Call for Market Interest



Hydrogen Network Development:

Connection between BE (Ghent – Antwerp) & DE (Eynatten)

October 2024



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Disclaimer

This document (the "Information Memorandum") sets forth certain information regarding the transportation of Hydrogen which is considered as a solution to achieve the targets of decarbonisation. The information contained in this document reflects the point of view of Fluxys Hydrogen SA ('Fluxys hydrogen'), a 100% affiliate of Fluxys Belgium, (hereafter "Fluxys") at this stage and is publicly disclosed for information purposes only and without any commitment whatsoever from Fluxys hydrogen, and should not be considered to give rise to any contractual relationship between Fluxys hydrogen and any interested party.

I. Introduction

The European Union has by means of the Green Deal set itself the objective to be carbon neutral by 2050. To reach this ambitious target, the use of hydrogen will be a key enabler. In order to facilitate the deployment of the hydrogen value chain, Fluxys hydrogen, as a fully independent and neutral hydrogen infrastructure company, is ready to build an open access hydrogen network in Belgium to accommodate the transport of hydrogen between producers and consumers within Belgium as well as to connect with open access hydrogen infrastructure in neighbouring countries.

A. Cooperative process to assess market needs

Since 2021, Fluxys has engaged with potential users of the future hydrogen infrastructure to exchange information on their hydrogen projects. Through those interactions, Fluxys assessed the market needs and how the infrastructure could be developed geographically and over time. Fluxys has made some proposals to offer a competitive infrastructure connecting supply and demand, while taking the actual natural gas grid into consideration with the aim of maximum repurposing. The proposals are based on:

- High density locations of future hydrogen producers and consumers in Belgium and neighbouring countries
- The data of the RFI-survey (Request for Information) organised by Fluxys
- The existing high pressure natural gas grid of Fluxys and the potential of repurposing pipelines
- Future import locations, both terminal and pipelines
- Future interconnections with adjacent countries

This results in the long term envisioned network plan depicted below, being part of the European Hydrogen Backbone.

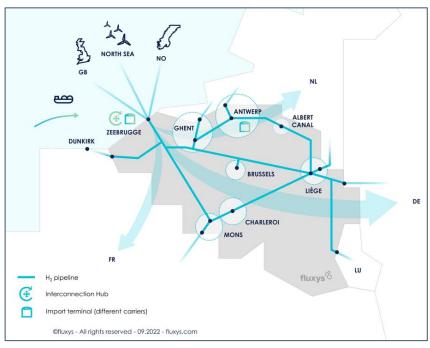


Figure 1 Long term envisioned hydrogen network

B. Strategy, Legal Framework and Regulation

The European Commission has published its *Hydrogen Strategy* in July 2020 and in December 2021 its proposal to recast the natural gas (third) directive (2009/73) and regulation (1775/2009) to extend the application of the existing rules of a liberalized market with regulated infrastructures to hydrogen. On 18 April 2024, the European Parliament adopted the recast gas directive (2024/1788) and regulation (2024/1789), establishing common rules for the internal markets for renewable gas, natural gas and hydrogen, which both entered into force on 4 August 2024. For hydrogen, the new legislative set foresees the obligation for the hydrogen transmission network operators (Hydrogen Transmission Network Operator or HTNO) to comply with unbundling rules, both vertical and horizontal.

On 28 October 2021, the federal government of Belgium approved and published its hydrogen strategy. The Belgian Hydrogen Strategy was updated in October 2022. It consists of 4 pillars and expresses Belgium's ambition to further accelerate the development of the hydrogen network, by means of connections with the adjacent countries of France, the Netherlands and Germany by 2028.

On 11 July 2023, the federal Parliament adopted an act on the transport of hydrogen per pipelines, which entered into force on 4 August 2023. The Hydrogen Act fosters the creation of an open-access regulated hydrogen transport network, operated by an independent HNO, that is fully unbundled in terms of ownership.

C. Fluxys hydrogen appointed HNO in Belgium

On 17 November 2023, Fluxys hydrogen, a 100% affiliate of Fluxys Belgium was incorporated. Later that month, the new set-up company applied to become HNO in Belgium based on 6 appointment criteria and 4 certification requirements under the Hydrogen Law.

