

RENEWABLE GASES

A key asset for decarbonisation

Renewable gas solutions

Biogas: gas that is produced from the decomposition of organic materials, including waste and residues

Biomethane: methane produced from biomass through the upgrade of biogas. It has properties close to natural gas. When used in transport we refer to BioCNG and BioLNG, if liquified

Synthetic natural gas (SNG): gas with similar properties to conventional natural gas obtained through a power-to-gas process

Renewable hydrogen: gas obtained through the electrolysis of water using renewable electricity

BioLPG: also known as renewable LPG, is a liquified gaseous fuel obtained from various processes using biological sources or renewable electricity and CO₂

Technologies & processes



Anaerobic digestion



Upgrading of biogas



Gasification



Biomass pyrolysis



Power-to-gas



Biorefining

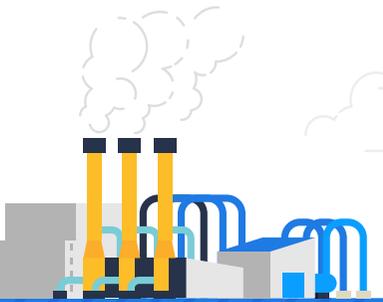
End uses & benefits

Renewable and low carbon gases are a cost-effective solution to the decarbonisation of **heating** off and on the grid*

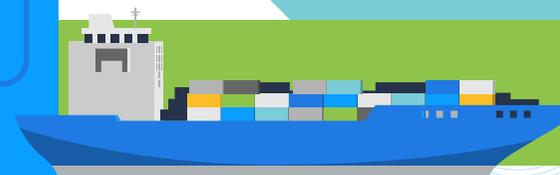


Renewable gases can keep and create **jobs** in Europe

Biogas production and conversion drives decarbonisation and economic development of the **agricultural sector**, reducing methane emissions and boosting the transition towards a more **circular economy**



Switching to renewable gases accelerates **energy system integration** and contributes to the decarbonisation of **industry** and **electricity production**



Renewable gases are a strong accelerator of carbon neutral **mobility**

Policy recommendations

The gas industry will contribute to the objectives of the European Green Deal by supporting the development of innovative gas decarbonisation solutions. To make this vision real, we call on EU policymakers to:

- **Acknowledge** the potential of all types of renewable and low carbon gases in the transition to carbon neutrality.
- **Support** their use in the upcoming revision of the Renewable Energy Directive (RED II).
- **Introduce** a Well-to-Wheel method in the upcoming CO₂ emissions standards for cars and vans to account biomethane and bioLPG decarbonisation benefits in mobility.
- **Promote** funding R&D programmes to scale up the production and deployment of renewable and low-carbon gases.
- **Develop** a credible and robust Guarantees of Origins system to value lifecycle GHG intensity reduction of renewable and low-carbon gases

Did You Know?

Beyond renewable gases, low carbon gases are another solution to help achieve climate neutrality. To know more about their benefits [check here!](#)

*Climate objectives can be met more cost-effectively by using existing assets, limiting subsidy schemes, and leaving market fundamentals in place. Source: "European Carbon Neutrality: The Importance of Gas", DNV GL 2020

