** ~~*LDAR*~~**leak detection and repair survey' means a leak detection and repair survey undertaken with a minimum detection limit of** ~~[~~**10**~~]~~ **parts per million or** ~~[8.3~~**0.15**~~]~~ ~~milli~~**grams per hour and a minimum leak threshold of** ~~[~~**500**~~]~~ **parts per million or** ~~[0.15~~**1**~~]~~ **gram**~~s~~ **per hour for aboveground components, minimum detection limit and a minimum leak threshold of 3000 parts per million or 5 grams/hour for underground components and for offshore components above the sea level and minimum detection limit and a minimum leak threshold of 7000 parts per million or 17 grams/hour for offshore components below the sea level and below the seabed;**

(17c) 'Production location' means a location where fossil gas or oil is extracted from the underground and where no treatment takes place;

(17d) 'Processing' means processes which are used to treat fossil gas and oil, such as the separation of fossil gas and oil from production water;

(17e) 'Leak detection rate' means the relative number of leakages detected by performing type 2 LDAR survey over all components that can possibly leak in a given period.

(17f~~ca~~**) 'shutdown' means a situation where a** ~~*system*~~**site or part of its components is shut down from normal operating conditions and where complete or partial pressure reduction is required prior to initiating repair and maintenance works;**

(18) ‘venting’ means the **direct** 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;

(23a) ‘destruction and removal efficiency’ means the mass percentage of methane that is destroyed or removed after the combustion has ceased relative to the quantity of methane entering the flare;

(24) ‘Inactive well’ means an **exploration or production** oil or gas well or well site**, onshore or offshore,** where operations for exploration or production have ceased for at least one year. **It** ~~*shall*~~ **does not include temporarily plugged wells, permanently plugged and abandoned wells, as defined in this Regulation**~~*, nor wells drilled in order to establish the existence of a possible hydrocarbons deposit or to acquire information in order to delimit an established deposit, provided no deposit was found to exist.*~~**;**

(24a) ‘Permanently plugged and abandoned well’ means an oil or gas well or well site, onshore or offshore, which has been plugged and will not be re-entered, where all installations associated with the well have been removed and operations have been terminated in accordance with regulatory requirements and where documentation adequate to demonstrate that there are no methane emissions from that well or well site can be provided as established in Annex IV~~.~~**;**

(24b) ‘Temporarily plugged well’ means an oil or gas well or well site, onshore or offshore, where ~~*primary and secondary*~~ **well barriers have been installed** ~~*to isolate all potential flow zones exposed by the well*~~ **and where a wellhead is still installed and access to the well is still provided for;**

(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 significant~~*ly mineable*~~ **concentrations and** quantities of coal, defined according to the Member State’s methodology on documenting geological mineral deposits;

(38) ‘closed coal mine’ means a coal mine ~~which~~**where coal production has ceased and is not expected to occur in the future** ~~is no longer in operation but~~**, which is closed pursuant to the applicable licensing requirements or other regulations and for which an**~~*with an identified*~~ operator, owner or licensee **has still an active permit** ~~*and closed according to the applicable licensing requirements or other regulations;*~~

(39) ‘abandoned coal mine’ means a coal mine **where coal production has ceased** ~~*which is no longer in operation where*~~ **but for which** an operator, owner or licensee cannot be identified **as subject to the obligations under an active permit**, or that has not been closed in a regulated manner;

(39aa) ‘alternative use of an abandoned coal mine’ means the use of the subsurface mine infrastructure and coal mining equipment for purposes other than coal production, including the development of geothermal and heat storage projects in flooded mines, and hydropower applications in non-flooded mines.

(39a) ‘coal mining equipment in closed or abandoned coal mine’ means any equipment that remains linked to the methane-bearing strata, including but not limited to gob vents and drainage pipes~~.~~;

(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[33];

(41) 'importer' means a natural or legal person ~~*established in the Union*~~ who, in the course of a commercial activity, places ~~*fossil energy*~~ **gas, oil or coal** from a third country on the Union market~~*. It includes a*~~ **including any natural or legal person established in the Union** ~~*who has been*~~ **appointed** ~~*by an importer*~~ **to carry out acts and formalities required under Chapter 5 of this Regulation.**

(42) 'European standard' means a standard as defined in point (b) of point 1 of Article 2 of Regulation (EU) No 1025/2012;

(43) 'International standard' means a standard as defined in point (a) of point 1 of Article 2 of Regulation (EU) No 1025/2012;

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 **are efficiently and transparently incurred.** ~~*correspond to those of an efficient and structurally comparable regulated operator.*~~ **The unit investment costs referred to in paragraph 2 may be used by the regulatory authorities to benchmark the costs incurred by the operators.**

33 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)

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, **monitoring,** reporting**, verification** and abatement of methane emissions for comparable projects. **The relevant regulatory authorities and the regulated operators shall provide ACER with all the data necessary for that comparison.**

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*~~ ~~*9*~~**6** *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 **this Regulation in accordance with the tasks specifically attributed to them therein** ~~*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*~~ **sites,** the presentation of documentation or records **and, in case the site is located offshore, transport to or from the site**.

3. The competent authorities shall cooperate with each other and with the Commission and as necessary **may cooperate** with authorities of third countries, in order to ensure compliance with this Regulation. The Commission ~~*may*~~ **shall** set up a network of competent authorities to foster cooperation, with the necessary arrangements for exchanging information **on monitoring, regulating and compliance** 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 **and** free of charge, on a designated website and in freely accessible, downloadable and **non-**editable **(read only)** format.

Where information is kept confidential in accordance with Article 4 of Directive 2003/4/EC **or where necessary under Union law on the protection of personal data**, 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 ~~*based on a risk assessment*~~ to check the compliance of operators or mine operators with the requirements set out in this Regulation. **Subject to paragraphs 2 and 3,** ~~*T*~~ **the competent authorities may decide on the scope and frequency of the periodic inspections, based on an assessment of risks associated with each site, such as environmental, human safety and public health risks, as well as any identified breaches of this Regulation.** The first inspection shall be completed by … [~~*18*~~ ***21*** *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 **with clear deadlines** to be undertaken by the operator or mine operator, as part of the report referred to in paragraph 5. **Alternatively, the competent authorities may decide to instruct the operator or mine operator to submit to their approval a set of remedial actions to address the breaches identified within one month from the conclusion of the inspection. Those actions shall be included in 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 **based on a risk assessment**. The period between inspections shall be based on an appraisal of the environmental risk**, human safety and public health risks** and shall not exceed ~~*two*~~ **five** 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. **Without prejudice to periodic inspections,** ~~*T*~~**t**he 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, **where deemed relevant by the competent authorities**, that leak repairs or replacements of components were carried out in accordance with Article 14 **and that mitigation measures were implemented in accordance with Articles 18, 22 and 26**.

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**s** by the operator or mine operator. **Where appropriate, the competent authorities may prepare one report covering multiple inspections of components, assets or sites of the same operator or mine operator provided such inspections are done in the same inspection period.**

The report shall be notified to the operator **or mine 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*~~ **subject to Article 7 of** Directive 2003/4/EC. Where information ~~*is kept confidential*~~ **falls under an exception** 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. Member States may enter into formal agreements with appropriate Union agencies or other suitable bodies where available for the provision of specialist expertise to support the competent authority in carrying out the functions attributed to them by this article. For the purposes of this paragraph a body shall not be deemed suitable where its objectivity may be compromised by a conflict~~s~~ of interest.

