Community owned heat pump company

Nærvarmeværket a.m.b.a.

Figure 1 – Complete PVT energy system from Nærvarmeværket.

Summary of case

Nærvarmeværket is a community owed company which provides solutions for simplified heat as a service based on heat pumps for areas without district heating. The end-users can buy into a co-operative community which ensures a total-solution with installation, service and maintenance of the heat pump. A one-time fee for the installation cost is paid, together with a smaller annual payment, which ensures the cost of maintenance and a free change of the heat pump if it breaks down or needs to be changed. In this way, the community structure ensures cheap and reliable green heat for the end-user. Nærvarmeværket cooperate with several heat pump suppliers, e.g. Vailant, Pico Energy, DVI, and HS Tarm.

Results

Nærvarmeværket use digitalization as the heat pumps installed typically are connected, so they can be monitored remotely. This provides an unique opportunity for having cheaper service cost. As the heat pumps typically are installed in remote areas, e.g. on an island, where there is no access to a larger district heating network, the travel cost for a service technician can be saved if the technician knows the fault beforehand, and has the spare part available the first time the heat pump is being serviced.

FACTS ABOUT IOT CASE

Category: Heat as a service and predictive maintenance

Heat supply capacity: 3 to 249 kW

Heat source: Air/water and PVT panel.

Analysis method: Error analysis. Simple and cross platform.

Modelling requirements: n/a

Data required: Key operating data from the heat pump.

Data interface: LAN, WLAN, GSM (mobile network)

Transmission protocol: Modbus (open source)

Quality-of-Service: Real time

Technology Readiness Level: TRL 8-9.

Link to webpage:
https://www.xn--nrvarmevrket-6cbh.dk/

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