

IEA Bioenergy - Task 37 "Energy from Biogas"

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Country Report Norway

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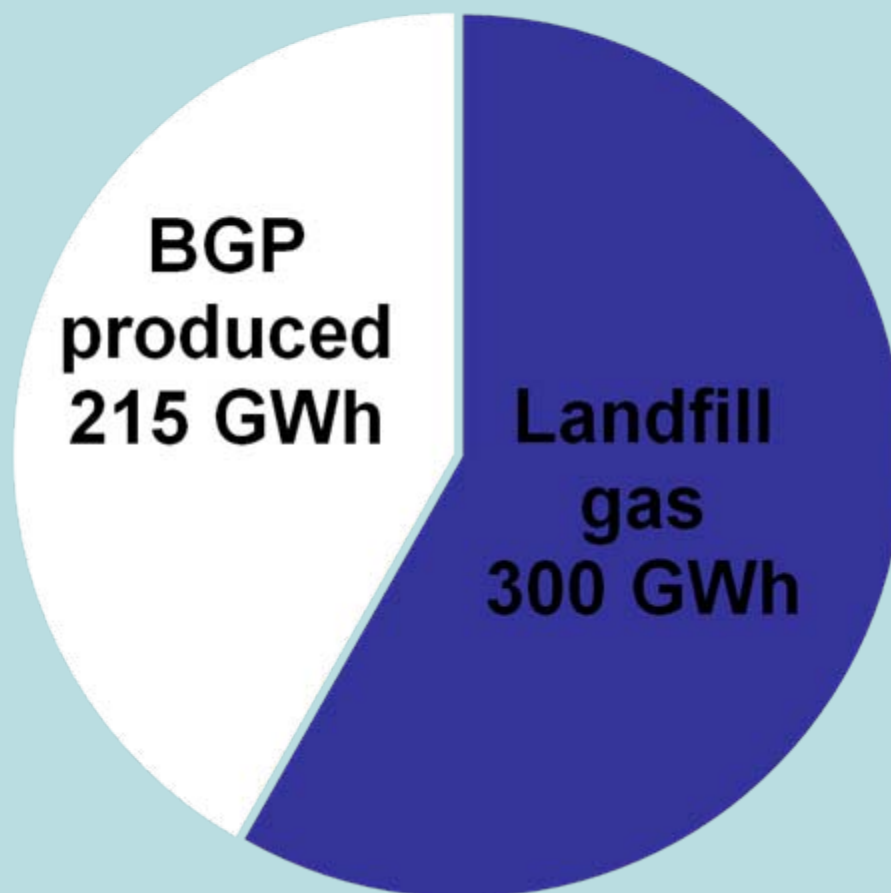
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Framework and tools for stimulating the development of biogas in Norway

The Norwegian Government aims that 30% of livestock manure in combination with 600 000 tons of food waste to be treated in biogas plants within 2020