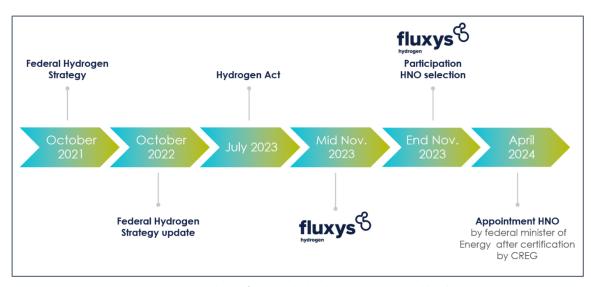


Figure 2 Regulatory framework development on national level

On 22 February 2024, the energy regulator CREG certified Fluxys hydrogen as compliant with the full ownership unbundling model. After an evaluation of the appointment criteria (by the Energy administration and CREG) and due deliberation within the council of ministers of the federal government, the federal Energy minister appointed Fluxys hydrogen as HNO on 26 April 2024, for a renewable term of 20 years.

D. Fluxys hydrogen developing hydrogen network in line with market needs

Phase 1 development targeted by 2026 consists of a network in Antwerp and in Ghent, including the connection between both. An interconnection with the Netherlands is foreseen as well as of 2027. Ghent – Antwerp is considered as one balancing area and one Entry – Exit zone.

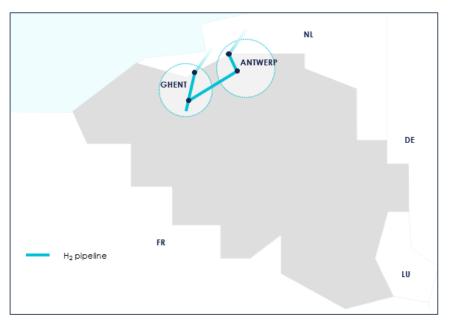


Figure 3 Hydrogen network Phase I - 2026

Subsequent development targeted between 2029 and 2031 consists of bi-directional connections from the Ghent – Antwerp area with identified clusters along the Albert Canal, Liege and in Germany and with Dunkirk in France.

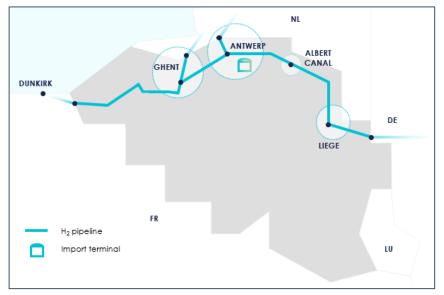


Figure 4 Potential subsequent developments

These developments are in line with the Federal Vision and Strategy for Hydrogen in Belgium. Fluxys hydrogen is exchanging actively with adjacent network operators to assess the development of the connections at the borders based on market's response:

- Connection with France Dunkerque together with GRTgaz
- Connection with Germany Eynatten with OGE

Finally, it should be noted that these network interconnections were awarded the "Project of Common Interest" (PCI) label by the European Commission in 2024.

E. Transport services in an open access infrastructure

Network Users will be able to book Entry and Exit Transmission Services independently of each other at border points or at connected customers, providing hence more flexibility and reducing complexity in opposition to predefined transportation routes (known as point-to-point). Entry capacity allows to inject or to enter a quantity of hydrogen into the Hydrogen Transport System, while Exit capacity allows to withdraw a quantity of hydrogen from the Hydrogen Transport System.

The Transmission Services are offered on a ship-or-pay basis, independent of the actual use and are expressed kWh/h on a yearly basis. The energy calculation is done by considering only the H2 content in the hydrogen stream and converting the m³(n) into energy, using the higher heating value (HHV) of H2.

Hydrogen from different origins ("colours" - RFNBO, Low Carbon,...) are physically mixed in the network while an independent system of certificates enables customers to additionally valorise the renewable or low carbon value of their hydrogen. Capacity is considered firm and is not to be interrupted in normal operation.

