

FNB Gas Position on the Public Consultation on the Hydrogen and Gas Markets Decarbonisation Package

Extract

I. General questions on the review and possible revision of the Gas Directive and Gas Regulation

1. What is your view on the role of gaseous fuels in 2030, in particular as regards hydrogen, biogas and biomethane?

To reach climate neutrality, all sectors will need to contribute to the energy transition. The electricity grid is already today often operated at its limits and its expansion is cost-intensive and often accompanied by lower public acceptance. An all-electric approach is clearly unlikely to achieve the targets. Carbon neutral hydrogen and other clean gases will become crucial by enabling seasonal energy storage and for decarbonising energy-intensive sectors such as industry, mobility and heat.

2. Do you see a need to revise the Gas Directive and Gas Regulation to help to achieve decarbonisation objectives? If, yes what should the main elements of the reform be? Which benefits do you expect?

The regulatory framework for gas needs to be expanded to hydrogen to facilitate the internal market for hydrogen by enabling and supporting repurposing/retrofitting of gas infrastructure to hydrogen on- and offshore incl. a sound financial investment framework (incl. recognition of costs, appropriate return on invested capital, etc.). Gas TSOs need to be able to own and operate hydrogen infrastructure within the regulated framework based on unbundling, TPA and an integrated network planning.

3. How could the revised legislation support the aims of the Energy Efficiency Directive (2018/2002) and the Renewables Energy Directive (2018/2001/EU)?

RED II and its revision will be key legal instrument to decarbonise the energy sector by promoting the use of clean hydrogen, e.g. via quotas and other supporting mechanisms. In addition, the EED can facilitate the use of clean hydrogen in the building sector, making use of existing infrastructure. The revised legal framework for gas can contribute to this aim by ensuring that the hydrogen market develops with competitive and non-discriminatory structures.

4. What type of jobs will be created? What are the characteristics of jobs that are at risk of being discontinued? If applicable please identify the potential changes in the skills requirements, job quality and occupational safety of the gas market jobs.

Scaling up renewable gases is estimated to create up to 1.5 million additional direct and indirect jobs in the EU by 2050 in the areas of energy generation, operation of installations and agriculture/forestry. This potential has been assessed by the Gas for Climate consortium in its 2019 report "Job creation by scaling up renewable gas in Europe", available on the Gas for Climate website.

- 5. Do you consider that investments in installations and infrastructure operating on fossil methane gas subject to the risk of stranded assets. If so can the revised legislation address this issue, and how?**

Numerous studies have shown that the development of a hydrogen backbone system based on repurposed gas infrastructure is significantly cheaper than the construction of new infrastructure. It is therefore in the interest of all consumers to carefully evaluate the potentials of using this asset for the transport of hydrogen when natural gas demand declines. EU legislation should enable and foster this by ensuring a level playing field for all technologies without political pre-determinations.

II. Integrated Infrastructure Planning

- 1. How to ensure non-biased scenario building and planning?**

Transparency, stakeholder engagement and involvement of NRAs are key to ensure non-biased scenarios based on a systemic approach of the future energy system. On EU level, the ENTSOs work together to develop joint scenarios that consider interlinkages in a technologically neutral and non-discriminatory way under oversight of EC. On a national level the Scenario Framework is based on a market survey for demand and production, is accompanied by a public consultation and is subject to NRA approval.

- 2. What actions are needed to ensure that national network development plans properly take into account the Energy Efficiency First Principle, meaning that energy efficiency alternative solutions must be first considered when national network development decision are made?**

Generally, energy efficiency principles should be assessed over the whole value chain and should not favour one energy carrier over the others. Furthermore, cost efficiency combined with the demand of the future hydrogen markets and a systemic analysis of a cost-efficient energy transport system should also be considered. German Gas TSOs assess the demand for their network development planning via demand oriented and market-based surveys.

