

# Methane Emissions: The elephant leaves the room.

Ilaria Restifo: EDFE's contact person in Italy

c/o SPE Italia Workshop: GHG EMISSIONS BEYOND CO2 - Rozzano (MI), 10 May 2023

## Foreword

Good morning, everyone, and many thanks to the *Society of Petroleum Engineers Italy* for inviting me. My name is Ilaria, and I have been following the work of the Environmental Defense Fund in Italy since 2019 as regards a specific greenhouse gas and a specific sector: methane emissions from the Italian gas supply chain.

Forgive the somewhat cryptic title, but it refers to an article from last year in which I talked about methane emissions as an elephant in the room - that is a huge issue that one avoids acknowledging - and I referred to the energy and climate crisis as two sides of the same coin.

Why is the elephant now leaving the room? Because it must be recognized that gas in Europe is approaching the end of its "transition" function, as indeed an acceleration at international level seems to indicate for overcoming the fossil model. It is now an acknowledged fact that methane emissions play a major role in global warming.

And so, the elephant leaves the room because its role is finally being recognized and enshrined in the speeding up of policy initiatives, especially in the wake of the Russian invasion of Ukraine, that has opened Pandora's box.

## Timeline of international initiatives on CH4

I would like to quickly go through the key milestones since 2019 till now and give an overview of international policies and initiatives on the issue of methane emissions:

December 2019. The Commission publishes the *European Green Deal*. Methane emissions are mentioned directly in the document.

October 2020. The Commission publishes a cross-sector strategy to reduce methane emissions in the EU.

July 2021. Launch of the Fit-for-55 package. The Commission proposes to amend the ESR on Member States' GHG reductions, which remains to date the main piece of legislation on methane emissions.

July 2021. The G20 Ministerial in Naples recognizes that reducing methane emissions in the energy sector is one of the most effective ways to limit the impacts of global warming.

November 2021. The GMP, an initiative to reduce global methane emissions by 30% by 2030 versus 2020 levels, is officially launched at COP26 in Glasgow. In parallel, IMEO is also launched at G20 Summit, on the eve of COP26.

December 2021. The EU initiates the legislative process for a regulation to reduce methane emissions from the energy sector, currently under approval in Brussels.

February 2022. After the Russian invasion of Ukraine, the EU initiates an accelerated diversification of energy supplies. Energy and climate crisis appear in all evidence as two sides of the same coin.

May 2022. The REPowerEU Plan addresses the need to couple the initiatives to replace Russian gas with the climate goal to reduce methane emissions. New supplies are intended to be accompanied by actions to counter methane leakage and promote capture and reuse with EU partners.

June 2022. United States, European Union, and eleven other countries launch the GMP Energy Pathway to accelerate methane action in fossil energy.

August 2022. President Biden signs the *Inflation Reduction Act*, marking the most significant action on clean energy and climate change in the nation's history. The Act features a methane fee of \$900 per metric ton of CH<sub>4</sub> emitted in 2024 above the annual threshold, rising the penalty in subsequent years.

November 2022. At COP27, a joint declaration is signed among fossil energy importers and exporters to create an international market that minimizes flaring, methane, and CO<sub>2</sub>.

December 2022. Commission publishes its guidelines to member states for updating their National Energy and Climate Plans by June 30, 2023. What is new is that member states are asked to set targets to reduce methane emissions, taking into account the Methane Strategy, REPowerEU, and the External Energy Engagement Strategy.

April 2023. The G7 in Japan revives commitment to the climate issue. In particular, the call for gas as a transition fuel is dropped, and the opportunities offered by renewables and energy efficiency are recognized.

April 2023: Update of the *EFR* on binding GHG emissions by member states. For Italy, the measure raises the reduction target from 33% to 43.7% for the sectors not covered by the ETS.

9 May 2023: The EU Parliament votes on the Regulation to reduce methane emissions in the energy sector, introducing changes to the initial version. This text is the Parliament's official position in future trilogues with the Commission and the Council.

### **Some considerations on the proposed Regulation.**

There is currently no Union level legal framework setting out specific measures covering all sectors for the reduction of methane emissions. We have **(a)** the ESR, which includes methane and other gases not included in the ETS; **(b)** there is then the Industrial Emissions Directive 2010/75, which includes methane emissions from O&G mineral refining but does not include other energy sectors; **(c)** and finally there will be the Methane Regulation, aimed at reducing methane emissions from the energy sector in the EU. There are three application scopes in the proposal: **1)** Emissions from the entire O&G supply chain in the EU, including petrochemicals and emissions associated with renewable gases when they are injected in a transmission or distribution system; **2)** emissions from the EU coal sector; **3)** and finally - given Europe's dependence on third countries - methane emissions occurring outside the EU through importers' disclosure and the planned transparency database.