~~*7*~~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.*~~ **Where the inspection report referred to in paragraph 5 concludes that the operators or mine operators do not comply with the requirements of this Regulation, operators and mine operators shall take all the necessary actions to bring their operations into compliance with the Regulation. The actions shall be taken 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 **on a possible breach of the requirements of this Regulation by operators or mine operators.**

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. **This paragraph shall not apply where complaints that are not sufficiently substantiated are repeatedly lodged and for that reason deemed abusive by the competent authorities.**

4. Without prejudice to the rules applicable pursuant to national law **and paragraph 3**, 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 **in** 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*~~ **the specifications** for methane emissions **measurement,** quantification ~~*as made applicable by the Commission*~~ **and mitigation established** in accordance with ~~paragraph 5~~**Article 29a**. 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. Where no international or European standards are available methodologies*~~ **specifications are established, operators or mine operators shall provide information to the verifiers on the relevant standards or methodologies** used by the operators**, for the purpose of verification activities.**

   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 **provide reasoned feedback to the operator or the mine operator in light of recognized standards. T**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*~~ **sites** 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 or authorisation 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**, that are legal persons** shall be accredited by a national accreditation body pursuant to Regulation (EC) No 765/2008.

2a. For the purposes of this Regulation, the ~~*national accreditation body*~~ **accreditation of verifiers shall be carried** ~~*y*~~ **out** ~~*its functions*~~ **in accordance with** ~~*the relevant harmonised standard pursuant*~~ ~~to~~ **Regulation (EC) No 765/2008** ~~*applicable to conformity assessment bodies*~~**.**

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.

3a. Member State may decide to authorise verifiers that are natural persons for the purpose of this Regulation. The authorisation of those verifiers shall be entrusted to a national authority other than the national accreditation body appointed pursuant to Article 4(1) of Regulation (EC) No 765/2008.

3b. Where a Member State decides to use the option laid down in paragraph 3a, it shall ensure that the national authority concerned meets the requirements of this Regulation and provides the Commission and the other Member States with all the documentary evidence necessary for the verification of the competence of the verifiers it authorises under paragraph 3a ~~*required documentary evidence in accordance with Article 5(2) of Regulation (EC) No 765/2008*~~**.**

Article 10

Use and sharing of information ~~*and efficient exchange of data International Methane Emissions Observatory*~~

1. ~~*Provided the interest of the Union is protected,*~~ **In performing their obligations and exercising their powers under this Regulation, verifiers, the competent authorities and the Commission shall consider relevant internationally available ~~the~~ information** ~~*made available by 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:*~~**, in particular with regards to the following:**

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

   (b) ~~*verification*~~ **validation** 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~~, *contributing to build more robust scientific methodologies*~~**.**

2. The Commission may submit **publicly available** 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 **within the ~~E~~ Union** referred to in points (a) and (b) of Article 1(2).

Article 12

Monitoring and reporting

1. By … [*18~~2~~ months from the date of entry into force of this Regulation)*], operators shall submit a report to the competent authorities containing **the quantification of** source-level methane emissions estimated using **at least** generic ~~*but source-specific*~~ emission factors for all sources. **Operators may choose to submit at that stage a report according to the requirements in paragraph 2.**

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*~~ **quantification** 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*~~ **quantification.**

3. By … [*36 months from the date of entry into force of this Regulation*] and by ~~*30 March*~~ **31 May** every year thereafter, operators shall submit a report to the competent authorities containing ~~*direct measurements*~~ **quantification** of source-level methane emissions for operated assets referred to in paragraph 2, complemented by measurements of site-level methane emissions, thereby ~~allowing~~ **improving the** 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 **of the Member State where the asset is located** containing ~~*direct measurements*~~ **quantification** of source-level methane emissions for non-operated assets **provided these have not already been reported by an operator in response to the obligation under paragraph 2**. 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*~~ **31 May** every year thereafter, undertakings established in the Union shall submit a report to the competent authorities **of the Member State where the asset is located** containing ~~*direct measurements*~~ **quantification** of source-level methane emissions for non-operated assets as set out in paragraph 4**, provided these have not already been reported by an operator in response to the obligation under paragraph 3** 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 **taking into account Common Reporting Tables ("CRT") for the electronic reporting of greenhouse gas emissions under the UNFCCC** ~~*the national inventory reports already in place*~~ **and the latest** ~~*OGMP 2.0*~~ **technical guidance documents and reporting templates of the Oil and Gas Methane Partnership ('OGMP')**. Those implementing acts shall be adopted in accordance with the procedure referred to in Article 32(2). ~~[~~**Until the adoption of the relevant implementing acts, operators** ~~shall~~ **may use the latest OGMP technical guidance documents and reporting templates** ~~of the *Oil and Gas Methane Partnership* *OGMP 2.0*~~**, for upstream and for mid and downstream operations, as applicable.**~~]~~

7. For site-level measurements referred to in paragraphs 3 and 5, ~~*appropriate* *quantification* best available~~ **appropriate quantification** technologies shall be used**, taking into account net economic and environmental benefits.** ~~*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.* *O*~~ **operators or undertakings, as applicable, shall provide justification for the discrepancy. Where the discrepancy is not due to the uncertainty of the quantification technology used, the competent authority** ~~*ies*~~ **may request an additional measurement within** ~~the same reporting~~ **a reasonable period of maximum 6 months as set by that** ~~*e*~~ **competent authority.**

9. Methane emissions **direct** measurements **or quantification** for gas infrastructure shall be conducted ~~*according to appropriate European (CEN) or international (ISO) standards for methane emissions quantification*~~ **using the specifications established in accordance with Article** ~~[xx~~**29a**~~]~~**. Until such methodologies are established, best practices established in the context of measurement campaigns co-funded by the Union or the United Nations Environmental Programme may** ~~also~~ **guide operators in performing source level measurements**.

10. Where information is kept confidential in accordance with Directive (EU) 2016/943 **of the European Parliament and of the Council** ~~*of the European Parliament and of the Council*~~[34], 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).

Article 13

General mitigation obligation

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

34 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 14

Leak detection and repair

1. By … [~~*36*~~ ***9*** *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*~~ **contents of the surveys and activities, including specific timelines,** to be carried out in accordance with the requirements in this Article**, Parts 1 and 2 of Annex I and the relevant** ~~standards~~ **specifications established pursuant to Article 29a(1). If any changes to the leak detection and repair programme are made,** ~~the~~ **operators shall re-submit the programme to the competent authorities as soon as possible.**

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

2. By … [~~*6*~~***12*** *months from the date of entry into force of this Regulation*], operators shall ~~*carry out*~~ **initiate** a **type 2 leak detection and repair** survey of all ~~*relevant*~~ components under their responsibility in accordance with the leak detection and repair programme referred in paragraph 1.

   Thereafter, ~~*remote*~~ **type 1 and** ~~*contact*~~ **type 2** leak detection and repair surveys shall be ~~*repeated every [three months].*~~ **carried-out with frequencies as follows:**

   (a) For aboveground and underground components excluding distribution networks, ~~of compressor stations, of gas storages, of LNG terminals, of regulating and metering stations, of valve stations, for offshore components~~ ~~and~~ **for distribution networks <u>and for offshore components including under the seabed</u>: in accordance with the minimum frequencies set out in Part 1 of Annex I.**

   (b) For all other components: ~~*remote*~~ **type 1** ~~source-level~~ **leak detection and repair surveys shall be carried-out every** ~~*three*~~ **six months and** ~~*contact*~~ **type 2** ~~*source-level*~~ **leak detection and repair surveys shall be carried-out every** ~~nine~~**twelve months.**

~~*In lieu of, or in combination with leak detection and repair surveys, operators may use continuous monitoring systems, provided the competent authorities approve its use in the context of the leak detection and repair programme referred to in paragraph 1 and in accordance with the elements set out in Part 1 of Annex I.*~~

2a. Operators may choose, after the approval of competent authorities, to carry out a type 2 leak detection and repair survey instead of a type 1 leak detection and repair survey.

In lieu of, or in combination with leak detection and repair surveys, operators may use continuous monitoring systems, provided that:

a) the competent authorities approve its use in the context of the leak detection and repair programme referred to in paragraph 1;

b) the measurement is undertaken at the level of each individual potential emission source; and

c) ~~that~~ the continuous monitoring systems comply with the minimum ~~detection limits~~ values as set out in paragraphs 3 and 4 and in accordance with requirements set out in Part 2 of Annex I.

