Welcome to the CEER Public Consultation Regulatory Challenges for a Sustainable Gas Sector.

This CEER public consultation seeks to identify what energy regulation can do to foster the development of a sustainable gas sector. The goals are: (1) to identify the regulatory challenges for an efficient transition of the gas sector towards a low-carbon energy demand scenario; and (2) to identify enabling factors that the National Regulatory Authorities (NRAs) could apply to make this transition both possible and smooth. With this public consultation, CEER intends to collect information and opinions from all stakeholders on those challenges.

Section A: Contact details and treatment of confidential responses

In the interest of transparency and in accordance with the General data Protection Regulation (GDPR), CEER:

i. will list the names of the organisations that have responded but anonymise the personal data of any individual (such as members of the public) that has contributed.

ii. requests that any respondent who does not wish their contribution to be published, to indicate this preference when submitting their response via the online questionnaire.

CEER will publish all responses that are not marked confidential on the website: www.ceer.eu. This CEER public consultation is carried out in line with the Guidelines on CEER´s Public Consultation Practices.

A1. Contact details:Name

S	e	b	a	s	t	i	a	n	

A2. Contact details:Organisation

I	n	i	t	i	a	t	i	v	e

A3. Contact details:Email

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A4. Please, mark the box if you wish your response to be treaded as confidential.

We will not make your feedback available to the general public. But we will use it as part of the analysis.

Tick the box

If you wish your reponse to be treated as confidential ☐

Section B: Regulatory Challenges for Renewable Gases

B1. Q1 Which activities do you consider relevant for potential TSO/DSO involvement that should be considered in the assessment?

Flexibility is the key-value brought by gas storage sector in a coupled energy system of the future.
Looking at the energy system in total, a study on "Renewable Gases - A System-Update for the Energy Transition" by Enervis initiated by Initiative Erdgasspeicher e.V. (INES) and Bundesverband Windenergie e.V. (BWE) in 2017 concluded that the battery storage capacity that is necessary to provide flexibility for electricity-based systems will be reduced by 150 gigawatts under the assumptions of using existing storage and gas infrastructure compared to an "All Electric" scenario. Using gas-fueled heating systems leads to a cost cut of about 80 billion Euros until 2050. In addition to that, the need for gas-fired power plants to bridge times where wind and solar power cannot provide sufficient amounts of electricity will decrease by more than 50 per cent as a higher heating demand in winter does not need to be covered by the electricity market only. Instead of 110 gigawatts of installed capacity from gas-fired power plants only 50 gigawatts will be necessary. As renewable gases move flexibility demand from the electricity to the gas sector where storage facilities provide considerable capacity for this demand, another cost cut of around 100 billion Euros will be achieved by 2050.
PtG will play a crucial role not only in balancing fluctuating electricity supply from renewable sources but also in the process of integrating more and more renewable energy sources to all energy sectors and in decarbonizing the industry, heat and transport sector via renewable gas. INES believes that in fulfilling the current EU Unbundling provisions PtG investment shall be organized market based. Electricity and Gas TSOs shall identify bottlenecks and suitable locations for PtG in the network, based on a coordinated Network Development Planning procedure. The role of TSOs shall be to tender their physical balancing energy demand open for all market participants.

B2. Q2 To what extent should a common European threshold for the blending of hydrogen in gas networks be mandatory and which timing should be taken into account? Please explain your reasoning.

INES wants to underline that there is a huge potential of storing Hydrogen in Underground Gas Storage in Europe which shall be considered in developing an European approach for blending of hydrogen in the gas networks.
The review of research programs and experiments with Hydrogen storage, allow to conclude that salt caverns are by nature more compatible with Hydrogen storage. In porous rock fields the phenomena of dissolution in water need additional research which is currently under investigation by the storage industry.

B3. Q3 Under which circumstances or conditions should hydrogen networks be regulated, and should this regulation be in the same way as gas networks or are there alternatives? Please explain your reasoning.

No comment currently.

B4. Q4 Is 'cost efficiency' a legitimate reason for pro-active market intervention which may be contrary to a general "technology neutral" approach? Please explain your reasoning.

A market intervention in form of subsidies for the development of Power-to-Gas-facilities aiming at the reduction of technology-costs is needed. The energy system will need PtG at large scale, e.g. to reduce emissions of industrial processes. If learning curves aren't used in advance it could be difficult to go along the pathway of energy transition because the switch to renewable gases isn't feasible when needed at large or industrial scale.

B5. Q5 Which role do you see for power-to-gas infrastructures?

INES shares the view that the key role of PtG in coupling electricity and gas systems as well as between important demand sectors. Through sector coupling, gas infrastructures to transport and store gas can be leveraged to provide flexibility to the power system and transport renewable and decarbonized gas through the gas network.
Since PtG will also facilitate the storage of renewable electricity via renewable methane or renewable hydrogen and thereby provide an important system value, it is important to also assess the services and valuation of storages in a coupled energy system in parallel with the development of PtG.

