



## Pioneer in own front garden!

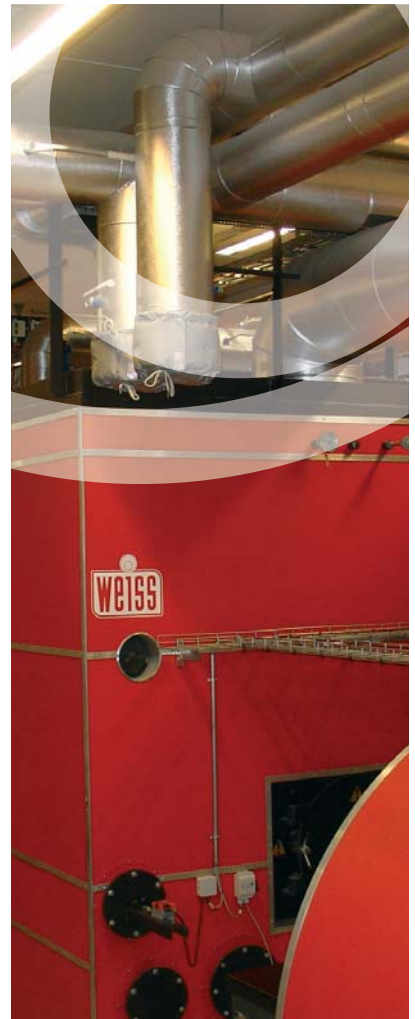
In Denmark heat supply from district heating stations is such a deep-rooted idea that nearly everybody knows the concept, however, it is not like that in the far North! In Norway district heating stations are still very exotic.

As the name says "Holmen Biovarme" (Holmen Bio Heating) is producing heat, not specially peculiar or different for a Dane, however, in Norway having cheap oil and enormous energy extraction from water, the production of heat from bio fuels is very unusual and rare.

- Increasing prices of oil, which even for the Norwegians may give out at a time, an enhanced focus on our environment and CO2 releases as well as a growing attention to the consequences of human interference in the nature make district heating stations a possible heat source – even in Norway explains Ola Bergfinn Røe from Holmen Biovarme.

The choice fell on WEISS as the overall rating of the project description and quotation matched the demands of Holmen Biovarme. – And luckily Ola Bergfinn Røe is quite satisfied with the whole process, from planning to erection and commissioning.

- With the low population density – district heating has not really been in reach in Norway at an economic price. However, this is changing and as time goes by more district heating stations will pop up, probably very local heating stations, explains Per Buch Madsen from WEISS. It is all very interesting and challenging for us in our neighbouring country where the population resembles us a great deal; however, in this particular area the differences are obvious.





## About Holmen Biovarme

The plant was put in operation mid-April 2007. The fuel used is wood chips and patent fuel, i.e. pellets and briquettes. One 2000 kW bio fuel boiler and one 2000 kW oil boiler are together supplying the heat. For flue gas cleaning a multi cyclone type NCM-S-6x5 has been installed. The temperature of the district heating water is 85° C supply and 65° C return

Holmen Biovarme is supplying heat to 35 users. The energy production of the first year of operation was set to 4 Gwh but will be increased to 7 Gwh.

*fortsat fra forsiden*

### Invisible fuel storage in the beautiful landscape

The Holmen Biovarme plant is operated on bio fuels and an automatic feeding screw is transporting the fuel into the combustion chamber from underground fuel storages. The fuel storages are filled through traps in the ground; the traps are automatically opened when the trucks approach the traps. An ideal way to avoid tall silos in the landscape.

### Heat generation in Norway

130 twh heat is generated a year in Norway, the production cost of 1 kwh electricity is approx. 0.10 NOK. During recent years the Norwegian state has introduced a number of charges and rentals on main cables – reasons to introduce district heating as a cost-competitive option.