



-World class Cutting-edge Biogas technology

Biogas seminar Trondheim

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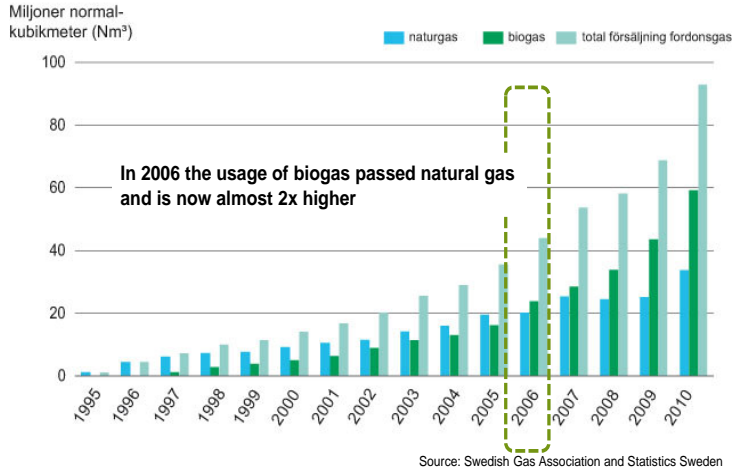
Scandinavian Biogas in brief

- Scandinavian Biogas Fuels (SBF) was founded in 2005.
- The business idea of SBF is to ***operate and optimize industrial scale biogas plants***.
- Many years of R&D resulting in a ***large portfolio of possible substrates***
- ***Cutting edge*** process capabilities
- The company is ***well positioned*** regarding ***next generation of substrates, energy crops and forest residue/Biomass***
- ***Nordics/Sweden is the main market***
- ***High quality project pipeline*** in business plan for growth
- Current production **16 Mm³** upgraded biogas
- Target production **36 Mm³** in 2016

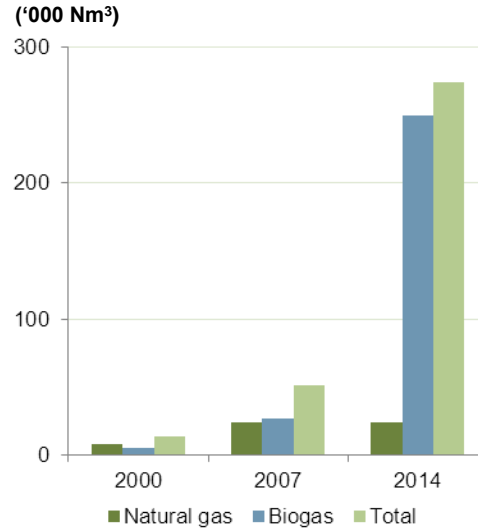


Sweden: Biogas as vehicle fuel is expanding

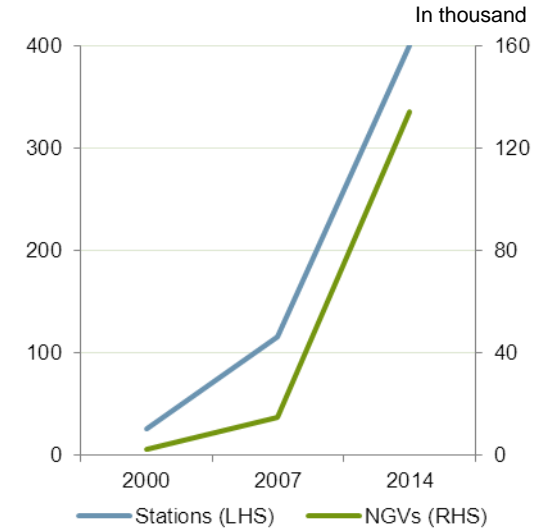
Volume of vehicle gas sold in Sweden



Supply of gas for vehicles



Number of stations and NGVs

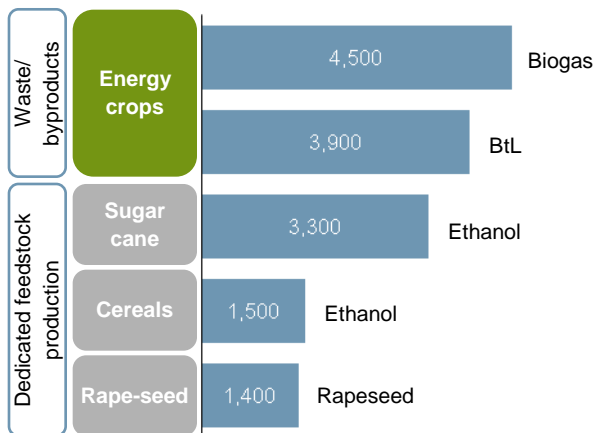


Why Biogas?

