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CONTRIBUTION

From:	General Secretariat of the Council
To:	Working Party on Energy
Subject:	AT comments on potential TSO-DSO differentiation for hydrogen (WK 9414/23)

Delegations will find in the annex the AT comments on potential TSO-DSO differentiation for hydrogen (WK 9414/23).

Presidency steering note – TSO-DSO for hydrogen

The purpose of this note is to steer the debate in the Energy Working Group on the potential differentiation between transmission and distribution networks for hydrogen in the Hydrogen and Gas Package.

1. Background

The Commission had proposed a unified regulatory framework for hydrogen networks, as opposed to both natural gas and electricity sectors, where transmission and distribution grid levels are defined separately.

The Council general approach maintained this unified network category for hydrogen, but it extended the scope of the derogation for geographically confined hydrogen networks (Article 48 of the Gas Directive) to cover also meshed hydrogen networks different from main hydrogen pipelines.

The European Parliament has opted for an approach directly based on the framework for natural gas, with separate categories for hydrogen transmission and distribution, distinguished on the basis of pipeline pressure. However, the criterion of pipeline pressure to distinguish between hydrogen transmission and distribution may not be suitable for hydrogen pipelines, which are expected to be operated initially without compression. In addition, a preliminary assessment of hydrogen networks under development across the EU seem to cover a broad spectrum of relevant technical specifications (e.g. diameter, transmission capacity, topology). This would result in a lack of legal certainty and risk of regulatory divergence.

In order to find a possible compromise, the Presidency would like to explore with the delegations the possibility to create separate categories for transmission and distribution networks for hydrogen based on a functional definition of the respective network levels.

2. Possible approach

2.1 Hydrogen networks definition

It is proposed to define hydrogen transmission networks on the basis of three criteria: i) the purpose of the network (i.e. transporting hydrogen vs supplying directly connected customers); ii) the inclusion of hydrogen interconnectors and PCI projects; and iii) the direct connection to major hydrogen infrastructure (hydrogen terminals, hydrogen storage, more than one hydrogen interconnector).

The definition of hydrogen distribution complements the transmission definition to cover the rest of networks, i.e. networks that do not fulfil any of the three definition criteria for hydrogen transmission would be considered hydrogen distribution.

- New definitions:

- ***‘hydrogen transmission network’*** means a network of pipelines for the transport of hydrogen of a high grade of purity, in particular, networks which include hydrogen interconnectors or infrastructure projects of common interest¹, or which are directly connected to hydrogen storage, hydrogen terminals or two or more hydrogen interconnectors, or which do not primarily serve the purpose of supplying directly connected customers.

¹ Chapter II and Annex I point 3 of Regulation 2022/869 on Guidelines for trans-European energy infrastructure

- *‘hydrogen distribution network’ means a network of pipelines for the transport of hydrogen of a high grade of purity, which primarily serve the purpose of supplying directly connected customers, and do not include hydrogen interconnectors or infrastructure projects of common interest, and are not directly connected to hydrogen storage, hydrogen terminals or two or more hydrogen interconnectors.*

This approach would require amending a considerable number of articles in both the Directive and the Regulation.

2.2 Requirements applicable to hydrogen distribution and transmission

The main purpose of introducing separate categories for hydrogen transmission and distribution is the possibility of applying a more tailored set of regulatory requirements to the respective network levels:

- Hydrogen transmission:
 - Vertical ownership unbundling (Directive: Article 62)
 - Horizontal unbundling (Directive: Article 63, 64)
 - Certification (Directive: Articles 13, 65, 66)
 - Third-party access and tariff regulation (Regulation: Article 6)
 - Network planning (Directive: Article 51)
 - Transparency (Regulation: Article 48)
 - ENNOH Membership (Regulation: Articles 40-42)
 - Network Codes (as indicated in the Codes themselves)
 - Clarify tasks of hydrogen transmission network operators (Directive: Article 46)
 - Separation of regulatory asset bases (Regulation: Article 4)
- Hydrogen distribution:
 - Vertical functional unbundling (Directive: Article 42)
 - Horizontal unbundling (Directive: Article 63, 64)
 - Third-party access and tariff regulation (Regulation: Article 6)
 - Network reporting (Directive: Article 52)
 - Transparency (Regulation: Article 48)
 - Membership in DSO Entity (Regulation: Articles 36, 37, 38)
 - Network Codes (as indicated in the Codes themselves)
 - Clarify tasks of hydrogen distribution network operators (Directive: Article 46)
 - Separation of regulatory asset bases (Regulation: Article 4)

Hydrogen distribution will benefit from a separate legal category and corresponding regulatory privileges, which will require to adjust the scope of Article 48 of the Directive (geographically confined hydrogen networks) currently envisaged in the general approach, including their network planning requirements.

3. Questions to Member States

Based on the above-mentioned proposals and taking into account the differences between the Parliament’s position and the Council’s general approach, the Presidency would appreciate to receive feedback from Member States on the possible approach described in point 2.

In particular, on the following questions:

- 1) Would you agree on defining separate categories for hydrogen transmission and distribution?

Yes, AT definitely does see the need to differentiate between hydrogen transmission and distribution as proposed by the Parliament.

- 2) If yes, would you agree with the approach to define hydrogen networks, the definitions and criteria proposed in point 2.1?

AT would prefer the definitions proposed by the Parliament, i.e.

- *“(21a) ‘hydrogen transmission’ means the transport of hydrogen through a network which mainly contains high-pressure pipelines, other than an upstream pipeline network and other than the part of high-pressure pipelines primarily used in the context of local distribution of natural gas, with a view to the delivery of hydrogen to customers, excluding supply;”*
- *“(21b) ‘hydrogen distribution’ means the transport of hydrogen through local or regional pipeline networks with a view to its delivery to customers, excluding supply;”*
- *“(22a) ‘hydrogen transmission network operator’ means a hydrogen network operator that carries the function of the transport of hydrogen through a network and that contains mainly high-pressure pipelines, other than an upstream pipeline network and other than the part of high-pressure pipelines primarily used in the context of local distribution of hydrogen, with a view to the delivery of hydrogen to customers, excluding supply;”*
- *“(22b) ‘hydrogen distribution network operator’ means a hydrogen network operator that carries the function of the transport of hydrogen through local or regional pipeline networks with a view to its delivery to customers, excluding supply;”.*

The definition of *‘hydrogen transmission network’* as proposed by the Presidency under point 2.1 could be taken into consideration as a compromise.

The definition of *‘hydrogen distribution network’* as proposed by the Presidency under point 2.1 could only be taken into consideration as a compromise with the following modification:

- *“‘hydrogen distribution network’ means a network of pipelines for the transport of hydrogen of a high grade of purity, which primarily serve the purpose of supplying directly connected customers, and do not include hydrogen interconnectors or infrastructure projects of common interest, and are not directly connected to hydrogen storage, hydrogen terminals or two or more hydrogen interconnectors.”.*

The reason for the necessity of this deletion is that those methane storage facilities which can potentially be repurposed into hydrogen storage facilities are connected both to the transmission and to the distribution network and that a significant part of the existing methane distribution pipelines could potentially be repurposed in hydrogen distribution pipelines.

- 3) Would you agree on the requirements applicable to hydrogen distribution and transmission networks as suggested under point 2.2?

In principle yes, with the understanding that the ITO model is applicable for hydrogen transmission network operators (Art. 62 (4) of the Directive), that hydrogen distribution network operators are included in Art. 42 of the Directive and that Art. 63 of the Directive is deleted, as proposed by the Parliament.