



Gas Infrastructure Europe

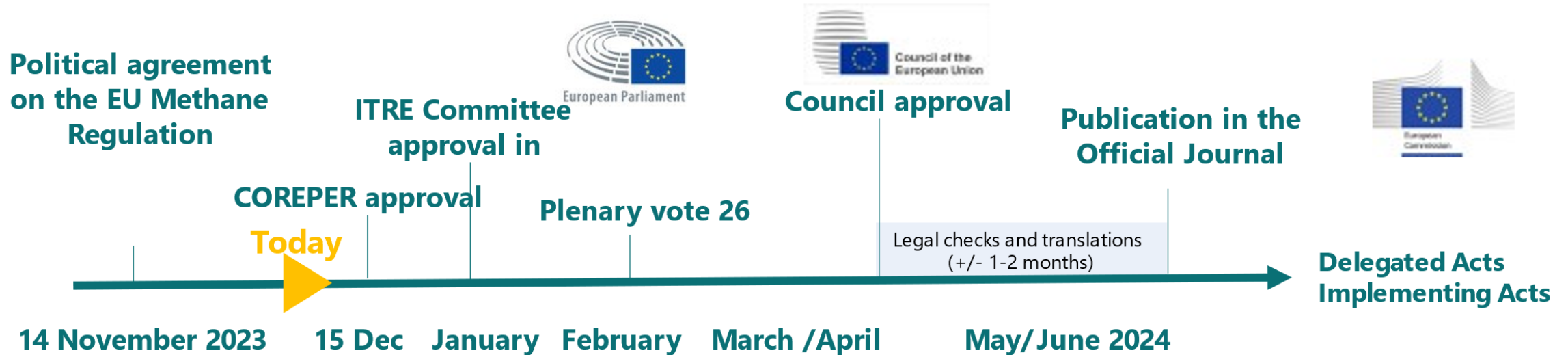
Regulation on methane emissions reduction 2019/942

Based on the December document (pre-version)

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Indicative Timeline Methane Emissions Regulation*



European Commission follow up

Delegated Acts:

- Methodology to calculate methane intensity of gas

Implementing Acts:

- Third-country MRV equivalence rules
- Country-by-country MRV equivalence
- Minimum leak detection thresholds for LDAR

** dates are rough estimates and based on typical processes.*

Considering 26 Feb Plenary as the reference, the Council could accelerate the whole thing to have this in late April/early May

Subject matter and scope – article 1



Scope:

- Accurate quantification, reporting and verification of methane emissions in the energy sector in the Union
- The abatement of those emissions
- Transparency of methane emissions from imports of fossil energy into the Union

Sectors:

- **Oil and fossil gas exploration and production**
- **Gas transmission, distribution** (excluding metering systems at final consumption points and the parts of service lines between the distribution network and metering system located on the property of final customers), underground storage and liquefied gas terminals
- **Operating/closed/abandoned underground and surface coal mines**
- **Importer information requirements** - methane emissions occurring outside the Union

Figures are provisional (tbc in the final version)

Costs of regulated operators - article 3

- When setting tariffs, the **costs and investments** arising from this regulation are **to be recognized** insofar as they correspond to those of an efficient and structurally comparable regulated operator and are transparent.
- **ACER** has to carry out a **benchmark every three years** for the comparison of unit investment costs linked to measurement, monitoring, reporting, verification and abatement of methane emissions
- The arising unit investment cost may be used for benchmarking the operators based on indicators



Authorities - article 4, 5, 6



Authorities

- Authorities (one or more) shall be designate within [**six months**] of entry into force responsible for monitoring and enforcing this regulation.

Inspections

- They or a designated representative organization must have carried out the [**first inspection within 21 months**] of entry into force and then [**risk-based (max. three years)**] and **additionally unannounced**.

General topics - article 6, 7, 10, 30



Publications (articles 6 + 10)

- Reports of the installation surveys (Article 6) have to be published by the competent authority.
- Methane emissions (Article 10) have to be published by the International Methane Emissions Observatory.

Complaints lodged with the competent authorities (article 7)

- Any natural or legal person **may lodge a reasoned complaint** with the competent authorities.

General mitigation obligation (article 13)

- Operators shall take all appropriate mitigation measures to prevent and minimize methane emissions in their operations.

Penalties (article 30)

- Appropriate penalties are to be determined by the member states [12 months] and reported to the EU Commission.

