

Bringing methane emissions down: New research on effective measures along the gas supply chain



Wednesday 15th February 2023 at 16:00 – 17:30 CET

Speakers:

- **Andris Piebalgs**, Professor at Florence School of Regulation at the European University Institute, and former European Commissioner for Energy (Barroso I) and for Development (Barroso II)
- **MEP Jens Geier**
- **Daniel Zavala-Araiza**, Senior Scientist, EDF Europe
- **Marta Ballesteros**, Associate Senior Manager, Milieu
- **Brendan Devlin**, Adviser for Strategy and Foresight, Directorate A on “Energy Policy: Strategy and Coordination”, DG ENER, European Commission
- **K. C. Michaels**, Legal Advisor, International Energy Agency (IEA)
- **Esther Bollendorff**, Senior Gas Policy Coordinator, CAN Europe
- **Manfredi Caltagirone**, Head, United Nations Environment Programme (UNEP) International Methane Emissions Observatory
- **Dr. Thomas Röckmann**, Professor on Science, Physics, Marine and Atmospheric Research, Atmospheric Physics and Chemistry, Utrecht University
- **Flavia Sollazzo**, Senior Director for EU Energy Transition, EDF Europe



Opening Remarks

Andris Piebalgs, Professor at Florence School of Regulation at the European University Institute, and former European Commissioner for Energy (Barroso I) and for Development (Barroso II)

“Scientific background and scientific knowledge really demonstrate where and how we could achieve a breakthrough”

Professor Piebalgs started the webinar remarking the weight of 2022 for the event’s topic, as science has proven that dealing with methane emissions is beneficial for the climate. By 2030 emissions should be cut by 30%, and the **commitment of Europe** to such targets further underlines the necessity for methane emissions to be tackled. A similar initiative might be undertaken in the USA, which signifies potentially increased attention at the international level on the topic. The **MARS system launched at COP** is crucial to get the global angle of the issue, an **important innovation** to tackle methane emissions.

MEP Jens Geier

“Methane is the second largest contributor to climate change, over 80 times more potent than CO2 for global warming”

MEP Mr. Geier reminded of the role of methane on global warming. As highlighted, methane is a **short-lived greenhouse gas (GHG)**. It is the **second greatest contributor to climate change** and over 80 times more potent than CO2 for global warming over a period of 20 years. Due to that, the European Commission presented a proposal for regulation on methane emissions reduction; **setting standards for measurement, reporting and verification** of energy sector methane emissions, it also aims to swiftly reduce emissions through **mandatory leak detection and repair**. The current draft regulation aims to achieve a **first Europe-wide regulation on methane** emissions in the energy sector

and thus contributes to setting global standards. While negotiations are currently under way at the European Parliament, a final compromise is yet to be found. At the same time, according to the MEP the key points are in his view an overall reduction in emissions, **protection of consumers from raising costs**, promoting **innovation** and **simplification**, taking into account best practices and solutions. The progress in regard to oil has to be integrated; the **external dimension of methane emissions must also be taken into account. In the oil and gas sector in particular, a large number of methane emissions are caused outside the borders of the EU. One goal, which the regulation must be achieve, are improvements in this area of course without jeopardizing the aspect of energy security.**

Presentation of the study findings:

New research highlighting opportunities to capture wasted gas and significantly cut methane emissions: Daniel Zavala-Araiza, Senior Scientist, EDF Europe

“A path below a 1.5 degree raise in the global temperatures is impossible without cutting methane emissions”

Introducing the following speaker, **Professor Piebalgs** mentioned that the EU legislation addresses normal EU territory but methane emissions concern bigger territory, therefore discussion on **how to address the external dimension** of methane emissions is necessary. **Mr. Zavala-Araiza** started his intervention by mentioning science-based data which prove that a **path below a 1.5 degree raise in the global temperatures is impossible without cutting methane** emissions. The time-window is short for reducing methane emissions, in order to have a crucial impact on climate change. When methane emissions are measured, it's shown that they're higher than the inventories officially report; **current technological solutions** are crucial to cut these levels. **Gas capture** could play a crucial role in the issue, tackling energy security. **Measurement-based data** is essential and monitoring approaches based on new technology are to be seen as significant: satellites, cameras on cars are just a few

examples. The **tool TROPOMI** can produce already data on country scale for emissions. The data has to be brought together, with an integrated and transparent approach.

Milieu Study: Marta Ballesteros, Associate Senior Manager, Milieu

“A methane regulation would establish an information duty on methane emissions for importers of fossil fuels from outside the EU”.

