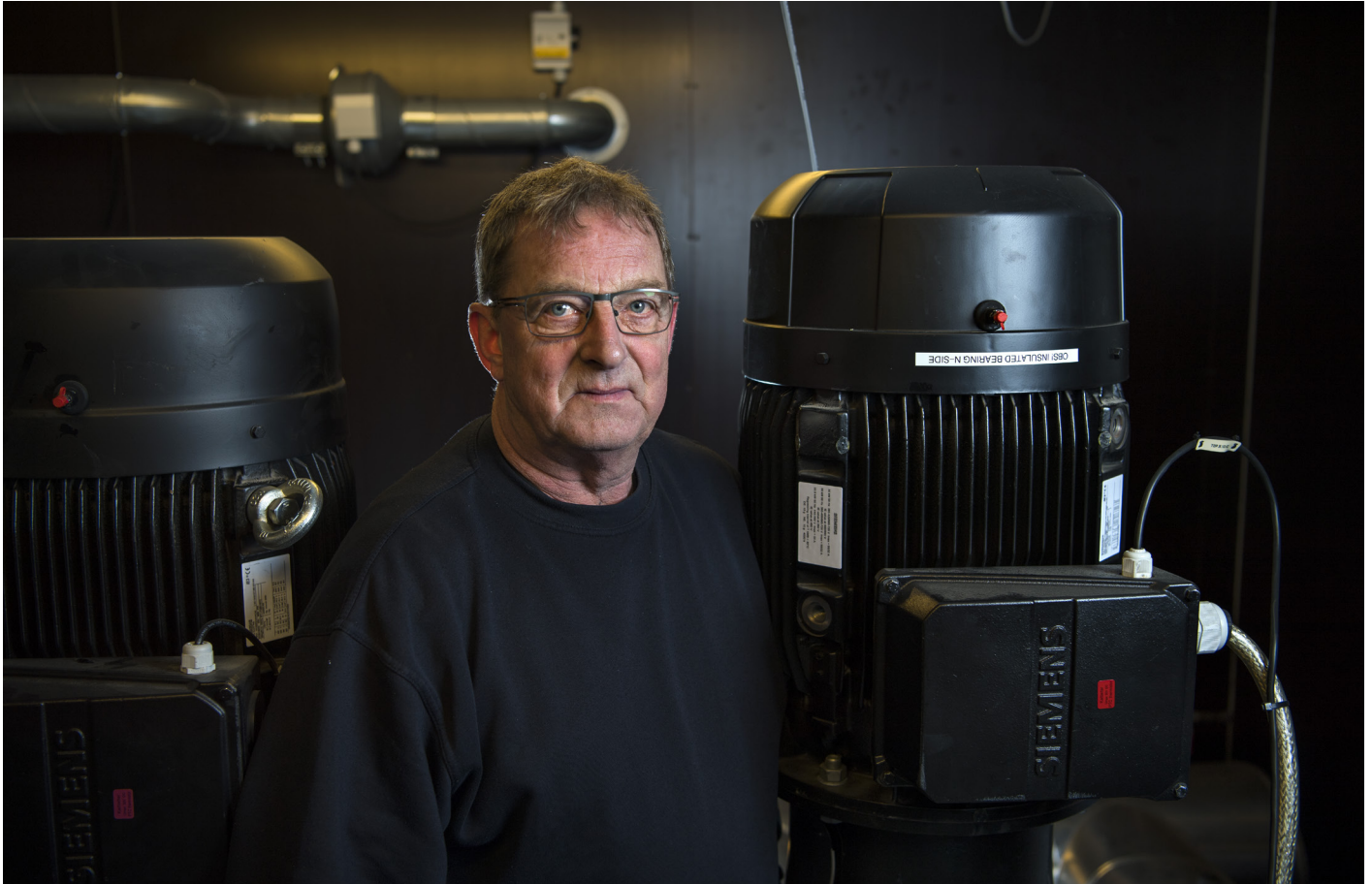


# DISTRICT HEATING PLANT TESTS NEW GRUNDFOS CR PUMPS, GAINS 10 PERCENT EFFICIENCY



*Jens Ole Olsen, foreman at Hirtshals Fjernvarme district heating plant, says the Grundfos CR-95 pumps have run “perfectly” for 14 months. “They are cheaper to operate. This has given us proof that it’s possible to make something better than what we otherwise have today.”*

In autumn 2015, the Danish Hirtshals District Heating plant installed three CR-95 field test units from the new generation of CR multistage pumps. The plant installed two pumps at a waste incineration plant 19 kilometres away in Hjørring, and one at the halfway point on the heating transmission line in Tornby.

“We hope to have a good experience with the pumps, with a better hydraulic performance and a long lifetime,” said Jens Ole Olsen, foreman, Hirtshals District Heating, during the installation of a CR-95 in Tornby. “That’s what we are looking for primarily.”

**“This has given us proof that it’s possible to make something better than what we otherwise have today. And they are cheaper to operate. Those are the values that we see in the new Grundfos pumps.”**

*– Jens Ole Olsen, Foreman, Hirtshals District Heating, Denmark*



Jens Ole Olsen, foreman of Hirtshals Fjernvarme, installs an electronic surveillance monitor on a CR-95 pump at the Tornby pumping station.

#### POSITIVE RESULTS

More than a year later, the solid data was in.

At Hjørring, the two CR-95 pumps performed between 4-7% better in efficiency than the competing pumps. At Tornby, the CR-95 performed 12.5% better than the competing units in the pumping station.

“We have just been looking at monthly figures from the pumping stations. The trend-line shows that the Grundfos pumps are cheaper in power consumption,” says Jens Ole Olsen.

“The pumps have run perfectly for 14 months – a little on and off, depending on the demand, of course. There have been no issues.

The most important for us is the efficiency – which is much better than what we have today. Electricity is expensive. We use more than 133,000 Euro on electricity. So those percentage points can mean a lot. If we can lower our daily operational costs with even six to 10 percent, we will be very happy.

“This has given us proof that it’s possible to make something better than what we otherwise have today,” he continues. “And they are cheaper to operate. Those are the values that we see in the new Grundfos pumps.”

[Please see here for more information on the Grundfos CR multistage pumps.](#)

#### ABOUT HIRTSHALS DISTRICT HEATING

Heat source: 80% waste incineration, 17% biomass, 3% natural gas

Network: about 80 km total

Consumers: 2,500

Temperature – 82/40 degrees Celsius

Power generation: Uses 50,000 MWh from waste incineration/year; transfers 11.25 MWh surplus to local utility/year

Topic: Boosting pressure on district heating transmission lines

Location: Hirtshals, Denmark

Company: Hirtshals Fjernvarme