



# Biogas and biomethane in Romania

*Production and regulatory framework*

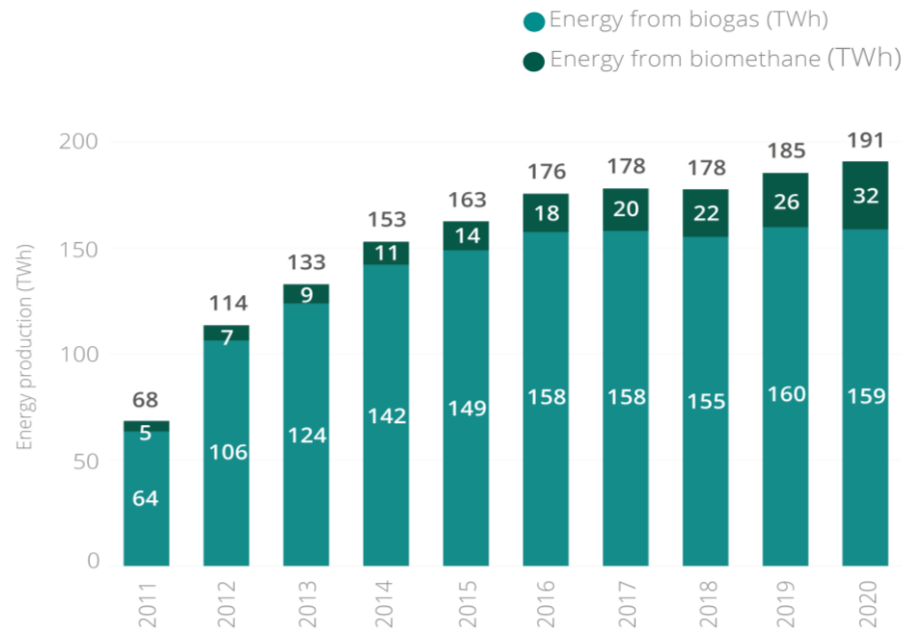
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# Biomethane is a growing renewable energy in the European Union, with substantial potential to reduce dependence on natural gas

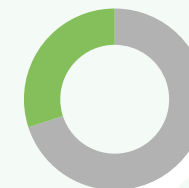
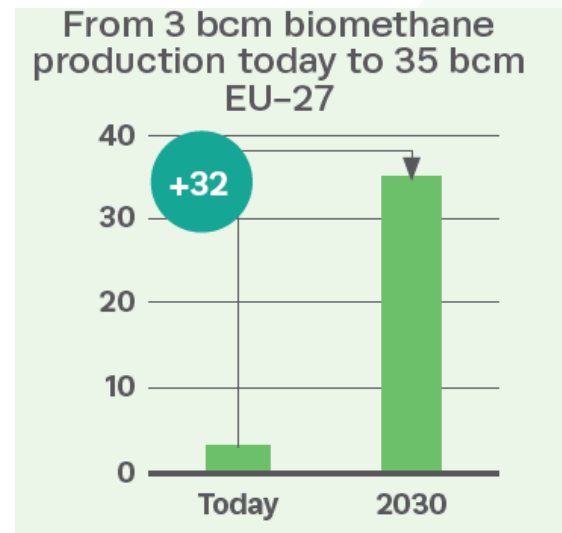
Biogas and biomethane combined are equivalent to 4.6% of the natural gas consumption of the EU



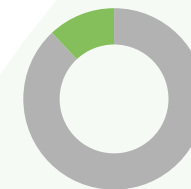
Scope: EU, EFTA, Ukraine and Serbia. Source: European Biogas Association

- Biogas and biomethane in 2020: **191 TWh** or **18.0 bcm** of energy
- They are already the 5<sup>th</sup> renewable energy (11%) produced in EU
- Increasing share of **biomethane (3 bcm in 2020)**
- **Germany, the United Kingdom and Italy** are the countries with the highest biogas + biomethane production.

The potential of biomethane production is strong enough to deliver 35 bcm in 2030 (REPowerEU’s proposed target)



20% of gas imports from Russia



Equivalent to 10% of today's natural gas demand

This can be achieved by utilizing **only sustainable feedstock:**

- Agricultural residues
- Livestock effluent
- Sequential and intermediary crops
- Food waste
- Industrial and municipal wastewater



# Romania's biogas market is still nascent

## Early stage of development of the biogas industry

Only 33 small biogas plants mostly based on agriculture

124 GWh biogas production (0.124 TWh) by the end of 2020

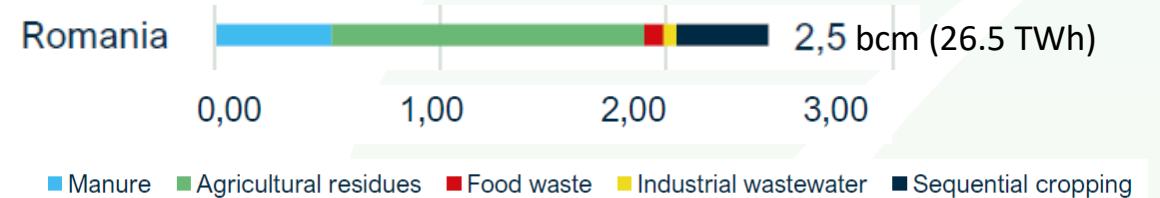
## No biomethane production

### ! Lack of supportive regulatory framework for biomethane production and injection

- Lack of financial incentives for developing biomethane projects and injecting biomethane into the natural gas grid
- Lack of legislative framework to support the injection of biomethane into the natural gas grid:
  - No secured right of biomethane producers to access the gas network in a non-discriminatory way
  - No injection costs sharing between the network operator and the biomethane producer

## Biomethane production potential can replace at least 20% of the country's natural gas consumption

- Natural gas demand in Romania is 129.33 TWh (2021). Biomethane can replace 20% (26.5 TWh) of it by 2030



Source: European Biogas Association

- **Long-term potential** of biogas and biomethane combined could substitute up to **35% of natural gas demand** (ranges from 50 to 70 TWh)