Ms. Ballesteros introduced the report on the study her team from Milieu Consulting has produced for CAN Europe answering the question on whether it is legally feasible to extend the scope of proposal for Methane Regulation to operators outside the EU. The current proposal for Methane Regulation envisages three types of measures to regulate and reduce methane emissions within the EU i.e., measures ensuring monitoring of emissions, their reporting and verification (MRV), measures to detect and reduce leakage (LDAR) and measure to ban flaring (BRVF). However, no external dimension of these measures is included in the proposal. Ms. Ballesteros explained that the report addressed such question from two aspects: the EU legal capacity to adopt legislation that covers operators outside the EU and the EU capacity to enforce that legislation. In relation to the first aspect, the EU has recognised jurisdiction to adopt legislation establishing obligations on operators outside the EU as it is evident with several examples of existing EU legislation such as the EU ETS Directive. Furthermore, the CJEU jurisprudence has confirmed the EU’s legislative capacity based on the principle of **territoriality whereby a link to the EU territory** is a sufficient element to justify EU jurisdiction. For example, the EU has jurisdiction to impose on non-EU aircraft operators CO₂ emission reduction measures when flights depart from or arrive at EU airports. Under the WTO, there is recognition to impose trade conditions based on environmental considerations if they are imposed on operators introducing products into the EU market and are not discriminatory or a disguised restriction to international trade. On the first aspect we can conclude that while the proposal for Methane Regulation establishes an **information duty on methane emissions for importers** of fossil fuels from outside the EU, there is no legal barrier to also require non-EU operators introducing fossil

fuels in the EU territory to comply with MRV, LDAT and BRVF. Furthermore, it could impose methane emission reductions on operators outside the EU trading fossil fuel with the EU.

The real issue is the second aspect: the enforcement. The legal analysis presented looks at enforcement measures based on other EU instruments. Enforcement measures on the production side are found in **the EU ETS and CBAM which can be used as models**. IMEO could have a role, monitoring and verifying emissions including on the spot visits similar to the role of ICAO or IMO where the **European Commission** has a supervisory role, ensuring **coordination in the implementation**. However, this option has several problems such as a governance issue related to the composition of IMEO members. Taking the model of the EU ETS the level of ambition of the International **CORSIA system** is lower as there is no obligation to reduce emissions. Another example could be based on the Official Controls Regulation (OCR) or FLEGT based on bilateral agreements where obligations and emission standards would be introduced in the agreement who's the implementation and enforcement would rely on the non-EU countries with the Commission's supervision, including on the spot visits. Another option would be to ensure the enforcement of obligations from the demand side, in other words, the EU operators. The model here would be the EUTR where EU operators are responsible for ensuring the due diligence and traceability of the products entering the EU.

The models mentioned could be combined. The clear conclusion is that, in Ms. Ballesteros' analysis, the legal feasibility to expand the scope of the Methane Regulation is clear, it is a question of designing the enforcement model according to the political conditions. It seems a question of willingness rather than legal feasibility.

Reactions from speakers

Brendan Devlin, Adviser for Strategy and Foresight, Directorate A on "Energy Policy: Strategy and Coordination", DG ENER, European Commission

“The key is for the European Union to think about its international responsibility at all times”

Mr. Devlin mentions how the proposal based on the CAN Europe report is difficult to implement; **trade law issues** are immensely challenging to integrate in domestic legislation. The EU must however think about its **international responsibility**, taking the current market turbulence into account. Waiting for a **proper timeframe** in which to act is therefore necessary. Emissions need in reality to be brought down by more than 30% by 2030, and in the gas and oil sectors the percentage has to reach at least 75%. In a time of nervousness in the gas markets, it is as a result necessary to think about how to act when the current turbulence will have passed.

Kenneth C. Michaels, Legal Advisor, International Energy Agency (IEA)

“The EU must provide outside countries with technical support to show them how to do it”

Mr. Michaels commented that emissions from activities within the EU borders amount to only 1.5 million tonnes of emissions, while the **emissions associated with imported oil and gas amount to 10 million tonnes**. However, in parallel with discussions on legal options to address emissions from imports, the EU in this context can play a supportive for to provide external actors with **technical solutions** to implement new reduction standards. Information in companies plays a huge role in emission reduction, especially concerning the **cost-effective** nature of gas abatement. Lack of infrastructure can also be a significant barrier to achieving reductions because the captured gas has to be able to re-enter the market in order to make abatement cost-effective.

Esther Bollendorff, Senior Gas Policy Coordinator, CAN Europe

“Why not look at introducing methane into the ETS and CBAM?”

Coming from the climate protection side, **Ms. Bollendorff** based her intervention on a Paris Agreement-friendly scenario, in which energy consumption and gas emissions have to be reduced. Methane gas reduction in this sense is crucial; the **legal feasibility** for emission reduction outside the EU border is a fundamental aspect to consider. There are similar initiatives taken by the EU from which to draw lessons; using existing instruments and applying them to this gas could be the way to proceed. The reduction of imports from Russia is an element to consider as well. An option could be **including methane in the ETS and CBAM**, while it is all in all necessary to push action on the Commission and Parliament to proceed in this sense.