- 3. What is your position on establishing a single national network development plan for all energy carriers?**

The question on establishing national network development plans does not distinguish between electricity, gas and hydrogen but only asks for joint or separate network development plans. FNB Gas believes that generally all energy infrastructure (electricity, gas and hydrogen) should be planned in a systemic, technology-neutral and coordinated manner, whereby the most efficient infrastructure type is selected for every individual demand situation. Common assumptions based on joint scenarios are a key requirement for such an integrated network planning approach. Furthermore, since hydrogen infrastructure will be primarily developed based on repurposed natural gas infrastructure, it is clear that a joint network development plan for hydrogen and methane infrastructure is required, meaningful and efficient. At the same time, keeping network development plans for electricity and gases (being methane and hydrogen) separate but based on joint scenarios could be advantageous given the different technological differences and to avoid an overlap of potential delays in one sector to the other.

4. What role should distribution system operators have in relation to network planning?

The question refers to the role of DSOs in network planning and FNB Gas answered this question with the existing network development planning process in mind. FNB Gas would like to highlight that it is not against DSOs being engaged in own network development planning processes.

5. Should the national network development plans provide information where new electricity production, consumers, storages or electrolyzers reduce additional investment needs into the network? If you answered yes, how should this be achieved?

These questions refer to locationality aspects in the network development planning and only allow selecting pre-defined options, that all do not fully reflect the position of FNB Gas. FNB Gas would like to stress the importance of locating certain infrastructure components efficiently to reduce the need to invest in transport infrastructure thus limiting the network access costs for all market participants and increasing the overall efficiency of the energy transport system. FNB Gas believes that demand and supply for energy should be assessed within the network development plan which should subsequently outline the regions where infrastructure components should be developed to optimize network planning. This could be the case for components such as hydrogen production facilities or storage sites. It should then be up to the regulatory or political authority to incentivize efficient investments, e.g. by connecting investment decisions to public support mechanisms.

6. If you consider that, in the previous question, other approaches are required, please explain what approach is needed and why?

Demand and supply for energy should be assessed within the network development plan which should subsequently outline the regions where infrastructure components should be developed to optimize network planning. It should then be up to the regulatory or political authority to incentivize efficient investments with several instruments, e.g. by connecting investment decisions to public support mechanisms.

III. Hydrogen infrastructure and a hydrogen market

1. Which are in your view the main regulatory barriers to the development of a well-functioning cross-border hydrogen market and a cross-border hydrogen infrastructure within the EU?

Uncertainty about regulatory framework and cost recovery for hydrogen infrastructure, including mutualisation of costs with CH₄ and regulatory recognition of costs for repurposing/retrofitting. Different national legal hydrogen initiatives are not aligned and risk fragmentation of hydrogen market developments. A common EU GO scheme for hydrogen is needed to enable an internal market. Quotas (e. g. green gas quota) needed to incentivize hydrogen demand and support the ramp-up of hydrogen production.

2. Which are in your view the main regulatory barriers to the development of a cross-border hydrogen market and a cross-border hydrogen infrastructure with third countries?

Imports from third countries will close the gap between production and demand, ensuring security of supply. Therefore, questioning the need to import renewable energy in the form of

hydrogen risks that import infrastructure is not in place when needed. The regulatory framework needs to enable early planning and development of hydrogen import lines, primarily via repurposed gas infrastructure. Certification scheme required to prove climate value of hydrogen imported into EU.

3. What regulatory model at EU level do you consider suitable to foster the emergence of a well-functioning and competitive hydrogen market and hydrogen infrastructure?

The question refers to the required regulatory model for hydrogen and only allows selecting pre-defined options, that all do not fully reflect the position of FNB Gas. FNB Gas selected option 3 since regulatory principles such as unbundling and TPA are crucial while very technical rules may not be required right from the start and their development could delay setting the regulatory framework that is urgently required. FNB Gas nonetheless believes that high-level principles on technical aspects of hydrogen transport such as balancing rules and tariff setting could be advantageous right from the start. A similar approach to the natural gas market could be taken where high-level principles are set out in the Gas Regulation which have been specified further in the Network Code process under strong involvement of market participants. In addition to that, FNB Gas would like to point out that for the development of a European hydrogen market a future regulatory framework needs to ensure appropriate risk mitigation mechanisms for investments in H2 infrastructure taking into account a limited number of customers in the starting phase, cost recognition of those investments as well as integrated network planning including offshore H2 grid.