2aa (new). Where operators producing or processing fossil gas or oil provide evidence on the basis of measurements during the five preceeding years that less than 1 % of their components are leaking, different LDAR survey frequencies for components where no leaks were identified may be used, subject to the approval of the competent authorities and provided that:

a. For all components at processing locations, Type 1 LDAR surveys are performed at least every 12 months;

b. For at least 25% of all components at processing locations, Type 2 LDAR surveys are performed every 12 months, ensuring that all components are checked every 48 months;

c. For all components at production locations, Type 1 LDAR surveys are performed at least every 36 months;

d. For all components at production locations, Type 2 LDAR surveys are performed at least every 60 months.

If the number of leaks detected following the surveys performed in accordance with the first subparagraph exceeds 1 %, the operator shall be subject to obligations under paragraphs 2 and 2a.

3. In carrying out the ~~*periodic*~~ surveys ~~*or in using a continuous monitoring system,*~~ operators shall use ~~*measuring*~~ **detection** devices ~~*that allow detection of loss of methane from components*~~ **with a minimum detection limit** ~~*of*~~ **as follows:**

a~~i~~. for ~~*remote*~~ type 1 ~~*LDAR*~~ leak detection and repair surveys: ~~*500 parts per million[3/10] kg/h or [4200/10] l/h*~~ **7000 parts per million or** ~~[~~**17**~~]~~ **grams per hour of methane** at standard temperature and pressure ~~*or more, or any visible emission from a fugitive emissions component observed using optical gas imaging*~~**, in compliance with the manufacturer specifications for operation and maintenance;**

b~~ii~~. for ~~contact~~**type 2** ~~*LDAR*~~ **leak detection and repair surveys:**

i. 10 parts per million or ~~8.3~~ **0.15** ~~milli~~**grams/hour of methane for aboveground components;**

ii. ~~[~~**3000**~~]~~ **parts per million or** ~~[~~**5**~~]~~ **grams/hour of methane for underground components and offshore components above the sea level;**

iii. ~~[~~**7000**~~]~~ **parts per million or** ~~[~~**17**~~]~~ **grams per hour for offshore components below the sea level and below the seabed at standard temperature and pressure in compliance with the manufacturer specifications for operation and maintenance**.

4. Operators shall repair or replace all components found to be emitting ~~during~~**at least**:

a.~~i.~~ ~~remote~~**type 1** ~~*LDAR*~~ **leak detection and repair survey:** ~~*500 parts per million[3] kg/h or [4200] l/h*~~ ~~[~~**7000**~~]~~ **parts per million or** ~~[~~**17**~~]~~ **grams per hour** or more of methane at standard temperature and pressure**;**

b.~~ii.~~ ~~contact~~**type 2** ~~*LDAR*~~ **leak detection and repair surveys:**

i. ~~[~~**500**~~]~~ **parts per million or** ~~[0.15~~**1**~~]~~ **grams per hour or more of methane for aboveground components;**

ii. ~~[~~**3000**~~]~~ **parts per million or** ~~[~~**5**~~]~~ **grams per hour of methane for underground components and for offshore components above the seal level;**

iii. ~~[~~**7000**~~]~~ **parts per million or** ~~[~~**17**~~]~~ **grams per hour for offshore components below the sea level and below the seabed at standard temperature and pressure**.

4a. The repair or replacement of the components referred to in the ~~first sub~~paragraph **4** shall take place immediately after detection, or as soon as possible thereafter but no later than five days **for a first attempt and 30 days for a complete repair**, after detection**. The operators shall prioritize repairs of larger leaks.**

~~*provided o Operators can shall demonstrate that safety or technical considerations do not allow*~~ ~~if~~**Where the repair or replacement is not successful or possible within five days for a first attempt or if the operator anticipates that a complete repair shall not be possible within 30 days due to safety, administrative, or technical considerations, the operator shall provide evidence thereof and shall establish a repair schedule as set out** ~~in Part 3~~ **in Annex Ia no later than** ~~[~~**15**~~]~~ **days after leak detection.** ~~*immediate action and provided operators establish*~~ ~~a~~**The** repair ~~*and monitoring*~~ schedule **shall include all the necessary evidence justifying such a decision to delay repair. The repair schedule shall guarantee that the environmental impact is minimized, while respecting safety, administrative, and technical considerations. The competent authorities may require the operator to amend the repair schedule taking into account the requirements of this Regulation. The repair or replacement shall** ~~*not take longer than [3 months]*~~**be carried out as soon as possible.**

Safety**, administrative** and technical considerations ~~*that do not allow immediate action*~~*,* as referred to in the ~~*second first*~~ **second** subparagraph, shall be limited to taking into account safety to personnel and humans in proximity, **scheduled maintenance, unavailability of components necessary for the repair or replacement,** environmental impacts, **significant deterioration of the gas supply situation likely to lead to a situation as established in Article 11(1) of Regulation (EU) 2017/1938[35], permitting process~~es~~ requirements or required administrative authorization,** ~~*concentration of methane loss*~~*,* accessibility to component, availability of ~~*replacement*~~ **parts necessary for repair** of the component. Environmental impact considerations may include instances whereby repair could lead to a higher level of ~~*methane greenhouse gas*~~ **methane** emissions than in the absence of the repair.

4b. Where a ~~*system*~~ shutdown is required before the repair or replacement can be undertaken, operators shall **attempt to** 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**, unless carrying out an earlier repair** ~~would~~ **could reasonably be expected to lead to a worse environmental outcome in terms of emissions, that is a situation whereby the amount of methane** ~~*inevitably*~~ **vented during repair operations would very likely be significantly higher than the amount of methane that would leak in the absence of a repair; or unless carrying out an earlier repair could reasonably be expected to lead to security of supply issues in small connected systems as defined in Directive (EU) 2019/944**. ~~*Such action shall be included in the repair and monitoring schedule set out in Part 2 of Annex I and shall be approved by the competent authorities.*~~ **All the necessary evidence justifying the decision to delay repair shall be without any delay provided to the competent authorities. Decisions to delay repair shall require approval** ~~of~~**by the competent authorities before being carried out and shall be included in the repair schedule set out in** ~~Part 3 of~~ **Annex Ia. The competent authorities may require the operator to amend the repair schedule taking into account the requirements of this Regulation.**

35 Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010 (OJ L 280, 28.10.2017, p. 1–56)

5. Notwithstanding paragraph 2, operators shall survey components that were found to be emitting**:**

   a. ~~*500 parts per million [3] kg/h or [4200] l/h or more of methane*~~ **at levels of methane equal to or higher than the thresholds in paragraph 4 at standard temperature and pressure** 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*~~ **two months thereafter** to ensure that the repair was successful**; and**~~.~~

   b. ~~*Notwithstanding paragraph 2, operators shall survey components that were found to be emitting*~~ ~~below *500 parts per million*[3] kg/h or [4200] l/h of methane~~ **at levels of methane** ~~equal to or higher~~ **lower than the thresholds in paragraph 4 at standard temperature and pressure**, 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*~~ **periodically** survey them ~~*to*~~ **and** 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 three months after each survey*~~ **Every six months**, ~~*or every three months if using a continuous monitoring system*~~ operators shall submit a**ll monitoring** report**s** with the results of ~~the~~ survey**s completed during the previous six months** ~~*summarizing the leaks that could not be repaired and the corresponding and a repair and monitoring schedule*~~ to the competent authorities of the Member State where the relevant assets are located. The **monitoring** report shall include at least the elements set out in ~~Part 23 of~~ Annex I**a**.

   The competent authorities may require the operator to amend the **monitoring** 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 **and for operators** with respect to the surveys.

