Eurogas Response to the European Commission Consultation Questionnaire (web-based) on Preparation of a new Renewable Energy Directive for the period after 2020

February 2016

10 February 2016

Eurogas, the association representing the European gas wholesale, retail and distribution sectors, welcomes the opportunity to submit comments to the Consultation on the Review of the Renewable Energy Directive (RED) 2009/28/EC launched by the European Commission.

The RED can be considered successful in terms of meeting the EU's objectives for renewable energy sources (RES), as Europe is largely on track to meet its 2020 target. However, the RED has been less successful in reducing greenhouse gas emissions. In some countries, the benefits of RES in the electricity sector for GHG reduction has been largely offset by increasing the use of coal for power generation. A clear ETS price should become the main driver for investments to foster the transition towards a low-carbon economy, including RES investments. This would also help reduce the impact that the introduction of RES has had on the energy market.

The main priority for the long-term future of mature RES is their integration into the internal market. This means, for example, exposure to competition and responsibility for balancing the electricity grid and the phasing out of support schemes for mature technologies.

Eurogas believes that significant progress could be made in the introduction of more renewable gases into the system. To date, policy has been focussed on renewable electricity generation and renewable forms of liquids. Gaseous renewable energies offer significant opportunities in the form of biogas and synthetic gas (produced by power-to-gas technology). Significantly, these forms of renewable energy do not have a problem of intermittency, as gas can be stored more easily than electricity. Furthermore these energies can be used across the different energy sectors, in electricity generation, industry, heating and in transport. Finally, gaseous renewable energies can benefit from existing widespread gas distribution networks, generally allowing for much lower distribution costs compared with expanding electricity distribution networks.

Research and development (R&D) programmes should be technology-neutral, and support should be made available to all promising, non-mature technologies that help reduce greenhouse gas emissions whilst being generally sustainable with respect to energy and environmental goals. For renewable gas, there are several aspects that would justify further R&D.

The RED should not be so intrusive as to negatively impact the offerings of suppliers. Suppliers continuously update their product offerings to satisfy their customers' demands and needs. Market players should be free to determine their portfolio and not have obligations determining their energy mix. Reducing the area competition of suppliers will reduce the space for a competitive market. The costs of such measures are unknown and could place a significant burden on customers.

With regard to the points on measures taken to increase the flexibility of the energy system, this should be driven by market signals reflecting the prevailing supply/demand balance. This will ensure that the right flexibility possibilities emerge and do so in a cost-effective manner. This will become increasingly important with the addition of more intermittent RES.

10 February 2016

Part 2: General approach

Questions:

1. ***To what extent has the RED been successful in helping to achieve the EU energy and climate change objectives?***

Very successful	*Successful*	*Not very successful*	*Not successful*	*No opinion*
	X			

To what extent did implementation measures for the RED as well as external factors (technological development, financial crisis, security of supply concerns and related market interventions) affect the effectiveness and efficiency of achieving the objectives?

Please identify and ideally also quantify the direct and indirect costs and benefits such as macroeconomic effects, competitiveness effects, innovation, cost and cost reductions, environmental and health effects of the RED.

- The RED can be considered successful in terms of meeting the EU's objectives for renewable energy, as Europe is largely on track to meets its 2020 target.

- However, the RED has been less successful in reducing greenhouse gas emissions. According to the recent European Environment Agency Report GHG Trends and Projections in the EU, reduction of energy intensity that resulted from structural change and improvements in energy efficiency has been primarily responsible for the reductions in the GHG emissions observed in the EU between 2005 and 2013. In some countries the benefits of RES in the electricity sector for GHG reduction has been largely offset by increasing the use of coal for power generation, because of a low CO_2 price. Moreover, an influx of international credits and specific targets for renewable energy and energy efficiency have undermined the creation of a strong CO_2 price from the ETS, rightfully acknowledged as the cornerstone of the EU's climate policy.

- The RED is too strongly focussed on renewable electricity as opposed to other forms of RES. Electricity use only makes up only approximately 20% of Europe's final energy consumption, meaning greater progress will be required in other energy sectors also, such as the heating and transport sectors. For example, the greater introduction of renewable gas offers significant potential and warrants greater consideration. This is consistent with Europe's targets, which are based on final energy consumption.

- Furthermore, the RED has impacted significantly on the energy market and the review of the RED must address these shortcomings. The main priority for the long-term future of mature renewables is the integration of renewable energy sources into the internal

market. This means, for example, exposure to competition and responsibility for balancing the electricity grid.

2. *How should stability, transparency and predictability for investors be ensured with a view to achieving the at least 27% renewable energy target at EU level? Please indicate the importance of the following elements:*

	Very important	*Important*	*Not very important*	*Not important*	*No opinion*
Forward looking strategic planning of RES development is required by EU legislation	***X***				
Best practice is derived from the implementation of the existing Renewable Energy Directive		***X***			
Regional consultations on renewable energy policy and measures are required		***X***			
Member States consult on and adopt renewable energy strategies that serve as the agreed reference for national renewable energy policies and projects	***X***				
The Commission provides guidance on national renewable energy strategies		***X***			

Any other view or ideas? Please specify. What are the lessons from the RED (mandatory national targets, national plans, progress reports etc.)?

