



Open Season for a Hydrogen transport infrastructure

16th of June 2022



Open Season for the construction of a hydrogen transport infrastructure in the Valenciennes region and an interconnection with Belgium

Information Memorandum

Disclaimer

This document (the “**Information Memorandum**”) presents some information concerning the transport of H₂ that is seen as a solution to achieve decarbonisation goals. The information contained herein reflects the current viewpoint of GRTgaz S.A. and is for information purposes only. It does not constitute any commitment on the part of GRTgaz S.A., and should not be viewed as giving rise to any contractual relationship whatsoever between GRTgaz S.A. and any interested party.

Context

GRTgaz conducted France's first national low-carbon and renewable hydrogen market stakeholders' consultation in 2021-2022. The aim was to identify the needs of hydrogen market stakeholders in terms of transport and storage infrastructure. GRTgaz has since identified the initial ecosystems for which the development of decarbonised hydrogen is underway. These are mainly industrial basins facing major challenges to reduce CO2 emissions, where existing fossil-based hydrogen consumption is set to be decarbonised or where high-emitting industrial companies plan to implement decarbonisation projects centred on this new decarbonised energy vector.

The majority of stakeholders in these initial basins stress the importance of a transport network infrastructure that meets their challenges. On the one hand, this means providing consumers with secure access to the most competitively priced hydrogen; and on the other, providing producers with an outlet serving a large catchment area.

Large industrial port zones head the list of these basins where hydrogen transport logistics are anticipated. Beyond these, other viable basins have been identified as driven by key hydrogen production or consumption projects, particularly in border areas where they could benefit from positive interactions with adjacent countries.

GRTgaz has built on these lessons to launch projects in the Fos-Marseille, Dunkirk, Moselle and Rhine Valley basins to develop pipeline transport infrastructure projects to support emerging hydrogen ecosystems. These are shown in the map below, which is taken from the consultation report available at the following link:

<https://www.grtgaz.com/medias/actualites/consultation-acteurs-marche-hydrogene-restitution>



Extract from the FINAL REPORT ON THE NATIONAL LOW-CARBON AND RENEWABLE HYDROGEN MARKET STAKEHOLDERS' CONSULTATION

Beyond these first local initiatives, bilateral discussions have also been taking place. These have identified Valenciennes as a region favourable to the emergence of a local ecosystem extending across the border into the region of Mons in Belgium, a zone which likewise boasts the potential for extensive development of decarbonised hydrogen.

To this end, GRTgaz has worked in partnership with Fluxys, the Belgian natural gas transmission network operator, which initiated in 2021 a similar approach to hydrogen. The aim is to propose a hydrogen transport infrastructure with interconnecting pipelines at the border that fosters the emergence of a hydrogen hub covering the Belgian and French Hainaut – an area spanning Valenciennes in France and Mons in Belgium.

The hydrogen transmission infrastructure proposal made by Fluxys in the Mons cluster in December 2021, which can be accessed at the link below, has been amended and updated to take into account the multiple reactions from the market. It now also includes an extension to the border between Belgium and France.

<https://www.fluxys.com/-/media/project/fluxys/public/corporate/fluxyscom/documents/energy-transition/2022-06-16---specific-infrastructure-proposal-h2-mons--june-22.pdf>

In this way, GRTgaz and Fluxys, on both sides of the border, ensure, through their cooperation, the proposal of an interconnected system infrastructure.

Launch of an Open Season

GRTgaz is thus launching an Open Season to confirm the economic interest in a hydrogen pipeline transport infrastructure around Valenciennes, extending to border with Belgium, where it would connect with the network that Fluxys plans to develop in parallel in the Region of Hainaut, around the Belgian city of Mons.

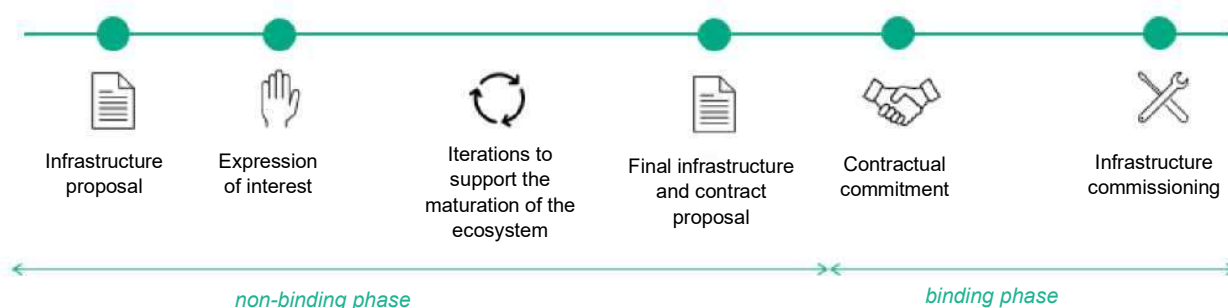
This Open Season is a transparent, non-discriminatory call for interest. It is open to all those seeking to participate, regardless of whether they responded to the national low-carbon and renewable hydrogen market stakeholders' consultation held in 2021-2022.

Open Season Stages

The Open Season will be conducted in two stages: i) a non-binding phase to define needs and identify the appropriate infrastructure; and ii) a binding phase including the allocation of capacities and the signing of contracts, with the aim of validating the investment via an iterative, progressive process.