Manfredi Caltagirone, Head, United Nations Environment Programme (UNEP) International Methane Emissions Observatory

“In any decarbonization scenario, action on methane mitigation is key”

During the discussion, a question was raised from audience on how the improvement in methane emissions could lead to a prolongment of the fossil era; another question focused on how to act on methane emissions avoiding a raise in costs. **Mr. Caltagirone** then took the floor, addressing these arguments; he underlined how direct action on **methane mitigation is key in any decarbonization scenario**, to perform this hard transition that is compulsory in the next decades. **Open reliable data** need to be provided, while the balance of force between governments in oil and gas producing countries is often not towards the governments, but towards the companies themselves, and this has to be accounted for as well. Companies have to be given the opportunity to use the available data as efficiently as possible. **Emission reduction has to be transparent** for a matter of accountability over time. Companies can, moreover, **engage with IMEO** providing data, following strict requirements and procedures. It's important that UNEP retains control, as it provides the required credibility for the provision of accountable data by countries and producers.

Dr. Thomas Röckmann, Professor on Science, Physics, Marine and Atmospheric Research, Atmospheric Physics and Chemistry, Utrecht University

“Legislation cannot be made, if not based on reliable data”

Professor Röckmann started by underlining the **value of data**, as the efforts made by the scientific community to quantify methane emissions are of enormous value if legal measures are to be taken. He divided the issue in imported and domestic emissions; concerning the first he mentioned **satellite instruments as a valuable tool**, especially considering future innovations. **Transparency is also key**; data has to be available, not to be purchased by companies. He also mentioned how technology transfer must occur to make other countries able to make accurate measurements autonomously. On domestic emissions, Professor Röckmann highlighted that cities and production regions are well differentiated among each other; **differentiated measurements** are therefore necessary, but introducing new methods could be problematic because of a capacity issue. It could be however seen as an **opportunity for the labour market**, so it is necessary to address all aspects of the methane chain with the technological methods available.

Flavia Sollazzo, Senior Director for EU Energy Transition, EDF Europe

“Taking an ambitious action on methane emissions’ reduction is a triple win: for the climate, for energy security channels, and for the economy”

Ms. Sollazzo was asked to focus her intervention on a specific issue; combining emission reduction with a **stability of costs**. As a result, she moved on to highlight how taking an ambitious action on methane emissions’ reduction is a triple win for the climate, for energy security channels, and for the economy. The contributions of the previous speakers to the event, she continued, prove that **scientific data offer concrete solutions**. 70 percent of the emissions can be cut using existing **technologies** that have zero or low cost, saving gas quantities equivalent to the demand of France. It is therefore an **unmissable opportunity**, considering the current energy and economic crisis.

Reaction by MEP Geier

MEP Jens Geier

MEP Mr. Geier expressed scepticism towards the sense of global responsibility that oil and gas producers in middle eastern countries can perceive. To prevent methane emissions on the production side, it is a better option to try and **convince these actors that catching the methane** and bringing it to the market **is a more promising approach** than only private protection, while enforcing our standards on the importers can be a difficult approach. Last but not least, Mr. Geier replied to some speakers' points mentioning that it is important to be cautious with following the CBAM approach.

Q&A session with the audience

During the Q&As' discussion, **Mr. Daniel Zavala-Araiza** underlined that implementation of the existing tools is necessary, in order for us to avoid missing the current opportunity provided by the times. **Ms. Marta Ballesteros** focused on the international aspects of the regulation, underlining that it is on the politicians to decide to which extent we need to proceed, in order to find an agreement that is comprehensive. Moving on, **Ms. Esther Bollendorff** addressed one remark centred on the risk of delaying the reduction of fossil fuels' use; in her opinion this broader challenge has to be addressed as well, and not be neglected. On the CBAM points, she underlined its role as an incentive to move from polluting to sustainable energy sources, tackling energy security at the same time. **Mr. Devlin Brendan** highlighted that to avoid carbon lock-in, it is fundamental to use the emissions that are not ending in the consumers' flaring, venting, etc. Collection of methane emissions in the EU area is, according to Mr. Brendan, immediately feasible and does not prolong the life of oil and gas beyond what it is imagined to be in the EU; it's good for energy security, for exporting countries and for the climate.

Closing remarks

The closing remarks by **Mr. Andris Piebalgs** revolved around two messages; on one hand the **adoption of the methane regulation is already a success in itself**, and regulators have to understand that it consists of a **win-win** situation. On the other hand, it's important **not to look too much inwards**, without realising that no other country or region has a similar legislation in place; there are companies putting much attention to it, but a regulation could help unifying this effort. At the same time the EU is not alone, there is international understanding to the cause, but the EU has a particular chance in being a big consumer. It can be a **significant contributor**, and there are legal and economic opportunities in this process. **Mr. Ilias Grampas**, on behalf of the Secretariat of the European Parliament Intergroup also thanked Professor Piebalgs and all speakers for their remarks, while summing up the discussions, he moved on to stress that we need to keep working on tackling methane emissions, as **the topic is key for the European Green Deal agenda, but also for our efforts and responsibility at the international level**. New research findings show significant climate and economic benefits, so we need to **base our efforts on science**, ensure **transparent and reliable data**, and boost our efforts in order to keep our methane emissions down and ambitions high.