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EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT REPORT

Accompanying the

Proposal for a Directive of the European Parliament and of the Council on common rules for the internal markets in renewable and natural gases and in hydrogen (recast)

Proposal for a Regulation of the European Parliament and of the Council on the internal markets for renewable and natural gases and for hydrogen (recast)

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Executive Summary Sheet (Max 2 pages)

Impact assessment on hydrogen and decarbonised gas market package

A. Need for action

What is the problem and why is it a problem at EU level?

The European Green Deal puts the EU on a path to climate neutrality by 2050, which requires significantly higher shares of renewable energy sources in an integrated energy system. Natural gas represents 95% of the gaseous fuels consumed in the EU today and accounts for 25% of the EU's total energy consumption. While the share of natural gas will decrease progressively, biomethane, synthetic methane and hydrogen are expected to become more relevant. However, these alternatives to natural gas face a number of regulatory barriers and are not covered by current energy security arrangements. This impedes their roll-out and affects their cost-effectiveness under the current market conditions and rules. The current regulatory setup does not facilitate the cross-border-trade and infrastructure development for renewable and low carbon gases, and their unhindered access to the gas markets across the EU. Thus the full potential of supplying renewable and low carbon gases, at least costs and in a secure way, remains untapped. Finally, gas consumers do not dispose of the necessary rights and tools to choose the most cost-effective decarbonisation options in the market.

What should be achieved?

The general objective is to facilitate the cost-effective decarbonisation by creating of a European hydrogen market and the gradual decarbonisation of gaseous fuels markets, while ensuring energy security. The specific objectives are to 1) facilitate the emergence of an open and competitive EU hydrogen market, 2) ensure access of renewable gases to the existing methane networks and markets, and their security of supply 3) ensure transparent and inclusive infrastructure planning, and 4) give consumers rights and tools to choose the cheapest decarbonisation options.

What is the value added of action at the EU level (subsidiarity)?

The initiative aims at modifying existing EU legislation and creating a new framework for an internal hydrogen market to achieve a cost efficient clean hydrogen economy. Fostering more efficient and integrated EU markets for renewable gases requires a harmonised and coordinated regulatory approach across the EU and cannot be achieve at Member State level alone. The initiative is also aimed at avoiding the distortive effects of uncoordinated, fragmented policy initiatives as many Member States develop purely national solutions. This initiative also contributes to achieving binding EU-level objectives. The role of gaseous fuels in the energy mix in the coming decades requires the decarbonisation of the gas sector via a forward-looking design for competitive decarbonised gas markets able to empower and protect adequately all EU consumers. The creation of a regulatory framework at EU level for dedicated hydrogen infrastructure and markets would foster the integration and interconnection of national hydrogen markets.

B. Solutions

What are the various options to achieve the objectives? Is there a preferred option or not? If not, why?

Problem area I considers options: to tender the rights for network operation (Option 1); to introduce main regulatory principles inspired by those currently applicable to the natural gas market but adapted to the development stage of hydrogen markets (Option 2); and to establish a fully developed regulatory regime for hydrogen (similar to the one currently applicable to the natural gas sector) without need for a transition to a more mature hydrogen market (Option 3).

The preferred option for problem area I is to introduce main regulatory principles whilst providing guidance for future regulatory developments (O*ption 2b 'Main regulatory principles with a vision'*). This option is best adapted to the particularities of the hydrogen sector and enshrines some of the benefits that the other options could have brought, whilst avoiding their downsides. By providing guidance, a stage is set for a more mature hydrogen market.

Problem area II contains options that promote access of renewable and low carbon gases to the existing gas market and infrastructure. All options include also a progressive level of intervention for addressing energy security

concerns, notably extending existing tools, standards and procedures to renewable and low carbon gases and addressing risks linked to cybersecurity for the gas sector. Option 3 "*Allow and promote renewable and low carbon gases full market access and tackle issue of long term supply natural gas contracts"* is the preferred option for problem area II. This option contains measures to support access of renewable and low carbon gases to the wholesale market, LNG terminals, and transmission grid (regardless of place of connection), including tariff discounts for injection to the grid and cross-border transport. It bans long-term supply contracts for unabated fossil gas as of 2050. Gas quality would be governed by a harmonised EU approach for cross-border interconnection points while leaving flexibility to the Member States. The allowed cap for hydrogen blends is set at 5% for all cross-border points – a level that is cost-efficient in terms of adaptation and abatement costs.