Operated (non-operated)

- After [12 months], the first emissions report based on generic emission factors or better must be submitted
- After [18 (30) months], based on direct measured values and when not possible specific emission factors are allowed.
- After [30 (48) months], the report must be supplemented by "site-level measurements" and approved by a verifier (external auditor).
- In the following years always on May 31st
- The reporting should be based on the "**National Inventory Report**" and "**OGMP2.0 Report**".
- The procedure should be based on OGMP2.0 until technical standards (CEN and e.g. DVGW) have been developed.

leak detection

- **[Nine months]** after entry into force, a LDAR program must be submitted to the national authority changes have to be reported.
- Changes can be requested by the authority
- **[After 12 months]**, the first survey must **be completed** (this can also be carried out by a service provider article 14(8)).
- The survey procedure should be based on existing and newly developed standards and best available technology.
- The **frequencies** for LDAR campaigns on sites/pipeline must be done according to annex I (highly differentiated – next slide)
- The **minimum detection limits** and **detection technologies** are to be specified by the European Commission (EC) in an "Implementing Act" within 12 months after entry into force. Until then, the "best available technology" is to be applied.

LDAR – Leak detection and repair - article 14



Type of LDAR survey	Type of component	Frequency of survey	
		Type 1	Type 2
LDAR survey (design pressure > 16 bar)	Compressor station	4 months	8 months
	Regulating and metering station		
	Valve station	9 months	18 months
LDAR survey (design pressure < = 16 bar)	Regulating and metering station		9 months
	Valve station		21 months
LDAR survey (design pressure > 16 bar)	Grey cast iron	3 months	6 months
	Bitumen sheet		
	Asbestos	6 months	12 months
	Ductile cast iron		
	Non-protected steel	12 months	24 months
	Copper		
	Polyethylene	24 months	36 months
	PVC		
Protected steel			
LDAR survey (design pressure < = 16 bar)	Grey cast iron		6 months
	Bitumen sheet		
	Asbestos		12 months
	Ductile cast iron		
	Non-protected steel		24 months
	Copper		
	Polyethylene		
	PVC		36 months
Protected steel			

Frequencies for DSO and TSO

Type 1 LDAR - rougher

Type 2 LDAR – more precise

Figures are provisional (tbc in the final version)

repair

- If a leak is detected, the first repair attempt must be made within **five days** and the **repair** must **be completed after 30 days**. Leaks are defined as follows:
 - **Repair thresholds - LDAR type 1:**
 - above ground: [7.000 ppm or 17 g/h]
 - **Repair thresholds - LDAR type 2:**
 - Above ground - : [500 ppm or 1 g/h]
 - Underground components: [1.000 ppm or 5 g/h]
 - Below the sea level and below the seabed: [7.000 ppm or 17 g/h]
- Lager leaks should be **prioritized**

LDAR – Leak detection and repair - article 14



- If there are reasons, defined in the regulation, for a delayed repair, a tolerance of up to one year is possible.
- **Possible reasons:** Safety, administrative and technical considerations (e.g. shutdown)
- A repair plan must be submitted to the authority within [**12 days**] of detection and the leak must be minimized as far as possible within one day.
- In addition, the justification is reviewed by the authorities.
- Leaks that **emit less** than the aforementioned limit values must be retested at least once [**within three months**] at the latest.
- The results of the surveys and repairs must be submitted annually to the national authority.

Limits to venting and flaring - article 15



- In principle, it is **prohibited to vent and flare gas**, except in case of an emergency or malfunction.
- In essence, the gas must be recovered for reuse (e.g. by mobile compressors), insofar as this is **technically feasible**.
- Where a **site is built or refurbished**, operators shall utilize only commercially **available zero-emitting devices** in the changed/build part.
- If the corresponding equipment is not immediately available, **a plan must be submitted to the national authority** on how it is to be implemented within **[18 months]** at the latest.
- However, the regulation refers to standardization, which must create defined framework conditions. This takes place via "delegated act" and has therefore will be initiated.
- Once the standards have been drawn up, there is an obligation for existing installations to adapt using "non-emitting equipment".

Flaring - article 16 + 17



- **Emergency or malfunction events** should be reported to the local authorities
- If a new flare or other combustion unit is installed, it must have **automatic ignition** or a **pilot flame** and a **combustion efficiency of [99 %]**.
- **After 18 months**, it must be ensured that flares or other combustion devices **meet the requirements**.
- In addition, the flares must be tested according to specified rules before use (Annex III).
- If the flare has automatic ignition or a pilot flame, flaring must be ensured (Article 17)

Importer requirements 27



- By **9 months** and by **31st May** every year thereafter, importers shall provide the information set out in Annex VIII to the competent authorities of the Member State in which they are established.
- By **12 months** and by **31st August** every year thereafter, Member States shall submit to the Commission the information provided to them by importers.

Challenges Methane Emissions Regulation



- **Need for**
 - additional well-trained staff
 - additional contractors/verifiers
- **Very short timelines** to do a first
 - LDAR survey
 - MRV report (for non OGMP2.0 members)
- **Investment and cost decisions** to be taken at undefined requirements
 - LDAR, MRV – measurement technology (e. g. cars, FID, OGI)
 - Venting/Flaring – standard technology (e. g. maintenance, measurement devices)
- Need for **instant** acknowledgement by the regulators

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THANK YOU
For your attention

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