II. Call for Market Interest Belgium – Germany

A. Interconnection BE (Ghent-Antwerp) - DE (Eynatten)

Fluxys hydrogen is pleased to announce the launch of a Call for Market Interest to gauge the market's interest and needs for a cross-border open-access hydrogen network between Belgium and Germany. The proposed connection aims to connect the Phase I network intended to be operational in 2026 of Ghent and Antwerp with Germany, connecting with the Albert Canal and Liege towards Eynatten where interconnection is made with the network developed by OGE.

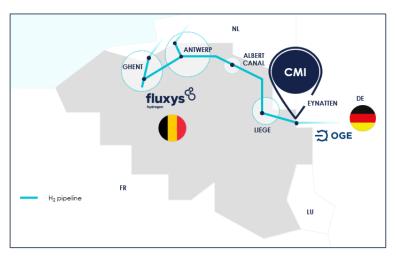


Figure 5 CMI Fluxys hydrogen for BE - DE

OGE is involved in the core network development in Germany, and will connect directly in Eynatten with Fluxys hydrogen.

This Call for Market Interest constitutes a transparent and non-discriminatory call for interest, open to all stakeholders wishing to participate. It is non-binding and does not commit the stakeholders who respond to reserve transport capacities nor Fluxys hydrogen to implement the proposed infrastructure project (in particular if the economic conditions are not met). Stakeholders are asked for an initial estimate of their transport needs:

- Capacity (kWh/h HHV)
- Start date and evolution over time
- Direction (DE -> BE / BE -> DE)
- Principal decarbonisation attribute (RFNBO, Low Carbon, ...)
- Stage of Development (Concept, Feasibility, Design, FID, ...)

The confidentiality of the information exchanged will be guaranteed by a Non-Disclosure Agreement (hereafter "NDA").

In the event of sufficient confirmed market needs, Fluxys hydrogen will align with OGE and propose the next commercial steps to evolve towards a technical feasibility and initial assessment of tariff, and ultimately towards a binding commitment and operational connection.

The market response to this Call for Market Interest will allow Fluxys hydrogen to finetune its possible infrastructure development in line with market interest and to get back to the market to move ahead.

B. Practicalities to participate to CMI

All stakeholders interested in this connection between Ghent – Antwerp and Eynatten are invited to express their interest by responding to this call.

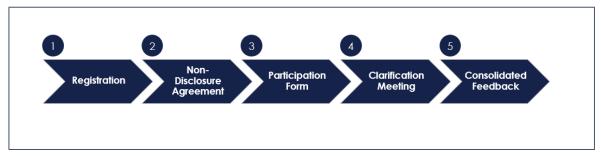


Figure 6 CMI Process

- 1. **Register** and participate with company and contact details stipulating your willingness to participate at the CMI Belgium (Ghent-Antwerp) DE (Eynatten): https://emea.dcv.ms/al7Blka797
- 2. All information you share with Fluxys hydrogen through the Call for Market Interest will be treated as confidential in accordance with an **NDA**. In the form, you can select the option if such NDA is already in place or option to enter into NDA with the filed company details. In the latter option, we will reach back with the completed NDA for signature.

Standard NDA template is available on our <u>CMI webpage</u>. Don't hesitate to reach out if you have questions on the NDA.

3. Participation to the CMI is formally concluded by the submission of the Participation Form for the CMI, including capacity needs and associated details.

Participation is non-binding: completing the form does not engage your company to any future service of Fluxys hydrogen.

4. A bilateral follow-up meeting will then be proposed where additional clarifications can be given, and where final modifications can be made to the submitted form.

This Call for Market Interest is open from 16 October 2024 onwards and will close on 29 November 2024 (COB).

5. After the closure of the CMI, consolidated feedback will be shared with the participants.

Information about the CMI of Fluxys hydrogen can be found our website:

https://www.fluxys.com/en/hydrogen/empowering-you/customer-interactions/call-for-market-interest-h2-cross-border-2024

For any other associated questions, emails can be sent to info.hydrogen@fluxys.com .
