

Boosting hydrogen market with blending in existing gas infrastructure

GIE positions

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Blending hydrogen molecules in the existing gas infrastructure is part of the solutions that can help deliver the European Commission's Hydrogen strategy. Voicing around 70 members from 27 countries, GIE presents how and what are the policy levers that can trigger blending's potential. The GIE Position Paper is available [here](#).

But first, what's hydrogen blending?

- Hydrogen blending is the injection of a share of hydrogen into the existing gas infrastructure. Natural gas is itself a blend where the main component is methane.
- In the absence of dedicated hydrogen infrastructure and/or consumption centres located nearby, the existing gas infrastructure gives injected hydrogen the access to an EU integrated gas market by retrofitting existing gas infrastructure.
- It is a cost-effective solution in the transitional phase before reaching a dedicated hydrogen system.
- It enables quick decarbonisation wins and scale-up of (de)centralised hydrogen production/technologies.
- It represents a cost-efficient transitional solution to reduce the costs for energy transition in the initial phase in several EU countries.

Ramping up the H₂ market

To support the development of the market of the molecule of the future, large volumes are needed. And producers must be connected to consumers, enabling economies of scale. This is where gas infrastructure operators come in, offering transportation and storage capabilities. And blending will be part of the solutions and services they offer to society.

Voicing Europe & its multiple pathways

GIE is the association of the European operators of the gas infrastructure. It gathers around 70 members from 27 countries active in gas transmission, underground storage and import terminals. GIE members work and innovate to support the different regions to deliver EU Green Deal's objectives. Existing and future gas infrastructures are crucial assets for Europe: they can set the EU on track for global leadership for hydrogen while making sure no one is left behind in the process. Blending is part of the multiple solutions to do so. In this position paper, GIE explains what policy levers are needed to facilitate their activities in blending.

Boyana Achovski, Secretary-General of GIE states: *“There are several pathways to integrate hydrogen into our energy systems – clusters, blending, dedicated hydrogen infrastructure, etc.. Our well-developed gas infrastructure is able to follow all of them. Policy-makers should take into account the advantages blending provides in accelerating the ramp-up of the hydrogen economy and contributing to the climate targets of the EU.”*

GIE’s key messages are:

- ➔ Legislation should set-up an explicit regulatory framework for hydrogen blending into gas networks.
- ➔ Investments of gas infrastructure operators to enable hydrogen blending should be adequately remunerated.
- ➔ Interoperability should be guaranteed at Interconnection Points.
- ➔ Local and specific solutions to cater for regional specificities should be allowed, while maintaining the integrity of the internal market.
- ➔ R&D and advanced gas quality handling tools should be further developed to continue investigating technical possibilities of blending.

Francisco de la Flor, Sponsor of GIE System Operation & Development Area explains:

“Gas infrastructure operators stand ready to integrate hydrogen blends into their systems as quick as necessary where this option is chosen. They have the technical expertise to guarantee the unhindered gas flow across borders, while also considering regional specificities. Exploiting the benefits of hydrogen blending is a great opportunity we should not miss to accelerate the decarbonisation of our energy system.”

Piotr Kuś, Sponsor of GIE CH₄ Area continues: *“Blending is an effective and cost-efficient transitional solution for certain EU regions. It can enable quick decarbonisation wins, while at the same time, supporting the integration of hydrogen into our energy systems. We therefore ask policy-makers to consider the advantages of the existing gas infrastructure to enable the hydrogen market ramp-up at efficient costs for society.”*

Who is GIE?

GIE is the association of the European gas infrastructure operators. GIE members are active in transmission, storage and regasification via LNG terminals. They work and innovate with the infrastructures for renewable and low-carbon molecules. That includes natural gas, hydrogen and biogases. Gathering around 70 industry entities from 27 European countries, GIE perfectly embodies the multiple decarbonisation pathways of the EU regions. Gas infrastructure can become the backbone of the new innovative energy system, allowing European citizens and industries to benefit from a secure, affordable and sustainable energy supply by 2050.

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