~~*10. The Commission [may/shall] issue a mandate to the European standardisation body concerned to establish technical specifications, European standards or harmonised European standards on leak detection and repair instruments and methodologies.*~~

~~*Harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union shall be presumed to be in conformity with the requirements referred to in this Article.*~~

10a. Without prejudice to the provisions of Directive 2013/30/EU and Directive 2008/56/EC, offshore oil and gas wells located at a depth greater than ~~[10~~**700 meters**~~]~~ **shall be**~~are~~ **exempt from the obligations under this Article.**

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 **and flaring** 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, **construction,** repair, maintenance, **decommissioning** or testing of components or equipment and subject to the reporting obligations set out in Article 16.

3. Venting **and flaring** under point (b) of paragraph 2 shall include the following specific situations where venting **or flaring, as applicable,** cannot be completely eliminated:

(a) during normal operations of ~~certain~~ components **designed to vent, including but not limited to pneumatic controllers and pumps, compressors, atmospheric pressure storage tanks, sampling for measurement devices and dry gas seals**, provided that the equipment meets ~~*all the specified equipment standards and it is properly maintained and regularly inspected to minimise methane losses*~~ **the standards set out in** ~~*accordance with [relevant Article]*~~ **the delegated acts referred to in Article 29a (2);**

(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**, provided that the tank or vessel meets the standards set out in** ~~*accordance with [relevant Article]*~~ **the delegated acts referred to in Article 29a (2);**

(d) during loading out liquids from a storage tank or other low-pressure vessel to a transport vehicle ~~*in compliance with applicable standards* ,~~ **provided that the tank or vessel meets the standards set out in** ~~*accordance with [relevant Article]*~~ **the delegated acts referred to in Article 29a (2);**

(e) during repair**,** ~~*and*~~ maintenance **and decommissioning**, 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**, decommissioning** 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 **or leads to a worse environmental outcome in terms of emissions,** ~~*that is a situation whereby the amount of greenhouse gas emissions from methane flared would very likely be higher than the amount from methane vented*~~**.** In such a situation, as part of the reporting obligations set out in Article 16, operators shall ~~*demonstrate*~~ **provide evidence** to the competent authorities **of** the necessity to opt for venting instead of flaring **and shall** ~~*require approval by*~~ **be notified to the competent authorities**.

5. **Where flaring is allowed pursuant to paragraphs 2 and 3, operators shall flare only** ~~*Flaring shall only be allowed*~~ where either re-injection, utilisation on-site**, storage for later use** 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**, storage for later use** or dispatch of the methane to a market.

6. Where a site is built, replaced or refurbished in whole, operators shall utilise only zero-emitting controllers and pumps. Where a site is replaced or refurbished in part, operators shall utilise in said part only zero-emitting controllers and pumps.

7. Where the implementation of this Article requires a permitting process or otherwise administrative approval from the relevant authorities or where the unavailability of equipment causes an exceptional delay of the actions required for that implementation, operators shall provide the competent authorities with a schedule for that implementation. The schedule shall include sufficient evidence of the conditions laid down in this paragraph and the full implementation shall not exceed … [~~one~~ *two years from the date of entry into force of this Regulation*]. The competent authorities may require modifications of the schedule.

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; **or**

(b) lasting a total of 8 hours or more within a 24 hour period from a single event**, excluding controlled flaring that occurs during shutdowns, which shall be reported in the annual report**.

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**, in accordance with the elements set out in Annex II**.

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.*~~ **information on all venting and flaring referred to in paragraph 1 and in Article 15 in accordance with the elements set out in Annex II, as part of** ~~each~~ **the relevant report referred to in Article 12.**

~~*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*~~efficiency

1. Where a **site** ~~*facility*~~ is built, replaced or refurbished **in whole or in part**, or where new flare stacks or other combustion devices are installed, operators shall install ~~only~~ **only** combustion devices with an auto-igniter or continuous pilot and **at least 98%** ~~*a complete destruction*~~ **destruction and** removal efficiency ~~for hydrocarbons~~.

2. Operators shall ensure that all flare stacks or other combustion devices **used in normal operations** comply with the requirements of paragraph 1 by … [*18~~2~~ months from the date of entry into force of this Regulation*].

3. Operators shall conduct ~~*weekly*~~ **monthly** inspections of flare stacks in accordance with the elements set out in Annex III**, except for flares that are not used in normal operations, which operators shall inspect before each use.**

   ~~In~~As an alternative to monthly inspections of a flare stack, operators may use continuous monitoring devices on that flare stack, in accordance with the elements set out in Annex III.

4. **Where auto-igniters or continuous pilots are used, flame supervision equipment shall be used to continuously monitor the main flare flame or the pilot flame to ensure that venting does not occur due to a flame-out condition.**

Article 18

Inactive wells, temporarily plugged wells and permanently plugged and abandoned wells

~~1bis. This Article applies to all inactive wells, temporarily plugged wells and permanently plugged and abandoned wells where operations have ceased since … [70 years prior to the date of entry into force of this Regulation].~~

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 **recorded** inactive wells**, temporarily plugged wells and permanently plugged and abandoned wells** on their territory or under their jurisdiction**, where information on location exists or where location can be identified with all reasonable efforts**, including at least the elements set out in **Part 1 of** Annex IV.

1a. By derogation from paragraph 1, Member States with 40 000 or more inactive wells, temporarily plugged wells and permanently plugged and abandoned wells combined may adopt a plan for completing the inventory of all recorded inactive wells, temporarily plugged wells and permanently plugged and abandoned wells on their territory or under their jurisdiction, where information on location exists or where location can be identified with all reasonable efforts, including at least the elements set out in Part 1 of Annex IV. and make it publicly available, provided that:

(a) By [*12 months from the date of entry into force of this Regulation*], at least 20 % of these wells are included in the inventory prioritizing inactive and temporary plugged wells;

(b) By [*24 months from the date of entry into force of this Regulation*], at least 40 % of these wells are included in the inventory;

(c) Every 12 months thereafter at least an additional 15 % of these wells are included in the inventory;

(d) All wells are included into the inventory by [*72 months from the date of entry into force of this Regulation]* at the latest;

The plan shall be approved by the competent authorities.

~~*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.*~~

~~*Where five subsequent measurements [at yearly intervals] of inactive wells prove no methane emissions, they shall be considered emission-free and no further quantifications and reports will be required.*~~

~~3~~**2**. **Without prejudice to paragraph 3,** ~~R~~ **reports** containing ~~*the*~~ **information on** ~~*measurements or*~~ **quantification of methane emissions and, where such monitoring equipment exists on wellheads, pressure monitoring,** ~~*of methane emissions*~~ **from all inactive wells,** ~~and~~**and temporarily plugged wells** ~~*and wells that do not meet the requirements set out in paragraph 3, 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*~~**31 May** every year thereafter and cover the last available calendar year.

The reports set out in this Article shall include methane emissions to air and to water, as applicable, using the specifications established in accordance with Article 29a(1). Where operators or Member States report methane emissions ~~*to water*~~ **within the framework of international or regional agreements to which the Union or the relevant Member State is a party, the reports set out in this Article may include the information reported thereunder.**

Reports concerning inactive and temporarily plugged wells located in Member States with 40 000 or more inactive wells, temporarily plugged wells and permanently plugged and abandoned wells combined shall be submitted in accordance with this paragraph by 12 months after the inclusion of the wells in the inventory and updated at least every four years thereafter.

3. Where ~~[~~**five**~~]~~ **consecutive** ~~*measurements*~~ **quantification of methane emissions and, where such monitoring equipment exists on wellheads, pressure monitoring,** ~~*of methane emissions*~~ **from an onshore temporarily plugged well, at yearly intervals, prove no methane emissions,** ~~*this*~~ **paragraph 2 shall cease to apply to that well.**

Where ~~[~~two~~]~~ consecutive ~~*measurements*~~ quantification of methane emissions and ~~*pressure monitoring,*~~ where such monitoring equipment exists on wellheads, pressure monitoring, ~~of methane emissions~~ from an offshore inactive well or temporarily plugged well, made every two years, prove no methane emissions, ~~*this*~~ paragraph 2 shall cease to apply to that well.