4. Although further development of hydrogen markets along the value chain seems highly likely, significant uncertainties remain. How should this uncertainty be taken account of in designing a 'fit for purpose' regulatory framework?

Setting main regulatory principles leaves enough flexibility for details to be set later or at Member State level. No specific provisions are required to allow for flexible application of main regulatory principles.

5. How important would you consider to define the regulatory roles and principles early in order to facilitate the development of a dedicated hydrogen network and market framework towards 2030?

On the aspect of neutrality of hydrogen network operations, FNB Gas believes that rules ensuring vertical unbundling are very important. This should however not be misunderstood as being in favor of horizontal unbundling which FNB Gas believes to be extremely detrimental to any hydrogen infrastructure development. To make it clear, gas TSOs should be permitted to own and operate hydrogen transport infrastructure.

On the aspects of cost-reflective, non-discriminatory network tariffs and rules on tariff setting for hydrogen networks, FNB Gas believes that this is very important and would like to stress that mutualizing the costs of methane and hydrogen networks within a joint RAB provides significant advantages, namely it supports the uptake of hydrogen by lowering the network costs for initial hydrogen consumers. In the long run, cost mutualisation also helps natural gas consumers when gas demand declines and the number of consumers carrying the network costs shrinks.

On the aspect of rules on the valuation of assets when they are repurposed, FNB Gas notes that this question pre-defines that assets should be taken out of the RAB of gas TSOs without

having a separate question on whether or not such an approach is supported. FNB Gas believes that a joint RAB for hydrogen and methane infrastructure is advantageous to network operators and consumers.

- 6. With the imminent phase out of low-calorific methane gas (L-gas) and the demand for methane gas expected to decline after 2030, parts of the existing panEuropean gas infrastructure could be repurposed to provide for the necessary infrastructure for large-scale cross-border transport of hydrogen. Should existing methane gas network operators be allowed to own, operate and invest in hydrogen networks?**

Yes, the current gas network operators (TSOs/DSOs) should have a prominent role. The current gas market model could serve as a model for future hydrogen markets.

- 7. Should future private investments in hydrogen pipelines be regulated?**

No special treatment for future private infrastructure. Main regulatory principles should apply to all networks.

- 8. Vertical unbundling¹ should prevent that hydrogen network operators (i) discriminate against third parties with regard to the connection or access to the network in favour of affiliated production and supply activities, and/or (ii) that hydrogen network operators over- or under-invest in their energy network which could increase energy system costs or purposely limit capacity to hinder competitor' s access. Please indicate the extent to which the vertical unbundling principle should apply to hydrogen networks.**

FNB Gas believes that this question is misleading since it does not fully reflect the existing vertical unbundling models for natural gas (e.g. legal unbundling is only one aspect of the current unbundling rules). Especially the fourth option only mentions “ownership unbundling” without including the equivalent alternative approaches of ITO and ISO certification. FNB Gas therefore selected the option to apply legal unbundling with the understanding that the existing unbundling models of the gas market should be applied to hydrogen equally.

- 9. Should (regulated) network operators (e.g. gas, electricity or hydrogen TSOs /DSOs) have a role in Power-to-gas installations (i.e. electrolyzers)?**

Vertical unbundling remains the default option. Exemptions for network operators to own or operate Power-to-gas installations should only be allowed in clearly defined circumstances. For example, only if this is necessary to guarantee network operations and if no other market party is willing to carry out the investment. Clear and limited conditions should be defined (e.g. limitations in scope, scale and time), after it has been proven that the market is not willing to invest in such installations and foreseeing a procedure to transfer such installations back to a market-based regime once the derogation expires.

