Country report - Sweden - April 2006
Institutional framework

- Compulsary to provide biofuels at filling stations
- CO$_2$-tax is removed July 2007
- 200 M€ for new Climate investment program
- 11,3 TWh green electricity in 2005, 76% from biofuels, system prolonged until 2030
- Agreement on certification system for GHG-emissions from biogas plants
- Testing for mad cow disease under development
- 87% of all biofuels was ethanol, 6% biogas and NG
- 15% of all new cars are Eco-cars
- Reduced tax on biogas cars in October 2006 (30%)
Government policy on Environmental Targets - April 2006

- 25% of all new governmental cars should be Eco friendly 2005. 35% in 2006. 75% of all new cars.
- National action plan for adaption of the public tendering process (more environmentally oriented)
- Biogas in transport sector can contribute by 10% to the national GHG targets in 2010
- Governmental commission for reduction of oil dependancy
- 4% reduction of GHG before 2010 within reach
R & D

- Counter measures to biological growth in upgrading plants
- SNG-production from solid biomass
- Analysis of methane emissions from post treatment of digestate
- Study on new upgrading technologies
- Optimisation of gas production from sewage sludge
- Internal methane enrichment
- Ecological lung for upgrading of biogas
- System studies
Other

• Nordic biogas conference in Helsinki, 150 participants
• Visit by BINGO-project in January
2006

Under construction: Boden, Skellefteå och Östersund
Development of gas vehicle market

NGV's in Sweden
(Source: Swedish Gas Association)

Year

Number


Tunga
Bussar
Personbilar
Totalt
Development of market for CNG/CBG

Gas to NGV’s in Sweden
(Source: Swedish Gas Association)

Years: 1995 to 2005
KNm3: 0 to 40,000

- Biogas
- Naturgas
- Totalt
Selected news from SE biogas plants

• Kristianstad - New upgrading plant 2005 - 1,8 M€ - 600 m³/h, mobile filling station, farmscale biogas/upgrading, covered manure pits
• Gothenburg - new upgrading plant 2005 - 1400 m³/h - CIRMAC - injection into MP grid - ready dec 2006
• E.ON - 20% biogas in fuel to NGV’s, 2 Mm³ to Malmö gasgrid in 2007, 50% biogas in vehicle fuel 2010, production plant in Bjuv under construction (25 GWh/year), studies about biogas production in closed sugar factory
• Trollhättan - new plant for plants studied
Selected news from SE biogas plants

- Helsingborg - Expanded capacity - 60 000 tpy, 5 Mm3/year, 61 buses on biogas
- Laholm - upgrading plant reconstructed (water scrubber)
- Skellefteå - new upgrading plant (sewage)
- Norrköping - new biogas plant with raw material from ethanol plant
- Jönköping - co-digestion of OFMSW planned
- Östersund - new upgrading plant
- Stockholm - 20 new garbage trucks on biogas, large scale biogas production (100 GWh/ year) investigated by JTI
Relevant Q’s

- Transport costs - documentation of transport
- Possibilities to spread digestate
- European certification system for digestate
- Technologies for spreading of wet digestate
- Pretreatment of MSW
- Characterisation - digestion properties
- Hygienisation – alternative technologies
- Methods for desinfection of transport vehicles
- Data on utilisation of digestate
- N2O from waste treatment