4. **Where** ~~*an inactive well or a temporarily plugged well becomes a permanently plugged and abandoned well as defined in this Regulation, this paragraph shall cease to apply to it, unless, a third party provides*~~ **the competent authorities are provided with reliable evidence of material methane emissions in** ~~such well. In such case,~~ **a permanently plugged and abandoned well and when this evidence has been confirmed by a verifier, the obligations set out in this Article for temporarily plugged wells shall apply to that well. In that case, remediation, reclamation or plugging of that well shall be carried out by the responsible party, where technically feasible and only if the associated reduction of the above-mentioned material emissions cumulated over 100 years offsets the environmental impacts of the necessary works.**

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

~~4~~**6**. 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~~**7**. ~~*Member States shall be responsible for fulfilling the obligations laid down in paragraphs 2 and 3 to 4, except where a responsible party can be identified and can provide adequate financial assurance to fulfil those obligations, in which case that party shall bear responsibility.*~~ **Member States shall ensure fulfilling the obligations laid down in paragraphs 2 to 4 by the operators. Where a responsible party provides reliable evidence that it does not have adequate financial assurance to fulfil those obligations or where the responsible party cannot be identified, the Member State shall bear responsibility.**

~~6~~**8**. **By** … [**28**~~4~~ **months from the date of entry into force of this Regulation**]**,** Member States **or the responsible party, in accordance with paragraph 7,** shall develop ~~*and implement*~~ a mitigation plan to remediate, reclaim and permanently plug inactive wells **and temporarily plugged wells** ~~*located in their territory*~~ **including at least the elements set out in Part 2 of Annex IV and setting out an implementation period starting no later than 12 months after the first reports referred to in paragraph 2**.

Mitigation plans shall use the inventories referred to in paragraph 1 **and the reports referred to in paragraph 2** to determine priority for activities including:

(a) remediating, reclaiming and permanently plugging wells;

(b) reclaiming related access roads **or the surrounding soil under water, as applicable**;

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

(d) ~~*yearly*~~ **regular** checks to ensure ~~*plugged wells*~~ **temporarily plugged wells and, where deemed applicable, permanently plugged and abandoned wells** are no**t** ~~*longer*~~ a source of methane emissions.

9. Without prejudice to the provisions of Directive 2013/30/EU and Directive 2008/56/EC, offshore oil and gas wells located at a depth greater than [~~300~~10**700 meters] are exempt from the provisions obligations of this A**~~a~~**rticle.**

10. Without prejudice to the provisions of Directive 2013/30/EU and Directive 2008/56/EC, and subject to the approval of the competent authority, offshore wells located at water depth between 200 and 700 meters may be exempt from the obligations of this Article, where the operator demonstrates that during the environmental impact assessments conducted before drilling, or after accidents during operations, no possibility of migration of potential methane leaks to the atmosphere has been documented.

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 **and within the area of the mine**.

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 **and within the area of the mine**.

Article 20

Monitoring and reporting

1. For underground coal mines, mine operators shall perform continuous ~~*ventilation air methane emissions*~~ ***source*** **level direct** measurement ~~*or*~~ ~~*and*~~ **and** quantification on all exhaust ventilation shafts~~ *used by the*~~**.** ~~*mine*~~ **Mine** operator**s shall report to the competent authorities methane releases per ventilation shaft per year in kt of methane**, using **equipment and methodologies resulting in a measurement accuracy with a tolerance of** ~~[~~**+/- 5% of the reported amount**~~]~~ **or** ~~[~~**+/- 0.5 kt**~~]~~ **of methane**~~]~~ **whichever value is lower** ~~*apparatus with a methane concentration sensitivity threshold of at least 100 parts per million. They shall also take monthly sample-based source level measurements or quantification.~~.

2. Drainage stations operators shall perform continuous **source level direct** measurements ~~*or*~~ **and quantifications** of ~~*volumes*~~ **total releases** 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*~~ **using the specifications established in accordance with Article 29a(1). Until such** ~~*standards become available*~~ **specifications are established, best practices established in the context of measurement campaigns co-funded by the Union or the United Nations Environmental Programme may** ~~also~~ **guide operators in performing source level measurements.**

As regards continuous **source level direct** measurements ~~*or*~~ **and quantifications** 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 **source level direct** measurements ~~*or*~~ **and quantifications** 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 **and repairs**.

5. **Where relevant**, ~~M~~**m**ine 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*~~ **31 May** 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 station 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 f*~~ **F**laring **with a destruction and removal efficiency below 98% and venting** 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 **and venting in accordance with paragraph 2**. 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 5 tonnes of methane/kilotonne of coal mined, other than coking coal mines, shall be prohibited from 1 January 2027.** Venting of methane through ventilation shafts in coal mines emitting more than ~~0.5~~**3** tonnes of methane/kilotonne of coal mined, other than coking coal mines, shall be prohibited from 1 January **2031**~~27~~**. These thresholds shall apply per year per mine and per operator, if one entity operates several mines.**

3. By … [~~*three*~~ ***five*** *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*~~ **methane venting thresholds** 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 **events** and flaring events **with a destruction and removal efficiency below 98%**:

   (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 **closed and** abandoned ~~*and closed*~~ underground coal mines where coal production has been discontinued **since …** ***[50 years prior to the date of entry into force of this Regulation]***:

(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 **underground** coal mines in their territory or under their jurisdiction **where operations have ceased since … [*50 years prior to the date of entry into force of this Regulation*]**, in accordance with the methodology and including at least the elements set out in Part 1 of Annex VII.

2. **From** … [~~*18*~~ ***24 months from the date of entry into force of this Regulation***]**, methane emissions shall be measured in all closed and abandoned underground coal mines where operations have ceased since …** [***50 years prior to the date of entry into force of this Regulation***]**.** ~~m~~**Measurement equipment shall be installed on all elements listed in point (v) of Part 1**~~(v)~~ **of Annex VII which were found to emit above 0,5 tonnes of methane per year based on the inventory in Paragraph 1**. ~~*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 equipment shall perform ~~*Methane concentration*~~ **source level direct** measurements **or quantifications** ~~*shall be*~~ taken in accordance with **the specifications established in accordance with Article 29a** ~~appropriate scientific publicly available European and international standards~~ and at least on an hourly basis **and of sufficient quality to allow for a representative estimation of yearly methane emissions** from all elements listed in part 1(v~~i~~) of Annex VII which were found to emit methane. **Until such methodologies are established, publicly available European and international standards may be used.**

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

2a. If the observed annual methane release of an element listed in part 1(v) of Annex VII is below 1 tonne of methane for six consecutive years in the case of flooded mines or twelve consecutive years in the case of dry mines, no further monitoring and reporting shall be taken for that specific element.

3. Reports containing estimates of yearly source-level methane emissions data shall be submitted to the competent authorities by … [*24**6** months ~~of~~ **after** the date of entry into force of this Regulation*] and by *~~30 March~~* **31 May** every year thereafter.

   The reports shall cover the last available calendar year and include the elements set out in Part **2**~~*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 **or Member States** shall be responsible for the requirements referred to in paragraphs 2**, 2a** and 3 as regards closed mines. Member States shall be responsible for the requirements referred to in paragraphs 2**, 2a** and 3 as regards abandoned mines. **In case of alternative uses of abandoned mines, the permit holder shall be responsible for the requirements referred to in paragraphs 2, 2a and 3.**

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 **closed and** abandoned **underground** coal mines **where operations have ceased since … [*50 years prior to the date of entry into force of this Regulation*]**.

