



## FOCUS ON HYDROGEN: BELGIUM IS LEADING THE WAY IN REGULATING THE HYDROGEN MIDSTREAM

Belgium has published its long-awaited H2 midstream regulation. A draft proposal has been endorsed by the federal parliament's energy commission and will now be put up for a second reading and plenary vote. The proposal aims to establish a dedicated regulatory framework for hydrogen pipeline networks ahead of the planned revision of the EU gas market legislation. This briefing provides an outline of the key elements of the Belgian legislative proposal and some of its implications for the industry.

### REGULATION FOR HYDROGEN TRANSPORTATION NETWORKS AND BELGIUM'S HYDROGEN STRATEGY

#### Belgium's Hydrogen Strategy

These recent initiatives should be seen in the context of Belgium's ambitious plans to become one of the most important European countries in the emerging hydrogen economy. On 29 October 2021, the Federal Government unveiled its vision and strategy to turn Belgium into an import and transit hub for clean hydrogen in Europe. The Hydrogen Strategy was subsequently updated on 14 October 2022 and expresses Belgium's ambition to further accelerate its renewable energy initiatives, including in the field of clean hydrogen.

The Hydrogen Strategy prioritises the creation of a dedicated, open access-hydrogen transportation backbone for the import and transportation of clean hydrogen. This is considered essential by the Federal Government and key market players to transform Belgium into an import hub, and to create multiple hydrogen valleys, serving a wide range of chemical and petrochemical companies located around the strategically located ports of Antwerp, Ghent and Zeebrugge.

#### Belgium is a frontrunner in developing a regulatory framework for the midstream segment of the hydrogen value chain

By creating a **dedicated regulatory framework for midstream hydrogen**, the Federal Government wishes to provide legal certainty to project developers and investors in the short and medium term. Furthermore, by being one of the first movers, the Federal Government aspires to further boost Belgium's hydrogen market, which is already one of the most developed in the world.

#### Key issues

- Proposal to create a dedicated H2 transport backbone operated by a single hydrogen network operator (HNO)
- HNO to comply with full ownership- and cross-sectorial unbundling rules as well as open-access and tariff regulations
- Local distribution activities generally excluded and left to the regions
- Transition period for existing hydrogen networks ending on 31 December 2030

Below, we assess:

- the current state of affairs with regard to the regulation of midstream hydrogen.
- the key features of the proposed regulation for the midstream of the hydrogen value chain in Belgium and its impact on existing hydrogen networks.

## **CURRENT STATE OF PLAY**

### **The H2 midstream is currently only subject to limited provisions under the Federal Gas Law**

Hydrogen transport by pipeline is currently only lightly regulated in Belgium. Hydrogen transportation networks are essentially only subject to a transportation permit and to health and safety measures, set out in the Federal Gas Law of 12 April 1965. A large, privately owned network of nearly 600 kilometres of hydrogen pipelines is owned by the industrial company Air Liquide in accordance with these rules.

### **The current limited regulatory framework is insufficient to provide legal certainty to potential investors**

As highlighted by European Union Agency for the Cooperation of Energy Regulators (ACER) and the Council of European Energy Regulators (CEER) in a joint white paper relating to the regulation of hydrogen networks, there is a clear need for regulating hydrogen networks more comprehensively. This is also underlined by the Federal Government, which aims to encourage potential investors to fully engage in the hydrogen market. The aim is to create an open-access network operated by an independent network operator in accordance with the fundamental regulatory principles that have been deployed in the electricity and natural gas sector. These principles were introduced to tackle the market failures associated with network infrastructure operated by vertically integrated undertakings (e.g. third-party access, vertical and horizontal unbundling, transparency, regulated tariffs and regulatory supervision).

Below, we highlight the key features of the proposed regulation, the anticipated impact on existing hydrogen networks and the extent to which the proposed rules would provide more flexibility than those governing the electricity and natural gas sector. Unlike Germany, another frontrunner in the hydrogen space, the Belgian Federal Government does not envisage an "opt-in regulation". Instead, it would introduce a mandatory regulatory framework applicable to all hydrogen pipeline networks, subject to a transition period for existing networks and certain exemptions for "geographically confined networks".