- It is difficult to assess each element above and rate its impact. However, the objective should be to deliver stability, transparency and predictability for the entire energy market. Therefore, the market for renewables should be designed in such a way as to minimise the impact on the market in general. Strategic planning of RES development is important, but ultimately the market should determine to what extent various low-carbon technologies will contribute to achieving the EU's emission reduction targets. Stability and predictability for investors are best ensured by the principle of not applying any policy measures retroactively.

- However, the RED should also provide adequate focus on the heating and transport sectors, and this would reduce the detrimental impact on the ETS, too.

- The achievement of EU climate targets, of which gas is recognised as a key contributor, is put at risk. Eurogas is of the opinion that the achievement of a low-carbon energy market should be driven by fair competition among the different low-carbon energy technologies,

with the EU ETS as the key instrument. The choice of the most cost-effective technologies to achieve CO_2 emissions reductions would then be the result of a competitive market. Therefore, signals from the EU ETS need to be stronger and in line with climate targets.

- Any new measures in the RED should not be overly prescriptive at an EU level and find an appropriate balance between EU and national policy measures. However, measures implemented at Member State level should not be such to require large subsidies, distort competition, remove incentives for technologies to become more cost-efficient, inhibit the internal market and negatively impact the effectiveness of the carbon market. Furthermore support schemes should not distort market dispatch.

- At present, RES are neither fully integrated in the electricity market and nor fully accountable for the costs they impose on the system. These costs include those for backup reserves and real-time balancing capacities – from which RES are currently exempted in some Member States. To benefit from (and contribute fairly towards) a smooth energy system and market, power generation from RES should be integrated into the market in line with the same obligations as those of other market players, i.e. meeting scheduling, nomination and balancing requirements, and payment for any imbalance. The same market rules and financial requirements should apply equally to all market operators.

- Research and development (R&D) programmes should also be technology-neutral, and support should be made available to all promising, non-mature technologies that help reduce greenhouse gas emissions whilst being generally sustainable with respect to energy and environmental goals. For renewable gas, there are several aspects that would justify further research and development.

3. Please rate the importance of the following elements being included in Member States' national energy and climate plans with respect to renewable energy in ensuring that the plans contribute to reaching the objectives of at least 27% in 2030.

	Very important	*Important*	*Not very important*	*Not important*	*No opinion*
Long term priorities and visions for decarbonisation and renewable energy up to 2050	***X***				
In relation to national/regional natural resources, specific technology relevant trajectories for renewable energy up to 2030				***X***	
Overview of policies and measures in place and planned new ones		***X***			
Overview of renewable energy trajectories and policies to 2050 to ensure that 2030 policies lie on the path to 2050 objectives		***X***			

Qualitative analysis					
Trajectories for electricity demand including both installed capacity (GW) and produced energy (TWh)		***X***			
Measures to be taken for increasing the flexibility of the energy system with regard to renewable energy production		***X***			
Plans for achieving electricity market coupling and integration, regional measures for balancing and reserves and how system adequacy is calculated in the context of renewable energy		***X***			

Please explain.

- The focus primarily on renewable electricity is limiting the potential of alternatives such as renewable gas. This is clear from the 3rd last box which refers to electricity demand and not energy demand.
- The text referring to the EU's 2050 objective is somewhat misleading. The EU's objective for 2050 is a reduction of greenhouse gas emissions by 80-95%, rather than a specific renewable energy objective.
- An element that is missing from the list is the full implementation of the European network codes, which is the key means to deliver a competitive energy market.
- While strategic planning is recommended, technology specific trajectories can risk restricting market possibilities for innovation and progress by limiting the possibilities for new renewables in certain areas. Therefore, a technology-neutral approach for all promising, non-mature technologies that help reduce greenhouse gas emissions is needed.
- With regards to the points on measures taken to increase the flexibility of the energy system, this should be driven by market signals reflecting the prevailing supply/demand balance. This will ensure that the right flexibility possibilities emerge and do so in a cost-effective manner. This will become increasingly important with the addition of more intermittent generation forms.

4. What should be the geographical scope of support schemes, if and when needed, in order to drive the achievement of the 2030 target in a cost-effective way?

- Harmonised EU-wide level support schemes
- Regional level support schemes (group of Member States with joint support scheme)
- National support schemes fully or partially open to renewable energy producers in other Member States

- Gradual alignment of national support schemes through common EU rules
- National level support schemes that are only open to national renewable energy producers

Please explain.

- Existing national support schemes should gradually be phased out for all mature technologies, but without retroactive effect. (As regulatory certainty is key to investment, regulation should not be changed retroactively in any sector.)
- The existing State Aid Guidelines (SAG) for Energy and Environment already provide a good first step in limiting the scope of the types of support schemes possible for renewable energy. This is resulting in a gradual alignment of rules. This approach should be maintained and strengthened as lessons from these new SAGs are learnt.
- The last option to limit support schemes only to national renewable energy producers is not supported and goes against having an integrated EU energy market.
- Regional coordination should be enhanced in order to ensure the proper coordination of support schemes.

