

Biogas in the renewable energy mix - enabling a faster decarbonisation of Europe

European Biogas Conference
2nd September 2020

About EREF

EREF is the federation of national renewable energy associations from across the EU Member States, representing all renewable energy technologies. Striving to create, maintain and develop a stable and reliable framework for renewable energy producers.

The association strongly advocates for a full decarbonisation of the European energy system through a transformation of the system to one based on decentralized production from renewable sources.

The need for biogas in the energy mix

- One of the key pillars of the EU energy strategy has been to focus on the promotion of renewable energy sources
- In order to reach the 2030, 2040 and 2050 EU targets, RE deployment must be considerably increased
- A successful energy transition towards full net-zero emissions must make use of all renewable sources available
- Made from organic matter, biogas is a 100% renewable energy allowing a significant reduction in greenhouse gas emissions
- Biomethane represents one of the most flexible renewable energy carriers in both its production and use and can be produced all year round

Current status of biogas in the EU

- In 2018, renewable energy represented 18.9 % of energy consumed in the EU, on a path to the 2020 target of 20 %
- EU is leading in biogas production around the world
- Renewable electricity produced from biogas amounts to roughly 6% of the total renewable electricity generation in Europe
- Germany is currently leading in the production of biogas with more than half the total number of installations currently in operation across the EU
- In Denmark, biomethane now represents about 10% of what's injected in the natural gas grid
- 2018, an Italian decree was published to encourage biomethane production and boost the sector

The future of biogas in EU

- Bioenergy is expected to maintain its major role as a source renewable energy in the EU, despite the increased contribution of other renewables
- Some examples around the EU:
- In France, the Law on Energy Transition for Green Growth sets the target of bringing the share of renewable gas to 10% of gas consumption by 2030-opening thus also for more biogas injection
- The World Biogas Association has estimated that by 2030, the biogas sector in the Netherlands has the potential to produce 3.7 billion m³ of biogas and 2.2 billion m³ of biomethane respectively

Renewable Energy Directive II (RED II)

- EU legislation will act as a crucial stepping stone towards large-scale take up of renewable gas in the next decade
- Renewable Energy Directive II (RED II) published in 2018 and set to be transposed into national law by Member States by 2021
- Key components concerning biogas:
 - Sets out a sub-target of 3.5% for advanced biofuels and biogas
 - Facilitate the access of biomethane to the natural gas grid,
 - Extend guarantees of origin from renewable electricity to renewable gas,
 - Make the cross-border trade of biomethane easier

Biogas - Circular energy system

- The development of biomethane sustains an entire ecosystem of players, stimulating the local economy and - in respecting highest sustainability standards- preserving nature
 - According to a study by Delft University (NL), biogas from manure, green manure crops and waste streams like domestic green waste and verge cuttings score high to very high on sustainability aspects. Biogas from feedstocks that can also be used as fodder score moderately well (fodder maize) to low (beet pulp).
(<https://www.cedelft.eu/en/publications/1528/how-sustainable-is-biogas>)
- Considerable economic and environmental benefits for communities producing biogas, for example:
 - Production of digestates from biomethane production from agricultural waste and residues
 - These digestates can act as an alternative to chemical fertilisers
 - This has the knock on effect of lowering carbon emissions
- With very little waste of resources, biogas embodies sustainable green development, vital for future decarbonisation

Conclusions

- Biogas compliments the overall promotion of renewable energies, with its flexibility and reliability
- Biogas must play a major role in the energy sector over the coming years in order to achieve the decarbonisation target for 2050
- Upcoming EU legislation must recognise the important role to be played by sustainable biogas towards GHGs reduction and circular economy
- Renewable energies must be enforced in all energy sectors, including gas
- This can be achieved by setting ambitious targets over the coming years for renewable energies, and more specifically for biogas
- The true potential of this energy source has yet to be fully exploited

Thank you for your attention!

Contacts:

Dörte Fouquet, Director
doerte.fouquet@eref-europe.org
+32 2 204 44 10

Dirk Hendricks, Secretary General
dirk.hendricks@eref-europe.org
+32 2 204 44 20

Twitter: @EREFEU
Linkedin: EREF

Address:
Avenue Marnix 28, 1000 Brussels, Belgium