



DISTRICT COOLING OF THE FUTURE

Great potential for district cooling

Centralized district cooling gains still more importance both in Denmark and world wide. In Denmark, the town municipality of Høje Taastrup accommodates a large number of business enterprises, and a study demonstrated a strong potential for district cooling (e.g. process cooling, comfort cooling, server room cooling) in the southern part of the municipality.

In 2016 Høje Taastrup Fjernvarme (HTF - Høje Taastrup District Heating Company) entered the district cooling market when Copenhagen Markets was relocated from Valby to Taastrup Transportcenter.

The 67,000 square metres wholesale market place for fruit, vegetables and flowers requires a high cooling capacity to keep the temperature in the various market sections between 2 to 14 degrees.

More customers - sustainable solution

In January 2018 HTF established a new energy station and a new piping network that will supply three new customers with district cooling - Orbicon, Alka and Quality Hotel. The company hopes to continue connecting more local businesses to the network in the near future.

By connecting more customers HTF improves utilisation of the cooling capacity which is why the company has a major focus on expanding the network - namely to provide the most energy effective and the most sustainable solution.

KEY INFORMATION

Customer

Høje Taastrup District Heating Company, Høje Taastrup, Denmark

Time scale

January - November 2018

SOLUTION

Pre-insulated pipe system for district cooling

Length and dimensions

3.5 km ø323 mm series 1 pipe

SALES RESPONSIBLE

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About HTF

Høje Taastrup District Heating Company is a part of a complex cogeneration system that covers most of Greater Copenhagen.

The company works to optimise heating pipe system by initiatives such as:

- renovation of the pipe system with focus on better insulation of the pipes
- optimisation of co-production of district heating and district cooling

www.htf.dk

District cooling for the future

With a new energy station and a 1,800 metres long supply network – provided by isoplus Piping Systems – HTF consolidates its position as one of the country's leading suppliers of district cooling.

At the new station a huge heat pump, weighing 14 tonnes produces 1 MW of cooling and 1.4 MW of district heating.

The station's ATES-system utilizes groundwater using chilled ground water in the summer and heated ground water in the winter.

It is precisely this synergy between heating and cooling that brings major benefits, says Uffe Schleiss, technical manager at HTF: "When we produce cooling, we generate surplus heat, which we can transmit into the district heating network. We believe this to be the optimal solution."

Astrid Birnbaum, manager of Høje Taastrup District Heating, underlines that a common network is both economically and environmentally advantageous – and far better than many individual systems, where energy utilisation is far less significant.

"In our opinion the co-production of cooling and heating by means of heat pumps is the way to the future. In international circles, the conversation is more and more about District Energy instead of District Heating."

"We are also happy to see that the new Danish political business package favours the area, concludes Astrid Birnbaum, who enjoys the smooth cooperation with isoplus during the extension of the municipality's district cooling network."

The isoplus group has more than 30 years' experience within the production of pre-insulated piping systems with low heat loss, delivered in accordance with the norms and demands of the industry. We are present in more than 30 countries around the world and have considerable expertise in meeting international as well as national standards. It is our ambition to be the fastest, most flexible and most reliable partner in the business.

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