

Public Consultation on the Hydrogen and Gas Market Decarbonisation Package

CEER Response for the European Commission

22 June 2021

This is a response to the European Commission's [Public Consultation on the Hydrogen and Gas Market Decarbonisation Package](#).

The consultation period was from 26 March to 18 June 2021. CEER's response is public and will also be found on the [European Commission's website](#), as CEER submitted the response on 18 June 2021. Per the European Commission, the idea of the consultation was to "propose to revise EU gas rules to facilitate the market entry of renewable and low-carbon gases and remove any undue regulatory barriers". The Commission is preparing a review and a revision of the Gas Directive and Gas Regulation to ensure that the gas market framework contributes to the achievement of the more ambitious greenhouse gas (GHG) emissions reduction targets set in the European Green Deal and the 2030 Climate Target Plan, as well as to implement the measures proposed in the Energy System Integration and Hydrogen strategies.

The consultation consisted of a number of questions via an online questionnaire. The questions and CEER's responses can be found below.

CEER views on European Commission Public Consultation on the Hydrogen and Gas Market Decarbonisation Package

18 June 2021

Background / Context

CEER very much welcomes the European Commission's initiative to review, refresh and adapt the legal and regulatory framework for Europe's gas sector to prepare for, enable and stimulate the progressive transformation of the sector during the energy transition to a carbon-neutral society. Providing stakeholders and consumers with clarity and certainty in a period of major change and technological innovation is a challenging but essential undertaking, which regulators are fully committed to supporting. In this regard, CEER underlines the nature and mission of energy regulators. National regulatory authorities (NRAs) are independent public entities that work in the public interest and are charged with defending the interests of present and future consumers and safeguarding the efficiency of the energy system.

In addition to providing input to the European Commission's consultation exercises (the combined Evaluation Roadmap / Inception Impact Assessment; the public consultation on the Hydrogen and Gas Market Decarbonisation Package; several stakeholder workshops and Madrid Forum discussions), CEER would like to reiterate some fundamental considerations on key regulatory aspects for the future design and governance of the gas sector.

- 1. Adopt a gradual and flexible regulatory approach to developments related to hydrogen.** CEER agrees on the importance of establishing core regulatory principles from the outset (in particular: non-discrimination, unbundling of network operations, consumer protection, transparency, NRA oversight and monitoring) to provide clarity and predictability to market participants and investors. However, given the uncertainties on the development of the hydrogen sector, Member States should be granted flexibility to find the best solutions depending on the speed, level and type of development of the hydrogen sector in their respective countries. Regulatory measures, such as the type of network access, should be gradually introduced based on pre-determined conditions which would trigger regulatory intervention. This would allow regulation to be introduced only when needed (e.g. when there is a risk of market abuse or harm) and in a targeted way, while avoiding unnecessary measures that may hinder innovation and investment. NRAs should monitor when regulation of hydrogen networks should be introduced, based on such pre-defined EU-wide principles. Factors to consider in reviewing the regulatory framework would include: the degree of blending, the growth in demand for hydrogen, and the possible emergence of dedicated hydrogen infrastructure.
- 2. Continue to improve the performance of the gas market.** In the coming years, consumption of gases other than hydrogen is expected to remain high in Europe, in particular at household level and in providing dispatchable thermal generation to support the ever-greater levels of renewable electricity generation. Hence, it is important to keep working to ensure a well-integrated, liquid and interoperable EU internal gas market as the basis for delivering cost efficiency and security of supply to consumers, also taking into account the benefits of an integrated energy system. Potential legislative changes could include regulatory tools to address any instance where cross-border tariffs become a barrier to trade and where there is a risk of foreclosure of cross-border capacity. Also, a technology-neutral, level playing field should be established between different conversion and storage facilities across the energy sector, so that

they face equivalent categories of costs in network tariffs and levies, and equivalent recognition of environmental and security of supply benefits. CEER further believes the market should be better designed to allow renewable gases to access the gas infrastructure and gas wholesale markets; this would require e.g. a comprehensive terminology for different types of gases and an EU certification system. Based on that, it should also be considered how low-carbon energy can be reflected in the Guarantees of Origin system.

3. **Guarantee consumer rights regardless of the energy carrier.** As the energy transition proceeds, customer rights (such as basic contractual rights, market-based pricing, public service obligations, affordability, billing, comparison tools, switching, data protection, out-of-court dispute settlement, vulnerable consumers and energy poverty, etc.) should be safeguarded regardless of the type of energy used, also acknowledging the role of gas for households' everyday needs in the medium term. The provisions in the Clean Energy Package should be mirrored while carefully considering the specificities of each energy carrier.
4. **Enhance NRAs'/ACER oversight of integrated infrastructure planning.** It is crucial to strengthen the power of approval and oversight of NRAs and ACER over the activities of regulated operators and ENTSOs, in particular on adopting an integrated view of the energy system and of infrastructure planning in order to guarantee a neutral approach to the process, to the benefit of consumers.
5. **Apply a no-regrets policy for investment decisions.** Building new regulated infrastructure for renewable gases, such as hydrogen, as well as repurposing gas infrastructure, should always follow the principles of cost efficiency and effectiveness, for the benefit of consumers. Considering that renewable gases consumption is still rather limited, and that in several sectors different decarbonisation solutions could be adopted and could even be in competition, it is important to strike the right balance between, on the one hand, developing the necessary infrastructure for a specific new gas, for example hydrogen, to stimulate this sector and, on the other hand, avoiding the risk of over-investing in such new gases infrastructure. Against this background, investment decisions should follow a prudent and no-regrets approach, giving priority to infrastructure expected to provide the most cost-efficient benefits for consumers, having considered several future decarbonisation scenarios.
6. **Respect the beneficiary-pays principle for infrastructure investments.** It is important to uphold the principle of cost-reflectivity also in relation to the development of new renewable gases infrastructure, such as hydrogen infrastructure, avoiding cross-subsidisation between consumers of different energy carriers. The cost of new gases networks should only be borne by their consumers. Should policymakers opt to support financing such hydrogen developments, in view of their contribution to decarbonisation targets, they should opt for funding instruments other than network tariffs.

Drawing from these six considerations, we would like to share some further reflections and explanations regarding individual questions in the European Commission's public consultation, as we found it difficult at times to select an answer which provided detailed insights into important and complex regulatory considerations that should help achieve the EU's goals and, importantly, deliver benefits for the customer. We hope our reflections below provide added value to our responses in the questionnaire.

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

Regarding the risk of stranded assets (Q9), NRAs acknowledge the importance of this topic. NRAs consider it as crucial that the transition process to a new energy paradigm should not threaten the affordability for consumers of natural gas transmission and distribution tariffs (or other regulated

tariffs). Cross-subsidisations between network users of natural gas and other sectors should be avoided.

Repurposing of 'redundant' gas assets for the transport of hydrogen can be beneficial to both gas and hydrogen end-users in cases where there is an identified need for hydrogen infrastructure. This should become clear from a cost-benefit analysis (CBA) approach, taking into account that repurposing of the gas infrastructure comes at a cost as well. It should also be kept in mind that there is no one-size-fits-all approach.

Revised legislation at EU level should ensure that decommissioning is subject to due consultation of neighbouring authorities and stakeholders where their markets may be affected.

2 Consumer choice and renewable and low-carbon gases

As stated in our input on the Roadmap/Inception Impact Assessment, CEER fully supports efforts to ensure that consumer rights are promoted and protected, whilst delivering on the EU's 2050 sustainability and climate neutrality objectives. Generally speaking, and as done in the recast Electricity Directive, we also believe that the retail market and consumer provisions in the Gas Directive must be adapted and revised to allow for robust consumer protection, future innovation, technology developments and new market trends, in particular with the emergence of new types of renewable and low-carbon gases. We underline, however, that the technological specificities, physical nature and market realities of gases will require some adaptations and considerations when implementing various measures, such as smart meters, energy communities, aggregation and dynamic contracts. Also, when considering a fuel mix disclosure for gas(es), the provision of information on renewable gas requires implementation of an effective, efficient and reliable system of Guarantees of Origin (GOs), offering economic benefit and certainty for consumers.

Regarding the consultation questions, we underline that simply requiring more information is not a solution to consumer protection and engagement challenges (**Q13**). Foremost, there is a need to find ways to make sure consumers are informed in an effective, useful and understandable way. In addition, we underline that some of the aspects raised under the question on effectiveness (**Q15**) concern provisions in general consumer law, and are not linked to the gas market legislation, while other aspects identify forward-looking issues that are not yet relevant or in place for the gas sector, and thus cannot have been effective. Regarding price signals (**Q17**), market price signals are crucial for consumer choice. They also depend on flexibility options in terms of consumption needs and substitution options. Price development in gas is much less volatile than in electricity, and gas consumption patterns are typically not very flexible. These factors should be considered carefully when considering dynamic pricing.

3 Integrated and coordinated infrastructure planning

The progressive integration and emergence of new energy markets makes infrastructure more interdependent, requiring an integrated approach to infrastructure network planning, both in relation to the different levels of the supply chain, and in relation to the various energy carriers.

The alignment of National Development Plans (NDPs) process with TYNDP (**Q20**) should at least regard the frequency and timing of submission, to provide proper and consistent inputs and avoid discrepancies at later stages.

In Member States with several Transmission System Operators (TSOs) in a sector, NDPs should be developed by all TSOs in a joint and coordinated way.

In terms of the role of Distribution System Operators (DSOs) in network planning (**Q25**), CEER believes that harmonisation at EU level, while not necessarily requiring the development of DSO NDPs, should at least mandate inclusion of DSOs in the joint scenario development process undertaken by TSOs, and consider DSO infrastructure developments for network planning purposes.

As regards other energy carriers (**Q23**), and hydrogen in particular (**Q26**), each Member State should at least have a periodically updated single national development plan for electricity infrastructure development and a single plan for gas infrastructure development. In this respect, CEER calls for developing scenarios jointly for both sectors, to depict a coherent evolution of the European energy system. Further coordination between electricity and gas operators could also be beneficial in terms of joint assessment of projects addressing needs that could be satisfied by both energy carriers, based on consistent CBA methodology.

CEER's view on the planning process of hydrogen developments is that harmonisation at EU level should not require the development of separate hydrogen NDPs, consistently with the gradual and flexible regulatory approach envisaged for the hydrogen market. However, there are clear benefits, especially in terms of transparency, in having a comprehensive overview of all infrastructure hydrogen projects – including those developed by non-regulated entities.

Gas and, where relevant, electricity NDPs should at least take into account hydrogen developments for scenario and modelling purposes, and the role of the NDPs of gas network operators should be extended to also identify assets that could be converted to be used for the transport of hydrogen. Also, gas and electricity system operators could have a role in defining the location and size of power-to-gas installations within their network development planning process, under supervision of the NRA (**Q28**). The assessment would be based on a comparison of the costs/benefits of a power-to-gas investment against competing options, taking into account objectives such as alleviation of congestion, consistency with technical aspects (e.g. economies of scale of power-to-gas installations), location of hydrogen or synthetic gas consumption areas.