## **KEY FEATURES OF THE PROPOSED REGULATION AND ITS IMPACT ON EXISTING HYDROGEN NETWORKS**

### **Designation of a single Hydrogen Network Operator**

One of the key features of the proposed regulation is the designation of a single Hydrogen Network Operator (HNO) responsible for the operation of hydrogen transport infrastructure in Belgium, the network development plans and the commercial relations with network users. If the proposal is adopted in its current form, the "hydrogen transport infrastructure" operated by the HNO

would generally not include any local distribution activities, which the Council of State has deemed falls within the jurisdiction of the regions.

The HNO would be designated by the federal minister for energy following a procedure outlined in the proposed regulation. By designating a *single* HNO, the Federal Government intends to facilitate the development of a fully integrated hydrogen network across Belgium.

The HNO would have a **legal monopoly** and be entrusted with tasks akin to a natural gas or electricity transmission system operator (TSO). The HNO would be designated based on eight evaluation criteria (including experience with the operation of open-access infrastructure or at least proven capabilities in this respect) and following a public procedure with the involvement of the Belgian electricity and gas regulator (CREG) and the Belgian ministry for the economy (FPS Economy).

The HNO would guarantee **non-discriminatory and open access** to the hydrogen transport network based on transparent regulated tariffs (determined in line with a tariff methodology to be developed by the CREG in accordance with a limited number of minimum criteria set out in the proposed regulation and approved by CREG prior to their entry into force).

Further, the Belgian legislator intends to set out strict **unbundling requirements** inspired by the existing unbundling regime in Belgium for electricity and gas TSOs. In short, the proposed HNO's unbundling regime would be twofold:

- **vertical unbundling requirements** – strict unbundling of the HNO's activities from hydrogen production and supply activities in accordance with the unbundling rules for full ownership unbundled gas TSOs.
- **horizontal unbundling requirements** – while a single group would be allowed to conduct the activities of the natural gas TSO and hydrogen HNO as well as other hydrogen infrastructure activities (such as hydrogen terminals and hydrogen storage facilities), it would have to structure these through separate legal entities and keep separated accounts to avoid any cross-subsidisation between these activities. However, operational synergies are possible between the entities (e.g. staff can be shared and service level agreements can be concluded between them).

Finally, the HNO would need to prepare a **Network Development Plan** every two years under the CREG's supervision. The Network Development Plan would outline the required investments in the hydrogen network infrastructure for a period of 10 years. On this basis, investors would have visibility on the development of the Belgian hydrogen market in both the short and medium term.

### Impact on existing hydrogen networks

As stated above, Belgium already has an extensive private (closed and non-regulated) hydrogen transport network that is operated by Air Liquide and concentrated around various industrial clusters, including the port of Antwerp-Bruges.

Below, we discuss (1) the proposed transitional measures for existing hydrogen networks, (2) the outlook for existing hydrogen networks after the transitional period and (3) the envisaged permitting process.

#### *Transitional measures for existing hydrogen networks*

Hydrogen pipelines already in use when the regulation would enter into force are subject to **transitional measures** to enable existing operators to:

- respect their commitments under existing supply and offtake agreements;
- ensure that they can be interconnected and integrated with the HNO's network; and
- facilitate the development of the HNO's activities.

These transitional measures are intended to allow operators of existing hydrogen pipelines to continue their operations until 31 December 2030, provided they offer their available transport capacity under non-discriminatory conditions, in priority to the HNO or to other market participants if the HNO has not expressed interest.

As a result, by 31 December 2030, all existing hydrogen transport networks must be managed by the HNO, unless they qualify as a "geographically confined hydrogen network" (see below).

#### *Outlook for existing hydrogen networks*

As highlighted above, the HNO would be the single operator of the entire Belgian hydrogen transport network as of 1 January 2031, excluding any local distribution activities regulated at the regional level.