Problem area III considers options regarding integrated network planning. The preferred option for problem area III is *Option 2 "National Planning based on European Scenarios".* The options allows for national planning but requires that it is based on joint scenarios for gas and electricity, aligned with the TYNDP and linked to the relevant National Energy and Climate Plan. It includes all relevant actors (DSOs) and enables identification of pipelines that can be used for repurposing from methane to hydrogen on a level of detail that would not be easily achievable on European level.

Problem area IV contains options that postulates for a non-regulatory approach in tackling competition and consumers' engagement or instead requires addressing the problem drivers through new legislation, mostly mirroring what already established in the electricity sector. In light of the analysis, the preferred option is *Option 2 "Flexible legislation"*, which mirrors the electricity market consumer protection and, where relevant, also the empowerment provisions. Overall, this option is most likely to be the most effective, efficient, and consistent with other Problem areas.

What are different stakeholders' views? Who supports which option?

In ***problem area I***, a large majority of the respondents supports the introduction of regulation at an early stage to foster a well-functioning and competitive hydrogen market and infrastructure. Respondents strongly advocated for an EU legislative framework that defines key regulatory principles and takes a step-wise approach. A large majority supports e.g. regulated TPA, rules for access to import terminals and storage for hydrogen, and advocates for network activities to be unbundled. Most respondents considered it important to define early the role of private parties in developing hydrogen infrastructure. A large majority of respondents also consider that existing and future private networks may be (temporarily) exempted from certain regulatory requirements but that convergence on a single regulatory framework need to be assured. The vast majority of respondents considers that rights and permitting requirements for new hydrogen infrastructure should be similar to those applicable to methane gas pipelines today.

For ***problem area II***, stakeholders agree on a need to revise current regulatory framework to help achieve decarbonisation objectives. A majority of stakeholders consider it important to ensure full market access and facilitate the injection of renewable and low carbon gases into the gas grid. Many respondents advocate an obligation for network operators to connect renewable and low carbon gases' producers and introduce an injection charge reduction. The majority of respondents supports as well the improvement of the transparency framework for LNG terminals. There is also a strong support for the harmonised application of gas quality standards across the EU, for reinforced cross-border coordination and increased transparency. Respondents are more divided on hydrogen blending, but the majority agrees that it can provide a cost efficient and fast first step, despite the high technical costs, to energy system decarbonisation. Few stakeholders supported the removal of intra-EU cross-border tariffs. Majority of the respondents consider gas specific security challenges and cyber-security measures as important.

In ***problem area III,*** the majority of stakeholders supports aligning the timing of the national network development plans (NDPs) with the TYNDP, with a single gas plan irrespective of the unbundling model chosen. A significant majority of respondents expressed an even stronger support for a joint electricity and gas scenario. A substantial number of stakeholders asks for the inclusion of hydrogen projects in the NDP. Most of the stakeholders agree on the role of DSOs to provide and share information, with several respondents also supporting that DSOs provide their own plan including system optimisation across different sectors. Respondents also slightly preferred a joint gas and electricity plan to joint scenarios with separate plans. Several stakeholders pointed out that a joint methane and

hydrogen plan, with a separate electricity plan, would be the preferred option.

On ***problem Area IV***, the vast majority of the stakeholders called for higher ambitions in the citizen/consumer-related provisions by mirroring those in the electricity market. As well, energy poverty provisions should help ensure consumers are not paying the cost of switching to clean gas-based options. Representatives of private sector support the plans to phase out regulated prices, while some consumer organisations would opt for keeping them to protect for energy poor and vulnerable consumers. Almost half of all respondents want provisions on comparability of offers and accessibility of data, transparency, smart metering systems, and switching to be reinforced. No responded has explicitly supported the non-regulatory approach.

C. Impacts of the preferred option

What are the benefits of the preferred option (if any, otherwise of main ones)?

