Securing competitive energy for industry

IFIEC Europe position paper on Article 52 of Directive 2024/1788

IFIEC Europe, the International Federation of Industrial Energy Consumers, representing energy-intensive industries (EII) across sectors such as chemicals, refining, food and nutrition, paper, glass, ceramics, steel and metals and fertilizers, would like to point to problems arising with the Hydrogen and Decarbonised Gas Market Package, specifically Article 52 of Directive 2024/1788. This article severely limits the potential of industrial hydrogen networks, creates a significant barrier for the scaling up of a liquid European hydrogen market and has adverse consequences for the industry- and energy transition.

The problem

Article 52 introduces the concept of **geographically confined hydrogen networks** which distribute hydrogen within a geographically confined industrial or commercial area. The article allows regulatory authorities to grant limited derogations to such hydrogen networks where they fulfil all of the following conditions:

- it shall not include hydrogen interconnectors;
- it shall not have direct connections to hydrogen storage facilities or hydrogen terminals […];
- it shall primarily serve the purpose of supplying hydrogen to customers directly connected to this network;
- it shall not be connected to any other hydrogen network, except to networks also benefiting from a derogation granted pursuant to this Article which are operated by the same hydrogen network operator.

Under these conditions, regulatory authorities may exempt such networks from selected obligations, notably either from the obligations of **Article 46** or from **Articles 68 and 71**.[1] The derogation is therefore conditional and limited in scope.

Additionally, the article does not provide a derogation to **Article 50** Tasks of hydrogen network, storage and terminal operators, **Article 54** Confidentiality for operators of hydrogen networks, hydrogen storage facilities and hydrogen terminals and **Article 56** Hydrogen distribution network development plan.

With or without receiving a derogation, an operator of a geographically confined hydrogen network must:

- cooperate with other hydrogen network operators to optimise co-location of production and use of hydrogen on the basis of the ten-year network development plan (Article 50)
- not discriminate between hydrogen system users or classes of infrastructure users, specifically in favour of its related undertakings (Article 50);
- refrain from disclosing any commercially sensitive information to the remaining parts of the vertically integrated undertaking (Article 54);
- prepare and update a hydrogen distribution network development plan every four years (Article 56);

[1] **Article 68** sets out the unbundling rules for hydrogen transmission network operators while **Article 71** establishes the designation and certification regime for hydrogen transmission network operators. **Article 46** lays down the unbundling rules for distribution system operators and hydrogen distribution network operators.

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The conditions to receive derogations and the current limited scope of the derogations possible in Article 52 limit the flexibility, efficiency and potential of these networks to the detriment of hydrogen economy development.

The consequences

Due to the current formulation of Article 52, after being granted the derogation from Article 46 or Article 68 and 71, operators of geographically confined hydrogen networks must still abide by Article 50, 54 and 56. The obligations resulting from these articles include cooperation requirements, non-discrimination rules, confidentiality provisions and the obligation to prepare hydrogen distribution network development plans. These disproportionate administrative burdens result in additional compliance costs while adding very little practical benefit to the development of the hydrogen economy and significantly negatively impact the feasibility of the operation of an industrial hydrogen network.

Companies that wish to connect their existing or planned on-site hydrogen network to another hydrogen network in order to export or import renewable or low-carbon hydrogen immediately lose the possibility to benefit from the Article 52 derogation. As a result, when connected to another network the operator of the on-site network must comply with the full regulatory framework applicable to hydrogen transmission or distribution system operators, including unbundling and certification requirements. This results in a situation where ownership over the hydrogen network must be transferred to another entity and regulated as a fully-fledged distribution or transmission system operator. The new owner and operator must comply with obligations that are designed for public infrastructure rather than integrated industrial infrastructures despite being confined to an industrial site and serving a limited number of industrial users.