5. If EU-level harmonised /regional support schemes or other types of financial support to renewable energy projects would be introduced:

- ***What hinders the introduction at the EU wide and/or regional scale?***
- ***How could such mechanism be activated and implemented?***
- ***What would be their scope (what type of projects/technologies/support mechanisms could be covered?***
- ***Who would finance them?***
- ***How could the costs of such measures be shared in a fair and equitable way?***

- In general, policy for renewable energy development should shift towards being European-based and market-orientated and not a "national issue". Moving towards regional support schemes which are market-orientated would be a rational next step.
- As a general principle the allocation of costs should be done in a cost-reflective and transparent manner. This would include the associated costs arising from the introduction of renewable energy (e.g. grid and backup generation costs).
- Windfall profits due to poorly designed schemes should be avoided.
- The impact on the energy market should be minimised. For example, there should be an incentive to cease feed-in during periods of negative prices.
- The recent market monitoring report prepared by ACER/CEER shows a major gap between the wholesale electricity price and the retail price, due to the inclusion of support scheme costs, taxes and levies as well as grid fees. Support schemes should be mindful of the impact of these costs on the costumers. In general the costs for

renewables should be addressed through the wholesale market and not added to the final retail price.

- All forms of renewable energy should be considered and not only renewable electricity.
- Support measures for mature renewable energies should be phased out, while there should be no retrospective changes to investments already made.
- A lack of underlying interconnections between Member States can present a barrier to taking a regional approach to renewables.

6. ***The current Renewable Energy Directive gives Member States the possibility to enter into various cooperation mechanisms (statistical transfers, joint projects and/or joint support schemes). Please expand on the possible new legislative and non-legislative measures that could be introduced to foster the development of cooperation mechanisms in the period beyond 2020.***

- Purely national approaches to promote renewable energy development are ultimately to the detriment of EU consumers as a more coordinated approach would promote the development of projects at the location within Europe where they provide the most value for money. Efforts to facilitate a market would be welcomed, including a more coordinated approach across Member States in terms of design of support schemes. A more coordinated approach should lead to more integrated market-based common principles, which help to reduce regulatory complexity and uncertainty for investors. This can contribute to higher investments, lower risk premiums and ultimately to a more cost-efficient deployment of renewables.
- As a key element of a more coordinated approach, the flexible cooperation mechanisms as laid out in the RED should be further promoted. Dialogue with Member States should help identify the barriers to overcome. Flexible cooperation mechanisms between Member States are essential to integrate the different renewable energy potentials of the Member States most effectively so that the EU 2030 renewable target can be achieved in a cost-efficient way.
- Any measures should also provide for renewable gases to be treated in the same fashion as renewable electricity.

7. ***The use of cooperation mechanisms has been limited to date. Which of the below factors do you consider important in explaining the limited recourse by Member States to cooperation mechanisms so far?***

	Very important	*Important*	*Not very important*	*Not important*	*No opinion*
Unclear legal provisions					***X***
Administrative complexities					***X***
Lack of cost-effectiveness / uncertain					***X***

benefit for individual Member States					
Government driven process, not market driven					***X***
Member States reluctant to see their taxpayers/ consumers' money used for investments outside their country					***X***

Other? Please explain.

8. ***How could renewable electricity producers be fully or partially eligible for support in another Member State? Which elements would you include in a possible concrete framework for cross-border participation in support schemes? Any other consideration? Please explain.***

9. ***Please assess what kind of complementary EU measures[1] would be most important to ensure that the EU and its Member States collectively achieve the binding at least 27% EU renewable energy target by 2030:***

	Very important	*Important*	*Not very important*	*Not important*	*No opinion*
EU-level incentives such as EU-level or regional auctioning of renewable energy capacities					***X***
EU-level requirements on market players to include a certain share of renewables in production, supply or consumption				***X***	
EU-level financial support (e.g. a guarantee fund in support of renewable					***X***

[1] Without prejudice of the actual funding mechanism, where required, of the complementary EU measures

projects)					
EU-level support to research, innovation and industrialisation of novel renewable energy technologies	***X***				
Enhanced EU level regulatory measures					***X***

Any other ideas or comments, please explain.

- The EU ETS is a fundamental tool to assist the achievement of the EU targets for renewable energy and its role should be clearly recognised.
- It is not clear that such detailed measures for implementation are appropriate. Any changes to the RED should respect the proportionality principle.
- A move towards market-oriented regional support schemes should be a goal.
- Market players should be free to determine their portfolio and not have obligations determining their energy mix. Reducing the area competition of suppliers will reduce the space for a competitive market. The costs of such measures are unknown and could place a significant burden on customers.

10. The Energy Union Framework Strategy sets the ambition of making the European Union the global "number one in renewables". What legislative and non-legislative measures could be introduced to make/strengthen the EU as the number one in renewables? Has the RED been effective and efficient in improving renewable energy industrial development and EU competitiveness in this sector?

