

Case | Skagen District Heating

How Skagen District Heating turned an overloaded system into an efficient network

Skagen holds a special place in the hearts of Danes. Here, the seas meet, the dunes stretch along the coast, and the town buzzes with energy. At the centre of it all, Skagen District Heating provides the heat that keeps everyday life running smoothly.

GRUNDFOS 

Possibility in every drop

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Thomas Rasmussen

Director, Skagen District Heating

Every day, Skagen District Heating provides heat to thousands of homes. And with Grundfos iGRID, they have transformed a system operating at its limits into a steady, reliable platform, giving residents peace of mind, lower bills and a more sustainable outlook.

For decades, around half of Skagen’s households have relied on district heating. But during the energy crisis in 2022, even more residents chose to replace their old and inefficient natural gas systems with district heating.

However, the rising popularity of district heating also brought challenges. As more consumers became connected, the network came under increasing pressure. The town’s two main pumps were constantly running at full capacity, which led to a brief interruption in the heat supply:



Lille Skagen is one of the new neighbourhoods benefiting from booster pumps and the iGRID system.



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- In the autumn, when temperatures were mild, it was hard to get a clear picture of the consumption of the new users. But when temperatures plummeted at the end of November, their heat demand became clear and it hit the system with full force, explains Thomas Rasmussen, Director at Skagen District Heating.

They needed a solution that could stabilise operations and optimise network performance.

Where stability takes its first step

Fortunately, that breakthrough occurred during a workshop with Grundfos, where Skagen District Heating was introduced to the iGRID system:

- When Grundfos showed me iGRID and what it was capable of, my immediate reaction was that this is brilliant. But like other major decisions in life, I had to let the idea mature a little bit. That said, it didn't take long before we were ready to proceed, says Thomas Rasmussen.

With iGRID, decentralised measurement points can be installed without large-scale infrastructure work. In Skagen, the system works alongside three decentralised pumping stations, delivering heat to residents and constantly adapting to the network's actual demand:

- What sets iGRID apart is the way that each measurement point is powered by the temperature difference in the district heating water. Each measurement point generates enough power for a modem that sends the data directly to the cloud, with no need for an external power supply. This tells us exactly how the heat is distributed across the town. It's just brilliant," explains Thomas Rasmussen.

Making everyday life easier

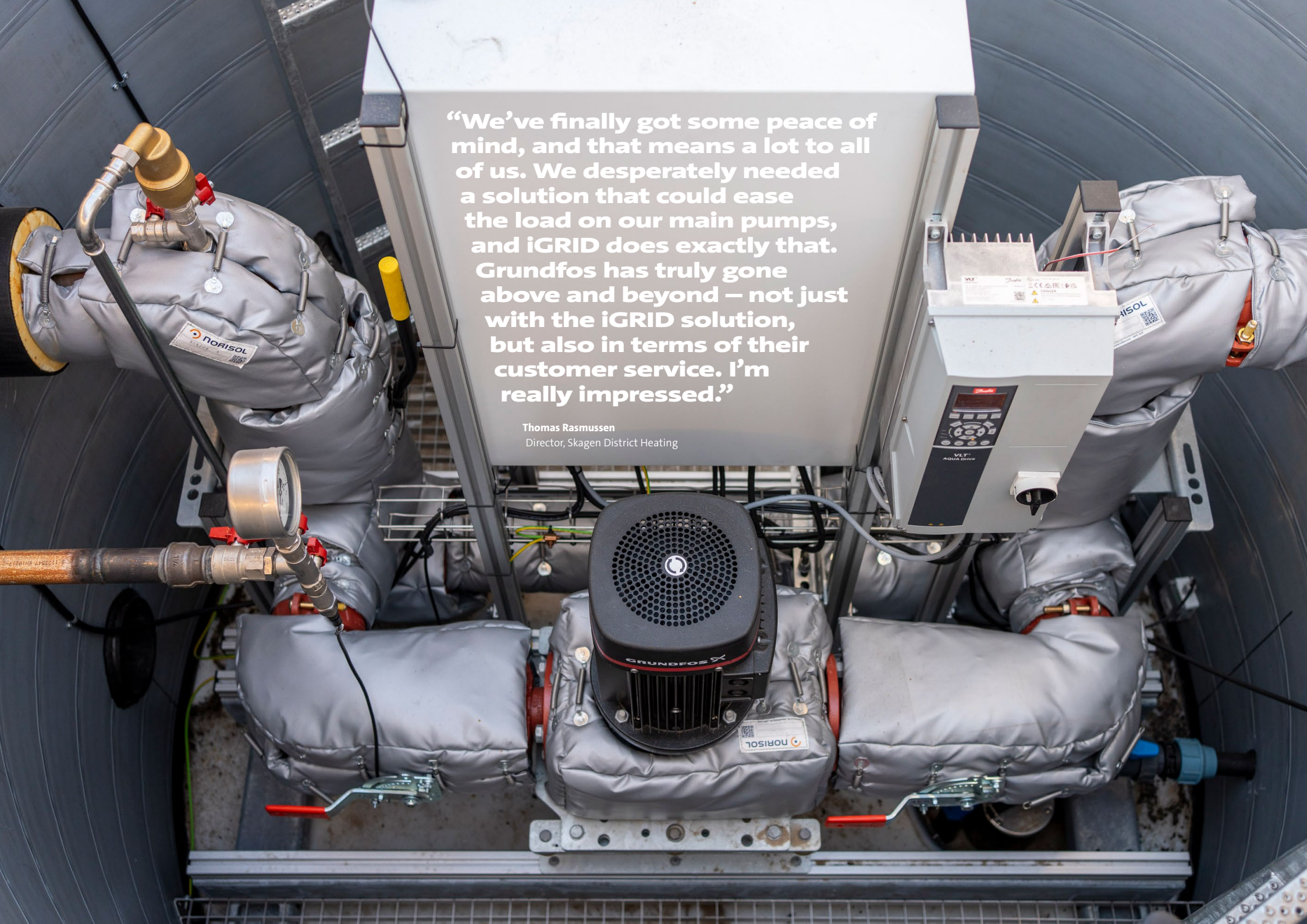
According to Thomas Rasmussen, his team is already feeling the benefits of iGRID in their daily routines:

- We've finally got some peace of mind, and that means a lot to all of us. We desperately needed a solution that could ease the load on our main pumps, and iGRID does exactly that. Grundfos has truly gone above and beyond – not just with the iGRID solution, but also in terms of their customer service. I'm really impressed.

With iGRID, Skagen District Heating now operates on a future-proof platform that runs automatically, making daily operations smoother.

Grundfos has supplied three different solutions for Skagen District Heating: a compact unit for Lille Skagen, a larger model for the Banke neighbourhood and an underground well system for Jens Winthers Vej.





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