EC proposal for a regulation on methane Emissions

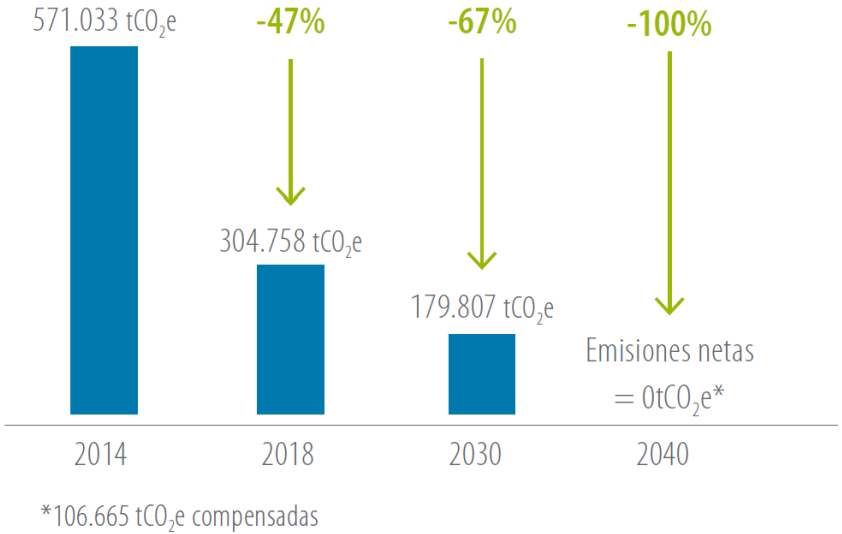
Midstream views

Tania Meixús Fernández

24th of March of 2022

Enagás' decarbonisation strategy

Carbon neutral by 2040



*106.665 tCO_2e compensadas

Energy Efficiency and Emissions Reduction Plan (> 50 projects)

Fighting methane emissions!

Methane footprint reduced by 36% (2015)

Enagás CH_4 emissions reduction targets aligned with the UN Global Methane Alliance

45% CH_4 en **2025**

…vs 2015

60% CH_4 en **2030**

GMP
Oil And Gas Methane Partnership 2.0

GOLD STANDARD

2021* 2022 2023 2024 2025

MRV (Monitoring , Reporting & Verification)

YOU CAN NEITHER MANAGE NOR IMPROVE WHAT YOU DON'T IDENTIFY!

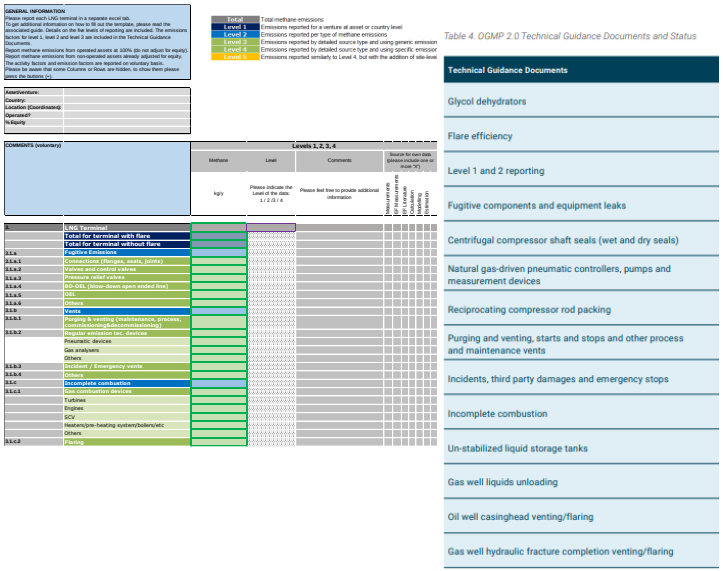


Table 4. OGMP 2.0 Technical Guidance Documents and Status

Technical Guidance Documents
Glycol dehydrators
Flare efficiency
Level 1 and 2 reporting
Fugitive components and equipment leaks
Centrifugal compressor shaft seals (wet and dry seals)
Natural gas-driven pneumatic controllers, pumps and measurement devices
Reciprocating compressor rod packing
Purging and venting, starts and stops and other process and maintenance vents
Incidents, third party damages and emergency stops
Incomplete combustion
Un-stabilized liquid storage tanks
Gas well liquids unloading
Oil well casinghead venting/flaring
Gas well hydraulic fracture completion venting/flaring