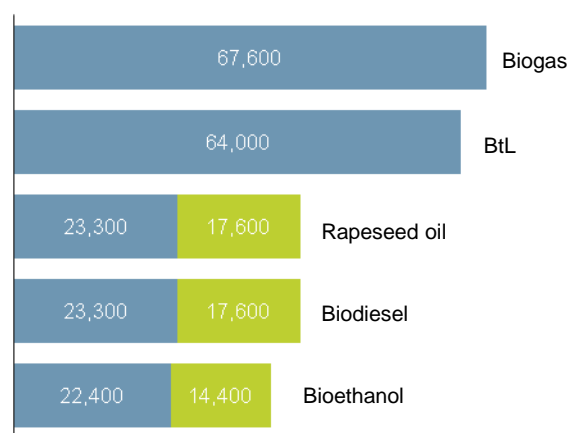
- Solving a global waste problem and producing energy at the same time
- A very limited environmental footprint , and in some cases even a positive footprint
- Increasing interest from bus companies and public due to environmental reasons, Taxi and commercial vehicles in fixed routes are next group of customers
- Biogas superior to other biofuels regarding Carbon footprint



Litres of oil equivalent per hectare of input

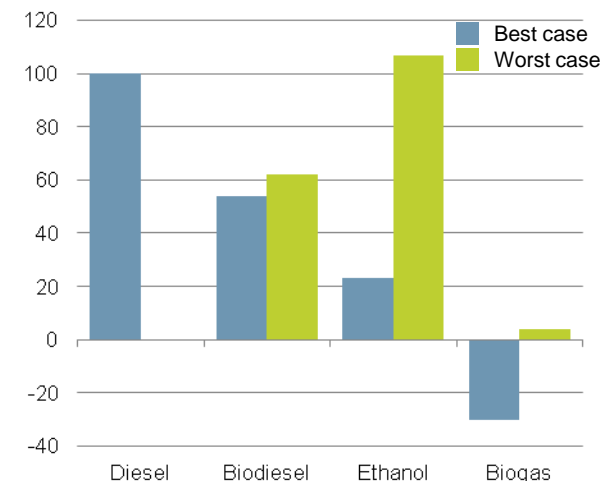


Land efficiency

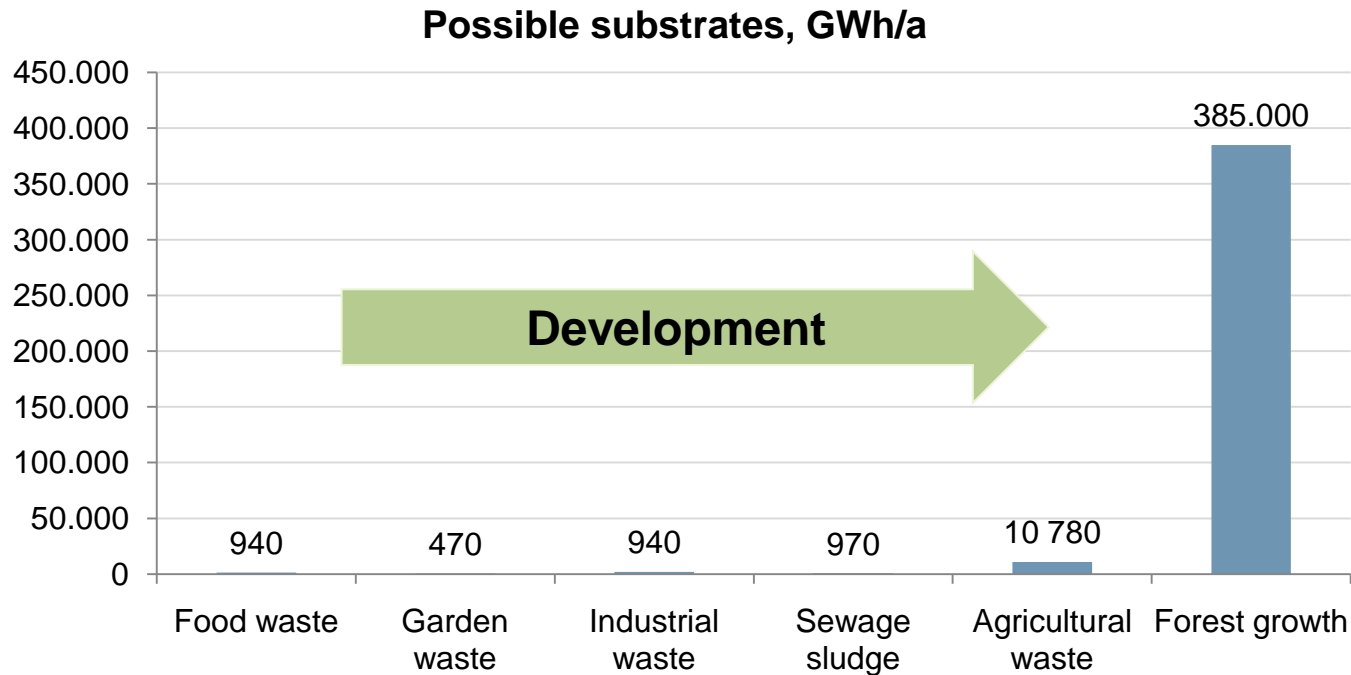


■ Km per hectare
■ Additional km if biogas produced from waste

Carbon footprint (Index, Diesel = 100)