This regulatory framework does not address the fundamental differences between the operation of a network on an industrial site compared to the operation of a distribution or transmission network. Industrial sites with varying sizes and complexities operate in space-constrained environments with strict safety requirements and often with close technical integration between installations through cable (electricity) and pipeline infrastructure (natural gas, hydrogen, ethylene, chemicals, etc.). Energy and feedstock flows are often embedded in production processes and coordinated across multiple installations and/or companies. Applying a regulatory model designed for geographically dispersed public distribution systems on industrial hydrogen networks does not reflect this operational reality. In an ideal situation, the experienced operator of energy infrastructure on an industrial site with site-specific knowledge and expertise can construct and operate their own hydrogen network.

Therefore, this situation is particularly problematic for companies that already operate closed distribution systems for electricity and/or natural gas. Article 48 from Directive 2024/1788 and Article 38 from Directive 2019/944 allow the operation of closed distribution systems of natural gas and electricity ‘to ensure the optimal efficiency of an integrated energy supply requiring specific operational standards […] [on] industrial sites […] because of the specialised nature of their operations.’[2] These systems reflect the integrated nature of industrial sites, where different companies operate connected installations and mutually dependent production processes. However, under the current framework, an operator of a natural gas or electricity closed distribution system cannot simply extend its activities to hydrogen. Unbundling rules and regulatory obligations prevent industrial site operators from operating a hydrogen network connected to national hydrogen infrastructure alongside their existing energy infrastructure. As a result, connection to the hydrogen backbone effectively forces structural separation of hydrogen

[2] Consideration (115) from Directive 2024/1788 and consideration (66) from Directive 2019/944.

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network activities from other on-site energy systems, thereby fragmenting energy management within industrial clusters.

These constraints create a direct barrier to hydrogen market integration for industrial clusters. Industrial hydrogen networks already enable the exchange of hydrogen between producers and consumers within clusters. As the production of renewable and low-carbon hydrogen increases, these networks will increase in relevance. Preventing them from connecting to other hydrogen networks under proportionate conditions discourages industrial users from participating in the wider hydrogen market. It prevents the efficient re-use of existing on-site infrastructure, limits the ability of clusters to both import and potentially export hydrogen, and reduces potential transport volumes for the hydrogen infrastructure. Instead of strengthening market integration, the current framework risks isolating industrial hydrogen clusters from the European hydrogen infrastructure.

The hydrogen economy has developed slower than expected during the drafting of Directive 2024/1788. The cost gap between renewable- and unabated hydrogen production remains substantial. Infrastructure deployment has been delayed in several Member States. The clearly defined rules and regulations for hydrogen infrastructure modelled after existing rules for natural gas do not achieve the desired result. The top-down approach to distribution inherent in Directive 2024/1788 does not allow for bottom-up initiatives which service actual demand for hydrogen infrastructure. This approach is not in line with the current realities of the hydrogen economy. Therefore, we need to realign the rules and regulation to allow geographically confined hydrogen networks to achieve their potential.

The solution

IFIEC Europe supports the idea that 'Localised hydrogen clusters should be an important building block of the Union's hydrogen economy' and 'could benefit from simplified regulatory requirements'.[3] The efficient and effective integration of these clusters – and the current and future industrial hydrogen users in these clusters – is fundamental to the scaling up of the hydrogen market. To achieve this, industrial hydrogen networks should be treated the same as closed distribution systems of natural gas recognising that industrial networks require a different approach from a fully regulated distribution system operator.[4] With the first possibility to alter Directive 2024/1788, IFIEC Europe proposes to:

Introduce an article on "Closed distribution systems of hydrogen" to Directive 2024/1788.

Before such a change can be made, the European Commission must communicate to Member States that such networks can benefit from simplified regulatory requirements similar to Article 48.

This will ensure that:

- operators of energy networks on industrial sites can also operate a hydrogen network while being connected to national hydrogen infrastructure;
- minimize administrative red tape for future operators of closed distribution systems of hydrogen;
- hydrogen transmission and/or distribution operators can realise a single connection to an industrial site instead of having to realize multiple;
- the hydrogen backbone can more easily serve a larger offtake volume of hydrogen;

[3] Directive 2024/1788, consideration 90.
[4] Directive 2024/1788 Article 48 Closed distribution systems of natural gas.

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