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Renewable Gas in the Recast of the Renewable Energy Directive: A (Hidden) Opportunity?

This statement is a brief response to the Renewable Energy Directive (RED II), and embodies the views of nine European associations representing producers, suppliers, transporters and distributors of gaseous energy coming from natural and renewable sources. We bring together a broad base of local, regional, national, and international actors promoting and raising awareness about the potential that renewable gas can offer Europeans in terms of clean, efficient, safe and sustainable energy.

Renewable gas comes in the form of biogas, biomethane, green hydrogen, and synthetic methane (syngas). These are produced from a wide spectrum of sources such as municipal waste, landfills, sewage treatment plants, agricultural residues or manure. Moreover, renewable gas can store otherwise curtailed electricity by converting 'surplus green electricity' into hydrogen or syngas (by recycling waste carbon) via a power-to-gas (P2G) process. Hydrogen, biomethane and syngas are gaseous energy carriers for use in mobility, heat & industrial applications, acting as enablers for **sectoral integration**. Each of these vectors are **innovative** and carry significant potential in terms of the technical processes underpinning each of them, whether it be anaerobic digestion, gasification, methanation, or P2G.

Three key attributes characterise gas: first, it is **storable**. This is essential for the energy system and its ability to continue to cope with huge daily and seasonal fluctuations in demand, which is increasingly important as we move toward higher shares of variable electricity production. This makes an invaluable contribution to enabling system balancing and optimisation. Secondly, **the infrastructure to transport and distribute** gas is available. 2.2 million km of pipelines are already in place to transport gases from various sources, with limited need for adaptation. Finally, it is **increasingly renewable**. The last few years have seen exponential growth in the amount of renewable gas in the existing network, and the potential even exceeds the total capacity of our electricity system.

The Renewable Energy Directive Recast

The recast of the RED II has taken a step forward in recognising the potential for renewable gas in a renewable energy system. We would like to highlight a few of these points of recognition, underscore the need for some additional adaptations, and seek to encourage further exploration of how policy may facilitate renewable gas deployment.

Article 2 – Definitions

Inclusion of biogas in the definitions is welcomed. However, renewable gases from many technologies and sources are in constant evolution, and **the definition should remain updated, and adequately open in view of future advances**.

There is also a need to **acknowledge the integrating nature of renewable gas, through 'sectoral integration'**. Silo thinking needs to be avoided in energy system planning, and defining integration in this respect would be helpful. Sectoral integration lies in a holistic system approach which strives to link infrastructures and services in the electricity, gas, heating & cooling and transport sectors, where the use and conversion of all energy carriers plays a key role.

Article 19 – Guarantees of Origin

The inclusion of renewable gas in Article 19 on Guarantees of Origin (GO) is beneficial for securing transparency for renewable gas consumers, and should facilitate cross-border trade of renewable gas. As such, this is a welcome move in the right direction. However, **further exploration of how GO transfers could further be developed is encouraged**.

In particular, producers willing to go beyond minimum requirements for sustainability under the renewables directive should be encouraged to do so. Therefore, in order to raise awareness and reinforce visibility, **GOs should allow for the**

inclusion of additional optional information including GHG savings, the type of feedstock used and other benefits towards a circular economy such as nutrient recycling. Furthermore, as described above, enabling green hydrogen to play a role in the further decarbonisation of different sectors needs to be encouraged and thus should also be listed.

It is essential to recognise gas infrastructure as a single facility where renewable gas can be mass balanced (also relevant for Article 27). The European gas grid should be therefore considered as a single mass balancing unit through the introduction of a European certificate scheme allowing for sustainability certification and proper registration of injected and withdrawn volumes of renewable gas.

Article 25 – Renewable Energy in the Transport Sector

Renewable gas, **including green hydrogen-based fuels**, should have the possibility to be taken into account with regards to the objectives assigned. **Power-to-gas** will open further opportunities, for renewable gas, making this point even more relevant. Therefore, the **recognition of these different pathways** is necessary and should be acknowledged.

Article 26.7 and Annex VI – Greenhouse Gas Emissions Criteria

Given the overall **system benefits** of biogas technology (recovery of energy from waste, global zero methane emissions, co-production of sustainable agricultural fertilizers, complementary income to farmers, etc.), an overly narrow set of criteria on GHG emissions should be avoided. GHG savings requirements should not hinder the development of biogas production which contributes to sustainability in ways that go beyond just certain percentages of GHG reduction.

To avoid the burden of small producers having to calculate their GHG reductions individually, **more options for biogas and biomethane should be added to Annex VI**. Pathways for straw and perennial grasses are needed in the short term, while in the middle and long term also pathways for agricultural and agro-industrial residues are important.

Recognising Renewable Gas as Renewable

Biomethane, hydrogen & synthetic gas produced from renewable sources should be treated on equal footing with other renewable fuels. This can be important for instance in industrial processes where incentives for biofuel utilisation are not yet recognised for renewable gases, hindering major opportunities for decarbonising industrial processes.

Moving Forward

A full system perspective to the objectives of energy and environment policy will ensure that the policies are effective. This is increasingly evident as technologies are developing that make new pathways towards system integration possible. **An integrated multi-vector (electricity, heat, gas – including all its types) energy system that allows for system reliability and meets demands across every season**. Renewable gas complements its electric counterpart forming two components of an energy system which allows for the degree of renewable energy deployment that our highest collective ambitions pursue. **It also is a decentralised source of energy**, which allows for active local participation, not to mention the consumer benefits of **choice and price arbitrage** between renewable energy sources.

Finally, we would like to encourage not only approaching energy from an energy system perspective, but moreover, a **social system perspective**. We have mentioned **consumer empowerment**. But there is further ground to cover in the path to a truly **circular economy**, and thus one where (re-)utilisation of resources is critical. Renewable gas is not only beneficial to the energy sector in providing energy supply and renewable energy storage, enhancing carbon reduction, and utilising existing gas grids. It is also a problem-solver for the unpredictable fluctuations in renewable electricity production/utilisation, for municipal waste, for agriculture and other waste streams. We would encourage an energy policy which adequately allots importance to the circular economy approach. Waste-to-energy possibilities, existing resource utilisation, and symbiotic effects between sectors are key to achieving the goals which the EU has embraced.

For more information on each association's respective views on renewable gas in the REDII, contact

CEDEC
www.cedec.com
Gas Infrastructure Europe (GIE)
www.gie.eu
Hydrogen Europe
www.hydrogeneurope.eu

European Biogas Association (EBA):
www.european-biogas.eu
GEODE
www.geode-eu.org
Marcogaz
www.marcogaz.org

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www.eurogas.org
GERG
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