4 Hydrogen infrastructure and a hydrogen market

In general, CEER recommends considering a gradual approach to the regulation of hydrogen networks in line with market and infrastructure development for hydrogen. The need for regulatory intervention for hydrogen network infrastructure will depend on how the hydrogen sector will evolve, including the need for transport of hydrogen. In particular, if the hydrogen network shows characteristics of a natural monopoly and can be considered an essential facility, where hydrogen producers and consumers need access to a hydrogen transport facility that is difficult to duplicate, there is a structural risk of an abuse of market power that would need to be addressed.

As long as local hydrogen infrastructure is operated and used similarly to the current situation, e.g. as local private point-to-point hydrogen pipelines between production and demand (**Q37**), we would like to underline the use of a dynamic and tailored approach. As a general approach, flexibility is needed on when regulation based on pre-defined EU-wide principles should be introduced. Basic EU-wide regulatory principles (response options points 1-5) should be defined early on, avoiding barriers for market development. Flexibility should remain at regional level to implement rules, such as those on cross-border operability of hydrogen networks, at an early stage. More-detailed EU-wide

regulatory measures (points 6-9) may become important at a later stage and should be phased in as required, based on market monitoring results.

Regarding point 10, the way the revenues collected by gas network operators when selling gas assets should be accounted for, and a split between operators' shareholders and consumers could be defined, taking into account the effect of decreasing demand of gas on the economic sustainability of network operators in a meshed network.

The same dynamic and gradual approach should be applied to existing and future private hydrogen pipelines when it comes to the implementation of the unbundling principle, third-party access and regulation of storage and LNG. With regard to the regulation of existing and future private hydrogen pipelines (**Q39** and **Q40**), periodic monitoring should be performed as a basis for deciding on the need to introduce regulation, based on pre-defined EU-wide principles. As long as local hydrogen infrastructure is operated and used similarly to the current situation (e.g. point-to-point connections between production and demand) and there is no discrimination or abuse of market power, there is likely no need to bring these local private hydrogen networks into a regulated regime but there could be some potential for cross-border cooperation at a regional scale. This means that such lines would fall under the general competition law provisions.

With reference to applying the principle of vertical unbundling to hydrogen networks (**Q41**), CEER believes that ownership unbundling should remain the reference model for network infrastructure regulation. However, considering that the hydrogen sector is at a very early stage, initially lighter forms of unbundling should be allowed, and could be gradually strengthened towards ownership unbundling as the hydrogen network evolves. This ties in with the overall approach of dynamic regulation – taking action when necessary and tailoring the intervention to the scenario. Therefore, additional considerations will be needed to not 'simply' copy-paste the current gas regulation to hydrogen. For example, the type of unbundling chosen for the gas network operator may not be the most appropriate option for a hydrogen network operator, considering the possible differences among the two sectors and the prevailing market circumstances in a further-integrated energy system.

Regarding the issue of negotiated vs. regulated non-discriminatory access to future regulated hydrogen networks (**Q43**), CEER favours a regulated access regime as the strongest instrument to protect consumers in regulated network. However, based on the stage of hydrogen sector development in their respective countries, Member States should be allowed the flexibility to apply a negotiated access, whilst ensuring non-discrimination. Similarly, the regulation of hydrogen storage (**Q58 and 63**) as well as of hydrogen access to LNG (**Q63**) should be applied when needed, and flexibility should be left to Member States to choose the regulatory framework.

Regarding the question on the EU ISO model for hydrogen network (**Q46**), CEER has not answered this question, as it is a complex topic with several implications for the design of the system and needs to be carefully analysed in the context of the evolution of the hydrogen system. Such analysis will substantially reduce the risk of unintended consequences and we consider it important that this analysis be available for any decision on this matter.

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

As regards the functioning of the existing gas market, CEER notes that the re-examination of the current regulatory framework should also ensure an integrated, liquid and interoperable EU internal gas market, including potential legislative changes unlocking better regulatory tools to address any instance where cross-border tariffs become a barrier to trade and where there is a risk of foreclosure of cross-border capacity.

In this respect, on the proposals set out by the European Commission to enhance the level of design in the cross-border tariff setting (**Q68** and **Q69**), CEER would welcome EU-level guidance for the regional integration of the gas market, including gas market mergers. If a regional merger is considered, it should be subject to a CBA. In regard to the abolition of grid charges on intra-EU cross-border points, CEER's view is that, at present, tariff design does not appear to be causing major issues on a pan-EU basis, and the implementation of the TAR NC should remain a priority. However, should cross-border capacity charges for gas be a hindrance to trade, a range of possible measures could be taken at a regional level. One of them is the reduction of reserve prices in cross-border capacity allocation on the basis of an agreement between the concerned NRAs.

Such measures would likely include an inter-TSO compensation (ITC) mechanism, to ensure the recovery of the allowed revenues also for TSOs whose systems are significantly affected by transits. In case of market mergers, this implies gradually rebalancing away from cross-border tariffs to higher tariffs on external borders of the merged zones and on demand. To foster the implementation of ITC mechanisms at regional level, clear principles are needed, along with an appropriate institutional framework setting out the roles and responsibilities of each actor. CEER does not advocate for a full harmonisation at EU level of allowed revenue parameters for TSOs; however, if an ITC mechanism is implemented, at least additional transparency requirements with particular regard to TSOs' investments cost and allowed revenues is key.

On the blending of hydrogen and other renewable or low-carbon gases into the existing gas grid (**Q76**), CEER believes that, while blending could facilitate the uptake of hydrogen and other renewable and low-carbon gases by using existing methane gas infrastructure, there are still uncertainties as to its economic and technical implications, particularly in the long-term. From a technical perspective, the main concerns relate to safety issues and interoperability with consumer applications. From the economic standpoint, and in particular with respect to its cost-efficiency, blending can contribute to the decarbonisation targets without the need to build dedicated hydrogen infrastructures. At the same time, blending may make it difficult to extract the value of a scarce commodity such as hydrogen. In this respect, CEER calls for preparatory assessments coordinated at European level at least in terms of principles or methodology for blending.

As a general approach, CEER stresses that national and regional conditions differ. On one hand, notwithstanding gas quality issues, it will be important that any EU-wide thresholds for hydrogen or other renewable gases admixtures do not prevent significant development of blending in regions where this can proceed quickly. On the other hand, blending targets – if any – should not require excessive investment in other regions where flows of hydrogen or other renewable gases remain marginal, nor require blending in regions where conditions are not suitable.

6 Gas Quality

Gas quality issues are typically handled by organisations other than the NRAs, including national standardisation groups. These organisations and entities are knowledgeable in the industrial processes, with NRAs not involved in such specific discussions on safety, reliability, and technical aspects.

NRAs usually supervise measures related to the application of gas quality standards by TSOs and DSOs when those are included in contracts and agreements, but NRAs may not necessarily take a close review in the sense that they would challenge the appropriateness of a standard. NRAs rather focus on the overall functioning and operation of the gas system. Sometimes, NRAs step in to resolve disputes, e.g. disputes between operator and user; however, these disputes are often solved on a voluntary basis between these parties, without the intervention of the NRAs.

The more complex the gas quality design becomes, the greater will be the reliance on these organisations. Therefore, robust monitoring is needed and the decision-making bodies in these organisations should ensure a balanced representation of different stakeholders, including NRAs, as responsible for removing gas market barriers as stated below. Without a fair representation in these bodies, decisions on gas quality could reflect specific interests of the operators.

The discussion on gas quality issues is ongoing among NRAs. Several questions relate to uncertainty regarding the costs of different potential future configurations (e.g. different blending levels vs. pure hydrogen) and the relevant impact on customers (households, industrial users, appliance manufacturers). Also consideration needs to be given to gas quality in Member States that are supplied gas from third countries and who are less connected with other Member States. Gas quality should remain as stable as possible for safety issues at end-consumers' sites.

Additionally, NRAs do not currently have relevant evidence of gas quality fluctuation issues (**Q86**) that would trigger the application of the procedure foreseen in Article 15 of the Interoperability Network Code (IO NC). For this reason, the majority of NRAs have no evidence regarding the effectiveness of this provision, even less so in terms of its relevance for future fluctuating gas quality specifications.

NRAs are responsible for market design, which means addressing market barriers, ensuring a level playing field and promoting liquidity. In this context, NRAs should examine whether the technical rules and standards do not create markets failures and barriers.

Regarding what is needed to ensure efficient coordination of gas quality between Member States (**Q78**), we would like to underline that point 2, i.e. reinforced cross-border coordination tools (e.g. streamlined procedure, involving all impacted market participants, increased transparency) may not be required in the short-term, but could become more relevant in the future in case of increased blending levels of hydrogen or other renewable gases.

7 Alignment of institutional rules for gaseous fuels to the Clean Energy Package

The overall governance arrangements in gas should be brought into line with those recently updated for electricity in the Clean Energy Package (CEP), especially in a context of sector coupling and a holistic system view in the future (**Q89**). This alignment will involve changes to the gas legislation in relation to the Ten-Year Network Development Plan (TYNDP), Network Codes, ACER powers, enforcement of the compliance of ENTSOG with its obligations, exemptions and planning obligations

for distribution systems. In particular, NRAs consider that the revised governance for the relationship between ACER and ENTSO-E set out in the CEP is equally relevant in respect to ENTSOG.

Regulators consider it useful to have an EU-level representation of gas DSOs after practical implementation and evaluation of the impacts in the electricity sector, where this was stipulated by the CEP (**Q90**). Regulators are open to the following options mentioned in the questionnaire: Either a separate DSO entity for gases, or a joint gas-electricity DSO entity, with specific rules applicable to gas DSOs. With a view to energy system integration and acknowledging that many DSOs operate both electricity and gas networks, a joint gas-electricity EU DSO body might be beneficial, duly taking into account the sectoral differences.

As regards other aspects which should be aligned with the CEP (**Q91**), NRA scrutiny of NDPs should be ensured, to offset specific market failures that could induce some TSOs not to consider specific investments that would bring greater social welfare in the long run and to prevent inefficient investments whose costs would be borne by consumers. NRAs should have the power to approve the NDPs, as they are best fitted to ensure that their NDPs are fit for delivering a sound infrastructure development and reach a sufficient level of quality. In addition, the NRA should have the power to amend the NDPs, including the inclusion or removal of specific investments where needed.

8 Security of supply dimensions

As regards the need to amend Regulation (EU) 2017/1938 on Security of Supply (SoS) with particular regard to its scope (**Q96**), the SoS Regulation is currently being implemented. In this respect, little experience has been gained so far as regards the practical application of the reverse flow provisions, and no experience with the provisions on solidarity agreements. It seems therefore, premature to suggest any amendments of this Regulation at this point in time. In the future, it is possible that decentralised injections at DSO level, different gas qualities and possibly new market rules could lead to changing flow patterns. If needed, a future review of the SoS Regulation should take into account such developments.

On establishing cybersecurity rules for gas (**Q97**), CEER believes that cybersecurity is crucial for the functioning of the EU's energy supply. Regulators agree that it could be useful to establish a comprehensive EU-level legislative framework for cybersecurity for the energy sector, covering the electricity, gases, hydrogen, other energy carriers and heating sectors, given that they face similar cybersecurity challenges.

