



Methane emissions

The standardisation landscape

15 November 2024
Energy symposium 2024

Methane CH₄

2nd

most important GHG contributor to climate change

60%

of the global methane emissions result from human activity

1/3

of this comes from the energy sector

Source: European Commission





Global Warming Potential (GWP)

CH₄ Vs CO₂

28 times > GWP on a 100-year timescale

84 times > GWP on a 20-year timescale.

>260 bcm of gas was wasted
worldwide in 2021 due to

flaring, venting and leaking

Source: The International Energy Agency, EC



EU Methane Strategy

It focuses on reducing methane emissions in the **energy, agriculture and waste sectors**, which account for almost all human-related methane emissions.

*Published in
October 2020
(COM2020/663)*

EU Regulation on methane emissions reduction in the energy sector

- Regulation (EU) 2024/1787
- Entered into force on 4 August 2024
- Applicable to O&G exported to EU

Aims

to stop the avoidable release of methane into the atmosphere, both in the EU and in global supply chains and to minimise leaks of methane by fossil energy companies operating in the EU.

Regulation provides obligations to O&G producers:

- to conduct and report annual source and site-level quantifications of methane emissions
- to conduct regular leak detection and repair surveys
- imposes restrictions on venting and flaring of methane

Oil and Gas Methane Partnership 2.0

EU rules on the **measurement and reporting** of methane emissions **build** on the Oil and Gas Methane Partnership 2.0 (OGMP 2.0) framework.

- to help understand the **exact locations and volumes** of methane emitted,
- allows a **shift from estimates to direct measurements** of methane emissions, checked by **independent verifiers**.

OGMP 2.0 is the **flagship** oil and gas reporting and mitigation programme of the **United Nations Environment Programme (UNEP)**.

Oil and Gas Methane Partnership 2.0

Over **140 companies** with operations in more than **70 countries**



Climate And Clean Air Coalition



Clean Air Task Force

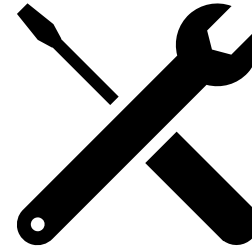


Oil & gas companies' requirements

Regulation (EU) 2024/1787



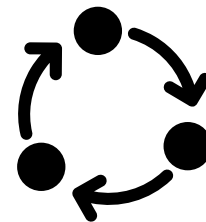
Frequently survey their equipment to **detect leaks**.



Repair immediately, mostly within 5 or 15 working days and **monitor** to ensure that repairs were successful.



Bans venting and routine flaring, allowing venting only in exceptional or unavoidable circumstances for **safety reasons**.



Allows flaring only if **re-injection, utilisation on-site or transport** of the methane to a market are not technically feasible, with more restrictive rules for how it can be carried out.

Measuring and reporting of methane emissions.

- Regulation specifies the **delivery of oil, fossil gas and coal** methane emissions measurements by all operators active in the EU at source and site level on an annual basis.
- To build on work in Oil & Gas Methane Partnership 2.0 (OGMP 2.0)
- Standards to:
 - ✓ specify how source and site level measurements are to be conducted for each different type of component from which methane can theoretically be expected to be emitted, whether intentionally or unintentionally.
 - ✓ allow independent accredited verifiers to ensure that emissions reports prepared by operators are correct and in compliance with the requirements set out in this Regulation by reviewing the data in the emissions reports to assess their **reliability, credibility and accuracy** against the measurement and quantification specifications included in the standards.

Leakage detection and repair (LDAR)

- Regulation: achievement and reporting of demonstrable, verifiable, **reductions in leakage of emissions** from components at risk of such leaks across the oil and fossil gas value chain by all operators active in the EU.
- Standards to:
 - specify how leak detection and repair surveys are to be conducted for each different type of component from which methane can theoretically be expected to leak. **Including performance requirements and quality assurance procedures** for different methods, technologies or devices used in the detection of methane leaks in the different sections of the oil and gas supply chain.

Venting & flaring

- Regulation:
 - achievement and reporting of demonstrable, verifiable, **reductions in venting of emissions** from components where venting can occur across the oil and fossil gas value chain by all operators active in the EU.
 - Specifies a **general ban on venting** and lists specific exceptions where venting is allowed. Some of those exceptions include components installed with equipment which can be manufactured to vent by design,

Standards to specify what **kind of equipment** must be installed on components to **minimize venting** from such components.

A close-up photograph of a person's eye, focusing on the iris and a contact lens. The contact lens has a grid-like pattern of small holes, giving it a futuristic or technological appearance. The eye is looking slightly to the left.

Standardisation response and mandate

- The regulation is **asking for European standards** to be used as reference documents to **audit compliance of operators** with the regulation by **notified bodies**
- EC will **reference standards** in future legislation (Delegated acts)
- **Deadline 2027**

Standardisation response and mandate

- **CEN/TC 234 Gas infrastructure**
 - Onshore gas infrastructure, downstream gas
- **CEN/TC 12 Oil and gas industries including lower carbon energy – works via ISO/TC 67**
 - upstream oil & gas, including infrastructure



The regulation will also apply to oil and gas **imported** to the European Union, irrespective of the production location

A photograph of an offshore oil platform at night. The platform is illuminated with warm lights, and a large flare at the top is burning brightly, casting a long, intense light. The structure is complex, with many levels and pipes visible. The background is a dark blue sky, and the water in the foreground is dark with some reflections of the platform's lights.

Work at ISO to be adopted as European

ISO/TC 67

Oil and gas industries including lower carbon energy

WG 12 Methane emissions (AFNOR-IOGP)

ISO/PWI XXXX, Methane emissions in upstream oil & gas operations

Part 1 Quantification

Part 2 Leak Detection And Repair

Part 3 Flaring and venting

Work at CEN

CE/TC 234

Gas infrastructure

- ❑ Gas infrastructure — Equipment to be installed and procedures to be used to prevent or **minimise venting and flaring** with limitations and feasibility criteria
- ❑ Gas infrastructure — Methodology for methane **emissions quantification** for gas transmission, and distribution systems, underground gas storage and LNG terminals
- ❑ Gas infrastructure - Methane **leak detection and repair** programmes for gas transmission, distribution and storage systems and LNG terminals. Functional



CYS focus



Cyprus is an active member of both:

- **CEN/TC 234** Gas infrastructure
- **CEN/TC 12** Oil and gas industries including lower carbon energy and **ISO/TC 67**

through our national technical committee experts...

- **CYS/TC 22** Hydrocarbons

CYS keeps an **open invitation** to expand its pool of experts!



Thank you.

Making lives **easier**, **safer** and **better**.

Eleni Topouzi
Chairwoman
CYS/TC 22
Hydrocarbons

cys.org.cy