FNB Gas would like to highlight that optimization in network development could be one condition under which TSOs could be allowed to invest in Power-to-Gas installations, with market-based investments clearly being the primary approach.

¹ For the purpose of this questionnaire and to reflect the specific situation of interrelation between hydrogen and methane gas networks, the Commission will refer to “vertical unbundling” when describing the separation of hydrogen production, trade and supply activities from hydrogen network-related activities and to horizontal unbundling, when describing the separation between ownership of hydrogen and methane gas networks.

10. How should non-discriminatory access to future regulated hydrogen networks be ensured?

The principle of regulated third party access should apply. Infrastructure operators should be obliged in EU legislation to provide non-discriminatory access to network users on the basis of published terms and conditions, including tariffs that are set or approved by the national regulator.

11. Today's rules for gas network tariffs (see Art. 13 of the Gas Directive) seek to avoid cross-subsidies between network users but also to provide incentives for investments. In an emerging hydrogen market, the transported hydrogen volumes as well as the customer base might be low initially. This could lead in certain cases to high initial hydrogen network tariffs for early users of a hydrogen network. Please indicate the appropriateness of the statements below in case incumbent methane gas network operators should be allowed to retrofit their assets for hydrogen transport.

In line with the position to question III.5, FNB Gas would like to stress that cost mutualisation should not be misunderstood as undue cross-subsidization between methane and hydrogen network users. Hydrogen networks will primarily develop from repurposed natural gas infrastructure and both systems must therefore be considered as one "gas system", similar to the existing differentiation between H- and L-gas on a technical level while being considered as one on a market level. Such an approach is to the benefit of all consumers. Hydrogen consumers will benefit from lower tariffs in the early phase when the number of consumers is still low, thereby fostering the uptake of the hydrogen market. Methane consumers will benefit when gas demand declines in the upcoming decades and a smaller number of gas consumers will otherwise have to bear the costs of the remaining methane infrastructure. Furthermore, individual gas consumers have hardly any influence on whether and when infrastructure connected to them will be adjusted to transport hydrogen and can therefore not make an active decision. Much of the current criticism on cost mutualisation by some stakeholders is linked to the argument that many of today's natural gas consumers will not consume hydrogen in the future, especially in the residential heating sector. FNB Gas believes this argumentation to be very problematic since it is based on the request for political pre-determinations on technologies and has to be understood as a renunciation of the technology-neutral approach taken so far by EU policy makers. FNB Gas does not believe that there is a "one-size-fits-all" approach for decarbonizing the heating sector, namely, to bet on fully electric heat pumps. Hydrogen can especially play a role in decarbonizing heat in the existing old building stock that lacks sufficient insulation necessary for electricity-based heating solutions.

As a consequence, the aspects of cost mutualisation between hydrogen and methane and a technology-neutral approach for decarbonizing heat go hand in hand and should be assessed jointly.

12. Do you think the current structure of cross-border gas transmission tariff system is suitable for the development of the hydrogen market (or other renewable and low carbon gases) in the EU? Please explain your answer.

The answer is yes. The current cross-border tariff system can enable early investments in hydrogen infrastructure by mutualizing the network costs of hydrogen and gas, resulting in a joint cost recovery mechanism for TSOs and combined network charges. This mechanism is appropriate since many of today's natural gas consumers will become hydrogen consumers in

the future. Also, gas consumers benefit from mutualisation when gas demand declines and costs for remaining consumers would otherwise rise.

