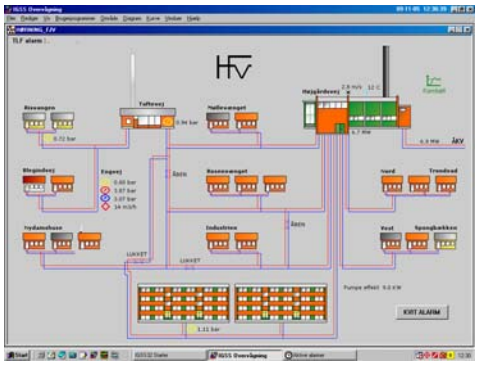
Hørning District Heating

Energy

Denmark

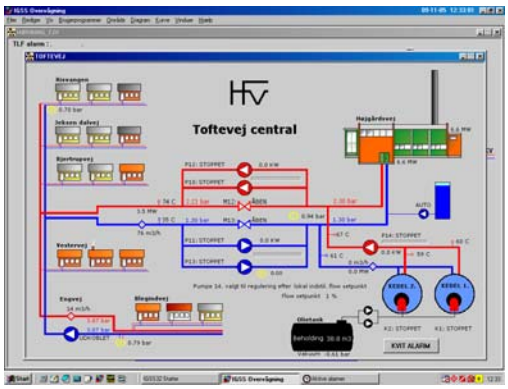
Plant Description

Hørning District Heating (HFV) has two heating stations and a pumping station. The heating stations have two oil boilers at 4 MW, two at 8 MW and a heat exchanger at 20 MW. The SCADA installation's task is to ensure optimal interoperability between the numerous pumps at the heating stations and the pumping station. All centrifugal pumps have an AC engine and are are revolution-adjustable via frequency converters. All the pumps are managed by the SCADA system. The annual power consumption is 100 MWh and this low power consumption is the result of the optimal management of the SCADA system.



History

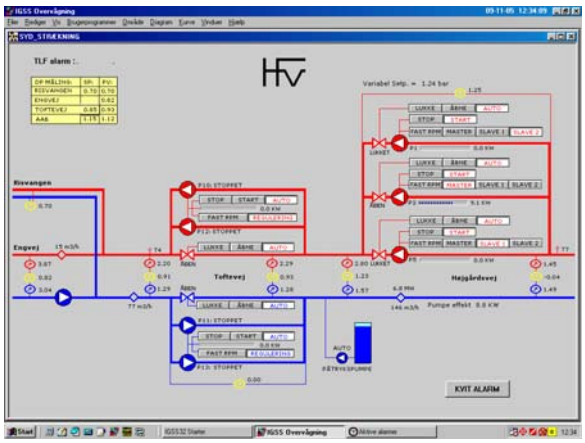
Hørning District Heating was founded in 1963 with very few actual heating subscriptions, but subscriptions to HFV increased rapidly during the eighties, and a additional district heating central was acquired. In the same period, Hørning District Heating was also connected to the Aarhus district heating program . Today HFV has 2,100 settlement gauges and provides 2,600 households with heating and hot water. The production, which is 60,000 MWh per year, is distributed via a network of heating pipes stretching 75 channel kilometers.



The distribution network is deliberately dimensioned with a pipe dimension that is a slightly too narrow in order to minimize heat loss. The area's topography means that there is great difference in height between the plant and the low-lying areas. There are only directly connected heating plants in Hørning, making a precise control of the static and dynamic pressure essential. This fact puts heavy demands on the plant's SCADA system. HFV has an annual turnover of DKK 25 mill.

The Future

Automatic boiler startup at the heating centrals was introduced in 2006 in order to reduce the number of staff overtime hours . Simultaneously, HFV's domestic watchmen are equipped with a laptop from which the plant can be controlled and monitored.



IGSS System

The district heating plant has an IGSS single-user system, which is configured with 600 objects. The IGSS system is used for data collection, traditional operation, and for monitoring curve display. The communication to the system is enabled via a Siemens SIMATIC CP524 to S5-135 PLC system. Remote communication happens today with SIDAN modem for SIMATIC S5-S95U PLC systems. PLC systems are all equipped with the following I/O points: 160 DI 144 + DO + 92 AI + 1 AO

Owner

Hørning District Heating A.m.b.a.

Systemintegrator

Niels Andersen Erhverv