Open Public Consultation on the Hydrogen and Gas Market Decarbonisation Package

Fields marked with * are mandatory.

Introduction

The European Green Deal establishes a roadmap for cutting greenhouse gas emissions, fighting biodiversity loss and tackling pollution, while boosting a modern, resource-efficient economy and creating jobs. Energy policy is a central pillar in the European Green Deal and in the decarbonisation of the European economy. Energy instruments are needed to achieve climate targets in a cost-effective manner, to the benefit of EU customers. These include measures already outlined in the relevant initiatives adopted under the European Green Deal. Specifically, the Energy System Integration Strategy and the Hydrogen Strategy adopted on 8 July 2020 set out how the energy markets could contribute to achieving the goals of the European Green Deal, including the decarbonisation of the production and consumption of hydrogen and methane.

This consultation aims to collect views and suggestions from stakeholders and citizens related to a possible proposal for a revision of the Gas Directive (2009/73/EC) and Gas Regulation ((EC) No 715/2009). This review is planned for Q4 2021.

The possible need for legislative changes relates primarily to cost-efficient decarbonisation of the existing gas sector by (i) enabling a market for renewable and low carbon hydrogen allowing it to become a key component of the energy sector, and (ii) facilitating the injection, transmission, distribution and trading of renewable and low carbon gases in the existing gas grid in the context of the wider energy system integration.

Moreover certain renewable gases might not be connected to any network at all, but could be consumed at the place of production (e.g. by small modular electrolysers) or transported by other means (e.g. rail or road) to where they will be used. The scope of the off-grid production compared to production connected to a network depends inter alia on technological developments and market uptake.

While preparing for and incentivising the transition to renewable and low carbon gases, legislative changes may also contribute to a better and more consumer friendly functioning of the gas market, taking into account rapid technological developments and the principles introduced in the recent electricity market design proposals.

To organise the transition from fossil to carbon free fuels and to achieve a climate-neutral Europe by 2050, the Commission will table a Fit for 55 package to reduce greenhouse gas emissions by at least 55% by 2030. This will cover wide-ranging policy areas – from energy efficiency to renewables, energy performance of buildings, as well as land use, energy taxation, effort sharing and emissions trading. The on-going reviews of the Renewable Energy Directive ((EU) 2018/2001) and the Energy Efficiency Directive ((EU)

2018/2002) are addressing, among other things, issues of regulatory incentives for production or consumption of renewable energy. The gas market legislation is part of the Fit for 55 package will need to be consistent with measures under both Directives as well as other measures under the package.

In the Commission's view, in order to deliver the 2030 and 2050 targets, an integrated planning and operation of the energy system as a whole, across multiple energy markets, carriers, infrastructure types, and consumption sectors is necessary.

Households and industrial consumers are at the centre of an integrated energy system. Consumers should be able to choose among the available and accessible renewable and low-carbon technologies that best serve their needs in terms of reliability, resource efficiency and cost. Competitive energy markets are a key tool to achieve the targets of the Green Deal in a cost-efficient manner and to stimulate the significant investments. Putting all technologies into competition, in particular smart electrification, demand response, energy efficiency, and renewable and low-carbon gases like hydrogen and bio methane, or Carbon Capture and Usage/Storage (CCU/S) technologies, will serve customers and empower them to make choices which, in turn, help to achieve decarbonisation targets in a cost efficient way. As such efficiencies and active consumer participation are facilitated, an integrated energy system must be effective and reliable in providing vulnerable and energy poor consumers with a high level of protection.

Direct electrification is in most cases the most cost-effective and energy-efficient way to decarbonise final energy demand. Electrification coupled with increased contribution from renewables, energy efficiency and applying circular economy will thus deliver a substantial part of the emission reductions across the energy system. In certain areas, where a decarbonisation of the current use of gaseous fuels through full electrification is unlikely to be technically or economically viable, gaseous fuels are likely to remain present in the EU's energy system.

The answers to this questionnaire will feed into the review process of the Gas Directive and Gas Regulation, in particular into the impact assessment that the Commission will carry out to assess whether a revision is needed and, if yes, what revision would be the most appropriate.

In the context of developing this initiative, the Commission will conduct an evaluation of the relevant gas market rules. The evaluation will assess the current effectiveness, efficiency, relevance, coherence and the added-value of action at EU level of the Gas Directive and Gas Regulation, in particular in reaching the EU decarbonisation targets.

The combined evaluation roadmap has been consulted previously and is available here:

<https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12766-Revision-of-EU-rules-on-Gas>

The questions are divided into eight sections: questions about the identity of respondents, general questions on revising the Gas Directive and Gas Regulation and more specific technical questions on e.g. consumer rights, infrastructure planning, hydrogen markets, access of renewable and low-carbon gases to the gas market and infrastructures, gas quality, and security of supply.

If you do not have an opinion on a question, do not reply.

NB: There is a session timeout for the submission of your contribution after **60 minutes**; this is an automatic security feature. In order to avoid any loss of data, do not forget to use the "Save as Draft" option on the top right side of your screen before the 60 minutes expire. You can subsequently resume work on your contribution, and submit once completed.

Please note that this questionnaire will be available in all EU-languages in the coming weeks.

About you

* I am giving my contribution as

- Academic/research institution
- Business association
- Company/business organisation
- Consumer organisation
- EU citizen
- Environmental organisation
- Non-EU citizen
- Non-governmental organisation (NGO)
- Public authority
- Trade union
- Other

* First name

Charles

* Surname

Esser

* Email (this won't be published)

charles.esser@ceer.eu

* Organisation name

255 character(s) maximum

Council of European Energy Regulators (CEER)

* Organisation size

- Micro (1 to 9 employees)
- Small (10 to 49 employees)
- Medium (50 to 249 employees)
- Large (250 or more)

Transparency register number

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Check if your organisation is on the [transparency register](#). It's a voluntary database for organisations seeking to influence EU decision-making.

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* Country of origin

Please add your country of origin, or that of your organisation.

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- Guyana
- Haiti
- Heard Island and McDonald Islands
- Honduras
- Hong Kong
- Hungary
- Moldova
- Monaco
- Mongolia
- Montenegro
- Montserrat
- Morocco
- Mozambique
- Myanmar /Burma
- Namibia
- Nauru
- Nepal
- Netherlands
- New Caledonia
- New Zealand
- Nicaragua
- Niger
- Nigeria
- Niue
- Norfolk Island
- Northern Mariana Islands
- North Korea
- South Georgia and the South Sandwich Islands
- South Korea
- South Sudan
- Spain
- Sri Lanka
- Sudan
- Suriname
- Svalbard and Jan Mayen
- Sweden
- Switzerland
- Syria
- Taiwan
- Tajikistan
- Tanzania
- Thailand
- The Gambia
- Timor-Leste
- Togo
- Tokelau
- Tonga
- Trinidad and Tobago

- Cameroon
- Canada
- Cape Verde
- Cayman Islands
- Central African Republic
- Chad
- Chile
- China
- Christmas Island
- Clipperton
- Cocos (Keeling) Islands
- Colombia
- Comoros
- Congo
- Cook Islands
- Costa Rica
- Côte d'Ivoire
- Croatia
- Cuba
- Curaçao
- Cyprus
- Iceland
- India
- Indonesia
- Iran
- Iraq
- Ireland
- Isle of Man
- Israel
- Italy
- Jamaica
- Japan
- Jersey
- Jordan
- Kazakhstan
- Kenya
- Kiribati
- Kosovo
- Kuwait
- Kyrgyzstan
- Laos
- Latvia
- North Macedonia
- Norway
- Oman
- Pakistan
- Palau
- Palestine
- Panama
- Papua New Guinea
- Paraguay
- Peru
- Philippines
- Pitcairn Islands
- Poland
- Portugal
- Puerto Rico
- Qatar
- Réunion
- Romania
- Russia
- Rwanda
- Saint Barthélemy
- Tunisia
- Turkey
- Turkmenistan
- Turks and Caicos Islands
- Tuvalu
- Uganda
- Ukraine
- United Arab Emirates
- United Kingdom
- United States
- United States Minor Outlying Islands
- Uruguay
- US Virgin Islands
- Uzbekistan
- Vanuatu
- Vatican City
- Venezuela
- Vietnam
- Wallis and Futuna
- Western Sahara
- Yemen

- Czechia
- Lebanon
- Saint Helena
Ascension and
Tristan da
Cunha
- Zambia
- Democratic
Republic of the
Congo
- Lesotho
- Saint Kitts and
Nevis
- Zimbabwe
- Denmark
- Liberia
- Saint Lucia

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- Czech
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- English
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- German
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- Hungarian
- Irish
- Italian
- Latvian
- Lithuanian
- Maltese
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- Spanish
- Swedish

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

Costs for renewable energies have decreased significantly in the last ten years. In the relevant scenarios used by the Climate Target Plan Impact Assessment, biogas, renewable and low-carbon hydrogen and synthetic fuels would represent two-thirds of the gaseous fuels in the 2050 energy mix, with fossil gas used in combination with CCU/S representing the remainder. The areas where renewable and low-carbon gaseous fuels are expected to come into play include today's industrial sectors (e.g. refineries, fertilisers, steel making, glass, ceramics) and certain heavy duty transport sectors (ships, aviation, long distance heavy vehicles). They are also expected to continue serving the needs of the electricity system as flexible power production. The role of gas in heating depends on the competition with other technologies, including heat pumps. The process to decarbonise the gas supply and to shift demand for gases to most needed uses must start already now. Achieving the 2030 renewable, energy efficiency and greenhouse-gas reduction targets in time is an important step in this process.

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

500 character(s) maximum

Natural gas provides essential services for consumers, e.g. heating & industry. Natural gas also provides support to decarbonisation of electricity system; through dispatchable thermal generation. To ensure a sustainable secure future, decarbonised gases are needed and will aid in achieving EU targets. However, they raise several technical issues that deserve further consideration, in particular in relation to their regulatory treatment. Affordability for gas consumers must also be ensured.

2. Do you see a need to revise the Gas Directive and Gas Regulation to help to achieve decarbonisation objectives?

- Yes
- No

3. If, yes what should the main elements of the reform be? Which benefits do you expect?

500 character(s) maximum

Need to align some provisions with CEP, i.e. consumer rights & information. Need unambiguous definitions & criteria for sustainable gases, with dynamic regulatory approach based on periodic market monitoring to allow market and tech development. Recognise role of gas in supporting transition and continued use by consumers; affordability is key. Revised legal framework will provide necessary tools for deployment of new technologies while ensuring system decarbonisation and sector coupling.

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

500 character(s) maximum

A comprehensive terminology for different types of gases and an EU certification system needs to be developed. Based on that, it should be considered how low-carbon energy (i.e. low-carbon hydrogen) can be reflected in the Guarantees of Origin system. This is relevant for billing information provided to consumers; disclosing energy sources should also be added to the Gas Directive. It is important to promote the most energy efficient solutions across value chain and energy carriers.

5. Should the revised legislation, in addition to the instruments under the Fit for 55 package, in particular the Renewables Energy Directive and the Energy Efficiency Directive, include also measures that dis-incentivise the use of unabated fossil gases?