The main stages of the Open Season will be structured as follows:

Main phases of the Open Season



Main phases of the Open Season

During the first non-binding phase, respondents are invited to **express their interest** based on the details provided in this "**Information Memorandum**", supplemented by the "**Infrastructure Proposal**" and the "**Hydrogen Specifications Proposal**" downloadable here:

<https://www.grtgaz.com/nos-actions/open-season-hydrogene-valenciennes>

This first phase is non-binding in the sense that it does not commit GRTgaz to implementing the proposed infrastructure project (in particular if the economic conditions are not met). Similarly, respondents to the Open Season are not committed to booking transport capacities.

During this phase, respondents will be asked for an initial estimate of their transport needs (consumption or production). The confidentiality of the information exchanged will be guaranteed by the signature of an NDA.

If there is a sufficient expression of interest, and after the needs arising from this first phase have been collated, GRTgaz will carry out a feasibility study to establish the sizing of the infrastructure and an initial cost assessment. An **Expression of Interest** contract will then be signed, guaranteeing the confidentiality of the data exchanged and specifying the parties' reciprocal contractual and financial commitments for the preliminary infrastructure design studies.

This non-binding phase may require various **iterations**, depending on the maturity of the hydrogen ecosystem projects. Bilateral or group exchanges with participants will be held to gradually fine-tune the infrastructure design and come up with an economic and contractual model that supports the transport of hydrogen.

If this non-binding phase confirms the market interest, GRTgaz will define the conditions of access to the structures (capacity allocation, indicative price) and the decision conditions for their construction, in consultation with the interested parties. The binding phase will then be launched in light of this. The schedule for this binding phase will be set according to the results of the first phase. The binding phase will entail capacities booking and may give rise to the construction of the infrastructure.

The implementation schedule for the various stages will depend on the pace at which the various hydrogen ecosystem stakeholders' projects mature, and the ability of the project owners to commit to capacity subscriptions.

Finally, the entire Open Season process led by GRTgaz will be coordinated with that of Fluxys, which will take place at the same time, in particular in terms of the design of the border interconnection point and the schedule of the different phases. The purpose of this is to ensure coordinated commitment and investment decisions for the transport infrastructure.

Proposed infrastructure access principles

GRTgaz proposes to develop, invest in, build and operate an "open" hydrogen pipeline transport infrastructure, as outlined in the "**Infrastructure Proposal**" document, with transparent and non-discriminatory access.

Separation of activities principle

Significantly, GRTgaz will apply a "separation of activities" principle distinguishing the production, uses and transport of hydrogen, with its own position focussed solely on transport. As a network operator, this separation principle is key to its remaining neutral towards other hydrogen market stakeholders (consumers, producers, etc.).

Non-discriminatory third-party access to the network

By positioning itself exclusively on the "transport" link of the value chain, GRTgaz will ensure non-discriminatory third-party access to the network. This is an important principle to encourage the growth of a nascent market.

Transparent third-party access

Similarly, GRTgaz will ensure transparent third-party access, with clear, published rules for participation in the Open Season and access to the infrastructure (allocation of capacities, pricing).

Proposed contractual and tariff principles

If the economic interest of the proposed infrastructure is confirmed, GRTgaz will implement a commercial and pricing model that draws on the core principles that have enabled the development and European integration of the existing natural gas networks, while taking a pragmatic, agile approach to the specific context of a nascent hydrogen market.

Entry/exit capacities subscription

Entry into the binding phase of the GRTgaz Open Season will entail a commitment to subscribe to entry and exit capacities for hydrogen network injection and delivery points, respectively. These capacities will be subscribed on an annual basis.

This principle of entry-exit capacities, with independent subscriptions for injection and delivery points, will support the development of an integrated hydrogen ecosystem. Consumers will have the option of being supplied by several producers connected to the network, unlike a point-to-point model whereby hydrogen transport would be fixed from a specific production point to a specific consumption point.

The capacity pricing principle is therefore independent of the network's actual flows.

Long-term commitment

The decision to invest in infrastructure will be based on customers' long-term capacity subscriptions of around 15 years.

Other contractual and pricing commitments

More detailed contractual and pricing terms will be specified in the next stages of the Open Season, prior to the launch of the binding phase. These will be based on iterative exchanges with the Open Season participants.

Transport infrastructure proposal

The proposal is available in the "**Infrastructure Proposal**" document, available at the following link:

<https://www.grtgaz.com/nos-actions/open-season-hydrogene-valenciennes>

Hydrogen specifications proposal

The proposal is available in the "**Hydrogen Specification Proposal**" document, available at the following link:

<https://www.grtgaz.com/nos-actions/open-season-hydrogene-valenciennes>

Practical information for responding to the Expression of Interest phase

All parties interested in connecting to this future infrastructure, as either a hydrogen producer or consumer, are invited to respond to the Expression of Interest as part of the first phase of the Open Season. This applies regardless of their status and whether or not they have responded to the national low-carbon and renewable hydrogen market stakeholders' consultation.

Interested parties are invited to complete the Expression of Interest form at the following link:

<https://www.grtgaz.com/formulaire-open-season-h2>

When completing this form, interested parties will be asked to provide details about their hydrogen production or consumption project.

This Expression of Interest phase will begin on 16 June 2022 and end on 16 September 2022.