City of Gothenburg

Increased production of biogas

Gothenburg has a tradition of biogas development and plans to continue on that path. Biogas production, and deployment in the transport sector, is in the short and medium term, the most effective way of reducing fossil fuel dependency in that sector. The Climate Programme for Gothenburg contains strategies and targets set to 2030 (see other action). One of the targets is that at least 1,200 GWh of biogas will be produced in 2030 and one of the strategies is to lead the development of biogas. Therefore, Gothenburg will continue to operate biogas projects and be a driving force for development of biogas technology. A great advantage of biogas is that it is based primarily on unused renewable resources and that the existing natural gas grid can be used for distribution.

The target to produce 1,200 GWh in 2030 represents a significant increase compared to the current biogas production. Today, most of the biogas is produced from anaerobic digestion of sewage sludge and food waste. To reach the target it is crucial that the investment in the GoBiGas project becomes a reality (see other action). In the project biogas will be produced by gasification of forestry waste and the plant is being built in two phases. In March 2014 the first phase was inaugurated, which means that the world's first gasification plant for biogas production is started with a production of about 160 GWh per year. Fully developed GoBiGas is expected to deliver 800 - 1000 GWh, which corresponds to approximately 70-80 percent of the target.

The strategy involves increased investments on local and regional production of biogas. The great potentials to more biogas production can be found in agriculture, industry and forest. In Gothenburg, we have to increase production from food waste and other waste products and complement the investment in the GoBiGas project. The development is dependent on collaboration with many different actors and the municipal company Göteborg Energi operates biogas projects outside the municipality.

Gothenburg invested early in the biogas field, in 2007 a plant started for upgrading of biogas at Gasendal where sewage sludge is digested. We have also invested in production of liquified biogas (one of the first in the world), developed gas vehicles and began at an early stage to build an infrastructure of gas filling stations for vehicles.

Biogas has an important role to replace fossil fuels for vehicles and therefore all municipal vehicles running on gas now use biogas. In shipping, the use of gas will increase, thanks to plans for an LNG terminal. The terminal can replace more dirty fuels that are used in shipping today. Initially, the terminal will offer liquefied natural gas, but in the future, but biogas can replace natural gas in the future.

The municipal company Göteborg Energi produces and distributes district heating, electricity and biogas. The municipality is also co-owner of companies responsible for pre-treatment of food waste for production of biogas and for production of biogas from sewage sludge. This gives the municipality great opportunity and a great responsibility to drive the development of more biogas.

More information:

About biogas on Göteborg Energi's webb page (in Swedish):
http://www.goteborgenergi.se/Privat/Projekt_och_etableringar/Fornyelsebar_energi/Biogas

The Climate Programme (in English):
http://goteborg.se/wps/wcm/connect/7ba2b573-9216-4bb9-8a1f-0915b40ce4b5/Climate+program+f%C3%B6r+Gothenburg.pdf?MOD=AJPERES