- Yes
- No

6. Should the revised legislation, in addition to the instruments under the Fit for 55 package, in particular the Renewables Energy Directive and the Energy Efficiency Directive, include also measures that incentivise the use of renewable and low carbon gases, for example via specific targets?

- Yes
- No

7. Do you expect that the technological and regulatory changes necessary to decarbonise the gas market have a potential to create new jobs by 2030?

- Yes
- On balance neutral
- No

8. 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.

500 character(s) maximum

9. 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?

500 character(s) maximum

New natural gas network investments must be consistent with future decarbonisation. Efficient infrastructure management is responsibility of operators. It should be required to coordinate with neighbouring authorities in case of risk of undesirable effects on their markets. Options to address risks include re-use of assets, accelerated depreciation or shortening asset lives (adjusting ROI accordingly & avoiding x-subsidies). When the risk has materialised, decommissioning is a last resort.

II. Consumer's choice and renewable and low-carbon gases

Recognising that citizens must be at the core of the Energy Union and the European Green Deal, clear and easily accessible information is essential to enable citizens to change energy consumption patterns, switch to solutions offered by an integrated energy system, and whenever applicable, switch supplier. Today's consumers are not always made aware of the origin of gases they consume and their climate impacts. To that effect, the certification of renewable and low-carbon gases is envisaged in the context of the upcoming revision of the Renewable Energy Directive (EU) 2018/2001. Recent changes to market rules for electricity have established a comprehensive framework for consumer protection and empowerment (see articles 4, 5, 9-19, 22-29, and Annexes I and II of recast Electricity Directive (EU) 2019/944) in the sector.

While technical and economic conditions in gas markets may differ from electricity markets, updating the legislative framework for gases could ensure an equal level of protection and empowerment for electricity and consumers of gaseous fuels, and increase certainty for market actors. This revision could establish the tools to empower consumers to actively take part in the energy transition while enjoying high level of consumer protection, and ensure that they fully benefit from their contributions to the decarbonisation process. This gives also an opportunity to complement existing legislation addressing the challenges related to vulnerable households and energy poverty.

Consumers should become well-informed and empowered as buyers. This could be achieved through clearer billing and advertising rules, trustworthy price comparison tools, the possibility to conclude contracts to buy specifically renewable or low carbon gas and by leveraging their significant bargaining power through collective schemes (such as collective switching and energy communities). Finally, consumers need to be free to generate and consume their own energy under fair and transparent conditions in order to save money, help the environment, and ensure security of supply.

10. Do you consider that the Gas Directive needs to be modified to ensure consumer protection and empowerment?

(multiple answers possible)

- Yes, it needs to be more ambitious to reflect the citizen/consumer focus of the Clean Energy Package for all Europeans and the Green Deal.
- Yes, and mirroring consumer protection and empowerment rights of electricity consumers conferred by the recast Electricity Directive and by 2018 Energy Efficiency Directive would be the most straightforward approach to do so.
- No, it strikes the right balance as it is.

11. If you answered 'yes' to the previous question, which provisions pertaining to consumer protection and empowerment should be prioritised in the revised Gas Directive?

(multiple answers possible)

- Provisions on protection of energy poor and vulnerable customers.
- Provisions on single points of contact for consumers for information on rights, gas consumption and costs, legislation and dispute settlement.
- Provisions on protection mechanisms to ensure efficient treatment of complaints through transparent, simple and inexpensive procedures and out-of-court dispute settlements.
- Provisions on supply contract information and modification.
- Provisions on accessibility to transparent information on share of renewable gas consumed, gas quality, applicable prices and tariffs and on standard terms and conditions.

- Provisions on frequency of billing and available payment methods.
- Provisions on cost of access to metering and billing information.
- Provisions related to switching suppliers (switching related fees, final closure account).
- Provisions on accessibility of consumption data.
- Provisions on smart installation of individual meters in multi-apartment or multi-purpose buildings.
- Provisions on intelligent and remotely metering systems and their costs.
- Provisions on protection against disconnection during winter.
- Other

12 Which of the following do you think would be appropriate in strengthening the rights and information of consumers in the gas market? (multiple answers possible)

- Consumer participation in demand response through aggregation contracts to sell or buy gases.
- Enabling the participation/the establishment of energy communities.
- Access to reliable online price comparison tools for improved switching rates.
- Introduction/deployment of smart metering systems for gases.
- Obligations to provide pro-active consumer information on switching possibilities, consumer rights etc.
- More consumption and billing information.
- Additional requirements (please explain further in next question).
- Enabling self-consumption for large customers using gas absorption heat pumps.
- Setting minimum requirements for billing information.
- Providing further billing information on breakdown of gas supply prices.
- Providing further information about historical consumption and energy sources.
- Providing information on the nature of gas supply i.e. fossil, renewable, low carbon.
- Other

13. Please specify and/or explain your choice for the three previous questions.

500 character(s) maximum

Alignment of consumers & retail in the CEP needed. Have highlighted priorities in Q11-12, but all points merit careful consideration in order not to foreclose future technological solutions, e.g. renewable gases. Alert: more information can lead to overload and disengagement by consumers. Foremost, need to find ways

to make sure consumers are informed in effective, useful and comprehensible way. Also, ensure complementarity with general consumer law (i.e. some Q15 points are not energy-specific)

14. Whether for residential or commercial purposes, consumers may bundle their utilities with a single energy provider. The idea of bundling is based on combining several services in one package. As regards households, some utility companies can provide electricity, gases and heating offers in a single deal. How do you think transparency and the flexibility of such bundled electricity, gases and heating offers could be further improved to benefit consumers?

500 character(s) maximum

Different rules & contractual conditions applying to different parts of bundles raise challenges for consumer protection & enforcement (eg. gaps in liability, complaint handling confusion, jurisdictional issues for public authorities). The CEER Guide on Bundled Products, promotes a consistent framework for treatment of bundled products in Europe across various sectors (not only energy). To ensure well-functioning markets, it is important to protect consumers against lock-in.

15. To what extent has current EU legal framework on gas been effective:

for vulnerable consumers in:

	Highly effective	Effective	Moderately effective	Somewhat ineffective	Not effective	No opinion
ensuring a fair protection against disconnections?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

for customer empowerment in:

	Highly effective	Effective	Moderately effective	Somewhat ineffective	Not effective	No opinion
contributing to decarbonisation i.e. choose the most affordable sustainable energy source?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
contributing to the achievement of the EU internal energy market (i.e. choose the preferred supplier irrespective of their place of residence)?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
stimulating the availability of comparison tools?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
protecting consumers from aggressive marketing practice?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
stimulating <i>green offers</i> ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
stimulating diversity in the choice of payment methods?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
setting clear deadlines for dealing with requests to switch supplier?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
establishing unique contact points for consumers?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

for information about dispute settlement mechanisms in:

	Highly effective	Effective	Moderately effective	Somewhat ineffective	Not effective	No opinion
establishing conditions to exercise the right of withdrawal?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
accessing to speedy and effective complaint handling procedures?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
providing available out-of-court procedures?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

for right to information in:

	Highly effective	Effective	Moderately effective	Somewhat ineffective	Not effective	No opinion
spreading the practice of clear description of the service/product?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
spreading the practice of offers presented in a clear, consistent and simple manner?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
spreading the practice of clearly presenting key information about prices, discounts, termination fees?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

for access to consumption data in:

	Highly effective	Effective	Moderately effective	Somewhat ineffective	Not effective	No opinion
ensuring access to consumption data shortly after consumption?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
boosting consumer confidence in the market?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ensuring transparency and fairness of contractual conditions?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
preventing unilateral change of contractual conditions by the supplier?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

for right to accurate information on billing and switching in:

	Highly effective	Effective	Moderately effective	Somewhat ineffective	Not effective	No opinion
providing price increase notifications?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
stimulating transparent bundled offers to consumers?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
discouraging surcharges in the payment methods?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
ensuring a smooth and fast switching process?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
preventing termination fee or penalty for switching?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. Do you see the price of residential gaseous fuel products as an important element in affordability? Do you see an energy poverty challenge in households' access to gaseous fuel products in the future?

500 character(s) maximum

With decreasing gas demand, network costs per consumer could increase. Many consumers need gas for heating. Such affordability effects should be considered. Energy Poverty is multi-faceted and needs multi-party dialogue at national level. EP has many drivers and measures to resolve it vary (not only energy-related). Specific policies & regulations, such as EE schemes, targeted advice & protection against disconnection can help. See 2020 ACER/CEER Market Monitoring Report, Retail & Consumers Volume.

17. In your view, how important are price signals to consumers in the gas market?

	Very important	Important	Neutral	Not very important	Not important	No opinion
Would consumers benefit from price signals?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would price signals drive system integration and energy efficiency and decarbonisation?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. The recast Electricity Directive clarifies the scope of Public Service Obligations which concern notably the price setting for the supply of electricity (see Art. 5) in the electricity market. In your view, should such provisions be introduced in the field of gas?

- Yes
- No

III. Integrated infrastructure planning

Coordinated infrastructure planning across multiple energy carriers, types of infrastructure, and consumption sectors – is the cornerstone of an integrated energy system. In this spirit, the TEN-E Regulation requires that projects of common interest are to be included in national network development plans with highest priority. The Commission proposal

<https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12382-Revision-of-the-guidelines-for-trans-European-Energy-infrastructure>

envisages provisions for cross-sectoral infrastructure planning. Hydrogen infrastructure is included as a new infrastructure category and used for the network development plan on European level. The requirements for national development plans of the Gas Directive and Gas Regulation are focused on preventing underinvestment that could result in less competition. These requirements correspond neither to the decarbonisation objectives nor to the planning requirements on European level. They also lack consistency between gases and electricity sectors.

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

500 character(s) maximum

At EU level, scenarios should be elaborated in a way that guarantees that they do not reflect any interests partial to project promoters. The scenario development process should follow binding guidelines, including general provisions and technical guidance. At national level, the relevant NRA should have the power to approve the NDP, as NRAs are best fitted to ensure their NDPs are fit for delivering a sound infrastructure development.

20. Do you support an alignment of the national network planning with the European Network Development, for instance regarding frequency of the plans (i.e. timing of submission), time-frames and scenarios to consider?

- Yes
- No

21. Should the national network development plan be based on a joint scenario used for gases and electricity planning?

- Yes
- No

22. 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?

500 character(s) maximum

The scenarios of EU and national network development plans should elaborate on how key variables, such as the electrification rate or the level of gas demand, have been set up, whether the electricity and gas interlinkage has been considered, and, in case it has been considered, how that has been done. Scenarios should include assumptions on energy efficiency.

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

Statement	Completely agree	Agree	Neutral	Disagree	Completely disagree	No opinion
A single national network development plan can optimise infrastructure needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All regulated infrastructure should be part of a single national network development plan.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Should the single national network development plan be binding?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is no objective model to optimise network planning across different energy carriers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is better to keep separate network plans for each sector, but based on a joint scenario.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

24. Do you support requiring the setting up of national network development plans by all electricity and gas transmission system operators, irrespective of the unbundling model (i.e. also including ownership unbundled transmission system operators)?