   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 **3** ~~*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*~~ **human safety, including that of the personnel, or public health**. 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.

3. Alternative use of abandoned coal mines shall be allowed following a permitting procedure adapted to the specific reuse of the abandoned coal mine. The permit applicant shall provide a detailed plan of measures to avoid methane emissions to competent authorities. The permit holder shall comply with the monitoring, reporting and mitigation obligations under Article 25 and Article 26.

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 3**0 June** ~~*1 December*~~ every year thereafter, importers shall provide the information set out in Annex VIII to the competent authorities of the importing Member State. **Where importers fail to provide the information set out in Annex VIII, in whole or in part, they shall demonstrate to the competent authorities of the importing Member State that all reasonable efforts have been undertaken to acquire the information.**

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

2. By … [*12 months from the date of entry into force of the Regulation*] and by 3**1 December** ~~*0 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 202**7** ~~*5*~~, 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~~**may** 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 **or quantification** ~~*or quantification*~~, 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~~**2**), 18(~~4~~**6**), 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 ~~or quantification~~, 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 **and whether they are part of any global methane reduction initiative**

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

~~2~~**3**. The transparency database shall be available to the public online, free of charge~~ and at least in English~~.

~~3~~**4**. 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*~~ **frequent** updates at least on the magnitude, recurrence and location of high methane-emitting sources of energy.

2. The tool shall ~~*inform*~~ **support** 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 29a

Methodologies and equipment standards

1. The Commission shall be empowered to adopt delegated acts in accordance with Article 31 to supplement this Regulation by setting the specifications applicable to:

(a) direct measurement and quantification of methane emissions in oil, gas and coal operations, for the purposes of Articles 8(2), 12(9), 18(2), 20(4) and 25(2);

(b) leak detection and repair surveys for the purposes of Article 14.

2. 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 standards for venting and flaring equipment, for the purposes of Article 15(3)(a), (c) and (d).

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 **and impact on human safety and public health.** ~~*, calculating the level of such fines.*~~ **The level of such fines shall be calculated** in such way as to make sure that they **at least** 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*~~ ***12*** *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*~~ **or** 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**s** 17**, 22 and 23**;

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

3a. Where the conditions set out in Article 15(7) are fulfilled, Member States shall consider reducing or not imposing penalties on operators for the implementation period deemed necessary by the national authorities.

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*~~ authorit~~y~~**ies**;

(h) the manner in which the infringement became known to ~~the~~ authorit~~y~~**ies**, in particular whether, and if so to what extent, the operator **or mine operator** timely notified the infringement;

(i) third party actions aggravating any breaches of this Regulation;

(~~i~~**j**) 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 **or mine 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) **and 29a(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. **By 2030 and e**~~E~~very five years **thereafter**, 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.

2a. By … [*12 months after the date of entry into force of this Regulation*] the Commission shall present a report to the European Parliament and the Council on the possibility to extend the obligations contained in this Regulation to imports from third countries from 2027 onwards, identifying potential barriers and proposing possible solutions with a view to reducing methane emissions, while not impacting energy prices and security of supply.

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**, after receiving input from Member States** shall establish and make publicly available a set of indicators and corresponding reference values for the comparison of unit investment costs linked to measurement **or quantification**, reporting**, venting and flaring,** 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

ANNEX I

~~*Leak detection r*~~ ~~*Repair and monitoring schedules*~~ **Leak detection and repair surveys**

Part 1

For all ~~*underground*~~ aboveground components, excluding distribution networks, referred to in Article 14(2)(a), leak detection and repair surveys as set out in Article 14 ~~*must*~~ shall be carried-out as per the following minimum frequencies:

Type of LDAR survey	**Type of component**	**Frequency**
~~*Remote*~~ **Type 1 LDAR survey**	**Compressor station** **Underground storage** **LNG-Terminal** **Regulating and metering station**	**6 months**
	Valve station	**12 months**
	Transmission pipeline	**24 months**
~~*Contact*~~ **Type 2 LDAR survey**	**Compressor station** **Underground storage** **LNG-Terminal** **Regulating and metering station**	**12 months**
	Valve station	**24 months**
	Transmission pipeline	**36 months**

For all underground components, excluding distribution networks, referred to in Article 14(2)(a), leak detection and repair surveys as set out in Article 14 shall be carried-out as per the following minimum frequencies:

Type of LDAR survey	**Type of material**	**Frequency of survey**
Type 1 LDAR survey	**Bitumen sheet** **Grey cast iron**	~~4~~ **3 months**
	~~Grey cast iron~~ **Asbestos** **Ductile cast iron**	**6 months**
	Non-protected steel ~~Polyethylene~~ ~~PVC~~ ~~protected steel (< = 16 bar)~~ **Copper**	**12 months**
	Polyethylene **PVC** **Protected steel**	**24 months**
Type 2 LDAR survey	**Bitumen sheet** **Grey cast iron**	~~8~~ **6 months**
	~~Grey cast iron~~ **Asbestos** **Ductile cast iron**	**12 months**

	Non-protected steel **Polyethylene** **PVC** ~~protected steel (< = 16 bar)~~ **Copper**	**24 months**
	Protected steel	**36 months**

For all ~~*underground*~~ components of distribution networks referred to in Article 14(2)(a), leak detection and repair surveys as set out in Article 14 shall be carried-out as per the following minimum frequencies:

Type of LDAR survey	**Type of material or component**	**Frequency of survey**
~~*Remote*~~ **Type 1 LDAR survey**	**Grey cast iron** **Bitumen sheet**	**3 months**
	~~Grey cast iron~~ **Asbestos** **Ductile cast iron** **Regulating and metering station**	**6 months**
	Non-protected steel ~~Polyethylene~~ ~~PVC~~ ~~protected steel (< = 16 bar)~~ **Copper**	**12 months**

	Polyethylene **PVC** **protected steel (< = 16 bar)**	**24 months**
~~Contact~~**Type 2 LDAR survey**	**Grey cast iron** **Bitumen sheet**	**6 months**
	~~Grey cast iron~~ **Asbestos** **Ductile cast iron** **Regulating and metering station**	**12 months**
	Non-protected steel ~~Polyethylene~~ ~~PVC~~ ~~protected steel (< = 16 bar)~~ **Copper**	**24 months**
	Polyethylene **PVC** **protected steel (< = 16 bar)**	**36 months**

For underground and below the sea level protected steel pipelines with pressure above 16 bar, operators shall also perform preventive pipeline integrity management to prevent any leakage in accordance with relevant European standards or national pipeline integrity management legislation. Taking into account results of that preventive pipeline integrity management, the competent authority may approve different frequency of up to 36 months for Type 1 LDAR survey and 48 months for Type 2 LDAR survey.

For all offshore components ~~below the sea level~~ referred to in Article 14(2)(a), leak detection and repair surveys as set out in Article 14 shall be carried-out as per the following minimum frequency:

Type of LDAR survey		**Frequency of survey**
Type 1 LDAR survey	**Offshore components above the sea level**	**12 months**
	Offshore components below the sea level	**24 months**
	Offshore components below the seabed	**36 months**
Type 2 LDAR survey	**Offshore components above the sea level**	**24 months**

Part ~~1~~2

~~*Approval of continuous monitoring*~~ **Information requirements on devices used in leak detection and repair ~~programmes~~surveys**

As part of the leak detection and repair programme referred to in paragraph 1 of Article 14~~*For the purposes of the approval by the competent authorities of the use of continuous monitoring systems according to Article 14 of this Regulation*~~**, operators must provide the following information:**

(i) ~~*the continuous monitoring*~~ **device manufacturer information;**

(ii) the leak detection capabilities, reliability, and limitations of the ~~*continuous monitoring system*~~ **devices, including, but not limited to, the ability to identify specific leaks or locations, detection limits, and any restrictions on use, as well as supporting data;**

(iii) a description of where, when, and how the ~~*continuous monitoring system*~~ **devices will be used;**

~~*(iv) documentation adequate to demonstrate the continuous monitoring system is as effective at reducing emissions as the quarterly surveys set out in Article 14.*~~

ANNEX Ia

Repair and monitoring schedules

~~Part 23~~

Repair ~~*schedule*~~

The repair ~~*and monitoring*~~ schedule referred to in Article 14 must include at least the following elements:

(i) Inventory and identification of all components that have been checked

(ii) Result of inspection in terms of whether methane loss has been detected and, if so, size of loss

(iii) For components found to be emitting **at or above the thresholds set out in Article 14(4)** ~~*500 parts per million or more of methane*~~, indication of whether repair was undertaken during the LDAR survey and if not why, taking into account the requirements as regards what elements can be taken into account for a delayed repair, as per Article 14, paragraph 4.