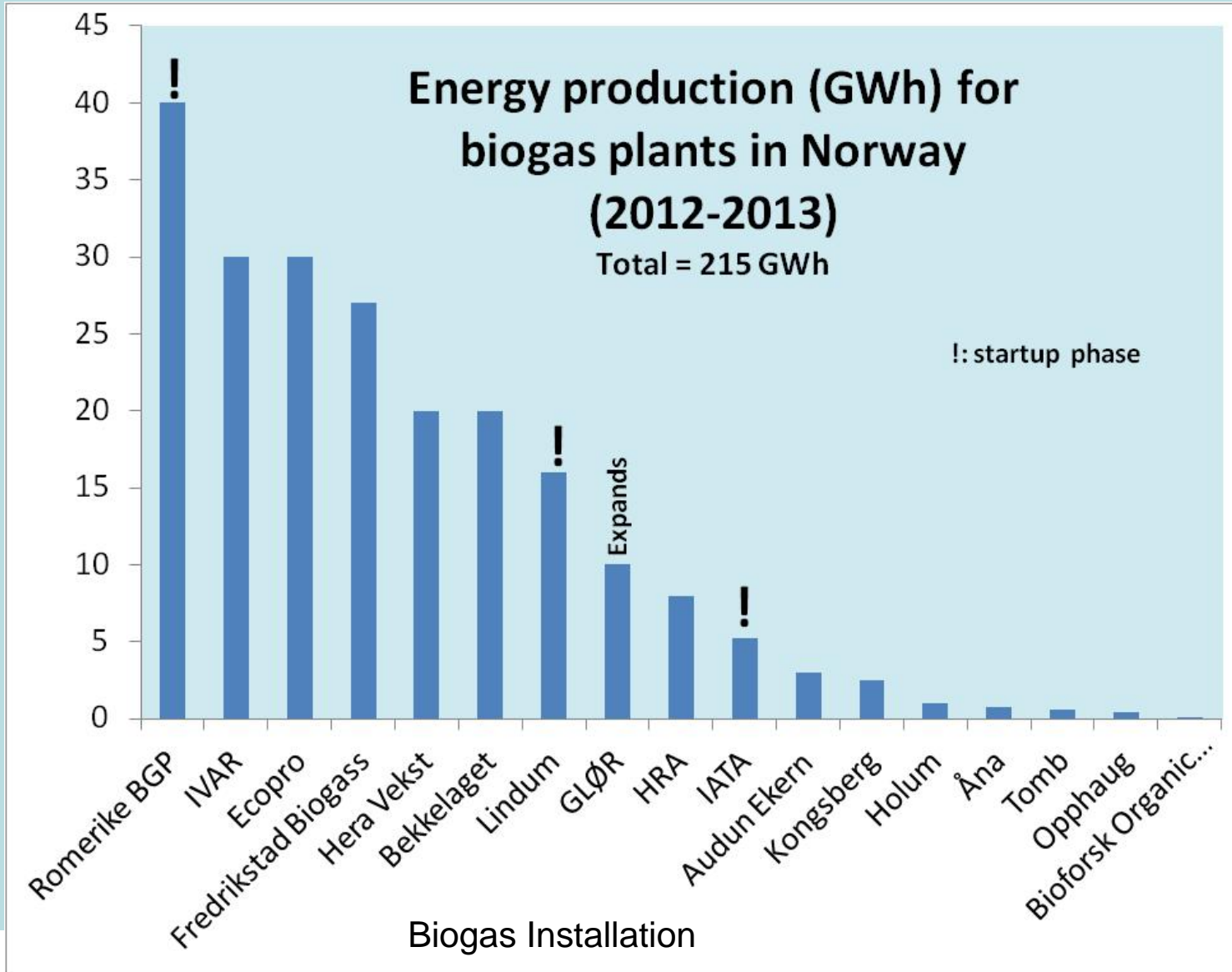
In Report to Parliament. No. 39 (2008 -2009), Climate change - part of agriculture solution), it is stated that biogas is the single measure that holds the greatest potential to reduce emissions of greenhouse gases in the agricultural sector

Biogas production 2012 - estimation



Modified after: Potensialstudie for biogass i Norge, 2008. Raadal, H.L, Schakenda, V. & Morken, J. Report, 55 p. ISSN: 0803-6659

Biogas production in Norway



Initiatives

Green certificates introduced in 2012

- A joint certificate marked between Norway and Sweden
- Producers of green energy
 - Awarded with a green certificate corresponding to the amount of green energy produced
- Electricity suppliers are obliged to by a certain number of green certificates (approx 30€/MWh)
- Goal: A demand for green energy is created!

Initiatives

Manure into BGP

- Farmers receive 15 NOK/m³ manure
 - One cow = 9 m³/yr = 135 NOK = 18 Euro
 - Price of fuel: 13-15 NOK/L diesel

**Transport distance to BGP of more than 40 km
= not affordable**

Biogas utilization - the future

- Large biogas plants are planning to upgrade the biogas to fuel
 - EL-production is still dominating
 - Large biogas plants uses landfill gas for energy, selling biogas produced as fuel
- Small biogas plants utilizes the biogas on farms
- Digestate
 - a valuable fertilizer in agricultural and horticultural production
 - 10.000 m³ was used in 2009
 - New regulation on the use in progress (2013)