Yes

No

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

(multiple answers possible)

- Provide information on expected supply and demand for the creation of a joint scenario for the national plan.
- Prepare their own distribution system network plan.
- Share information with transmission system operators for network planning purposes.
- Be allowed to conduct their own cross-sectoral optimisation.
- None of the above.

26. Should hydrogen transmission/distribution infrastructure be included in national network development plans?

Yes

No

27. What should the network development plan be used for?

(multiple answers possible)

- Provide transparency.
- Ensure a robust network to match supply and demand for different scenarios.
- Enable execution of investments.
- Regulatory prerequisite for cost acceptance in regulated network tariffs.
- Guarantee that infrastructure contained in the plan is built (binding plan).

28. Should the national network development plans provide information where new electricity production, consumers, storages or electrolysers reduce additional investment needs into the network?

(multiple answers possible)

- No, the selection of production, consumption and storage sites is not an activity system operators should be involved in.
- Yes, but only as information, without legal consequence.
- Yes, for hydrogen production.
- Yes, for electricity production (renewable and/or conventional).
-

Yes, for electricity and/or hydrogen storage.

- Yes, for major consumption sites.
- Yes, to take into account externalities not necessarily perceived by market participants.

29. [question available only if “yes” to one of the bullets under 30]: If you answered yes, how should this be achieved?

- By selecting indicative areas which are particularly suitable from an energy network perspective for the given type of production/storage/major consumption site, as an information only.
- By defining areas where sufficient connection capacity to the energy networks for such sites can be guaranteed.
- By establishing that this type of site may only be connected in the indicated areas.
- By establishing areas in which lower network tariffs for the use of the respective sites, and/or connection charges can be expected, based on the tariffs approved/decided by the national regulatory authority.
- By indicating in which areas system operators expect to make offers for the purchase of system services which could typically be provided by the given type of site.
- By using connection in designated areas as a prerequisite for eligibility in support schemes.
- Other

30. If you consider that, in question 29, other approaches are required, please explain what approach is needed and why?

500 character(s) maximum

IV. Hydrogen infrastructure and a hydrogen market

Pure hydrogen, used today mainly as a feedstock, can be expected to be used as a fuel or as an energy carrier. Pure hydrogen may be transported via a network of dedicated pipelines that could consist of repurposed methane gas pipelines and/or newly built pipelines. Currently, infrastructure for the transport of pure hydrogen is not covered by the Gas Directive, as the gas system currently does not include network infrastructure dedicated to the transport of pure hydrogen.

The Commission’s vision as set out in the EU’s hydrogen strategy^[1] is that (low carbon and, preferably renewable) hydrogen will be used first in certain industrial applications (like refineries, steel production, fertiliser production, chemical complexes) and certain transportation modes (heavy duty road

transportation, maritime) and that, progressively, an integrated market will emerge from initially disconnected hydrogen valleys. The hydrogen landscape is expected to evolve rapidly in the coming years, but its development is likely to differ in speed and scope per Member State. The present consultation seeks to collect views on regulatory measures that may be required to accompany the emergence of an EU hydrogen market over the next 10-15 years.

[1] https://ec.europa.eu/energy/sites/ener/files/hydrogen_strategy.pdf

31. 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?

500 character(s) maximum

Currently, there's no EU regulatory framework for hydrogen. Development of hydrogen infrastructure is still at an early stage and there is uncertainty as to how it will evolve. National market conditions may evolve differently between Member States. Therefore, flexibility is needed to decide when implementation of network regulation should kick in. At the same time, clarity at the outset over future rules and market principles is needed to avoid sunk investments and costs of ex-post intervention

32. 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?

500 character(s) maximum

It is important to consider the cross-border dimension from the beginning. Facilitating cross-border trade between Member States might stimulate a more efficient development of a hydrogen value chain in and outside Europe. For these reasons, it is important to ensure coherence across markets and to support developing a European market that is based on converging rules for, e.g., safety, common standards and certification.

Section IV.1. Regulatory framework for pure hydrogen markets and pure hydrogen infrastructure

33. 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?

- No regulatory intervention is needed. Progress so far has been made without rules at EU level and competitive markets outcomes are likely to emerge without intervention.
- The creation of 'competition for the market' by tendering concessions at national level to own and operate hydrogen networks is a market model that can work for hydrogen. It will foster infrastructure development. Rules on the operation of the network are not needed.
-

We need regulation to ensure “competition in the market”. A common approach is needed in which an EU legislative framework outlining key regulatory principles (such as neutrality of network operation, third party access, cost reflective and market compatible network tariffs, treatment of private networks) are set as networks can represent natural monopolies. The rules could be developed stepwise, e.g. the creation of more detailed EU-wide technical rules could be left to later, or Member States could be allowed to develop such rules earlier where needed.

- We need regulation to ensure “competition in the market”, already with a greater level of detail at EU level. The final market organisation should be specified now to prevent regulatory divergence between Member States and create investment certainty. Detailed rules (with implementing regulatory principles and technical rules) are needed at EU level from the start.
- Other approaches are needed/required to regulate the hydrogen network as the regulatory approach currently used in gas and electricity offers little guidance.

34. If you consider that other approaches are needed/required, please explain what approach is needed and why.

500 character(s) maximum

Market conditions may evolve differently between MS as the development of a H2 sector may occur at different speeds. Flexibility is needed to decide when the implementation of network regulation should kick in. Careful market monitoring & analysis, based on agreed EU-wide indicators carried out at a national level by the NRA, can help to keep track of the development & provide evidence for a dynamic approach to regulatory action. Enabling exemptions/derogations may also help investor certainty.

35. 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 clear key regulatory principles for infrastructures will remove important uncertainties, while flexible rules do not. Precise rules are thus better than flexible ones.
- 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.
- Main regulatory principles are needed. However, flexibility needs to be built in, e.g. by allowing temporary exemptions/derogations from main regulatory principles.

- A dynamic regulatory approach should apply. Based on a periodic assessment of the market's maturity, it will be decided if regulatory intervention along pre-defined principles is needed. The benefits of such a flexible approach outweigh the costs of interventions with retroactive effect and regulatory uncertainty.

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

Role/regulatory principle	No opinion	Very important	Important	Neutral	Not very important	Not important
Role of existing network operators (TSOs/DSOs) in developing hydrogen infrastructure	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Role of private parties (non-TSO/DSO operators) in developing hydrogen infrastructure	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rules to ensure the neutrality of hydrogen network operations (i.e. unbundling)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Third Party Access to hydrogen infrastructure	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cost-reflective, non-discriminatory network tariffs for hydrogen networks that are market compatible.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Market rules on capacity allocation and congestion management at cross-border interconnection points in hydrogen networks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Market rules on balancing the injection of hydrogen in a network with the volumes taken off the network by a given network user	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rules on cross-border operability of hydrogen networks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rules on tariff setting for hydrogen networks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rules on the valuation of assets when they are repurposed and taken out of the regulated asset base of a gas-TSO	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Section IV.2. Regulated versus non-regulated hydrogen networks

38. 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 pan-European 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.
- Yes, but a parallel pathway for non-regulated infrastructure investments by private parties should exist.
- No, a hydrogen network will need to be regulated, but the current gas network operators (TSOs/DSOs) should not have a prominent role.
- No, hydrogen networks should be left unregulated. “Competition for the market” can work.

39. How should **existing private** hydrogen pipelines (pipelines directly connecting hydrogen supply and demand whilst not being part of a meshed, interconnected network) be regulated?

- Existing private networks should be left unregulated. This is a pathway for infrastructure development in parallel to a regulated system.
- Existing private network operators should be left unregulated but able to unilaterally choose to ‘opt-in’ into an existing regulated system.
- Existing private networks can be exempted (under NRA supervision) from regulatory requirements (such as unbundling and third party access) but a sunset date needs to be set (e.g. once supply contracts expire, once it is integrated in a other, already regulated hydrogen network or by conducting regular market tests to verify market interest in accessing the pipeline).
- No special treatment for existing private infrastructure. Main regulatory principles should apply to all networks as of the moment of their introduction.

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

- Future private networks should be left unregulated. This is a pathway for infrastructure development in parallel to a regulated system.
-

The default rule for future networks should be that they are regulated.

Exemptions for private investment from certain provisions (e.g. unbundling, third party access, tariff regulation) can be considered provided conditions are met (akin to Article 36 of the current Gas Directive).

- Private investments should be allowed and exemptions for private investors to stimulate them should be considered. However, day-to-day operations of private networks could be left to other bodies, e.g. an Independent System Operator (ISO).
- No special treatment for future private infrastructure. Main regulatory principles should apply to all networks.

Section IV.3. Main principles for regulated hydrogen networks

41. Vertical unbundling^[2] 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 competitors access. Please indicate the extent to which the vertical unbundling principle should apply to hydrogen networks:

[2] 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.

- Accounts unbundling should be applied: the use of separate accounts for the regulated hydrogen network activities and hydrogen production and supply activities.
- Functional unbundling should be applied: the effective separation of the decision making rights between the network and production/supply activities, as well as the separation of the human, technical, physical and financial resources.
- Legal unbundling should be applied: the separation of network operation activities in a distinct legal entity.
- Based on the experience in gas and electricity markets, ownership unbundling should be applied from the start: the same company is not allowed to control both the hydrogen network and hydrogen production or

supply interests, although e.g. the ownership of minority shares without rights to vote or appoint board members may be allowed.

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

- Network operators should never own or operate Power-to-gas installations. To avoid conflicts of interest and network foreclosure, system operators should be precluded from investing in and running power-to-gas installations (as is currently the case). Investment and management of power-to-gas installations should be market-based and open to competition among market players. Investment by regulated entities will discourage investments by market participants and create competition distortions.
- Network operators should never own or operate Power-to-gas installations. However, network operators should be encouraged to be involved in R&D and development projects that are related to energy grid operations (e.g. grid connection and grid services, like balancing provision). Network operators are well placed to assist in such projects and encouraging their active involvement will facilitate the integration of Power-to-gas installations where no rules exist and speed-up rule setting.
- 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.
- There are no reasons to impose restrictions on network operators to operate or invest in power to gas installations or such choices can be left to Member States or National Regulatory Authorities.

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



The principle of negotiated third party access should apply. It will be left to the hydrogen network operator and the network users to negotiate the terms of access to the network, such as tariffs. National regulators play a role at distance only.

- 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.
- Third party access does not have to be ensured.

44. 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:

Statement	No opinion	Completely agree	Agree	Neutral	Disagree	Completely disagree
Horizontal unbundling rules should ensure that hydrogen pipelines are being financed by hydrogen network users only and not by methane gas network users. Methane gas network users should not carry the costs and risks for a hydrogen network and non-TSO hydrogen operators should not suffer a competitive disadvantage.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cross-subsidisation between users of the methane gas infrastructure and the hydrogen infrastructure should be allowed. This could lower the initial tariffs for the use of hydrogen networks and could facilitate the conversion of parts of the methane gas infrastructure into hydrogen infrastructure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Cross-subsidies between methane and hydrogen network users should not be allowed. Other measures should be made available to lower initial hydrogen network tariffs (such as public grants or subsidies to network users or network operators).	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

45. 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?

