

# District heating company expands their existing biomass-based production



**YEAR:** 2022

**MODEL:** 2 X H-1800 (AW)

**APPLICATION:** Air-to-water heat pump

**CAPACITY (HEAT):** 3.5 MW (0°C ambient, 35/70°C hot water)

**COP:** 2.96

**DEFROST METHOD:** Glycol



## THE CASE

The district heating company in Sdr. Felding, Denmark, has expanded its existing biomass-based production facilities with the integration of a large heat pump, a sizable buffer tank and a 10 MW electrical boiler. This visionary installation exemplifies the future of district heating, which will be emission-free, and the installation serves as an important player in balancing the electrical grid. Notably, it has the capability of absorbing large quantities of green electricity during periods of abundance, and then utilising the stored energy from the tank during times when the electricity supply is lower than the demand.

## THE HEAT PUMP

Fenagy has provided two H-1800 air-sourced heat pumps, including 12 flatbed evaporators, and the installation is executed by Krebs A/S. The heat pumps are equipped with Fenagy's latest ejector technology, FenEject, optimised evaporators, and controlled by a Fenagy PLC, which has algorithms for capacity control, evaporator control and defrost. The control system can start and stop the machines so fast that they are well-suited and relevant for electrical grid balancing.

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