- An EU action mechanism should ensure delivery on the ambition of becoming a world leader in renewables, while fully respecting the sovereignty of Member States over the energy mix. Therefore, research and development are needed to strengthen the EU's role as the number one in renewables. This is the means to create European companies who produce the technologies in renewable energy for the global market. These companies will flourish if a stable market development in terms of annual addition of new capacity emerges. This must cover all forms of renewable energy and not only renewable electricity.
- Furthermore, the EU should meet its decarbonisation objectives in a cost-effective manner, for which an increasing share of renewables is but one instrument. A return to a

more national approach based on national targets should by all means be avoided as it would represent a costly step backwards.

- The introduction of renewable should ensure cost-effectiveness, maximise market orientation and minimise market distortions to achieve competitiveness. A clear ETS price should become the main driver for investments to foster the transition towards a low carbon economy, including RES investments. Support schemes for mature technologies should be phased out for the period after 2020.

Part 3: Empowering consumers

Questions:

11. How would you rate the importance of the following barriers for consumers to produce and self-consume their own renewable energy?

	Very important barrier	*Important barrier*	*Not very important barrier*	*Not important barrier*	*No opinion*
Self-consumption or storage of renewable electricity produced onsite is forbidden	***X***				
Surplus electricity that is not self-consumed onsite cannot be sold to the grid	***X***				
Surplus electricity that is not self-consumed onsite is not valued fairly	***X***				
Appliances or enabler for thermal and electrical storage onsite are too expensive	***X***				
Complex and/or	***X***				

lengthy administrative procedures, particularly penalising small self-consumption systems					
Lack of smart grids and smart metering systems at the consumer's premises		***X***			
The design of local network tariffs				***X***	
The design of electricity tariffs				***X***	

Other? Please explain.

- Eurogas, together with Marcogaz and GERG has set out what it believes a smart grid entails and in particular a smart gas grid. Further information can be found here [https://www.youtube.com/watch?v=FvUkQ7X9R04].

- One of the key barriers can be a lack of understanding on the customer's part, which may be the best starting point for addressing this issue.

- It should be noted, however, that customers will have different interests and may in some cases not be interested in consuming and self-producing renewable energy. This should be respected.

- Indirect subsidies, such as socialising prosumers' balancing costs, should be avoided. Purchasing obligations and price regulation should be phased out.

- The last two boxes on tariffs have been marked as "not important" in order to emphasise that the setting of tariffs must consider many different factors.

- When approving network tariffs, regulators must take a wide range of principles into account, such as cost-reflectiveness, fairness, investment needs, etc. While promoting flexibility could be an additional principle, this flexibility should only be used in grid tariffs if the grid needs flexibility, i.e. constraints in the grid, are present. Constraints in energy supply, however, should not be reflected in grid tariffs, though suppliers may wish to include them in their competitive offering.

- Furthermore, in competitive markets suppliers should not be required to reflect grid time-of-use elements in structuring their retail tariffs. Part of a supplier's function is to design products to meet customer needs. However, suppliers are likely to offer both simple retail tariffs and tariffs which feature explicit time of use elements, giving their customers choice in how grid price signals are reflected at retail level.

12. In general, do you think that renewable energy potential at local level is:

- ☐ *Highly under-exploited*
- ☐ ***Under-exploited*** ***X***
- ☐ *Efficiently / fully exploited*
- ☐ *Over-exploited (i.e. beyond cost-effectiveness)*
- ☐ *No opinion*

Other? Please explain. Has the RED been effective and efficient in helping exploiting the renewable energy potential at local level?

- Eurogas believes that significant progress could be made in the introduction of more renewable gases into the system. To date, policy has been focussed on renewable electricity generation and renewable forms of liquids. Gaseous renewable energies may offer significant opportunities, in the form of biogas and synthetic gas. Significantly, these forms of renewable energy do not have a problem of intermittency, as gas can be stored. Furthermore these energies can be used across the different energy sectors, in electricity generation, industry, heating and in transport. Finally, gaseous renewable energies can benefit from existing widespread gas distribution networks, generally allowing for much lower distribution costs compared with expanding electricity distribution networks.

- Another area that should be focussed upon is the use of waste materials to produce renewable energy.

13. How would you rate the importance of the following barriers that may be specifically hampering the further deployment of renewable energy projects at the local level (municipalities and energy cooperatives):

	Very important barrier	*Important barrier*	*Not very important barrier*	*Not important barrier*	*No opinion*
Lack of support from Member State authorities					
Lack of administrative capacity and/or expertise/ knowledge/information at the local level					

Lack of energy strategy and planning at local level					
Lack of eligible land for projects and private property conflicts					
Difficulties in clustering projects to reach a critical mass at local level					
Lack of targeted financial resources (including support schemes)					
Negative public perception					

Other? Please explain.

- The answer to these questions will differ by Member State and is also likely to differ in different regions within Member States. Therefore it is not justified that such barriers are addressed at the European level, as such an approach would risk burdening national policy makers with inappropriate tools. The principle of subsidiarity should be respected in the review of the RED.

