



# VISIONARY ENERGY STATION

## KEY INFORMATION

### Customer

TÅRNBYFORSYNING A/S  
(Tårnby Public Utility)

### Time scale

june 2019 - october 2019

## SOLUTION

District heating and cooling system

### Length, dimensions, insulation

District cooling: 1100 m DN200-400 series 1  
District heating: 330 m DN150-400 series 2

### Leak detection system

isoalarm model 4500

## SALES RESPONSIBLE

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## Innovative project in Tårnby gets waste water to work together with district heating and cooling

Tårnby Public Utility paves the way with a new visionary project in which an energy station will become the new gathering point for the area's district heating and cooling. Here the two systems will utilize the energy from the waste water. The plant will be the first of its kind in Denmark. Where we have previously seen district cooling that utilizes the cold from seawater, the connection between district heating, district cooling and waste water is groundbreaking in Denmark.

In practical terms, heat pumps at the energy station will pull the heat from the waste water, so that the energy can be used for district cooling. In addition, the heat pumps will allocate the generated condenser heat in the district heating network. During periods with a lower cooling requirement, the district heating will be produced by utilizing the energy from a nearby waste water outlet. An accumulation tank will be established in order to utilize the variable prices of the electricity market to achieve the lowest price and a more energy efficient production of heat and cold.

Not only is the solution innovative, it also supports the government's climate policy objectives. As renewable energy is used and the energy efficiency is expected to double, the project also contributes to reduce Tårnby city's ecological footprint. It will mainly be companies in the newly constructed business area, Scanport, that will benefit from the sustainable solution, as the energy station in Tårnby will first and foremost provide district cooling here. There will also be delivered district heating to Tårnby Public Utility's existing district heating network. In that regard, the district heating supply will be expanded from 186 GWh to 250 GWh, and thus Tårnby Municipality will become less dependent on fossil fuels.

For the project, isoplus has been responsible for the delivery of district heating and cooling pipes in the dimensions DN150-DN400, fittings and joint assembly. Although the project has been expanded and expedited, and there has been a need for customized pre-insulated pipes for a horizontal controlled drilling of 150 m, isoplus has been able to deliver before the scheduled time. Thanks to isoplus' good delivery capability, Tårnby Public Utility avoided expensive waiting times.

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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