Level 4 -> Bottom-up quantification should be based on measurements, engineering calculations, simulation tools and emission factors considering concepts such as materiality, representative sampling, …

Regulation should refer to OGMP 2.0 reporting framework, reporting template, Technical Guidance Documents

MRV - Site level measurements (Level 5)

A big concern related to obligations on site –level measurements

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

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

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

NEITHER TECHNOLOGIES NOR MID/DOWNSTREAM ARE READY!

GERG THE EUROPEAN GAS RESEARCH GROUP

- **Phase I** — State of the art study of site-level technologies. Lead by RICE (GRTgaz) — 2021
- **Phase II.A.** — Technology Benchmark of site level technologies. Lead by Enagas — 2021
- **Phase II.B.** — Source and site level reconciliation. Test in sites. Lead by Enagas. — 2022

Most of the available technologies show good detection capabilities but important limitations to accurately quantify

MRV - Site level measurements (Level 5)

Reconciliation of bottom-up and top-down does not mean matching

Site-level technologies can contribute to obtain qualitative information of big sites.
Actions with these technologies in small installations (<10kg/h) should not be required (bottom-up technologies)

Efforts should be proportional

Representative sampling

Materiality

Site-level measurements + uncertainty
&reconciliation to be included in a CEN standard

MRV (Monitoring , Reporting & Verification)

Double reporting should be avoided!

- ✓ OGMP 2.0 reporting to be aligned with the reporting to the NIR
- ✓ OGMP 2.0 reporting of non-operated assets to be done only by the operator
- ✓ Reporting obligations on LDAR and Venting&Flaring on annual basis in line with the emissions reporting

Verification and inspections should be aligned with current obligations and practices to avoid increasing the costs and administrative burden (ISO 50001, ISO 14001, ISO 14064,…)

Mitigation of methane emissions

Materiality and proportionality

Analysis of those measures that allow a highest GHG emission reduction in the shortest time at lowest cost

Priorization

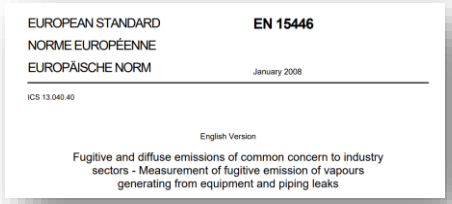
Methane emission mitigation plan (10-years) should be defined by companies and approved by Competent Authorities

To comply with venting & flaring requirements a lead time is needed! The measures should be part of the methane emissions mitigation plan

LDAR

Reference to 500 ppm implies limitations for other technologies

Frequency -> Annual LDAR campaigns


EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 15446

January 2008

ICS 13.040.40

English Version

Fugitive and diffuse emissions of common concern to industry sectors - Measurement of fugitive emission of vapours generating from equipment and piping leaks

5 days repair is not realistic - The gas industry carries out immediate repairs whenever possible

LDAR requirements to be covered by a CEN standard

Some final thoughts

- ✓ Recognition that one type of solution does not fit all cases is needed
- ✓ Appropriate CEN standards are needed covering LDAR, quantification and reporting
- ✓ Regulation should be technology agnostic - Technologies, methodologies and practices evolve quickly
- ✓ Flexibility is needed to ensure that the most efficient actions are prioritized -> Methane emissions mitigation plan
- ✓ Materiality and representative sampling should be considered to ensure proportional efforts
- ✓ More R&D is needed on top-down/site-level technologies
- ✓ Main quantification actions should be focused on the bigger sites
- ✓ Investments and costs to be recognised by NRAs

Main efforts should be on mitigation of methane emissions

Thank you