It is only through robust continent-wide regulation that the EU target of reducing, by 2030, GHG emissions by at least 55% below 1990 levels can be achieved. So, it is necessary for the regulation to provide a solid baseline. The provisions of the proposal are divided into three categories:

- Monitoring requirements, through mandatory MRV based on OGMP 2.0.
- Mitigation requirements, through binding LDAR techniques + a ban on non-emergency venting & flaring.
- Information requirements, through the importer's mandatory disclosure about the techniques adopted by their foreign suppliers.

### **What are the main changes introduced on 9<sup>th</sup> May by the European Parliament?**

A Union methane emission reduction target is introduced, with each member state to set methane national targets as part of their national energy and climate plans.

A report is required from the Commission to assess the possibility of implementing a 0.2% upstream methane intensity target within three years.

In addition, by Jan. 1, 2026, European importers are required to demonstrate that their suppliers are taking measures deemed comparable in terms of effectiveness, or else provide guarantees of origin.

### **The national context**

Member states have sovereignty about the energy mix they adopt. To date, Methane is ruled by the ESR, which gives member states the flexibility to choose appropriate policies to mitigate methane emissions.

Member states' updated energy and climate plans should:

- Set methane emissions reduction targets.
- Reflect international developments related to the process launched in Glasgow.
- In line with the REPowerEU, they should also reflect the EU External Energy Engagement, according to which additional gas supplies to replace Russian gas should be accompanied by actions aimed at curbing methane leakage, venting and flaring, as well as promoting cooperation with supplier countries to this purpose. Just as a reminder, these indications were also included in the Memoranda of Understanding signed by the EU with Egypt, Israel and Azerbaijan last summer.

The import issue is a sensitive one for Italy, which is not only the second largest importer of fossil gas in Europe, but also a country where domestic electricity generation relies for about 50% on gas.

There is talk of Italy as a gas hub, i.e., a centre for importing and re-exporting gas to Europe. It is the revival of a long-standing but difficult ambition that risks creating new dependencies and unsustainable ties in geographically complex areas. Although it might be reasonable to think about this possibility in this context, we should not lose sight of the acceleration toward overcoming the fossil model.

Now, if Italy were to take on this role in the coming years, to be credible it will also have to become a hub of responsibility for the environmental quality of imported gas, and play a trailblazer role in influencing and promoting collaboration with its international partners, especially south of the

Mediterranean, and ensure an equivalence of conditions with European monitoring and mitigation techniques, but also promote capture and reuse while avoiding new extractions, which seem obsolete if we look at the trend that is now being set internationally.

The point is that we want to find ways for these techniques to apply to operators exporting gas to the EU as well. This is a thorny issue because you cannot impose prescriptive requirements across European borders, and in any case, they must first be approved internally for a level playing field issue. The fact remains that these good practices should be set as a condition for market access. There are precedents for this in Europe, such as timber, agricultural products and chemicals.

### **Next steps:**

The next steps will involve the practical implementation of the above commitments, not only in regulatory and technical terms, but also in terms of factual collaborations with international partners, not forgetting the role of joint ventures, especially when it comes to reporting emissions from non-operated facilities.

A key tool for influencing foreign suppliers, for example, could be properly structured supply contracts and methane clauses to be included in them. It would not be a bad idea, for example, to start considering a unified format for gas supply contracts that specifically includes methane clauses and covers both pipeline and LNG supplies, even considering joint purchases for storage refilling.

### **To conclude**

Import routes to Europe become an extremely relevant element. In this complex scenario, one should not forget the role of the advanced technologies available today. To detect leaks on a larger scale, there is a need to collect as much data as possible on a global scale. This is where satellite remote sensing comes in.

For example, MethaneSAT will be able to detect both concentrated point sources and dispersed areal sources, but it will also show how these emissions change over time, making it easier to monitor performance against reduction targets.

Pending the full transition to renewable energy, tools such as these can help governments and companies use them to make informed purchasing choices. And – using hyperbole - they might even be used as certification tools.

I'll end it here. Food for thought

**Ilaria C. Restifo**  
Referente Italia



Mobile: +39 3405847257  
Skype: ilare13  
E-mail: [irestifo@edf.org](mailto:irestifo@edf.org)  
E-mail: [ilariac.restifo@outlook.it](mailto:ilariac.restifo@outlook.it)