- Yes
- No, other ideas should be developed, for instance to avoid tariffs on cross-border points between EU Member States.

Please explain why

500 character(s) maximum

The regulatory principles to apply to H2 infrastructure will depend on how this sector will develop. As there are technical and economical differences between gas and H2 sectors, and there will be additional challenges to build an integrated energy system, we should not 'simply' copy-paste the current gas regulation to H2. In this context, it is important to have a dynamic approach: new regulation is applied only when needed, following a careful CBA before deciding upon any approach.

46. 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?

- Yes
- No

Please explain your answer

500 character(s) maximum

CEER has not answered this question, as it is a complex topic with several implications for the design of the system. Moreover we do not have experience of an EU ISO in the gas and electricity sectors. Hence, this topic needs to be carefully analysed in the context of the evolution of the hydrogen system considering all benefits and risks associated both in the short and long term.

47. 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?

-

No: hydrogen networks may have different features than methane networks (e.g. high/low pressure distinction less relevant in hydrogen network). At this stage, main regulatory principles should apply at any point in a hydrogen network.

- 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.
- Yes: At this stage, rules should be set for the transmission level only. EU rules for the distribution level can wait until later or be defined at Member State level.
- Yes: At this stage, rules should be set for the distribution level. EU rules for the transmission level can wait until later or be defined at Member State level.

Please explain your answer

500 character(s) maximum

In the context of dynamic regulation, at this initial stage, differentiation between regulation of the transmission and the distribution network should be left to the Member States.

Section IV.4. Inventory of national rules on the construction of methane and hydrogen pipelines

48. In order to repurpose the existing methane gas infrastructure for hydrogen transport, it is necessary to clarify whether rights of land use, private easements as well as (other) public permits that have been granted for the construction and operation of methane gas pipelines will remain valid once the transported gaseous energy carrier changes from methane gas to hydrogen. In addition, a legal framework covering these aspects might also be required for the construction and operation of new hydrogen pipelines. Will the construction of dedicated hydrogen pipelines (either repurposed or new built pipelines) be considered a public interest in your Member State?

- Yes
- No
- Do not know

49. Will rights and permits in your Member State initially obtained for the construction and operation of methane gas pipelines remain valid in case the development and (re-) use of these pipelines for hydrogen transport is foreseen?

- Yes

- No
- Do not know

50. Is a (new) legal framework covering public permits and rights of land use required in your Member State for the construction and operation of new hydrogen pipelines?

- Yes
- No
- Do not know

51. Should rights and permitting requirements for hydrogen infrastructure be similar to that of those that are applicable today to methane gas pipelines in your Member State?

- Yes
- No
- Do not know

52. If you replied 'no', please explain

500 character(s) maximum

Section IV.5. Consumer rights for users of pure hydrogen

53. The Commission expects as set out in the EU hydrogen strategy^[1] that renewable and low carbon hydrogen will be used first in certain industrial applications (like refineries, steel production, fertiliser productions, chemical complexes) and certain transportation modes (heavy duty road transportation, maritime). In view of these typical end-users that may adopt hydrogen by 2030, what rights and protection rules for users connected to a pure hydrogen network may be needed?

[3] https://ec.europa.eu/energy/sites/ener/files/hydrogen_strategy.pdf

- Other than network access rights, little needs to be done in terms of customers rights. These typical end-users do not need specific consumer rights and protection.
- It is important that these typical users of a hydrogen network have the same rights as if they would be connected to the methane gas grid. Having the

same consumer rights and protection ensures a level playing field between energy carriers.

- It is important that consumer rights and protection rules for all consumers connected to a hydrogen grid are fully aligned with those for consumers of connected to the methane grid, regardless as to whether they are likely to use hydrogen or not or their size (i.e. households).

54. What consumers rights and protection rules will need to be clarified already now for users receiving pure hydrogen from dedicated hydrogen networks?

Consumers rights and protection rules	No opinion	Very important	Important	Neutral	Not important	Very important
Access to consumption data	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information on billing	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information on quality of H2 supplied	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information on CO ² content of hydrogen along its life-cycle ^[4] [Including emissions determined from hydrogen transport, distribution, liquefaction and storage].	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Information on rights to switch supplier	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Information about dispute settlement mechanisms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Section IV.6. Quality standards for pure hydrogen and its governance

55. Different hydrogen production methods produce hydrogen of different purity and different end-uses require specific purity levels^[4]. To ensure the cross-border flow of pure hydrogen from production to consumption centres and to ensure the interoperability of the connected, neighbouring markets, common quality standards or cross-border operational rules may be necessary. In your view, at what level should such binding hydrogen quality (purity) standard be established?

[4] In a simplified way, we can distinguish between industrial grade purity for the hydrogen used e.g. in refineries, for ammonia and steel production and fuel cell grade purity for use in low temperature fuel cells, e.g. current road and rail transport applications.

- At Member State level (i.e. maintaining potential differences between Member States).
- At Member State level with EU-level cross-border coordination rules (i.e. allowing for coordination between Member States).
- At EU-level, setting common standards for hydrogen quality across the EU.
- No common rules on hydrogen quality standard are necessary before 2030.

56. 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?

- Member State level regulatory framework (i.e. with potentially very different regimes per Member State).
- EU-level principles providing for a common overall approach in the Member States.
- EU-level principles providing for a common approach combined with regional implementation.
- EU-level rules ensuring a harmonised approach across the EU.
- No common rules are necessary before 2030.

Section IV.7. Hydrogen storage and hydrogen import from outside the European Union

57. Do you see the need to develop larger-scale, dedicated hydrogen storage facilities in the EU in light of the increased use of hydrogen in the EU?

- Yes
- No

58. Do you think that regulation of hydrogen storage would be necessary?

- Yes, to the same degree as for methane storage (leaving Member States the choice of negotiated or regulated third party access).
- Yes, but it should not be directly available to the market itself and should only be used by the operators for network operation purposes.
- No, hydrogen storage facilities can be left unregulated.

59. Hydrogen is likely to be produced inside the EU at the same time imports from outside the EU may be possible and competitive for the supply of hydrogen.

-

I disagree, imports will not take place before 2030 and therefore there is no need to look into relevant infrastructure.

- Whilst imports may still be modest by 2030, they will require the necessary infrastructure and reflection on appropriate measures should start now.
- It is important that import infrastructure is in place by 2030.

60. Hydrogen may be transported via pipelines into the EU, but also via non-network based transport options. In case you expect non-network based imports from outside the EU, in which way do you expect hydrogen to be carried into the EU?

- Shipped into the EU as liquefied hydrogen.
- Shipped into the EU as ammonia.
- Shipped into the EU on the basis of Liquid Organic Hydrogen Carriers ('LOHCs').
- Transported into the EU via trucks.

61. Do you see a need to prepare EU LNG terminals to receive liquefied hydrogen?

- Yes, today's import terminals can play an important role in supplying the EU.
- No, imports will become important but large-scale LNG terminals will not be relevant.

62. In case hydrogen is carried into the EU as liquefied hydrogen, ammonia or LOHC, would you expect subsequent injection into pipelines?

	No	Yes
If imported as liquefied hydrogen	<input type="radio"/>	<input type="radio"/>
If imported as ammonia	<input type="radio"/>	<input type="radio"/>
If imported as LOHC	<input type="radio"/>	<input type="radio"/>

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

Regulatory principle	No opinion	Very important	Important	Neutral	Not very important	Not important
Market rules for access to storage for (pure) hydrogen	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Market rules for access to import terminals for pure hydrogen



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

Today, biogas^[5] and biomethane provide the most significant sources of renewable and low carbon gases in the EU with some 18 bcm annually (5% of total gas demand). Whereas biogas is used off the grid (for power production or by the industry to reduce process related CO₂ emissions), biomethane can be injected into the existing methane network. However, the deployment of biomethane is currently below its potential. There are about 725 biomethane plants connected to the gas grid, the majority at the distribution grid level. Synthetic methane has the potential to support the decarbonisation of gas as well. It is produced by adding CO₂ captured during the upgrading of biogas to biomethane, from industrial processes, or eventually directly from the air to renewable or low carbon hydrogen.

Biomethane and synthetic methane injected at distribution level may face barriers preventing it from being traded on the EU's wholesale markets to the same degree as methane gas. Similar difficulties may be encountered by hydrogen when blended into the existing gas grid.

[5] Biogas is about 60% methane, 40% CO₂ + some impurities. Upgrading biogas to biomethane level requires removal of CO₂ and impurities. If used and, more importantly, stored the CO₂ obtained in production of biomethane from biogas is sometimes argued to create 'negative' emissions

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

500 character(s) maximum

Lack of criteria to define sustainable gases (based on carbon emissions associated with the overall production process), and lack of a GO system. Issues related to technical standards for connections and gas quality: variations in gas quality standards across borders should not become a barrier to trade, and interoperability requirements of the Interoperability and Data Exchange Network Code should remain applicable.

65. 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?

Yes No

66. Do you consider it important to adapt the Gas Directive and Gas Regulation to the needs of hydrogen to be injected into the existing gas grid?

Yes No

67. How do you rate the measures below? (one answer per question)

Measure	No opinion	Very important	Important	Neutral	Not very important	Not important
Adapt tasks and responsibilities of national regulatory authorities to oblige them to facilitate the process of decarbonisation of gas when taking decisions (e.g. as regards development of infrastructure).	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improve the coordination between transmission and distribution system operators to facilitate the process of decarbonisation of gas.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensure access to the transmission level and to the EU's wholesale market of renewable and low-carbon gases produced at distribution level.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Integrate the distribution system operator level into the entry-exit system with the same balancing regime that is applicable to the transmission system operator.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Extending the model of energy communities of the Electricity Directive to the gas market to consume volumes of biogas, biomethane or hydrogen not injected to the interconnected grid.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Obliging operators to ensure connection for new renewable gases facilities i. e. priority connection and dispatch.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reducing network tariffs for injection of renewable gases to the grid.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Limit tariffs to efficient network operations, not supporting other policy objectives.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make the short term capacity products for methane pipeline and storage infrastructure more attractive to better reflect the interdependency with electricity and compatibility with the support schemes for renewable and low-carbon gases.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Abolish special treatment of fossil methane long-term contracts e.g. abolish derogations for take-or-pay clauses.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

System operators should be obliged to explore the opportunities for improving the energy efficiency of the system (i.e. eliminate leaks, recovering energy from pressure drops between high, medium and low pressure grids, optimise heat management including cold recovery from pressure decrease).



68. The current gas market model implies diverging access tariffs at the borders of Member States. As pointed out by ACER *“Cross-border tariffs tend to have a referential role over hub price spreads, although the role may vary per case. In hub pairs, mainly in the Nord-West Europe area, day-ahead price spreads are regularly below daily transportation tariffs and frequently also below yearly transportation tariffs (the latter being usually more economic)^[6]”*. For the sake of an enhanced efficiency of gas markets into an integrated EU-wide internal market so as to facilitate the uptake of renewable and low-carbon gases within the market, a re-design of the access tariff to be more compatible with market dynamics could be introduced. This would lead to a full integration of gas markets and avoid price spreads across EU. It would however bear the risk of redistribution of transportation tariff between Member States in accordance with inter-TSO agreements and changes to end-user tariffs. Moreover, the re-designing of the short-term capacity products may avoid capacity foreclosure/lock-in in favour of long-term (natural) gas trade to the detriment to the renewable and low carbon gases. This may also help in aligning the capacity products of the future methane-based system with the electricity market operating on the basis of short-term trading. This could be done even in absence of EU-wide common rules on e.g. the overall rate of return, depreciation times or asset value for the gas grids, as these are set out at national level.