In addition to the exclusion of local distribution activities from its scope, the proposed regulation sets out a specific exemption for so called "**geographically confined hydrogen networks**", a concept which is derived from the pending proposals for reform of the gas market legislation at the European level. Under the proposed Belgian regulation, this exemption would cover hydrogen transport networks which:

- are interconnected and intended for transporting or distributing hydrogen;
- are owned and operated by a company other than the HNO; and
- connect one injection point to a limited number of offtake points within geographically limited commercial or industrial areas.

Such networks would not be subject to the HNO's monopoly and could still be operated by other entities (including after 31 December 2030), provided they have been granted a permit by the minister of energy. This permit would be awarded for a period of 10 years and could be renewed with the approval of the CREG. This is a reflection of the dynamic and gradual approach based on ongoing market monitoring that ACER and CEER have recommended, and that received positive feedback from market participants in the public consultation process preceding the proposed regulation (see our client briefings of 9 November 2021 and 5 December 2022).

#### *Transportation permit for hydrogen networks*

The proposed regulation sets out a new hydrogen transportation permitting scheme, which would enter into force as soon as the Ministerial Decree designating the HNO is published. Until then, the existing procedure set out in Article 3 of the Federal Gas Law will continue to apply to hydrogen pipelines.

Operators of existing hydrogen networks can apply for an *extension* of their existing transportation permit under the Federal Gas Law up to 31 December 2030. Operators of existing hydrogen networks can also apply for the *expansion* of an existing hydrogen network until 31 December 2030, provided (1) the HNO is given the opportunity to investigate the construction and operation of the hydrogen network, (2) the CREG finds this construction and operation proposal of the HNO to be unreasonable from a technical or economical point of view and (3) the CREG recognises the extension of the existing operator's hydrogen network as complying with the public interest.

## OUTLOOK

The endorsement by the Federal Parliament's energy commission of a detailed legislative proposal regulating hydrogen transport networks is a significant milestone for Belgium in its efforts to position itself as a strategic import and transit hub for clean hydrogen in Europe. The legislative proposal will now be put up for a second reading and plenary vote.

While the current legislative proposal would regulate a limited number of matters in detail (including the appointment and supervision of a single HNO and its key regulated tasks and responsibilities), it would leave some other matters to future implementing decrees. This approach provides a certain degree of flexibility in the legislative process and allows the Federal Government to keep track of the developments that are taking place in parallel at the EU level where the final adoption of a comprehensive EU gas reform package is not expected before the end of 2023.

This publication does not necessarily deal with every important topic or cover every aspect of the topics with which it deals. It is not designed to provide legal or other advice.

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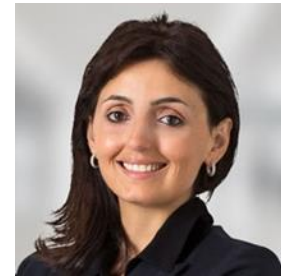
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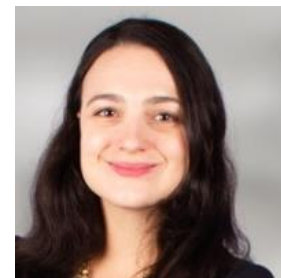
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<sup>1</sup> The authors would like to thank Mr. Robin Cunin (Fluxys Belgium and group) for his suggestions and critical review of this briefing.

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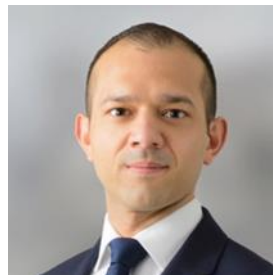
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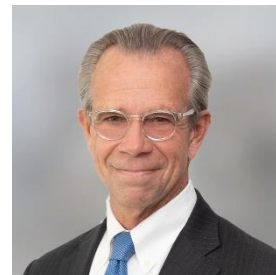
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