(iv) For components found to be emitting **at or above the thresholds set out in Article 14(4)**~~*500 parts per million or more of methane*~~, planned repair schedule indicating planned date of repair,

(v) For components found to be emitting **below the thresholds set out in Article 14(4)**~~*less than 500 parts per million*~~ in previous LDAR survey, but found to be emitting **at or above such thresholds** ~~*500 parts per million or more of methane*~~ during post LDAR monitoring to check whether the size of loss of methane has evolved, indication whether repair was undertaken immediately and if not, why not (as per iii), and planned repair schedule indicating planned date of repair.

This is to be followed by a ~~*post repair and*~~ **monitoring** schedule to indicate when repairs were effectively carried out.

Monitoring ~~*schedule*~~

The ~~*repair and*~~ monitoring ~~*schedule*~~ **report** referred to in Article 14 must include at least the following elements:

(i) Inventory and identification of all components that have been checked

(ii) Result of inspection in terms of whether methane loss has been detected and, if so, size of loss

(iii) For components found to be emitting **at or above the thresholds set out in Article 14(4) in previous LDAR survey** ~~*500 parts per million or more of methane*~~*,* **information about the repair undertaken and** results of monitoring after repair to check if repair was successful

(iv) For components found to be emitting **below the thresholds set out in Article 14(4) in the previous LDAR survey** ~~*less than 500 parts per million of methane*~~*,* results of post LDAR monitoring to check whether the size of loss of methane has evolved and recommendation on the basis of finding.

ANNEX II

Reporting of venting and flaring events

Pursuant to Article 16, operators must report to the competent authorities at least the following information regarding methane flared or vented:

(i) name of the operator;

(ii) **location**, name and type of asset;

(iii) equipment involved;

(iv) date(s) and time(s) that venting or flaring was discovered or commenced and terminated;

(v) measured ~~*or estimated*~~ volume of vented or flared ~~*natural gas*~~ **methane. Where a measured volume is not available, a motivated estimation must be provided**;

(v1) flaring efficiency

(vi) cause and nature of venting or flaring;

(vii) steps taken to limit the duration and magnitude of venting or flaring;

(viii) corrective actions taken to eliminate the cause and recurrence of venting or flaring;

(ix) results of ~~*weekly*~~ **monthly** inspections of flare stacks **and of the continuous monitoring of flare stacks, as applicable,** carrie**d**~~**s**~~ out in accordance with Article 17**, where an issue has been identified**.

ANNEX III

Flare stack inspections

~~*Weekly*~~ **Monthly** flare stack inspections must include a comprehensive Audio, Visual and Olfactory (AVO) inspection (including external visual inspection of flare stacks, listening for pressure and liquid leaks and smelling for unusual and strong odours).

During the inspection the operator must inspect all components, including flare stacks, thief hatches, closed vent systems, pumps, compressors, pressure relief devices, valves, lines, flanges, connectors, and associated piping to identify defects, leaks and releases.

The following observations must be included in the report:

(i) In the case of lit flares: whether combustion is considered adequate or inadequate. Inadequate combustion being defined as a flare with visible emissions that exceed a total of five minutes during any two consecutive hours. **Where flares are equipped with continuous monitoring, inadequate combustion being defined as a flare with visible emissions that exceed a total of five minutes during any two consecutive hours recorded on a live basis.**

(ii) In the case of unlit flares: whether the unlit flare has a gas vent or not. If it does have a gas vent, an intervention to remedy it should take place within 6 hours or within 24 hours in the case of bad weather or other extreme conditions. **Where flares are equipped with continuous monitoring, the emissions are calculated based on the flow rate and methane slip in case there is a gas vent. An intervention to remedy it must** ~~*should*~~ **take place within 6 hours or within 24 hours in the case of bad weather or other extreme conditions**.

ANNEX IV

Inventories and mitigation plans for~~of~~ inactive wells, temporarily plugged wells and permanently plugged and abandoned wells

Part 1

Pursuant to Article 18, inventories of inactive wells**, temporarily plugged wells and permanently plugged and abandoned wells** must include at least the following information:

(i) name and address of the operator, owner or licensee, where applicable;

(ii) name, type and address of well or well site**, specifying whether it is an inactive well, temporarily plugged well or permanently plugged and abandoned well, as defined in this Regulation**;

(iii) **where relevant,** map showing borders of the well or well site;

(iv) results of ~~*any methane concentration*~~ measurements **or quantification of methane emissions to air and to water carried out prior to the inventory, if any**.

Pursuant to Article 18, inventories of inactive wells, temporarily plugged wells and permanently plugged and abandoned wells may include the following information:

(i) Dates for initial drilling and last operation;

(ii) Orientation (vertical, horizontal, slant);

(iii) Overall depth of well;

(iv) Whether any notable events have occurred during the drilling process, such as "kicks";

(v) Whether the well has contacted gas containing significant amounts of sulphur compounds (sour gas), or trace amounts (sweet gas);

(vi) Seismic data available for the well in the upper 1000m of its trajectory with a 1000m radius;

(vii) The most recent well integrity assessment report;

(viii) Whether the well is an exploration or production well;

(ix) Whether the well has contacted any shallow gas pockets, shallow gas zones or loss circulation zones;

(x) Whether the well is located onshore (indicate urban, rural, other) or offshore (indicate water depth);

(xi) In the case of offshore wells, information regarding any conditions at the sea bed which could assist methane migration up through the water column;

(xii) Information on the well's lifecycle status, (active, inactive, downhole plugged, surface decommissioned, etc);

(xii) Whether the well cap associated with a decommissioned well is vented or not.

Pursuant to Article 18, with respect to permanently plugged and abandoned wells, inventories must also include:

(i) the last known measurements or quantification of methane emissions to air and to water, if any;

(ii) information showing that the relevant competent authority has attested that the well or well site in question fulfils the criteria set out in Article 2(24a~~5~~);

(iii) documentation adequate to demonstrate that there are no methane emissions from that well or well site for all wells permanently plugged and abandoned after the adoption of this Regulation, or where such documentation already exists prior to adoption.

Part 2

Pursuant to Article 18, mitigation plans must include at least the following information:

(i) the schedule of addressing each inactive well and temporarily plugged well, including the actions to be performed;

(ii) name and address of the operator, owner or licensee of the inactive well or temporarily plugged well, where applicable;

(iii) projected end date of all remediation, reclamation or plugging of inactive wells and temporarily plugged wells.