14. Please rate the appropriateness of stronger EU rules in the following areas to remove barriers that may be specifically hampering the further deployment of renewable energy projects at the local level :

	Very appropriate	*Appropriate*	*Not very appropriate*	*Not appropriate*	*No opinion*
Promoting the integration of renewable energy in local infrastructure and public services					
Supporting local authorities in preparing strategies and plans for the promotion of renewable energy					

Facilitating cooperation between relevant actors at the local or municipal level					
Facilitating access to targeted financing					
EU-wide right to generate, self-consume and store renewable electricity					
Measures to ensure that surplus self-generated electricity is fairly valued					
Harmonized principles for network tariffs that promote consumers' flexibility and minimise system costs					

Other? Please explain.

- See answer to question 13.
- When approving network tariffs regulators need to take a wide range of principles into account, such as cost-reflectiveness, fairness, investment needs, etc. While promoting flexibility could be an additional principle, this flexibility should only be used in grid tariffs if the grid needs flexibility, i.e. constraints in the grid are present. Constraints in energy supply, however, should not be reflected in grid tariffs, though suppliers may wish to include them in their competitive offering.

15. Should the current system for providing consumers with information on the sources of electricity that they consume be further developed and improved?

If not, why? If yes, how? Should the current Guarantees of Origin (GO) system be made the mandatory form of information disclosure to consumers? Should other information, such as e.g. CO_2 emissions be included? Should it be extended to the whole energy system and include

also non-renewable sources? Other ideas? To what extent has the current GO system been successful in providing consumers with information on the sources of electricity that they consume?

- As a first step, an assessment of the implementation of the existing legislation would be a useful exercise. This way any subsequent proposals could be made on an evidence-first basis.
- Again the RED should not be so intrusive as to negatively impact the offerings of suppliers. Suppliers continuously update their product offerings to satisfy their customers' demands and needs.
- In principle suppliers should have freedom to offer products and services to customers in an open competitive market. Too many prescriptive limitations could damage their ability to do this.
- A detailed assessment would be needed to understand the impact of this proposal – costs, benefits, etc.

Part 4: Decarbonising the heating and cooling sector

Questions:

16. Please rate the importance of the following barriers in hampering the deployment of renewable heating and cooling in the EU:

	Very important barrier	*Important barrier*	*Not very important barrier*	*Not important barrier*	*No opinion*
Real or perceived incoherence in existing EU policies (such as RED, EED and EPBD)					***X***
Lack of administrative capacity and/or expertise/ knowledge/information at the national and local level					***X***
Lack of energy strategy and planning at the national and local level					***X***
Lack of physical space to develop renewable heating and cooling solutions	***X***				
Lack of requirements in					***X***

building codes and other national or local legislation and regulation to increase the share of energy from renewable sources in the building sector					
Heating and cooling equipment installers lack sufficient knowledge or information to offer renewable energy alternatives when asked to replace fossil fuel heating and cooling equipment					X
Lack of targeted financial resources and financing instruments					X
Lack of definition and recognition of renewable cooling					X
Lack of electricity market design supporting demand response, decentralised energy and self-consumption and thermal storage in buildings and district systems					X
Lack of mapping tools to identify the resources potential at regional scale with local renewable energy					X
Lack of tools and information to compare the lifecycle costs of the various alternative heating and cooling alternatives					X
Negative public perception					X

Other? Please specify and explain.

- These multiple questions do not seem appropriate for such a wide question. The barriers for renewables will differ depending on the different forms of heating and national and local characteristics.

- The objective for the heating sector should be to become low-carbon. While this can be done partly through renewable energies, there are other means which should not be blocked.

- The main barrier to deploying renewable heating, which is not on the list, is the cost of these options. Were the renewable options to be cost-competitive, these other barriers listed would most likely be overcome more easily. Therefore, focus should be most prominent in research and development with the aim of developing cost reduction options. For the deployment of gas-based renewable heating options this is also the case, for example:
  - The capital cost of a gas-heat pump compared with a condensing boiler;
  - The cost of biogas compared with natural gas.

- This is particularly important for district heating networks, where customers are sometimes obliged to use the system and are not offered choice of heating suppliers. Assessments of different heating and cooling options should consider the full supply chain.

- It is clear that the low rate of rebuild and renovation means that all avenues to decarbonise the heating and cooling sector should be explored. Affordability for customers must play an important role in this.

17. Please rate the most effective means of addressing these barriers and advancing the decarbonisation of EU heating and cooling supply:

	Very effective	*Effective*	*Not very effective*	*Not effective*	*No opinion*
Renewable heating and cooling obligation[2]					***X***
Requirement for energy suppliers and/or distributors to inform consumers of the					***X***

[2] 'Renewable energy obligation' means a national support scheme requiring energy producers to include a given proportion of energy from renewable sources in their production, requiring energy suppliers to include a given proportion of energy from renewable sources in their supply, or requiring energy consumers to include a given proportion of energy from renewable sources in their consumption.

costs of heating and cooling and to offer renewable heating and cooling solutions					
Requirement that all urban and municipal infrastructure upgrades (energy infrastructures, and other relevant infrastructure, such as sewage water, water and waste chains) make it possible and promote the distribution and use of renewable energy for heating and cooling and hot water generation					***X***
Measures supporting best practices in urban planning, heat planning, energy master planning, and project development					***X***
Criteria and benchmarks for promoting district heating and cooling taking into consideration the local and regional conditions					***X***
Nearly zero-energy building (NZEB) standards to include a mandatory minimum use of renewable energy					***X***