How do you rate the measures below to reach this enhanced level of design?

[6] see ACER’s Market Monitoring Report 2019, p.58)

Measure	No opinion	Very important	Important	Neutral	Not very important	Not important
<ul style="list-style-type: none"> ● Abolishing grid charges on intra-EU cross-border points, payable price for capacity booking determined by auctions only (minimum price fixed at variable costs only). ● Charging the entry points from non-EU countries based on capacity weighted distance to a virtual point in the middle of EU’s grid in addition to some fees set according to market and security of supply criteria 						

<ul style="list-style-type: none"> • Collecting the remuneration of the EU's network operators from capacity auction revenues at extra-EU entry points, intra-EU entry points for gas' production and from exit points • Introducing an inter-TSO compensation mechanism to reconcile revenues by keeping TSOs revenues neutral with the current circumstances. • Setting up short-term capacity products 	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Harmonising allowed revenues parameters for TSOs (e.g. WACC, depreciation time, valuation of assets)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
EU level guidance for the regional integration of the gas market, including gas market mergers	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

69. The measures under question 67 and 68 could be combined. How do you see such a possibility?

500 character(s) maximum

Should cross-border capacity charges for gas be a hindrance to trade, there is a range of possible measures that could be taken at a regional level, e.g. reducing reserve prices at cross-border points based on agreement between concerned NRAs. Such measure could be combined with an ITC, on which clear principles on the appropriate institutional framework are needed. The calculation of a TSO's allowed revenue to be considered in the ITC should be assessed against a set of common criteria.

70. The LNG market in Europe has significantly changed since the adoption of the Third Energy Package setting the rules applicable to LNG terminals in the EU. Additional LNG volumes imported to the EU, more short-term trade and an increased number of LNG terminals in the EU change the way the terminals operate. Market participants are calling for more transparency, flexibility of products and access rules^[7]. Provided that adaptations are made and that sustainable renewable gases can be verified in third countries, LNG terminals can play a role in importing renewable and low-carbon gases (i.e. liquid hydrogen, biomethane, ammonia, synthetic-fuels). Gas storage facilities may also play an important role for renewable and low-carbon gases either directly or after adaptations. Do you think the existing regulatory framework for LNG needs to be modified? (multiple answers possible)

[7] <https://op.europa.eu/en/publication-detail/-/publication/efa4d335-a155-11ea-9d2d-01aa75ed71a1/language-en>.

- Yes, it needs to incentivise and promote the access of renewable and low-carbon gases into the LNG terminals (i.e. synthetic methane, bioLNG, etc.)
- Yes, it needs to be more harmonised in terms of transparency and access to available capacities to improve the functioning of LNG market in the
- Yes, it needs to be less prescriptive compared to the current framework, allowing for negotiated access rules to LNG terminals
- No, it strikes the right balance as it is
- Other (pls allow for comments)

71. Do you think that LNG terminals will play an important role in the decarbonisation of the gas sector?

- Yes, the import of renewable and low-carbon gases via LNG terminals into the EU will play an important role
-

No, LNG terminals cannot be used to import renewable and low-carbon gases

72. Which renewable and low-carbon gases, in your view, can be imported via LNG terminals?

100 character(s) maximum

73. How important do you consider the following measures to be to improve the current regulatory framework for LNG terminals?

	No opinion	Very important	Important	Neutral	Not very important
Require LNG terminals and other gas depressurising sites to provide waste heat/cold to nearby heat/cold consumers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Introduction of measures coordinating the adaptation of LNG terminals to renewable and low-carbon gases e.g. coordination of development plans, market tests etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Removing of the tariff discount for gaseous fuels entering the TSO grid from LNG terminals, regardless of the type of gas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Introduction of stronger enforcement rules preventing cross-subsidisation of LNG terminals.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Introduction of an EU-wide information platform that ensures transparency on and comparability between terminal service offerings, tariff levels, and available capacities.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facilitate more transparency in the secondary trading of capacity.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Harmonise the congestion management rules to improve terminals' usage.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide an option for Member States to opt for "negotiated" access similar to storage facilities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

74. Do you have any other view or ideas related to improve current regulatory framework for LNG? Please specify.

500 character(s) maximum

Ensure flexibility, considering the peculiarities of each country. Follow market needs and innovation principles, and adapt regulatory regimes to changing conditions. Ensure coordination of regulators for transparency on access regimes conditions, granting predictability and opportunity to adapt to changing conditions.

75. Do you think the Gas Directive and Gas Regulation should be revised to encourage and promote the role of storage for use of renewable and low-carbon gases by introducing transparency measures such as coordination of development plans, market tests?

- Yes
- No

76. The blending of hydrogen and other renewable or low carbon gases into the existing methane gas grid requires a consideration of its contribution to the decarbonisation of the energy system as well as its economic and technical implications (see specific questions on technical implications in section on gas quality). Please indicate the appropriateness of the statements below with regard to blending

Statement	Completely disagree	Completely agree	Agree	Neutral	Disagree
Blending provides a cost efficient and fast first step to energy system decarbonisation. It will facilitate the offtake of hydrogen and other renewable and low carbon gases by using existing methane gas infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blending prevents the direct use of pure hydrogen in applications where its value in terms of GHG-emission reductions is higher, such as industry and transport.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blending creates technical constraints and additional costs at injection and end-use appliances which makes it a less cost-efficient option for decarbonisation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

VI. Gas Quality

The variety of sources of gases transported through the EU's methane gas networks^[8] leads to a corresponding variety of gas quality with different physical and chemical characteristics. These gas quality characteristics are an essential consideration for the design of gas infrastructure and end-use appliances, as well as for industrial processes using gas as feedstock, in order to ensure the safety and efficiency of operation. To this end, gas quality standards have been developed. Member States have established their own practices to control gas qualities at national level, adapted to their national context (e.g. quality of gases historically consumed and appliances in use). In addition, the CEN standard on H-gas quality^[9] is currently the fundamental standard for the EU gas sector used in EU Member States. However, the CEN standard is not applied in a coordinated^[10] or binding manner and therefore, is not sufficient on its own to provide for a harmonisation of gas quality standards across EU Member States. Differences in gas quality can lead to problems for end users and have negative effects on cross-border trade.

The issue of gas quality is becoming more pressing with the effort to decarbonise the EU's energy sector, as this will require the injection of growing volumes of renewable and low-carbon gases into the existing gas transmission and distribution networks. The quality parameters of gas consumed and transported in Europe will change, leading to more frequent quality fluctuations to a much larger extent than is the case today. This will affect the design of methane gas infrastructure and end-user applications, as well as industrial processes using gases as feedstock. However, the existing regulatory framework was not designed to cater for such developments^[11].

[8] Currently mainly natural gas from different sources in and outside of the EU combined with a growing volume of renewable and low-carbon gases produced in the EU.

[9] European Committee for Standardisation, EN 16726 "Gas infrastructure – quality of gas – group H", OJEU, December 2015.

[10] Study: Potentials of sector coupling for decarbonisation: Assessing regulatory barriers in linking the gas and electricity sectors in the EU, December 2019, https://ec.europa.eu/energy/studies/potentials-sector-coupling-decarbonisation-assessing-regulatory-barriers_en; 6th CEER benchmarking report on the quality of electricity and gas supply, 2016.

[11] The Interoperability and Data Exchange Network Code is establishing a dispute resolution process in case of cross-border trade restrictions due to gas quality differences; Commission Regulation (EU) 2015/703 of 30 April 2015 establishing a network code on interoperability and data exchange rules, Article 15.

78. In your view, what is necessary to ensure efficient coordination on gas quality between Member States?

- The current cross-border coordination framework, is sufficient to deal with problems due to gas quality differences in the energy transition.
- Reinforced cross-border coordination tools (e.g. streamlined procedure, involving all impacted market participants, increased transparency).
- Harmonised application of gas quality standards across the EU.

79. In your view, the harmonised application of the CEN standard across EU Member States would be best achieved by:

	Completely disagree	Completely agree	Agree	Neutral	Disagree

Increased transparency on the application of the current standards (e.g. on measured parameters, on frequency of measurement, on rules of information provision).	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
EU-wide harmonised rules on information provision and publication of CEN quality parameters.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Harmonising the gas quality standard across the EU based on the CEN H-gas standard.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Harmonising the gas quality standard across the EU based on a standard taking fully into account renewable and low-carbon gases, developed by an independent technical expert group.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

80. The injection of hydrogen into the existing methane gas network (blending) is currently explicitly accepted only in a few Member States and only possible at very low concentration levels. Similarly, hydrogen blending limits at cross-border interconnection points are applied only in a few Member States. In your view, what would be necessary to avoid or limit potential negative effects of hydrogen blending into the existing methane gas network from the perspective of end-users and infrastructure operators (e.g. for safety, production efficiency, product quality, emissions, etc.)?

- Not to blend hydrogen into the current methane gas network.
- Develop robust gas quality standards (e.g. CEN, national) allowing for the injection of renewable and low-carbon gases (including hydrogen) into the existing methane gas network.
- Establish EU wide harmonised quality specification at the transmission level, including at cross-border interconnection points, allowing for the injection of renewable and low-carbon gases (including hydrogen) into the existing methane gas network.

81. Clearly defined allowed blending levels at the EU or national level (e.g. minimum and/or maximum level of hydrogen in % by volume to be accepted in the network) could provide certainty for producers, infrastructure and appliance manufacturers and end-users. Applied at cross-border interconnection points, such blending levels would enable the unhindered flow of blended gases across Member

States. In your view, should allowed hydrogen blending levels be introduced, and if yes in what form?

- Not at all.
- National hydrogen blending levels set by Member States.
- National hydrogen blending levels set by Member States in a standardised and transparent way, based on EU rules.
- Harmonised EU-wide hydrogen acceptance level for hydrogen blends, which TSOs have to accept at cross-border interconnection points (minimum and /or maximum level of hydrogen in % by volume).

82. Do you consider that rules on roles and responsibilities on gas quality management, including e.g. on cost allocation, dispute resolution and regulatory oversight, should be defined, and if yes in what form?

- Not necessary to define such rules.
- At Member State level (i.e. maintaining potential differences of the regulatory framework across Member States).
- By establishing EU-level principles providing for a common approach in the Member States.
- By setting EU-level rules ensuring a harmonised regulatory framework across the EU.

83. Do you see changes to the roles, tasks and liabilities of market participants with regard to gas quality monitoring, measurement and management?

