



Press release

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Biggest gas-heated city in Denmark enters into agreement about geothermal district heating

The utility company Fors and the geothermal company Innargi has entered into an agreement about investigating the possibility for geothermal heating in the Danish city of Holbaek. Holbaek is the biggest gas-heated city in Denmark, and Fors has a big task ahead of them, as they need to convert the entire city from natural gas to district heating in the coming years. In this regard, geothermal heating can potentially cover about 60 % of the district heating needs with green, price stable, and supply stable heat.

The about 30,000 inhabitants of Holbaek are among those Danes most affected by the energy crisis. Almost all their households are heated by natural gas, making it the biggest gas-heated city in Denmark. That is why Holbaek Municipality and Fors has initiated a large-scale plan to bring district heating to the citizens of Holbaek in different stages. It is a big task to establish a district heating network, but another great task is to find the correct composition of energy sources to ensure that there is hot water in the pipes.

“A lot has happened for geothermal heating in Denmark in the last few years. And there is a lot to indicate that geothermal heating is an attractive option for us in conjunction with other heating sources. Geothermal heating is a local and green heating source that can hopefully be a competitive option when compared to other forms of production. The framework agreement with Innargi means that we need to make some thorough calculations together so that we can judge whether geothermal heating is an attractive option for us,” says the programme director of district heating, Camilla Hay.

The mayor of Holbaek, Christina Krzyrosiak Hansen, is also excited by the prospects of geothermal heating.

“I am very happy about the perspectives that utilizing geothermal heating in our municipality brings. It can become a good and important supplement to the coming roll out of district heating. A great restructuring task awaits us, as today all of 64% of heating in Holbaek is based on oil or natural gas. Geothermal heating speaks well to our ambitions for the green transition to sustainable and renewable energy sources in our heat supply,” says Christina Krzyrosiak Hansen.

The expectation is that Holbaek will be provided with two well pairs which can supply 15-30 MW. The analyses that Fors and Innargi must now begin will determine the best levels for the district heating in Holbaek.

Innargi has promised that the geothermal heat can be delivered in conjunction with the expansion of the district heating network in Holbaek. Specifically, this will be towards the end of 2026. This is possible because Innargi wants to include the project as part of the company’s big project in Aarhus where EU’s biggest geothermal district heating plant is currently being built in collaboration with the Aarhus utility company Kredsløb.

“For us, Holbaek is something very special. Holbaek is building a new and modern district heating network that is energy efficient and keeps the temperature at about 80 °C in the winter. A network like that is made for geothermal heating, as we expect the temperature of the geothermal water to be between 60 to 80 °C. This means that we only need to use a small amount of power for heating pumps. The inhabitants of Holbaek are in a difficult situation, and we want to be there together with Fors and the municipality in order for this project to succeed within the ambitious timeframe,” says Samir Abboud, CEO for Innargi.

For additional information:

- Mayor Christina Krzyrosiak Hansen through the press phone at No.: 7236 3448
- Press- and communications director at Fors, Mette Ryberg Herskind at No.: 5184 1446
- Asbjørn Haugstrup, Chief Communication Officer at Innargi No.: 2672 9421.

Pictures

Pictures of Holbaek and the mayor of Holbaek can be downloaded here: <https://holbaek.dk/nyheder-og-presse/presse/>

Illustrations of geothermal plants can be downloaded through this links:

<https://media.apmoller.com/shared/grA7EOo4cirmSaPUyaF3I1kwQ5z2YEtX>

About geothermal heating

Geothermal heating is the thermal energy which stems from inside the earth. One to three kilometres down into the subsurface of Denmark, there are many pockets of 30-80 °C hot water that, through deep drilling, can be pumped up to the surface after which the heat can be transferred to the district heating network in a closed cycle. Afterwards, the geothermal water is pumped back into the subsurface again. Depending on the temperature from the subsurface, it might be necessary to use a big heat pump to raise the temperature to the level needed for the district heating network.

The energy potential for geothermal heating is very great but realizing that potential depends on the conditions of the subsurface (sufficient flow and temperature) and the available space on the surface in the vicinity of the district heating network. It is generally quite a challenge to find space for technical plants in urban areas.

About the parties involved

Fors A/S is a locally rooted utility company with about 200 employees who supplies water, district heating, cleans wastewater, collects waste, and manages recycling depots. In all, Fors reaches 200,000 customers with one or more of their products each day.

Innargi A/S was founded in 2017 by A.P. Moller holding A/S and is today owned by A.P. Moller Holding, ATP and NRGI. Innargi's mission is to bring geothermal heating to millions of homes with expert knowledge from an experienced team of geologists, reservoir-, facility-, and drilling engineers as well as through partnerships with district heating companies.