- 13. The creation of hydrogen networks, specifically by repurposing, may give rise to coordination problems when operated by separate and fragmented system operators. This may hamper the development of a well-functioning cross-border hydrogen market. The creation of hydrogen markets opens up a possibility to manage and operate the hydrogen pipelines by a European Independent System Operator (ISO). Do you support to introduce an EU ISO model for hydrogen? Please explain your answer.**

The answer is no. Approaches that dis-incentivize network operators from investing in hydrogen infrastructure are counterproductive. The existing natural gas TSOs are engaged in a very close and constructive cooperation on a wide range of issues already today. The EU ISO model would be a massive intervention while we neither see any problems to address, nor do we see any benefits for market participants or consumers. Furthermore, national circumstances require local engagement and experience.

- 14. The configuration of many energy networks and the rules that apply to them set out a clear distinction between a transmission and distribution level. Is this distinction relevant for a hydrogen regulatory framework before 2030? Do you expect the development of a “transmission” and a “distribution” level for hydrogen?**

The answer is yes. Many potential customers are connected to distribution grids; it should already be anticipated now that different rules should apply for the distribution and transmission level.

While a dedicated hydrogen backbone at transmission level connecting production areas to demand clusters and storages is the most effective way of creating a functioning and sustainable hydrogen market, DSO networks will be able to contribute to the energy transition with repurposing or – eventually as a temporary measure – with higher shares of blended hydrogen due to usually less sensitive consumers on the DSO level. Separate rules may therefore be required.

- 15. In a cross-border dedicated hydrogen network, adapting the quality of hydrogen for specific end uses (purification) might become an important task (including the measurement and monitoring of hydrogen quality). In your view, what would be the most efficient and appropriate way to establish the necessary rules on roles, responsibilities and cost-allocation for the management of hydrogen quality?**

FNB Gas believes that regarding the quality of hydrogen an approach to ensure cross-border transportation could be to define a minimum quality for the feed-in of hydrogen across Europe and, if necessary, to carry out consumer-related final cleaning at the exit point. Differences in hydrogen gas quality at exit points may cause costs which should be accounted for in the cross-border mechanism. This would be the most efficient approach and would take into account different requirements of end-users regarding the purity of hydrogen.

IV. Access of renewable and low carbon gases to the existing methane gas networks and markets, including LNG terminals and gas storages

1. Which are in your view the main regulatory barriers to the deployment of biomethane and synthetic methane?

Diverging support schemes in Member States could hamper cross border transport and trade and lead to undesired arbitrage. GOs must consider biomethane and synthetic methane. A possible scale-up instrument could be the introduction of a clear and binding EU-wide target share in gas consumption as advocated by numerous associations. Furthermore, the use of biomethane and synthetic methane in the transport sector should be further incentivized by extending the accountability to emission reduction quotas.

2. Do you consider it important to adapt the Gas Directive and Gas Regulation to facilitate injection biomethane and synthetic methane into the existing methane gas grid?

This question refers to a potential adaption of gas legislation to facilitate the injection of biomethane and synthetic methane. FNB Gas would like to stress that adaptations on EU level would be beneficial. In Germany, national rules on biomethane injection have led to a significant increase in biomethane injection and are generally perceived to be well working. These rules may therefore be used as a blueprint for rules on EU level.

3. How do you rate the measures below?

On the aspect of tasks and responsibilities of NRAs to facilitate decarbonisation, FNB Gas believes that additional measures are very important. However, we should keep the principle that the regulatory framework is defined by policy makers while NRAs are the body to execute and monitor their application. Thus, additional rules are required that oblige NRAs to take into account sustainability aspects when taking decisions on regulatory matters.

On the aspect of coordination between TSOs and DSOs, FNB Gas would like to stress that this coordination works well in Germany today. Nonetheless, improvements in other parts of Europe may be necessary, which we are not able to assess.

On the aspect of integrating DSOs into the entry-exit-zone, FNB Gas would like to note that this is already the case in some Member States including Germany.

On the aspects of priority rules and discounts for renewable gases, FNB Gas believes that the infrastructure should in principle remain neutral, given that in itself the infrastructure is neither renewable nor fossil. Which support mechanisms are beneficial to support the uptake of renewable gases should be up to policy makers to decide.