Biomethane: a global stocktake

Webinar on the current state and future opportunities in the development of biomethane

International Energy Agency

IEA Low-emissions Gases Work Programme

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20 November 2024

Recognising the growing importance of low-emissions gases (including biomethane, low-emissions hydrogen and e-methane), the International Energy Agency has developed a Low-emission Gases Work Programme to closely track market developments in this sphere and facilitate dialogue between emerging producers and consumers. This work is supported by the Clean Energy Transitions Programme, the IEA's flagship initiative to transform the world's energy system to achieve a secure and sustainable future for all.

Biomethane is a gas produced through the treatment of organic waste as a feedstock, notably from agricultural by-products, food scraps or manure and wastewater. Through the gasification and purification processes, a near-pure stream of methane can be produced, giving biomethane essentially identical chemical and physical properties to natural gas, all the while avoiding the emissions from the decomposition of the feedstock that would otherwise have been vented. As a result, biomethane can be injected into natural gas grids and used in traditional applications without the need for retrofitting existing transport and point-of-use infrastructure, with the added benefit of reducing the carbon intensity of gas consumption.

As a source of low-carbon energy produced domestically and from waste products, biomethane has key potential in contributing to reducing energy-related GHG emissions, providing system flexibility and bolstering energy security. The IEA estimates that, by 2027, global biomethane production could nearly double from 2023 levels, reaching over 16 bcm. The majority of incremental volumes are set to come from Europe and North America – where over 90% of current production is concentrated – but markets like India, Brazil and China are growing fast and have significant potential. In the longer term, the IEA's STEPS scenario sees global biomethane demand reaching 150 bcm$_{\text{-eq}}$ by 2050, with even greater upside in faster decarbonization scenarios.[1]

This webinar aims to take stock of current progress in meeting production targets (or production potential) in key biomethane markets, and to highlight some of the key factors that are contributing to unlocking the value proposition of biomethane. How can current policies and incentives be tweaked to unlock production potential? Are policy tools adequately targeting demand stimulation? These and other questions will be at the centre of our discussion.

Register in advance for this webinar:

https://meetoecd1.zoom.us/webinar/register/WN_BZ5rRbZ7Qk6BYMAWjECPqA

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[1] Please refer to IEA World Energy Outlook (2024) for further coverage of IEA scenarios.

Agenda

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14h00 (CET)	**Opening remarks** *Keisuke SADAMORI, Director, Energy Markets and Security, IEA*
14h05-14h15	**Biomethane: time to unleash the green giant?** *Gergely MOLNAR, Gas Analyst, IEA*
14h15-15h30	**<u>The current state and future opportunities in the development of biomethane</u>** *Moderated by Frederick RITTER, Gas Analyst, IEA* **Renewable natural gas in the United States: the world's largest RNG market** *Sam WADE* *Director of Public Policy, RNG Coalition* **Europe: biomethane in Europe's decarbonisation strategy** *Harmen DEKKER* *Chief Executive Officer, European Biogas Association* **Brazil: waking up the green giant** *Renata ISFER* *Executive President of the Brazilian Biogas Association* **India: the ambition of compressed bio gas** *Anand Kumar JHA* *Deputy Secretary, Ministry of Petroleum and Natural Gas* ***Q&A***

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