

EBA report sheds light on the efforts of the European biogas industry to reduce methane emissions with sustainable biogas production

Brussels 19/04/23 – The European Biogas Association (EBA), in collaboration with international biogas experts, is launching a [white paper](#) on methane emissions originating from anaerobic digestion (AD) plants to support and advise the industry, European policymakers, and AD operators. *“The biogas and biomethane industry is a large net reducer of methane emissions, but a minimal share of fugitive emissions can occur during the biogas production process. The sustainable scale-up of the sector to support the energy transition and reach the 35 bcm biomethane production target by 2030 represents an opportunity for the value chain to achieve efficient plant design and implement leak mitigation strategies.”* highlights Giulia Cancian, EBA’s Secretary General.

Biogases have a pivotal role in reducing EU methane emissions in the agricultural, energy and waste sectors, as recognised by the 2020 EU Methane Strategy.¹ Methane emissions are avoided when methane emitted from organic matter, such as manure and biowaste, are brought to the closed and controlled environment of an AD plant, instead of being released into the atmosphere.

However, methane emissions can also occur accidentally along the biogas production process. The white paper ‘*Design, build, and monitor biogas and biomethane plants to slash methane emissions*’ concludes that the biogas industry is well advanced in developing strategies to mitigate those emissions. **According to data from voluntary and mandatory measurements analysed in the paper, these remain minimal when appropriate measures are taken.** Current plants are planned, built, and operated specifically to prevent methane losses. The state of the art of biogas plants and affected plant components has significantly advanced and AD plant developers and equipment manufacturers are continuously working on further improvements.

15 years of on-site experience show that **the most cost-effective manner to reduce methane emissions at AD plants is the combination of regular self-inspections, periodic reporting of methane emissions as part of monitoring programmes and training courses for plant operators.**

Minimising methane emissions at AD facilities has several additional beneficial effects. Reducing methane emissions is cost-efficient, as small losses of the energy contained in methane gas can lead to considerable financial losses. Moreover, avoiding methane leakages is important for safety, environmental aspects and odour avoidance.

According to Mieke Decorte, EBA’s Technical and Project Manager, *“Methane emission mitigation can be further strengthened with sound research improving the understanding of methane emissions at technical level. Additionally, policies should acknowledge and incentivize mitigation measures undertaken by individual plants. For example, an update of the default values for methane emissions included in the Renewable Energy Directive Annex VI should accommodate mitigation measures in place in existing plants and acknowledge the improvements in design and operations from the past decade”.*

Contact

Angela Sainz – EBA Communications Manager, +32 483071046 sainz@europeanbiogas.eu

Mieke Decorte – EBA Technical and Projects Manager decorte@europeanbiogas.eu

¹COM, 2020. COM/2020/663 final Communication from the commission to the European Parliament, the council, the European economic and social Committee and the committee of the regions on an EU strategy to reduce methane emissions. https://energy.ec.europa.eu/system/files/2020-10/eu_methane_strategy_0.pdf

About the European Biogas Association (EBA)

The EBA is the voice of renewable gas in Europe. Founded in February 2009, the association is committed to the active promotion of the deployment of sustainable biogas and biomethane production and use throughout the continent. The association counts today on a well-established network of over 250 national associations and other organisations representing the whole biogas and biomethane value chain.

About biogas and biomethane

Biogas is produced from the decomposition of organic materials. These residues are placed in a biogas digester in the absence of oxygen. With the help of a range of bacteria, organic matter breaks down, releasing a blend of gases: 45 – 85 vol% methane (CH₄) and 25 – 50 vol% carbon dioxide (CO₂). The output is a renewable gas which can be used for multiple applications.

Biomethane – purified biogas – is a renewable alternative to natural gas. Its multiple applications include heat and power supply for our buildings and industries, and renewable fuel production for the transport sector.