Including systematically renewable energy production in buildings' energy performance certificates					***X***
The promotion of green public procurement requirements for renewable heating & cooling in public buildings					***X***
Heating and cooling equipment installers should present renewable energy alternatives when asked to replace fossil fuel heating and cooling equipment					***X***
Develop best practices for enterprises, including SMEs, to integrate renewable heating and cooling into their supply chains and operations					***X***
Requirement to consider renewable energy alternatives in subnational, national, regional or EU security of supply risk preparedness plans and emergency procedures					***X***
Targeted financial measures					***X***

Other? Please specify and explain. How could such measures be designed? How could they build on existing EU rules?

- We have ticked the above boxes as "no opinion" as measures should not be solely ranked on "effectiveness". Clearly each measure should be assessed against a number of criteria, with effectiveness being one. For example, a measure may be very effective, but practically impossible, or the measures may be completely unaffordable to the customer. Assessments seeking to find the optimal heating and cooling solutions should consider the full heating supply chain as well as other factors such as affordability, customer choice and competition.

- Gas offers consumers an affordable, reliable, efficient and flexible heating and cooling solution. The price of gas to households across Europe is approximately one third of that of electricity3. Also, consumers are able to choose from a wide range of gas-based appliances and the costs of these appliances tend to be the most competitive option for consumers. Switching from other fuels to gas and using renewable technologies in parallel, offers greenhouse gas emissions reductions and other improvements such as energy savings.

- The existing gas infrastructure offers the most cost-competitive source of flexibility via the energy carriers (by using storage and line pack) and its use in a complementary fashion with other heating and cooling sources will only increase this potential. Gas networks offer the underlying infrastructure and flexibility that other energy carriers do not. The strategy should therefore seek to extract the maximum value from this existing infrastructure.

- Some of the measures in these questions are primarily local in nature and may not be appropriate to be addressed at the European level.

- We do not support mandating suppliers and DSOs to inform customers of costs of heating and cooling and to offer renewable heating and cooling. DSOs do not sell energy to consumers but provide the connection to the grid transporting the energy on behalf of the suppliers. DSOs offering heating solutions seems inappropriate in setting up an internal energy market. Forcing suppliers to offer certain products is also not realistic in practice. Small suppliers in particular are likely to struggle to compete in such a market.

- The point to impose specific obligations on a European level, requiring infrastructure upgrades to "make it possible and promote the distribution and use of RES" – what does this mean in practice. To impose specific obligations on a European level would need a social cost-benefit analysis, and should include the full heating supply chain. This would require infrastructure upgrades and the promotion of the distribution and use of RES, and could increase consumer prices.

- The point on having criteria and benchmarks for promoting district heating does not refer to the economics of such a system, which are its main barrier. The results of

[3]http://www.europarl.europa.eu/meetdocs/2014_2019/documents/itre/dv/acer_market_monitoring_report_2014_/acer_market_monitoring_report_2014_en.pdf

Member States' reports on district heating delivered at the end of 2015 from Member States to the EC should be taken into account.

- The standards on NZEB should allow flexibility for national solutions. For example, the judgment to what extent a renewable energy solution or energy efficiency measure will contribute to a cost-efficient manner to nearly-zero energy consumption, should be left to the market.

- Overall this introduction of renewable heating and cooling should maintain choice and be based on economics. From an economic point of view more emphasis should be placed on possible heating solutions combining (locally produced) renewables with gas as flexible back-up fuel.

PART 5: Adapting the market design and removing barriers

Questions:

18. In your view, which specific evolutions of the market rules would facilitate the integration of renewables into the market and allow for the creation of a level playing field across generation technologies? Please indicate the importance of the following elements to facilitate renewable integration:

	Very important	*Important*	*Not very important*	*Not important*	*No opinion*
A fully harmonised gate closure time for intraday throughout the EU	***X***				
Shorter trading intervals (e.g. 15 min)					***X***
Lower thresholds for bid sizes					***X***
Risk hedging products to hedge renewable energy volatility					***X***
Cross border capacity allocation for short-term					***X***

markets (i.e., some capacity being reserved for intraday and balancing)					
Introduction of longer-term transmission rights (> 3 years)					***X***
Regulatory measures to enable thermal, electrical and chemical storage	***X***				
Introduction of time-of-use retail prices				***X***	
Enshrine the right of consumers to participate in the market through demand response		***X***			

Any other view or ideas? Please specify.

- Overall, the approach to take here should be to assess which real barriers exist. It should be based on evidence and be a proportionate and economic.
- The EC's heating and cooling working documents in 2015 report that while thermal storage is around 100 times cheaper than electricity storage, it is around 100 times more expensive than gas and liquid storage4. Therefore, these technologies where they are immature in nature they should be supported through research and development and not be artificially brought to market early.
- There should be a possibility to waive consumption-based fees, taxes and levies, either fully or partially, for electricity that is used for energy conversion and storage, as it is used on an interim basis and not for final consumption. Also, the evaluation of energy storage should be incorporated as an alternative option for network expansion in local, national, regional and the EU (ten year) network development plans.

