- Renewable energies
- Biogas

Biogas
OVERVIEW AND CHALLENGES

Biogas refers to all gases produced via the biological or chemical conversion of biomass/biowaste.

Once the gas has been purified to meet regulatory requirements, biomethane can be injected into the natural gas networks or used as a fuel.

There are two principal methods of producing biogas. Their degree of maturity, and hence associated costs, differ significantly:

- the **methanization** of biomass, a technique widely deployed around the world,
- the gasification of lignocellulosic biomass, followed by the **methanation** of carbon monoxide by hydrogen, a technique currently at the pilot experimentation stage.

The economic competitiveness of biomethane with respect to natural gas is an ambitious challenge : so any technological, agronomic or industrial solution (project standardization in particular) making it possible to reduce the costs of producing biogas must be sought by the sector's different players.

A 2017 IRENA study highlights biogas production and treatment costs varying between €30 and €150/MWh, depending on inputs (energy crops, manure or waste) and installed capacities. By way of comparison, European gas prices have varied between €15 and €30/MWh since 2014. The Long-Term Energy program presented by the French Ministry for Ecological and Inclusive Transition in November 2018 sets as an objective a 10% share of biogas in gas consumption in France by 2030, provided costs fall.

Proposing eco-efficient biogas purification processes prior to reinjection into the network.

Our solutions Our networks Our strengths

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