Country Report
Finland

IEA Bioenergy Task 37
Jukka Rintala, University Of Jyväskylä
Eeli Mykkänen, Jyväskylä Innovation Ltd.
Summary of AD plants

Number of AD Plants and biogas production, year 2008:

- Agriculture 8 plants, 2 GWh
- Industrial 5 plants, 8 GWh
- Sewage sludge 15 plants, 129 GWh
- Municipal (biowaste) 3 plants, 23 GWh
- Landfill 33 plants, 475 GWh
Biogas Plant Inventory

Summary of Up-grading Plants:

• One farm scale biogas upgrading unit in operation in Laukaa (outside natural gas grid), 20-30 vehicles are using this station, capacity 400 m³ methane /day

• Construction of the first upgrading plant to inject methane into grid announced, expected to start operation in 2011

Other info
• 16 public gas fuelling stations using natural gas
• Ca. 900 gas vehicles

Picture: Metener Ltd.
Gas fuelling stations in Finland

• 1 biomethane fuelling station in Central Finland (Laukaa)
• 16 natural gas fuelling stations in Southern Finland

Pictures: Eeli Mykkänen
Map: Gasum Ltd.
Biogas – Power and heat production
1994-2008

Biogas Plant Inventory

Summary of Gas Production Data:

- Raw biogas production 635 GWh
- Electricity production 57 GWh
- Amount of heat recovered 406 GWh
- Up-graded to biomethane 410 MWh
  - amount used as vehicle fuel
  - Other mechanical 1.9 GWh
- Flaired 173 GWh
Economic Support Data

- Feed in tariff expected, not yet confirmed: expected 85 €/MWh$_e$ + 50 €/MWh$_e$ heat bonus, if 50 % total efficiency is obtained.

- Biogas as vehicle fuel has been free of fuel taxes. However, new tax reform may add taxes also for biomethane
Biogas - Research Activities

- Processing digestate to value added products
- Developing sustainable crop cultivation for biogas production
- Developing use of biogas as vehicle fuel

Pictures: Eeli Mykkänen
GasHighWay - Promoting the Uptake of Gaseous Vehicle Fuels, Biogas and Natural Gas, in Europe

The project is coordinated by Jyväskylä Innovation Ltd. (Finland)

Aim of the Project:
- To increase the use of environmentally-benign gaseous vehicle fuels in the transportation sector
- To promote the production and upgrading of biogas for vehicle fuel
- To facilitate the increase of the use of upgraded biogas in the natural gas grid

The long-term objective of the project
- to promote the realisation of a network of filling stations for biogas and natural gas from Sweden and Finland in the North to Italy in the South

- Countries include: Finland, Sweden, Estonia, Latvia, Lithuania, Poland, Germany, Czech Republic, Austria and Italy
- Funded from the IEE – Intelligent Energy for Europe-programme 2009-2012, 1.8 M€
Thank you