B6. Q6 In your opinion, do the electricity and gas tariff systems create possible distortions to the efficient deployment and use of power-to-gas technologies? If yes, how and in what circumstances?

By using energy conversion services and the underlying gas infrastructure, additional investments in the electricity grid might be avoided. This system value provided by the gas infrastructure to the future energy system needs to be reflected in the regulatory framework, especially in the tariff systems. Both the tariff system in the electricity sector and in the gas sector should better reflect the behaviour of grid usage and its implications for network costs. Hence, the principle of cost reflectivity in setting grid charges should be extended to recognize the contribution of energy storage systems to avoid (i) electrical grid constraints and grid extension costs and (ii) curtailment of intermittent renewable electricity generation. Furthermore, no additional levies and taxes should be applied to any energy unit transferred from one sector to another. Otherwise double-payment problems are inevitable.

B7. Q7 Do you see other possible issues regarding power-to-gas technologies that require consideration from a regulatory point of view?

The current legal and regulatory framework in place was designed without having in mind PtG technologies and the handling of increasing shares of hydrogen in the gas mix. It is, therefore, necessary to adapt the current framework to enable the scale up of renewable energy in the gas sector and to gradually align the network planning for gas and electricity.
Key cost drivers in operating PtG plants are the electricity price, electricity tax, renewable levies, electricity grid fees, CAPEX of plant and utilization hours. Currently many PtG plants need to pay the renewable levies, even though they are a renewable energy production. PtG plants in many countries are classified as final customers and have to pay high grid fees as well as levies and taxes although they usually alleviate the grid and are complement to grid development. Grid charges have a substantial impact on the overall cost and profitability of energy storage devices if one compares them to total operations and maintenance costs. From pilot projects operators learned that there is significant and immediately visible potential for deceasing in costs resulting from an increase in production quantity (economies of scale).

B8. Q8 What is required to facilitate efficient cross-border trading of renewable gas GOs?

No comment currently.

B9. Q9 Which lessons from the EU-wide system for renewable electricity, if any, should be considered when setting up an EU-wide GO system for renewable gas?

No comment currently.

Section C: Infrastructure Investments and Regulation

C1. **Q10 In your view what should be ACERs and NRAs' responsibility in the development and approval of the TYNDPs, their underlying scenarios and the CBA methodologies?**

No comment currently.

C2. **Q11 How should the whole process be designed to maximize the efficiency of decision taking about new infrastructures? In particular, would you support the addition of cross-references between the infrastructure regulation 347/2013 and the CAM NC (2017/459)?**

No comment currently.

C3. **Q12 Do you see a risk for stranded assets in your country? If it becomes of relevance, what could be the appropriate regulatory tools to reduce this risk?**

No comment currently.

C4. **Q13 In your opinion, should decisions on decommissioning be assessed with methodologies similar to those used for investing in new cross-border infrastructures? Do you see the need of an EU framework for decommissioning infrastructure with a cross-border impact?**

No comment currently.

Section D: Adapting the Gas Market Design

D1. Q14 What are the critical points that should be addressed regarding the gas market design?

On storage, wherever the current framework does not already recognize/reward the full value of the underground gas storages, INES supports an evolving EU regulatory framework that enables to move to market-based pricing, in order to achieve efficient gas storage, used in a level playing field. The future gas market design needs to ensure that value of positive insurance and system externalities created by gas storage are assessed and adequately captured in the regulatory framework.

D2. Q15 Considering the possible development of renewable gases, in your opinion, do you see a need to update the gas market design?

Market design barriers relate to the internalizing of the scarcity and dependability value in both gas and electricity markets. Without recognizing the value gas storage adds to the energy system in this new role under sector coupling, it will be difficult to attract the investment required for its progression. The scope of the gas directive should be enlarged to include renewable and decarbonized hydrogen and recognizing the value of gas storage under the current gas market design.

D3. Q16 In your opinion, do you see an issue with the current transmission tariff regime for the efficient integration of the EU gas markets, in particular considering a scenario where long-term contracts expire and gas consumption may decrease?

No comment currently.

D4. Q17 If yes, how could the current tariff system, with particular regards to cost allocation methodologies, be amended?

No comment currently.

Section E: Other question

E1. Q18 Are there other regulatory challenges for a sustainable gas sector not addressed in this document?

The value of Gas Storage challenges needs to be addressed in the future gas market design. Government and NRAs need to ensure that value of positive insurance and system externalities created by gas storage are assessed and adequately captured in the regulatory framework. The current approach should be moved towards a more holistic view in optimization of an investment planning across the entire energy system. Gas storage as major flexibility provider could further facilitate market convergence towards the greener-mix by fostering the spread of renewable and low-carbon gases.

Thank you for submitting your response. We value your feedback.