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BULLETIN

The EU's Plans to Reduce Methane Emissions in the Energy Sector

Zuzanna Nowak

Later this year, the European Commission (EC) will present draft legislation aimed at increasing the standards of monitoring ,reporting, and leak detection of methane emissions. Although there is a consensus in the EU regarding the need to reduce emissions of this second-most-harmful greenhouse gas after CO_2, the implementation of the EC's methane strategy and its expected costs are of concern to energy companies, including Polish ones. The EC will have to consider implementing a system of compensation and incentives to mitigate the effects of the proposed reforms.

Global warming is a consequence of the release of greenhouse gases (GHG) into the atmosphere. Different gases contribute to climate change and methane (CH_4) is, after carbon dioxide (CO_2), the second most harmful of them. Emissions of this gas pose a double risk because they trap heat in the atmosphere and increase air pollution. Limiting methane emissions is therefore important to achieving both global climate goals and improvements in public health.

Methane Emissions in the Energy Sector. According to the estimates of the International Energy Agency (IEA), of the around 570 million tonnes of methane emitted annually into the atmosphere, 40% comes from natural sources and 60% from human activity. Agriculture (e.g., livestock production and rice cultivation) is responsible for a quarter of anthropogenic emissions, followed by the energy sector, which includes emissions from natural gas (45 million tonnes), coal (39 million tonnes), oil (39 million tonnes) and biofuels (11 million tonnes). In the energy sector, methane leakages occur across the whole value chain, from plants producing and processing fossil fuels to transmission and distribution systems. Some of these emissions from fossil fuels result from accidents and failures (e.g., leaks from installations) and are accidental, but methane is also intentionally released into the atmosphere, for example, for safety reasons through venting or flaring. The scatter of methane emissions along the entire value chain, as well as the still limited possibilities of monitoring them, mean that the scale of these emissions is not yet precisely known.

Although only about 19% of anthropogenic methane emissions in the EU come from the energy sector (compared to 53% from agriculture and 26% from waste), action in this field is recognised by the EC as a priority. According to Commission data, the energy sector can reduce methane emissions most efficiently of the sectors with low to near-zero net costs: methane that is not leaking or can be captured in energy installations has commercial value, potentially reducing the cost of the required investments.

Accelerating the Reduction of Methane Emissions. In its 11 December 2019 Communication on the European Green Deal (EGD), the EC emphasised that in the context of the EU plans for decarbonisation by 2050, the reduction of energy-related methane emissions is indispensable. In the impact assessment of the Climate Target Plan, the EC indicated that the current non-CO_2 emissions reduction policy should lead to a 29% reduction in methane emissions by 2030 compared to 2005 levels. However, in order to meet the Fit for 55 target of a 55% GHG emissions reduction by 2030, it is necessary to reduce methane emissions alone by 35-37% by then. Therefore, on 14 October 2020, the EC presented and put up for discussion its Methane Strategy. The document enumerates a number of cross-sectoral initiatives and

activities for individual sectors, especially energy, necessary to undertake in order to achieve the new climate goals.

Among the cross-sectoral actions are unifying the methane emissions reporting framework and applying the highest reporting standards of the United Nations Framework Convention on Climate Change (UNFCCC), establishing an independent international methane emissions observatory, and improving satellite surveillance of emissions. The EC also wants to amend the existing regulations related to emissions, e.g., the Emissions Trading Scheme (ETS), the Effort Sharing Regulation (ESR), and the Industrial Emissions Directive (IED). Many of these reviews are expected to take place by the end of 2021.

Activities related to the energy sector will cover the entire supply chain of crude oil, gas (including LNG and biomethane), and coal. Pending the preparation of legislation obliging energy companies to undertake efforts to reduce emissions (e.g., measurement, reporting, and verification—MRV; improvement of leak detection and repair—LDAR), the EC encourages them to act voluntarily. The strategy calls for, among other things, sector-wide implementation (including in coal mining and closed mines) of a methane emissions measurement and reporting framework developed by the Oil and Gas Methane Partnership (OGMP, an initiative launched at the UN Climate Summit in New York in 2014, bringing together the largest companies in the oil and gas sector).

International cooperation constitutes an important aspect of the strategy. Although the EU contributes directly to only 5% of global methane emissions, as an importer of fossil fuels it is responsible for 3-8 times more emissions related to the production and transport of energy resources. Therefore, the EC intends, among others, to conduct diplomatic activities encouraging fuel exporters to join the OGMP, to cooperate with countries such as the U.S. and Mexico where methane legislation is already developed, and to strive for a global increase in methane emission reporting standards.

Challenges for the EU Plans. The Member States agree on the need to reduce methane emissions in the energy sector, all the more that natural gas (composed mainly of methane) is perceived as a transition fuel on the way to decarbonisation. Yet, renewable energy sources (RES) lobbyists argue that it is better to eliminate the use of fossil fuels right away than to take half measures. This postulate is, however, impossible to implement due to the instability of RES supply. Many climate activists are also calling for the inclusion of the petrochemical sector and plastic producers in future methane legislation because of their highly emitting activities. Another group of sceptics of the EC's actions emphasises that it is unrealistic to achieve the planned reduction of methane emissions by 2030 due to the long legislative process in the EU, which would mean no new regulations earlier than 2023-2024. The consultations on the strategy have shown that the very legal basis of the EU methane regulations—Art. 194 TFEU (regarding the EU's energy policy)—is questionable and it is suggested to extend the basis also to include Art. 192 TFEU (on environmental protection). Others contest the choice of the most demanding methodology for measuring emissions and the EU's ability to conduct methane diplomacy among exporters of energy resources (e.g., Russia). However, the greatest concerns about the new regulations are raised by European businesses, including the Polish Oil and Gas Company (PGNiG), Gaz-System, and the JSW Group. They indicate that the expected costs to adapt to the MRV and LDAR standards are underestimated and will constitute too heavy a burden for them.

Perspectives. Without goodwill and incentives for individual countries and energy companies, the reduction of methane emissions in the EU will be insufficient to meet the Union's climate goals.

The new regulations will particularly hit the Polish energy sector, especially coal mining, which is considered one of the largest sources of methane emissions in the EU. For a sector already burdened by the high costs of CO_2 emissions, the additional obligations may translate into an increase in energy prices for end users and lead to the bankruptcy of some companies. To counter these effects during the period when these mines are vital to ensuring Poland's energy security, efforts must be intensified to convince the EC to provide appropriate support mechanisms for mines, including subsidies for innovation in energy production from mine methane, and for as long as necessary.

Given that the European regulations are to ultimately cover emissions from fossil fuels consumed but also imported to the EU, the upcoming COP26 climate conference may be a good occasion for the establishment of a methane cooperation agreement between stakeholders in the sector. With this in mind, U.S. President Joe Biden and President of the EC Ursula von der Leyen declared in a joint statement on 18 September this year their willingness to build a global coalition in Glasgow to reduce methane emissions.

Editors: Sławomir Dębski, Patrycja Sasnal, Rafał Tarnogórski, Łukasz Maślanka, Justyna Szczudlik, Daniel Szeligowski,
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