[4] Aalborg University, ENER/C3/2014-557.

- Wholesale level, day-ahead, intraday and balancing markets already express scarcity on very short time slot levels (hourly and even less up to 15 minutes).
- Support schemes should not distort the market dispatch.
- At retail level, in many markets customers are not always exposed to short-term scarcity, though they may not wish to be.
- Time of use tariffs should not be mandatory as they are a key component of a supplier's competitive offering. Some markets may not have a price signal for such tariffs, for example, if there are significant levels of pumped storage.

19. Currently, some exceptions from the standard balancing responsibilities of generators exist for energy from renewable sources. In view of increasingly mature renewable generation technologies and a growing role of short-term markets, is time ready to in principle make all generation technologies subject to full balancing responsibilities?

□ *Yes, in principle everyone should have full balancing responsibilities* ***X***
□ *No, we still need exemptions*

Please specify: If exemptions remain necessary, please specify if and in which case and why exemptions would still remain necessary (e.g. small renewable producers, non-mature technologies)?

20. Please assess the importance of stronger EU rules in the following areas to remove grid regulation and infrastructure barriers for renewable electricity deployment:

	Very important	*Important*	*Not very important*	*Not important*	*No opinion*
Treatment of curtailment, including compensation for curtailment					***X***
Transparent and foreseeable grid development, taking into account renewable development and integrating both TSO and DSO level and smart technologies					***X***
Predictable					***X***

transparent and non-discriminatory connection procedure					
Obligation/priority of connection for renewables					***X***
Cost of grid access, including cost structure					
Legal position of renewable energy developers to challenge grid access decisions by TSOs					*X*
Transparency on local grid congestion and/or market-based incentives to invest in uncongested areas					***X***

Comments and other ideas, including whether there are any consideration concerning gas from renewable energy sources, for instance expansion of gas infrastructure, publication of technical rules, please explain.

- Given the ease under which gas can be transported it offers significant potential in overcoming barriers for renewable energy.

- It is important to note that even high shares of centralised and decentralised renewable electricity require dispatchable backup power generation in order to keep the grid stable and to avoid costly blackouts. This can and should be provided by flexible gas turbines, large CHP gas power plants plus district heating and small decentralized CHP power plants, e.g. in buildings. Thereby, the existing gas grid takes the role of a cost-effective and carbon-efficient backup system for industry and consumers. Supporting measures and market-based instruments should facilitate this new role and responsibility of the gas grid.

- Europe already produces significant amounts of biogas. With 15 billion cubic meters (bcm) produced in 2013, this amount of gas could heat the equivalent of approximately 4.5 million households.

- A study by the Fuel Cell and Hydrogen Joint Undertaking concluded that conversion of electricity to hydrogen for use outside of the power sector has the potential productively

to utilise nearly all excess renewable electricity that would be curtailed. The gas grid allows this energy to be used in the heating sector.

The following measures should be introduced:

- An EU wide certification scheme to support the trading of renewable gas.
- Inclusion of hydrogen in the Renewable Energy Directive. Hydrogen produced from a renewable source should be treated as renewable energy.
- Producers should be allowed to inject hydrogen into the system, subject to limits set out in technical rules.
- Eurogas does not support subsidies being provided to mature technologies. However, if this is the case, renewable gas should be supported in the same fashion as renewable electricity.
- Power-to-gas plants, which convert excess renewable electricity to gas, should be exempt from taxes and levies on the electricity system.
- Power to gas units should also be allowed to participate in any services for flexibility.

21. Which obstacles, if any, would you see for the dispatching of energy from all generation sources including renewables on the basis of merit order principles? Should there be any exemptions in some specific cases?

□ *Yes, exemptions are necessary*
□ *No, merit order is sufficient* ***X***

Please specify: If yes, in which case and why? What are the lessons from the implementation of RED?

22. Please assess the importance of stronger EU rules in the following areas to remove administrative barriers to renewable energy deployment:

	Very important	*Important*	*Not very important*	*Not important*	*No opinion*
Creation of a one stop shop at national level to allow for more streamlined permitting procedures				***X***	
Online application for permits				***X***	

A defined maximum time-limit for permitting procedures, and effective consequences if deadline is missed				***X***	
Harmonisation of national permitting procedures				***X***	
Special rules for facilitating small-scale project permitting, including simple notification				***X***	
Pre-identified geographical areas for renewable energy projects or other measures to integrate renewable energy in spatial and environmental planning					

Any other views or ideas? To what extent has the RED been successful in reducing unnecessary administrative barriers for renewable energy projects in the Member States? Please specify.

23. Please identify precise challenges with regard to grid regulation and infrastructure barriers in EU Member States that you are aware of.

- It is important that this RED is not revised in such a way as to do serious damages to the energy market. The market monitoring report of ACER and CEER clearly shows the link between a competitive energy market and a positive outcome for the customer. The RED should seek the EU-wide integration of RES in the energy markets, but not in deal with issues such as how permit applications for RES are handled nationally.