Next major step in biogas production



- Forest residue/biomass expected to be the next main substrate
- Concept for profitability is to combine biogas production with district heating/energy production – reasonable capex and high yield
- Scandinavian Biogas and Biokraft have been testing and developing this for some years now together with preferred subcontractors

Experiences from Swedish market

- **Biofuels need political support**
 - Biogas production still more expensive than fossil fuels
 - Private companies will not choose biogas if fossil cheaper alternatives are available.
 - A political statement concerning CO2 footprint is necessary for the development of all types of biofuels

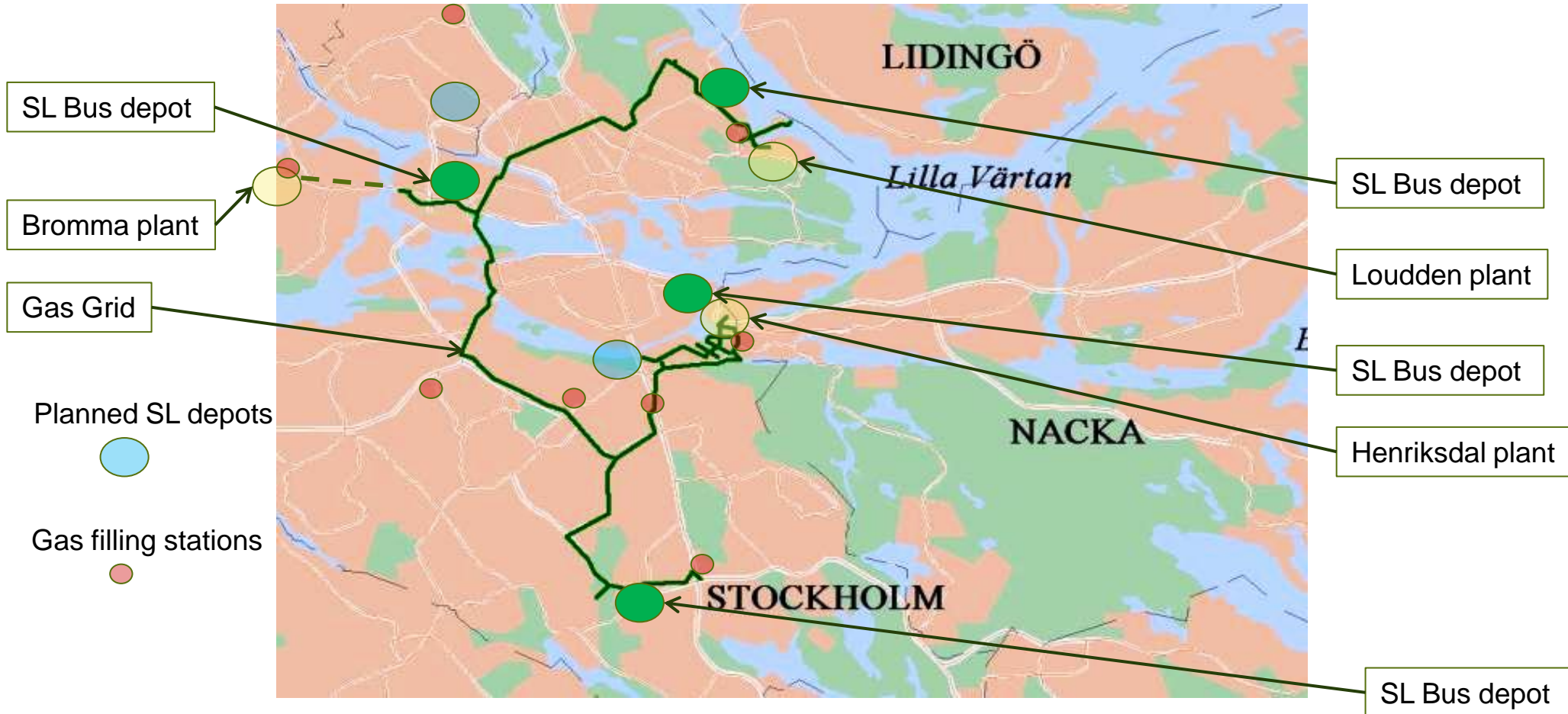
In Sweden: carbon dioxide tax exception, toll exceptions and tax exception for company cars

- **Market in Sweden**
 - Nature gas is not a commodity
 - No listed gas price or public marketplace
 - No functional international/EU rules for trading
 - Major grid only on the west coast
- **Customers and Creditors strive towards long term contracts**
 - Public transportation need to secure biofuel supply over at least two tender periods.
 - Banks and investors want secured cash streams

Scandinavian Biogas main customer Stockholms Lokaltrafik set standard in tender terms.



Scandinavian Biogas position in regional market



The SBF plants are strategically positioned with access to the Stockholm Gas grid connecting us to a number of potential customers

Important keys for Scandinavian Biogas

- To secure a proper development, decide on a cross-political Biogas Strategy
- Design long-term, simple and understandable subsidies related to carbon dioxide footprint
- Use subsidies on macro level instead of in details. Market will adapt and solid business will grow.
- Public transportation should take the lead in infrastructure development
- Political statements are very important.