



City of Lund

District heating

District heating is keeping 87% of the buildings in Lund warm. The district heating in Lund is produced in a combined heat and power plant using biofuel with 100 % efficiency due to heat recovery from flue gases, residual heat from a sugar plant, the research facility Max IV and soon ESS. Geothermal energy is used in Lund municipality to produce district heating as well as several other renewable energy sources.

In 2014 the district heating in Lund consisted of 84% renewable energy and Krafringen, where Lund municipality is the majority owner, has targeted that the district heating will consist of 98% renewable energy by 2020.

Due to the opening of the cogeneration power plant in Örtofta (Örtoftaverket) in 2014 the use of natural gas has decreased in Lund. The municipality-owned energy company (Krafringen) in Lund has closed their natural gas boiler, and it will probably never be used again.



A specific example of how the connection of district heating grid between Lund and Eslöv has led to increased use of renewable fuels and lost-heat. This linkage between Lund and Eslöv has opened the possibility for connection of the heat from the combustion of straw and wood chips at estates in Svennstorp and Ellinge. The linkage has also enabled the use of residual heat from the sugar mill in Örtofta during the "*Betkampanjen*" - which according to Lunds Energi led to reducing of carbon dioxide emissions by 6,000 tons / year.

Another form of cooperation is when Kraftringen gets together with other energy utilities on common projects. For example, on May 6th, 2013, a contract was signed for a unique cooperation between Kraftringen, Landskrona Energi and Öresundskraft. The Lund-Lomma-Eslöv district heating network will be connected to the Helsingborg-Landskrona network via a 29 km long line between Örtofta and Landskrona. This will be ready by autumn 2015.

Linking our district heating networks with Landskrona and Helsingborg has many advantages. These include an increase in the reliability of supply for our customers, because having more production plants in the same grid makes us less sensitive to downtimes. Having more production plants also brings financial and environmental gains. For example, if fuel prices rise at a certain plant during a certain period, we can switch production to other plants that are not affected, keeping costs down. For a year with normal weather, we calculate total savings of SEK 26 million in reduced heating production costs.

By taking advantage of the different characteristics of the combined heat and power plants, we will also be able to reduce carbon emissions. This is an important environmental gain for the entire region.



Örtoftaverket

Örtoftaverket is a cogeneration power plant, one of the largest in Sweden, that produces both heat and electricity and that is fueled with biofuels. The boiler is fired with forest material, recycled wood and peat. For the most part, it's waste from the paper and forest industry.

Örtoftaverket has a great impact on the greenhouse gas emissions from Lund municipality. Örtoftaverket decreases the annual emissions by approximately 40,000 tons of CO₂ from opening in 2014. Örtoftaverket replaces several older facilities; this has led to an increase in the share of renewable fuels in Lund municipality-owned energy company (Kraftringen).

Today the cogeneration power plant produces heat (500 GWh) to an equivalent of 25 000 houses in Lund, Eslöv and Lomma. In addition to this it produces electricity (220 GWh) equivalent to the total need of Eslöv municipality. Since the facility is fueled by regional and local biofuels (forest material, recycled wood and peat) it gives both energy, mitigation of climate change and jobs within forestry.

An important aim with Örtoftaverket is to streamline and modernize the district heating production in the municipalities of Lund, Eslöv and Lomma. Furthermore, the district heating in Lund can consist entirely of renewable and recovered heat by the year 2020 via Örtoftaverket and the residual heat from the research facilities MAX IV and ESS.