Type of market participant	No	Yes
Gas producers, including producers of renewable and low-carbon gases	<input type="radio"/>	<input type="radio"/>
Transmission System Operators	<input type="radio"/>	<input type="radio"/>
Distribution System Operators	<input type="radio"/>	<input type="radio"/>
Consumers	<input type="radio"/>	<input type="radio"/>
Gas appliance manufacturers	<input type="radio"/>	<input type="radio"/>
Service providers	<input type="radio"/>	<input type="radio"/>
Others (please specify)	<input type="radio"/>	<input type="radio"/>

Please specify what these changes would entail (*gas producers*)

100 character(s) maximum

84. In your view, at what point in the gas value chain should the quality of gases be adapted to the standard specifications, considering also technical feasibility and cost-effectivity?

- At gas production/injection points by the producer (i.e. before injection into the gas system, e.g. with adequate quality contracts).
- In the transmission and/or distribution system by the system operator.
- At the exit point by end-users.
- At the exit point to end-users by a third party service provider.

85. While handling varying qualities and more frequent quality fluctuations of the different renewable and low-carbon gases, gas quality management should remain cost-effective in the coming years and decades. Cost effective quality management requires sufficient transparency and information sharing. Do you consider that providing improved visibility on gas quality and transparency on the cost of gas quality measurement, monitoring and handling is needed?

- Yes
- No

86. The current regulatory framework^[12] includes some requirements on TSOs to share information on gas quality. In order to enable market participants to deal with different gas qualities and potentially with quality fluctuations, it might be however necessary to further develop the visibility on gas quality for market participants. Please indicate the importance of the measures below.

[12] Commission Regulation (EU) 2015/703 of 30 April 2015 establishing a network code on interoperability and data exchange rules (Articles 7, 16, 17 and 18).

Measure	Not important	Very important	Important	Neutral	Not very important
The current regulatory framework is sufficient to ensure adequate transparency on gas quality (Interoperability and Data Exchange Network Code).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Provide improved visibility on gas quality (actual and forecast) to market participants.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extend the group of market participants receiving gas quality information (e.g. to include	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

producers, all end-users, appliance manufacturers).					
Ensure transparency on the roles, responsibilities and liabilities for gas quality management.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide for transparency on the costs of gas quality management (incl. measurement, monitoring and handling).	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Include gas quality aspects into the coordinated network planning (national and EU-wide).	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

87. The potential changes to the regulatory framework and the changing role of market participants in gas quality management requires revisiting the question of proper regulatory oversight. However, harmonised rules on the role of National Regulatory Authorities (NRAs) for gas quality issues is currently missing. While NRAs have a role in dispute resolution in case of cross-border trade restrictions due to gas quality differences^[13], most of them are not involved in setting gas quality standards or in monitoring gas quality parameters. Do you consider it necessary to reinforce the roles and responsibilities of NRAs in a harmonised way to ensure proper regulatory oversight of the revised gas quality regulatory framework?

[13] Commission Regulation (EU) 2015/703 of 30 April 2015 establishing a network code on interoperability and data exchange rules, Article 15.

- Yes
- No

88. Do you see any other issues related to improving the regulatory framework on gas quality management you would like to raise? Please explain.

500 character(s) maximum

VII. Alignment of institutional rules for gaseous fuels to the Clean Energy Package

EU electricity and gas market rules have been developed in parallel over the last 20 years and no distinction was made so far as concerns regulatory oversight over gas and electricity markets. Sector

integration, i.e. more integrated EU electricity and gas markets may even require more aligned rules.

The revision of the Electricity Directive and Electricity Regulation adopted in 2019 (Directive (EU) 2019/944 on common rules for the internal market for electricity and Regulation (EU) 2019/943 on the internal market for electricity) reinforced the institutional framework to make it fit-for-purpose for the changes in the electricity sector (integration of renewables, decentralised electricity production, regionalisation, etc.). However, this creates differences in the institutional set-up between the electricity and gas sectors, which might lead to detrimental regulatory divergence and unnecessary complexity that could affect consumers, industry and regulators alike.

The revision of the gas legislation would envisage to align the provisions on the institutional framework for the gas sector to those already adopted for electricity, as this would also help implementing the sector integration principle. Updating the institutional framework for gas appears also necessary to make the EU gas sector fit for decarbonisation.

89. In your view, to ensure the consistency of the regulatory framework, in which areas is it important to align the institutional provisions of the electricity and gas sectors?

Area of alignment to the electricity institutional framework	Gas market specificities require a different set of rules for gas	Align gas legislation to the rules in the Clean Energy Package (electricity legislation)
Adapting ENTSOG's mission, tasks and the rules governing its transparency and oversight by the Agency for the Cooperation for Energy Regulators (Electricity Regulation, Articles 28-31).	<input type="radio"/>	<input checked="" type="radio"/>
Adapt the role of ACER to oversee the effective functioning of the integrated markets and cross-border infrastructure (ACER Regulation, Article 4).	<input type="radio"/>	<input checked="" type="radio"/>
Aligning the process for developing detailed regulatory rules on the operation of the market and networks (i.e. network codes and guidelines, Electricity Regulation, Articles 58-60 and ACER Regulation, Article 5).	<input type="radio"/>	<input checked="" type="radio"/>
Aligning the provisions reflecting the increasing link between the distribution and transmission network levels in the regulatory framework (e.g. requirements for cooperation on network planning; Electricity Regulation, Article 57).	<input type="radio"/>	<input checked="" type="radio"/>

90. The revision of the Electricity Market Design formalised the role of Distribution System Operators (DSOs) at European level by creating a single European DSO entity, rendering their participation effective and independent (Electricity Regulation, Articles 52-55). The aim was to facilitate distributed resources to

participate in the market by – among others – enabling DSOs to become more active at European level and have increased responsibilities and tasks (similar to those of the TSOs). In your view, what would be required to ensure the EU-level representation of gas DSOs?

- There is no need to establish a DSO entity for gases.
- It is necessary to establish a separate DSO entity for gases.
- It is necessary to establish a “department” for gases under the existing electricity DSO entity with all rules from electricity applying.
- It is necessary to establish a “department” for gases under the existing electricity DSO entity with some specific rules applicable to gas DSOs.

91. Do you see any other issues related to the alignment of the gas institutional provisions to the Clean Energy Package provisions? Please explain.

300 character(s) maximum

Electricity and gas provisions require governance improvements related to NRA scrutiny of development /design of national development plans and ACER scrutiny of TYNDP development by strengthening the regulatory oversight in both instances.

VIII. Security of supply dimensions

With the adoption of the Security of Gas Supply Regulation^[14], the framework for the security of gas supply in the EU has developed significantly over the past years. Other EU initiatives such as the protection of critical energy infrastructure and cybersecurity were added to the energy security and safety framework. The revision of the Gas Directive and the Gas Regulation needs to take into account this evolution. At the same time, the upcoming revision and the clean energy transition might imply amendments to these other pieces of EU acquis applicable in the sector of gases.

[14] Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010, OJ L 280, 28.10.2017.

92. How do you see the security of supply challenge in the context of the decarbonisation of the supply of gases in the EU in line with the climate-neutrality objectives?

- Security of supply will not be an issue when renewable and low-carbon gases will be used in the EU.
- Security of gas supply will still be an important challenge that needs to be taken into account in the context of increased use of renewable and low-carbon gases in the EU.
- New security issues should be taken into account.

93. In case you consider that new security issues should be taken into account please explain which

500 character(s) maximum

Decentralised injections with regional/local risks;
 Complex roles of gas market participants (e.g. prosumers);
 Gas quality / blending / cross border;
 Need for European harmonisation (e.g. gas quality, etc.);
 Highly increased interdependencies between different energy networks;
 Cyber security;
 Geopolitical risks stemming from potential import dependencies (e.g. H2 from overseas); and
 Technical risks associated with hydrogen.

94. Do you think that changes are needed to guarantee consistency between the Gas Directive and the Security of Gas Supply Regulation:

Area of alignment	Not important	Very important	Important	Neutral	Not very important
Definitions, in general	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Definition of “protected customers”, in particular	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clarify the conditions under which PSOs on security of gas supply grounds may be justified	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Solidarity mechanism	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safeguard measures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

95. Do you see room for harmonising other elements, in addition to those listed under 94?

- Yes
- No

* Please specify what these changes would entail

500 character(s) maximum

Answered "no" so no changes to specify.

96. The scope of the Security of Gas Supply Regulation is currently limited to guaranteeing the provision of “methane gas”. Do you think that the rules on security of gas supply need to be amended ?

- Yes, the SoS Regulation should be amended as soon as possible.
-

Yes, the SoS Regulation should be amended, based on the experience of the application of the new gas market rules.

- No, the SoS Regulation is fit for purpose (guaranteeing the methane gas supply, based on existing gas corridors).
- No, the provisions of the SoS Regulation are flexible enough and already allow to take into consideration the expected adaptation of the market to the needs of renewable and low carbon gases.

* Please explain (*mandatory field*)

500 character(s) maximum

As regards the need to amend the SoS regulation, little experience has been gained so far with its practical application. It seems therefore premature to suggest any amendments of this regulation now. In the future, it is possible that decentralised injections at DSO level, different gas qualities and possibly new market rules could lead to changing flow patterns. A future review of the SoS Regulation should take into account such developments.

97. The increasing digitalisation of energy technologies and networks makes the energy system smarter and enables consumers to benefit from innovative energy services. At the same time, digitalisation creates significant risks as an increased exposure to cyberattacks and cybersecurity incidents potentially jeopardise the security of energy supply and the privacy of consumer data. Cybersecurity and challenges related to it are evolving at a rapid pace, which is why the European Commission has taken a series of measures to tackle it^[15]. Taking into account the specific challenges in the energy sector^[16], the Commission adopted a dedicated recommendation on cybersecurity in the energy sector in April 2019. Further, the recent Clean Energy for all Europeans Package^[17] introduced the possibility to develop cybersecurity rules for electricity.

Do you consider that developments in the gas sector also require establishing cybersecurity rules for gas?
(*only one answer possible*)

[15] At horizontal cross-sectoral level, the Commission adopted a package on cybersecurity and critical infrastructure on December 2020, including a revised NIS Directive (Cybersecurity, COM(2020) 823 final), a revised Cybersecurity Strategy (JOIN(2020) 18 final) as well as a new proposal for a Directive on the resilience of Critical Entities (COM(2020) 829 final).

[16] E.g. real-time requirements, cascading effects and the mix of legacy technologies with smart/state of the art technology.

[17] Further information on cybersecurity measures: https://ec.europa.eu/energy/topics/energy-security/critical-infrastructure-and-cybersecurity_en?redir=1

- There is no need to develop cybersecurity measures for the gas sector.
- It is necessary to establish EU-level legislation for cybersecurity specifically for the gas sector.
- It is necessary to establish a comprehensive EU-level legislative framework for cybersecurity for the energy sector (covering the electricity, gas, hydrogen and heating sectors).

98. Do you think that energy-specific measures should be introduced to improve the resilience of critical gas infrastructure, including renewable and low-carbon gases?

- Yes
- No

UPLOADING DOCUMENT IF NEEDED (possible in case the questions do not cover all issues the respondent would like to rise)

Only files of the type pdf,txt,doc,docx,odt,rtf are allowed

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