GasNaturally welcomes the Commission’s Roadmap for the revision of the Renewable Energy Directive (RED II). In light of the European Green Deal (EGD) and the 2030 Climate Target Plan recently published by the European Commission, GasNaturally members reiterate the importance to recognise that gas plays an important role in achieving EU climate ambitions.

Renewable, low-carbon and decarbonised gases: essential for deep decarbonisation of the EU economy

In the recently published Energy System Integration and Hydrogen Strategies, the European Commission stressed the importance of creating a more efficient and cleaner energy system. Revising the RED II will be crucial to reach this objective. Our industry would like to provide a list of key recommendations to ensure that this goal is achieved in an ambitious yet realistic and cost-effective way:

- The contribution and the potential of all types of decarbonised, low-carbon and renewable gases should be acknowledged, including biogas, biomethane, synthetic gas, renewable, low-carbon and decarbonised hydrogen as well as bioLPG.
- Renewable hydrogen, low-carbon hydrogen from natural gas and decarbonised gas will be essential to decarbonise all sectors of the EU economy.
- To this end, designing a forward looking regulatory framework to ensure renewable, low-carbon and decarbonised gases can fully contribute to the achievement of the EU climate ambitions. This should be achieved by enabling all production technologies delivering significant GHG emission reductions.
- Establish a comprehensive terminology covering both renewable, low-carbon and decarbonised gases and apply a consistent EU wide methodology on a GHG life-cycle basis enabling a transparent comparison of different energy sources.
- Create a robust certification system for renewable, low-carbon and decarbonised gases as part of the provisions on Guarantees of Origin under RED II.

Molecules are primary for the deep decarbonisation of all sectors

The revision of the RED II should create a strong and enabling regulatory framework for renewable, low-carbon and decarbonised gases which are essential to foster a cost-effective energy transition for all sectors of the European economy and society.

This section explains their key benefits and contribution towards decarbonisation.

Gas has the potential of decarbonising buildings without significant costs

- Replacement of old heating systems with efficient and affordable appliances such as gas and LPG condensing boilers which can be fuelled with renewable gases as well as hybrid heat pumps.
● Off and on the grid, enabling the deployment of hybrid heating systems (e.g. an electrically driven heat pump with a gas or LPG boiler)\(^1\) and fuel cells

● Using biogas, including by converting it in a Combined Heat and Power Unit to produce electricity and heat, often used locally in district heating systems or on site\(^2\).

● Injecting biomethane and hydrogen in the gas grid and delivering it to heating systems. Existing gas grids and gas appliances are 100% compatible with biomethane, and recent tests show that condensing gas boilers can accommodate blends of up to 20% hydrogen, with small adaptations to burners and combustion controls. Dual fuel boilers or ‘hydrogen ready’ appliances would enable fuel switching from methane to hydrogen with minimal adaptation of the appliances.

● Using bioLPG in existing gas boilers, which make the seamless switch to a 100% renewable heating source more affordable, especially in off-grid areas\(^3\).

\textit{Decarbonising industry must go hand in hand with its competitiveness}

● Europe is a market leader in anaerobic digestors, pyrolysis, carbon capture and storage, LNG engines and turbines manufacturing. All these European technologies will revolutionise the way in which we produce energy and goods around the world.

● Decarbonising gas is a prerequisite to fully decarbonising energy intensive sectors such as steel, cement, chemicals, and many others.

● New carbon value chains will emerge and in turn create new jobs and revenue streams.

\textit{Decarbonising the power sector is a major challenge}

● Reaping the full benefits of electricity produced from biogas and biomethane based on manure\(^4\).

● Gas fired power plants offer dispatchable power to the electricity system and can be fuelled with renewable, low-carbon and decarbonised gas.

● The periodical availability of excess renewable electricity supports a business case for accelerating the development of power to gas technologies. It enables the conversion of renewable electricity to hydrogen for short term as well as seasonal storage or long-distance transport using the existing gas infrastructure.

● The wider and deeper integration of economic sectors enables more efficient and smarter use of valuable energy between sectors. Gaseous energy will remain one of the backbones of the European energy system, providing storage, flexibility, and resilience to a climate neutral economy.

● Using the existing gas infrastructure will facilitate the mass deployment, conversion, transport, and storage of renewable and decarbonised energy.

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\(^1\) \textit{2020 Gas Decarbonisation Pathways study}

\(^2\) \textit{Biogas basics}, EBA

\(^3\) \textit{What is bioLPG?}

\(^4\) \textit{Biogas basics}, EBA
**Accelerating a carbon neutral mobility is possible with gas:**

- Using hydrogen, biomethane and bioLPG to fuel gas vehicles significantly reduce emissions in the transport sector acting directly on the existing fleet.\(^5\)

**Decarbonising and boosting a more circular economy in agriculture by:**

- Integrating agriculture with other sectors can empower rural areas, create safe and long-lasting local employment, and establish new revenue streams.
- Producing biogas from agricultural by-products such as manure avoiding methane emissions in the atmosphere\(^6\).
- Using the remaining biomass – after the biogas production process – as organic fertiliser in agriculture. This would allow replacing existing chemical fertilisers and in turn the quality of the cultivated products.
- Using all possible biogas conversion technologies also for the benefit of rural heating and industries using LPG.

For all these reasons, we believe that the upcoming revision of RED II should acknowledge the potential of both renewable, low-carbon and decarbonised gases, facilitate their development and contribution towards the EU climate objectives.

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GasNaturally is a partnership of eight associations (Eurogas, Natural & bio Gas Vehicle Association (NGVA Europe), European Gas Research Group (GERG), International Gas Union (IGU), International Association of Oil and Gas Producers (IOGP), Gas Infrastructure Europe (GIE), Liquid Gas Europe (LGE) and Marcogaz) that together represent the whole European gas value chain. Our members are involved in gas exploration and production, transmission, distribution, wholesale and retail operations, as well as gas in transport.

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\(^5\) in the fast lane with biomethane in transport, EBA- NGVA Europe

\(^6\) Biogas basics, EBA