E-methane: a new gas for a net-zero future?

Webinar on the challenges and opportunities presented by the e-methane value chain

International Energy Agency

IEA Low-emissions Gases Work Programme

Webinar on the challenges and opportunities along the e-methane value chain

5 September 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.

E-methane is produced by combining low-emissions hydrogen with carbon resources and has almost identical chemical and physical properties to natural gas. Hence, e-methane has the potential to contribute to the decarbonisation of gas networks without the need for retrofitting existing gas infrastructure such as LNG receiving terminals, LNG tankers, gas pipelines, and consumer gas equipment.

E-methane has also a wide range of storage options. Besides salt caverns, it could also be stored in porous formations in gaseous form and in LNG storage tanks. As such, e-methane could play a key role in meeting seasonal or short-term energy demand swings. Moreover, e-methane could enable the coupling of future methane and hydrogen networks, i.e. surplus hydrogen could be converted into synthetic methane before being injected into the methane system.

The complex value chain underpinning the production of e-methane means that both investment costs and operational expenses are high. E-methane production costs are estimated to be five to twenty times higher than current Asian LNG spot prices. E-methane's high production costs require further technological development and policy support, including through closer dialogue between future producers and consumers.

The current webinar aims to provide an assessment of the challenges and opportunities related to the development of international e-methane value chains. The webinar aims to identify policy options to enable the establishment of viable business models and facilitate the dialogue between emerging suppliers and buyers.

Register in advance for this webinar:

https://meetoecd1.zoom.us/webinar/register/WN_n-JruJsbQ9mV-40mPWJ0-g#/registration

For any questions/comments, please contact:

Gergely.Molnar@iea.org
Takeshi.Furukawa@iea.org

Agenda

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09h00 (CET)	**Opening remarks** *Keisuke SADAMORI, Director, Energy Markets and Security, IEA*
09h05-9h20	**E-methane: a new gas for a net-zero future?** *Gergely MOLNAR, Gas Analyst, IEA*
9h20-10h30	**Emerging value chains: challenges and opportunities** *Moderated by Gergely MOLNAR, Gas Analyst, IEA* **Developing e-methane value chain for carbon neutral city gas supply in Japan** *Ryota KUZUKI, Ph.D.* *Division Head, Int'l Certification & Standards Harmonization, The Japan Gas Association* **Building transatlantic partnerships for e-gas** *Yves VERCAMMEN, Chief Corporate Officer, TES-H2* **E-methane market prospects in Northern Europe** *Saara KUJALA, Chief Executive Officer, Nordic Ren-Gas* ***Q&A***

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