

Händelö Industrial Park

Aim: Develop district heating through a symbiotic, eco-cycle network



Stakeholders involved in the project

The Händelö Industrial Park is a symbiotic network between the energy company E.ON, bio fuel production companies, companies from the agriculture, forestry, and logistic sectors, recycling companies of various materials, and the Norrköping municipality. Together, they create a network that makes effective use of resource linkages and applications of clean technologies.

Financial streams for financing the project

In order for the symbiotic network to be established, markets for the various materials needed to be identified. The industrial park began with the opening of an ethanol plant on the island of Händelö. As the aim was to produce ethanol sustainably, a market for waste heat to be reused in the ethanol plant was established (transferred from the nearby Combined Heat and Power (CHP) plant). Stillage, a by-product of ethanol production, was used to make biogas and fertilizers. The municipality's goal to develop a market for biogas-powered transportation incentivised the creation of this market as well.



Technologies used in the project

The CHP plant lies at the heart of the complex, providing electricity, district heating, and other services to the residents of Norrköping. Within the symbiotic network, heat is delivered to the district heating network, electricity to the grid, and steam to the nearby ethanol production plant which produces pure ethanol and by-products that are used as biogas to heavy duty vehicles and alternative fertilisers for local agricultural activities. In turn, the municipality of Norrköping provides household waste to be used as waste in the CHP plant.

Project achievements

Due to the industrial symbiosis, there has been a reduction of 120,000 tonnes of CO₂ per year. The success of the project is mainly due to the collaboration between companies in the industrial park and the municipality.



To learn more:

<http://www.industriellekologi.se/symbiosis/norrkoping.html>

<https://smartcitysweden.com/best-practice/186/industrial-symbiosis-at-handelo-eco-industrial-park/>

<https://smart-beejs.eu/>