Hjallerup district heating

Denmark

2016

Type : **Project**
Size : **Regional**
Area : **Residential**

Biomass, CHP, Energy storage, Heating, Solar

Environmental benefit

District heating to 1982 consumers

Discover this use case online

The Hjallerup district heating network delivers heating to 1982 consumers in the towns of Hjallerup and Klokkerholm. Originally 2 CHP units produced all heat necessary. Nowadays, also a solar system, storage tank and biomass plant contribute to the delivery of more sustainable heat to the two towns.

The solar district heating plant and the new tank storage under establishment in 2015 (Source: https://www.coolheating.eu/images/downloads/D2.1_Best_Practice.

Hjallerup District Heating was established on a General Assembly in May 1963 and the plant commenced operation shortly after. The plant was rebuilt in 1993, where two new engines (CHP units) were installed. At the same time, the entire plant switched to natural gas for fuel. Previously different types of oil incl. waste oil for a period had been used.

The plant was again in 2012 completely renovated where the old engines was replaced by two new Jenbacher Type JMS motors 620, each having a total thermal capacity 4.4 MW and new flue gas exchangers for cleaning flue gases.

The investments also comprised a new electrical boiler providing 6 MW with the purpose of exploiting low electricity prices for production of heat. Besides the engines, the plant also consists of a natural gas boiler, providing 9.3 MW heat.

In 2015 Hjallerup District Heating merged with a smaller district heating plant a few kilometers to the north of the town; Klokkerholm District Heating. The merger took place on June 1, 2015. The two district heating grids are now connected via a transmission line. The equipment at the Klokkerholm site is worn down, meaning that the heat production takes place in Hjallerup and the heat is transported via the transmission pipe to Klokkerholm to cover the heat demand at that site.

The merger resulted in a lower heat sales price in Klokkerholm, which now has the same heat prices as Hjallerup.

Hjallerup District heating is now well advanced in the construction of new solar systems of 21,500 m^2 and storage tank of 3,500 m^3 together with a biomass boiler. The new production facilities are expected to be in operation before the end of 2016.

Source: Information on this page is retrieved from CoolHeating.

https://www.coolheating.eu/images/downloads/D2.1_Best_Practice.

More info

Information about the biomass plant: https://www.linka.dk/en/references/district-heating/hjallerup-fjernvarme/

R-ACES has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 892429