Country report Finland

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News in brief

- Proposed policy for biogas feed-in tariff will be published in June 2009
  - Tariff system in force in 2010
- Changes in legislation/instructions on digestate utilisation
  - Biogas plant products better considered, previously based on compost types products
- Several centralised and farm-scale plans under planning or construction
- Investment grants in the order of 15-40% available for construction of biogas plants
- Ministry of Agriculture and Forestry allocated 8 M€ for investment grants in 2008
  -> Applications for 66 M€ (39 applications, total investment 122 M€)
  -> 15 projects were granted (total investment 22 M€)
Biogas plants in Finland 2007

• Total 58 biogas production plants 2007 (including landfills)
• Landfills are currently the largest biogas producer in Finland

- Landfill; 33
- Sewage domestic; 15
- Sewage industrial; 3
- Co-digestion; 3
- Farm; 8
Biogas production in Finland 2007

- Total biogas production 138.82 million m$^3$ (614 GWh) in 2007
- Co-digestion plants increased their biogas production 10%, landfills increased 6% from previous year (2006)
Biogas utilization in Finland

- Biogas utilization was 69% of total production in 2007
- Electricity generation increased 9% from previous year (2006)
- 185 GWh of energy was wasted due to torching of biogas
Traffic biogas utilization

- About 500 gas vehicles total

- Currently 11 public natural gas fuelling stations in southern Finland (2008), more opening in near future

- National gas grid operator (Gasum Oy) plans to build 30 public natural gas fuelling stations by 2010,
  - some could be build outside the gas grid using liquefied natural gas transported by tanker trucks

- Biomethane injection into the grid possible

Farm-scale biogas fuelling station outside the natural gas grid near Jyväskylä

- About 15 biogas vehicles fuelling (one delivery car and taxi) by 2008
- Farm’s new biogas plant enables biomethane for ca 200 cars

Gas grid. Source high methane content gas from Russia
R&D

- Demonstration of various types of biogas concepts
- Processing digestates to more valuable and safe products
- New feedstocks, e.g. from pulp and paper & biorefinery industries
- Crop cultivation methods and less demanding crops
- Overall economics and environmental impacts in practice
Centralized biogas plants
Centralised and farm scale digesters
Possible flow sheets for centralised biogas plants

Feed tank, hygienisation

Biogas and post methanisation

CHP

Nitrogen recovery

Fertiliser production