Price competitiveness of renewable gases

32nd MEETING OF THE EUROPEAN GAS REGULATORY FORUM

5-6 June 2019

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Positive Externalities

Everyone benefits!

State 33-35€/MWh
Reduced GHG emissions
Reduced pollution of ground water
Job creation

Energy consumers 20€ /MWh
Dispatchable, non-variable energy – low grid adaptation costs

Biowaste producers 0-16€/MWh
Reduced cost compared to conventional treatment or disposal

Farmers 3-4€/MWh
Reduced use of mineral fertilisers

Source: ENEA Consulting, Revue des externalités positives de la filière biométhane, 2019

But we must also value:

- Soil health
- Biodiversity
- Self sufficiency
- Storability
- Flexibility

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Negative Carbon Factory

The 500m³/hr biomethane plant

Low carbon energy
- 6,000t CO_2 eq. saved

Pure CO_2 stream
- Ready to sequester
- 8,000t CO_2 p.a.

If Waste feedstocks
- Avoided emissions depending on alternate "disposal"
- Fertiliser displacement
- Digestate = Carbon

If Agri feedstocks
- Crop rotation improving food crop yields – reducing "cides"
- Fertiliser displacement
- Digestate = Carbon

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Key messages and conclusions

- Biomethane is here today
- Gas infrastructure exists – use it !
- Renewable gases can and will reduce emissions in heating and transport
- Significant potential:
  - Gas for Climate: 272 bcm renewable and low carbon gases by 2050 – optimized gas scenario brings along total annual savings of € 217b!
  - Novel technologies such as gasification and power-to gas will scale by 2030
- Moreover:
  - Renewable gases are more than energy – they provide multiple societal benefits.
  - Positive Externalities must be taken into account when new policies are drafted
  - Biogas & digestate must be integrated in sustainable farming measures across the EU

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Biogas 2.0

Thank you for listening

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