- Eurogas notes that the problem of reduced operating hours of conventional power plants, as far as this is caused by subsidies to mature renewable energy sources and the weak signals by the EU ETS, may not only affect the outlook for gas-fired power plants. It could also cause a more intermittent use of gas grid infrastructures and have an impact on the profitability of other gas infrastructures (particularly underground storage facilities) which are necessary for the delivery of fuel to the power plants concerned at peak times. Moreover, reduced consumption by gas-fired thermal plants would increase the infrastructure cost to be carried by other gas end-users. This change in commodity gas requirements may also increase the costs of flexibility.

24. How would you rate the administrative burden and cost of compliance with the RED for national, regional and local authorities?

	Very important	*Important*	*Not very important*	*Not important*	*No opinion*
Administrative burden					***X***
Cost of compliance					***X***

Please explain. How could the administrative burden and cost of compliance be reduced in the period after 2020?

25. Please rate the importance of stronger EU rules in the following areas to remove barriers relating to renewable energy training and certification:

	Very important	*Important*	*Not very important*	*Not important*	*No opinion*
Incentives for installers to participate in certification/qualification schemes					***X***
Increased control and quality assurance from public authorities					***X***
Understanding of the benefits and potential of renewable technologies by installers					***X***
Mutual recognition of certificates between different Member States					***X***

Comments, other ideas, please explain. To what extent has the RED been successful in reducing unnecessary training and certification barriers in the Member States?

26. How can public acceptance towards renewable energy projects and related grid development be improved?

- This question is more relevant to renewable electricity projects. Public acceptance is mainly an issue for large-scale renewable energy projects. Regular events, workshops, panels and online consultations with their stakeholders and customers could be organised. Input from the public should be taken into account as much as possible.
- By using other forms of renewable gas, such gas-based RES, many of these difficulties can be overcome. The existing gas network is able to accommodate large amounts of energy and this can be stored.
- A European-wide scheme to allow renewable gas to be tracked within the EU should be established, similar to that already established for certain biofuels.

Part 6: Increase the renewable energy use in the transport sector

Questions:

28. To what extent has the RED been successful in addressing the following EU transport policy objectives?

	Very successful	*Successful*	*Not very successful*	*Not successful*	*No opinion*
Contribute towards the EU's decarbonisation objectives			***X***		
Reduce dependency on oil imports			***X***		
Increase diversification of transport fuels				***X***	
Increase energy recovery from wastes			***X***		
Reduce air pollution, particularly in urban areas			***X***		
Strengthen the EU industry and					***X***

economy competitiveness					
Stimulate development and growth of innovative technologies			***X***		
Reduce production costs of renewable fuels by lowering the level of investment risk					***X***
Facilitate fuel cost reduction by integration of the EU market for renewable fuels					***X***

Any other view or ideas? Please specify.

- Regarding the point on import dependency, energy independence should not be a goal in itself, but companies should be able to source supplies on a cost-efficient basis. Reducing import dependency, whilst ignoring the potential benefits of the global market will not necessarily bring lower energy prices or increased security of supply. Moreover, an objective of reducing import dependency would ignore the economic advantages of international trade in general and global competitive advantages in particular.

- Increasing the share of RES in transport alone will not be sufficient to reach the EU policy goals in terms of reduction of GHG and air quality related emissions, due to the growth of transport demand. In particular, action is needed regarding the emissions of transport on roads, where LNG and CNG (in combination with biomethane) offers great potential regarding the reduction of GHG emissions as well as of other pollutants. This needs to be adequately reflected in the EU legislative framework.

29. Please name the most important barriers hampering the development of sustainable renewable fuels and renewable electricity use in transport?

- Greater transparency and comparability of fuel prices are needed, e.g. by means of litre equivalent as common unit.

- Stricter noise, particulate matter and NOx emissions regulation should be considered for cities and densely populated areas in order to encourage the use of low emitting transport modes, such as NGVs.

- Support should be made available for research and development in specific technological developments of gas in transport. For example, advances such as motor efficiency offer reductions in energy use and GHG emissions.

Please explain, and quantify your replies to the extent possible.

30. Please rate the most effective means of promoting the consumption of sustainable renewable fuels in the EU transport sector and increasing the uptake of electric vehicles:

	Very effective	*Effective*	*Not very effective*	*Not effective*	*No opinion*
Increased use of certain market players' obligations at Member State level				***X***	
More harmonised promotion measures at Member States level					***X***
The introduction of certain market players' obligations at the EU level				***X***	
Targeted financial support for deployment of innovative low-carbon technologies (in particular to the heavy duty transport and aviation industry)		***X***			
Increased access					

to energy system services (such as balancing and voltage and frequency support when using electric vehicles)					
Increased access to alternative fuel infrastructure (such as electric vehicle charging points)		***X***			

Any other view or ideas? Please specify.

- Strong emphasis should be put on the implementation of the Alternative Fuels Directive.
- Emission standards for GHG and SOx, NOx, PM should be tightened in order to encourage industry to promote alternative transport options.