Reducing methane emissions: opportunities and barriers in waste and agriculture through biogas production

July 17, 2020 (09:00 – 12:30)

Context

The European Green Deal identified methane emissions as an important issue requiring an accelerated initiative, and the Energy Union Governance Regulation called on the Commission to deliver a strategic plan for reducing methane emissions.[1] Accordingly, Commission services are preparing an EU methane strategy with an overarching aim to reduce methane emissions in the EU as well as to support similar action internationally. The Commission considers that an ambitious, cross-sectoral, and international approach is required to significantly curb greenhouse gas emissions by 2050, improve air quality, and reinforce the EU's global climate leadership.

Approximately 41% of global methane emissions originate from natural sources, like wetlands or wildfires, whilst the remaining 59% is the result of human (anthropogenic) activity. Agriculture, waste and fossil fuels constitute almost the entirety of these anthropogenic emissions. Estimations of the allocation of emissions per sector continue to evolve as reporting and data collection improve, however current estimations for the EU indicate that agriculture is responsible for the largest share (40-53%), followed by waste (20-26%), and fossil fuels (19-30%).[2] The largest source of agricultural methane emissions is enteric fermentation, followed by manure, and to a lesser extent rice cultivation. In the waste and wastewater sector, the main identified sources of methane are uncontrolled emissions from landfill gas, the treatment of sewage sludge, and leaks from biogas plants.

Methane emissions from waste and agriculture have been significantly reduced in recent years, with the drivers of these reductions varying per sector. In agriculture, reductions can be attributed to structural changes and productivity gains, whilst in the waste sector legislation has been introduced to address site management, including landfill gas emissions. Despite these improvements, significant potential exists for further reductions across both sectors. One crosscutting avenue for emission reductions is through further exploiting the opportunities that biogas production can offer as a means of turning high methane content organic waste and residue streams into high value energy.

Actions announced in the methane strategy will focus on means to better measure, report, and reduce methane emissions, whilst also providing the enabling conditions to improve the capture and utilisation of emissions where appropriate. Nevertheless, any action regarding biogas production must be carefully framed in order to avoid perverse incentives that could lead to an overall increase in emissions from the waste and agriculture sectors.

Workshop

In this context, the Commission is hosting a virtual stakeholder workshop to gather input on the opportunities and barriers to achieving methane reductions through biogas/ biomethane

[1] Regulation (EU) 2018/1999 of the European Parliament and of the Council, Article 16.
[2] EEA, (2020). https://www.eea.europa.eu/data-and-maps/data/data-viewers/greenhouse-gases-viewer

production in the waste and agriculture sectors. The Commission welcomes interested parties to participate in the event.

The event will take place on **July 17, 2020 from 9:00 to 12:30** via Webex (JOIN MEETING). For any further questions, contact: ENER-METHANE@ec.europa.eu.

Guiding questions

Participants will be asked for their views on a number of issues, not limited to the following:

- *What are the potential barriers to utilising organic waste and agricultural residues to produce biomethane?*
- *How can the potential of raw material collection be further improved through best practices at the level of harvesting and storage?*
- *How could cooperation among primary producers or in alliance with other stakeholders from the value chain be better promoted to help the development of sustainable production through a territorial approach?*
- *What economies of scale or adaptations of business models in the value chains are needed to implement solutions?*
- *What needs to be done at EU, national, regional, or local level to incentivise further the collection and use of methane emitting raw materials for biogas/ biomethane production?*
- *Is there an important economic potential for biogas production to contribute towards economic recovery from COVID-19?*
- *Where are the knowledge/ innovation gaps in this field?*

Agenda

9:00 – 9:10	**Introduction**	Malcolm McDowell - Team Leader, Unit B4, DG Energy, European Commission
9:10 – 9:30	**Framing:** Contribution of feedstock for biogas production to 2050	Daan Peters - Director, Guidehouse
9:30 – 9:50	**Perspective:** Biogas sector	Harm Grobrügge - President, European Biogas Association (EBA)
9:50 – 10:05	**Perspective:** Agriculture sector	Bruno Sander Nielsen - Senior Consultant, Copa-Cogeca/ Danish Agriculture and Food Council
10:05 – 10:20	***Case study 1:*** *Experience from livestock farming in Finland*	Sami Vinkki - Sales Director, DEMECA
10:20 – 10:35	***Case study 2:*** *Experience from livestock farming Spain*	Jacob Bouzada - Technical Manager, Biogastur
10:35 – 10:55	**Q&A**	
10:55 – 11:10	**Perspective:** Waste sector	Valérie Plainemaison - Secretary General, European Federation for Waste Management (FEAD)
11:10 – 11:25	***Case study 1:*** *Experience from waste supply chains in Spain*	Cesar Sandig Gimeno - Director General, GHK Gipuzkoa
11:25 – 11:40	***Case study 2:*** *Experience from landfill waste in the Netherlands*	Heijo Scharff - Senior Advisor, Afvalzorg
11:40 – 12:00	**Q&A**	
12:00 – 12:20	**Perspective:** Addressing methane leakages in biogas plants	Angela Vesenmaier - University of Stuttgart
12:20 – 12:30	**Conclusion**	Malcolm McDowell - Team Leader, Unit B4, DG Energy, European Commission