ANNEX V

Reporting for operating coal mines

Part 1

Pursuant to Articles 19 and 20, the reports for operating underground mines must include at least the following information:

(i) name and address of the mine operator;

(ii) mine address;

(iii) tonnage of each coal type produced by the mine;

(iv) for all ventilation shafts utilised by the mine

1) name (if any);

2) period of use, if different from the reporting period;

3) coordinates;

4) purpose (intake, exhaust);

5) technical specification of the measurement **equipment** ~~*apparatus*~~ used for measurement and quantification of methane emissions and optimum operating conditions specified by the producer;

6) proportion of time when continuous measurement **equipment** ~~*apparatus*~~ was operating;

7) ~~*choice of European or international standard*~~ **specifications** for:

- methane measurement **equipment** ~~*apparatus*~~ sampling position;

- measurement of flow rates;

- measurement of methane concentrations;

8) methane emissions registered by the continuous measurement **equipment** ~~*apparatus*~~ (in tonnes);

9) methane emissions registered through monthly sampling (in tonnes/hour) covering information on;

- sampling date;

- sampling technique;

- readings of atmospheric conditions (pressure, temperature, humidity), taken at an appropriate distance to reflect conditions at which continuous measurement **equipment** ~~*apparatus*~~ is operating;

11) if mine is joined to another mine by any means allowing for a flux of air between the mines, name of the mine;

(v) post mining emission factors and description of method employed for their calculation;

(vi) post-mining emissions (in tonnes).

Part 2

Pursuant to Articles 19 and 20, the reports for operating surface mines must include at least the following information:

(i) name and address of the mine operator;

(ii) mine address;

(iii) tonnage of each coal type produced by the mine;

(iv) map of all deposits utilised by the mine, outlining borders of these deposits;

(v) for each coal deposit:

1) name (if any)

2) period of use, if different from the reporting period

3) outline of the experimental method employed to determine methane emissions due to mining activities, including the choice of methodology to account for methane emissions from surrounding strata

(vi) post mining emission factors and description of method employed for their calculation;

(vii) post-mining emissions.

Part 3

Pursuant to Articles 19 and 20, the reports for drainage stations must include at least the following information:

(i) name and address of the mine operator;

(ii) tonnage of methane supplied by a mine/mines drainage system, per mine;

(iii) tonnage of methane vented;

(iv) tonnage of flared methane;

(v) flare efficiency;

(vi) use of methane captured.

ANNEX VI

Reporting of venting and flaring events in drainage stations

Pursuant to Article 23, drainage station operators must report to the competent authorities at least the following information regarding methane flared or vented:

(i) name and address of the operator;

(ii) time when the event was first detected;

(iii) cause of the venting and/or flaring event;

(iv) tonnage of methane vented and flared (or an estimate if quantification **or** ~~a~~ **measurement** is not possible).

ANNEX VII

Closed and abandoned mines

Part 1

Pursuant to Article 24 and 25, for each site, the inventory of closed and abandoned coal mines must include at least the following information, ~~where available~~:

(i) name and address of the operator, owner or licensee, where applicable;

(ii) site address;

(iii) map showing borders of the mine;

(iv) schemes of mine workings and their status

(v) results of ~~*methane concentration*~~ ***source*** **level direct** measurement **or quantification** at the following ~~elements~~**point emission sources:**

1) all ~~ventilation~~ shafts utilised by the mine when operating, accompanied by:

- shaft coordinates

- shaft name (if any)

- sealing status and sealing method, if known

2) unused vent pipes

3) unused gas drainage wells

~~*4) outcrops;*~~

~~*5) identifiable strata fractures at the mine's territory or linked to its former coal deposit;*~~

~~1.~~ ~~*6) other recorded potential point emission sources*~~. **6)** other recorded potential point emission sources.

~~*Part 2*~~

The measurements referred to in point (v) ~~*of Part 1*~~**above** must be performed in accordance with the following principles:

(i) measurements must be performed at atmospheric pressure allowing for potential methane leak to be detected, and according to the appropriate scientific standards**:**~~.~~

(ii) measurements must be performed using an **equipment capable of estimating yearly methane emissions at the level of at least 0,5 tonnes or above from such source.** ~~*apparatus with a sensitivity threshold of at least*~~**:**~~.~~

(iii) measurements must be accompanied by an information on:

1) date of the measurement**;**

2) atmospheric pressure**;**

3) technical details of the equipment used for the measurement**;**

(iv) ventilation shafts historically utilised by two or more mines must be assigned to just one mine, to avoid double-counting**.**

Part **2**~~*3*~~

The report set out in Article 25(3) must include the following elements**, where data is available or can be acquired**:

(i) name and address of the operator, owner or licensee, where applicable;

(ii) site address;

(iii) methane emissions from all ~~*elements outlined in Article 25(3)*~~**point emission sources outlined in Part 1** including:

1) type of ~~*element*~~ **point emission source;**

2) technical details of measurement **equipment and method employed to estimate methane releases** ~~*apparatus used for the measurement including sensitivity*~~***;***

3) proportion of time when measurement **equipment** ~~*apparatus*~~ was operating**;**

4) methane concentration registered by the measurement **equipment** ~~*apparatus*~~***;***

5) estimates of methane emissions from the ~~*element*~~ **point emission source.**

Part ~~3~~4

The mitigation plan set out in Article 26(1) must include at least the following information**, where data is available or can be acquired**:

(i) list of all **point emission sources outlined in Part 1**~~*elements covered in Article 25(3);*~~

(ii) technical feasibility of mitigation of methane emissions ~~from~~**at site level, based on point emission sources** ~~each point emission source~~~~*elements outlined in Article 25(3);*~~

(iii) timeline of mitigation of methane emissions ~~from~~ **at each site** ~~point emission source~~~~*elements outlined in Article 25(3).*~~***;***

(iv) assessment of the efficiency of projects for collection of abandoned mine methane, where implemented.

ANNEX VIII

Information to be provided by importers

For the purposes of this Annex, 'exporter' means the contractual counterparty in each supply contract entered into by the importer for the delivery of fossil energy into the Union.

Pursuant to Article 27, importers must provide the following information:

(i) **where exporters or producers can be identified,** name and address of exporter and, if different from exporter, name and address of producer;

(ii) countr**ies**~~y~~ and regions corresponding to the Union nomenclature of territorial units for statistics (NUTS) level 1 where the energy was produced and countries and **regions** corresponding to the Union nomenclature of territorial units for statistics (NUTS) level 1 through which the energy was transported until it was placed on the Union market;

(iii) as regards oil and fossil gas, whether the exporter**, or where relevant, the producer** is undertaking measurement and reporting of its methane emissions, either independently or as part of commitments to report national GHG inventories in line with United Nations Framework Convention on Climate Change (UNFCCC) requirements, and whether it is in compliance with UNFCCC reporting requirements or in compliance with Oil and Gas Methane Partnership 2.0 standards. This must be accompanied by a copy of the latest report on methane emissions, including, where available, the information referred to in Article 12(6)**, where provided in such report**. The method of quantification (such as UNFCCC tiers or OGMP **2.0** levels) employed in the reporting must be specified for each type of emissions;

(iv) as regards oil and gas, whether the exporter**, or where relevant, the producer** applies regulatory or voluntary measures to control its methane emissions, including measures such as leak detection and repair surveys or measures to control and restrict venting and flaring of methane. This must be accompanied by a description of such measures, including, where available, **relevant** reports from leak detection and repair surveys and from venting and flaring events with respect to the last available calendar year;

(v) as regards coal, whether the exporter**, or where relevant, the producer** is undertaking measurement and reporting of its methane emissions, either independently or as part of commitments to report national GHG inventories in line with United Nations Framework Convention on Climate Change (UNFCCC) requirements, and whether it is in compliance with UNFCCC reporting requirements or in compliance with an international or European standard for monitoring, reporting and verification of methane emissions. This must be accompanied by a copy of the latest report on methane emissions, including, where available the information referred to in Article 20(6). The method of quantification (such as UNFCCC tiers or OGMP **2.0** levels) employed in the reporting must be specified for each type of emissions;

(vi) as regards coal, whether the exporter**, or where relevant, the producer** applies regulatory or voluntary measures to control its methane emissions, including measures to control and restrict venting and flaring of methane. This must be accompanied by a description of such measures, including, where available, reports from venting and flaring events with respect to the last available calendar year;

(vii) name of the entity that performed independent verification of the reports referred to in points (iii) and (v), if any.