Problem area I: The option to apply main regulatory principles with a vision on hydrogen infrastructure and markets has the key benefit that it fosters market integration, provides clarity for (infrastructure) investors, avoids the emergence of non-competitive market structures and barriers to market integration due to hydrogen quality issues. During the ramp-up of the hydrogen sector, it provides flexibility for investors whilst clarity on the future regulatory regime avoids the costs of ex-post adjustments needed once market mature.

Problem area II: Allowing and promoting renewable and low carbon full market access and tackle issue of long term supply natural gas contracts. The key benefit is that the measures will decrease the production costs for producers of renewable and low carbon gases, increase competition, liquidity and trade for renewable gases. In this way consumers and taxpayers will benefit as support could be lowered. It will also limit risks for energy security and saving time and resources, reduce uncertainties, improve the efficiency of emergency measures, and strengthen security specific requirements for gas companies.

Problem area III: Establish National Planning based on European Scenarios. The key benefit is that this will eliminate risks that electricity and gas TSOs plan the evolution of their systems based on incompatible assumptions. It enables sector integration and a conceptual system plan while keeping the benefits of more detailed sector specific network development plans. It ensures a common vision of the different stakeholders implying that network planning takes into account the decarbonisation strategies at the national and EU levels, reducing the risk of potential lock-ins or stranded assets.

Problem area IV: Implementing flexible legislation addressing all problem drivers. The key benefit is that it will offer significant savings potential, help new suppliers and service providers to enter the market, develop innovative products, resulting in increased competition, consumer engagement and economic benefit. It would also enable citizens and communities to increase social acceptance, mobilise private capital and facilitate the deployment of renewable and low-carbon gases. Reducing the risk of over-investments will have a positive environmental impact.

What are the costs of the preferred option (if any, otherwise of main ones)?

Implementing measures in problem area I implies economic and administrative costs on Member State authorities, regulatory authorities and network operators as main principles will need to be introduced and supervised. These costs are however easily outweighed by the economic benefits of the preferred option.

Implementing measures in problem area II implies economic and administrative costs as it will increase the market price of natural gas, and require more cooperation between DSOs and TSOs. National authorities, in particular regulators will need to be involved in implementing the measures. Also, elaborating a regulated approach to cybersecurity could also entail higher costs for conformity.

No public quantification of costs is available for problem area III, but the benefits (increased synergies reducing societal costs) are expected to outweigh the costs of additional coordination.

No public quantification of costs is available for problem area IV. The key costs are economical and social as consumer benefits might be lower than the cost of smart meters for granting non-discriminatory access to consumer data.

What are the impacts on SMEs and competitiveness?
The preferred options in the different policy areas will result in increased competition for renewable and low carbon gases. Improved retail competition combined with improved consumer protection will result in higher switching rates among smaller consumers including SMEs. Increased competition may also result from non-discriminatory access to consumer data and rationally harmonised arrangements as well as measures facilitating interoperability within the EU. Enlarging the marker homogenising requirements will ensure more competition between providers of cybersecurity services and reduce costs due to economies of scale.
Will there be significant impacts on national budgets and administrations?
The majority of the preferred options for the different policy areas have existing and limited negative impacts on Member States, and mainly encompass limited administrative burdens. However, in problem area IV (flexible legislation for retail markets), consumer protection and engagement would limit such burdens for administrations. Overall, during extensive public consultations including with Member States' administrations no significant increase of impacts on Member States were signalled.
Will there be other significant impacts?
Yes, the preferred option under problem area IV identifies impacts on fundamental rights regarding data protection and will ensure widespread access and use of digital technologies and data-driven services while at the same time guaranteeing a high level of the right to private life and the protection of personal data.
Proportionality?
The preferred set of options is considered proportionate and builds to the extent possible on existing approaches. The balance between obligations and consideration of the different capabilities to act among Member States and private entities is considered appropriate given the imperative of achieving climate neutrality.
D. Follow up
When will the policy be reviewed?
The Commission will carry out a fully-fledged evaluation of the impact of the proposed initiatives, including the effectiveness, efficiency, continuing coherence and relevance of the proposals, within a given timeline after the entry into force of the adopted measures (indicatively, 5 years). No policy review is currently planned in the proposal.