



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](#)

---

## CONTACT



**Raphaël Huyghe**

Program manager

[raphael.huyghe@ifpen.fr](mailto:raphael.huyghe@ifpen.fr)

Biogas

Link to the web page :