PRESS RELEASE
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Bought-in energy reduced by almost half.

Following evaluation, municipal housing company AB Ängelholmshem chose Mitsubishi Electric's hot water heat pump CAHV P500 to reduce its energy costs for the Papegojan residential area in Ängelholm. The target was to reduce the amount of energy bought in, and this was achieved with a reduction of almost half.

The municipality-owned housing company Ängelholmshem changed the heating system in some of its properties from district heating to air/water heat pumps using district heating for peak demand and backup. The main reason for the switch was Ängelholmshem's objective of reducing the amount of energy it bought. Following evaluation, municipal housing company AB Ängelholmshem chose Mitsubishi Electric's hot water heat pump CAHV P500 to reduce its energy costs for the Papegojan residential area in Ängelholm. AB Ängelholmshem had already used this heat pump successfully. In total there are 25 outdoor units in operation around the municipality.

Installation

In total 15 heat pumps were installed to supply 40 multi-unit dwellings in central Ängelholm. Four of these are primarily run to produce hot water. The energy from the heat pumps would be distributed using the existing system of culverts, and the study showed that 15 air/water heat pumps would be the best solution. According to project design calculations a heat pump system combined with district heating would provide net energy savings of approximately 2,300 MWh annually. Using the current district heating/electricity tariffs, the

system would produce financial savings of approximately SEK 922,000 annually, and have an estimated repayment period of approximately 8.5 years.

Hot water heat pump
The heat pump installed was the CAHV P500 YA-HPB with the latest compressor technology, developed for the hard Scandinavian climate and its market. Using a gas/liquid injected compressor, together with an HIC circuit, the CAHV P500 can maintain an outgoing water temperature of 65°C at an ambient temperature of -20°C. The annual average efficiency for the heat pumps is between 2.8 and 3.0.

Heating substation
The heat pumps are connected into the heating substation via a system of culverts. All circulation pumps are frequency-controlled. The hot water accumulator volume is 3,000 litres; the rest is taken directly from the heat pumps. The installation was commissioned and at the same time the thermostat housings/valves were replaced. The flow was adjusted in all of the radiators in the area and the heating substation was renovated.

Conclusion
Ängelholmshem's main objective with the investment in heat pumps was to fulfil the Skåne initiative that stipulates a reduction in the amount of energy bought. The results have shown that Ängelholmshem's objective of reducing the amount of energy it bought has been achieved. This has been reduced to about half, which is what was initially estimated.

About AB Ängelholmshem
AB Ängelholmshem has residential buildings in Ängelholm, Munka, Ljungby, Hjärnarp, Skälderviken, Strövelstorp and Össjö, with about 4,000 tenants. AB Ängelholmshem was formed in 1950 and since then has been one of the largest housing companies in Ängelholm.

Mitsubishi Electric is a global leader in the research, manufacturing and marketing of electrical and electronic equipment used in communications, consumer electronics, industrial technology, energy and transportation. Its head office is located in Häggvik, north of Stockholm. The company also has offices in Gothenburg and Lund.

The company has operated in the Nordic region for more than 30 years and has 50 employees. Mitsubishi Electric Scandinavia is responsible for sales and the support of its own products in Sweden, Finland, Denmark and the Baltic states.