"We are saying goodbye to fossil fuels"

The energy company E.ON is working to replace outdated heating systems with modern, energy-efficient heat pumps.

Despite the government's vision of being a green-energy superpower, heat production in many Danish housing associations is still based on fossil fuels. Moreover, a large number of the plants are outdated and not maintained after many years of wear. This results in significant energy losses and unnecessary operating costs. But the energy company E.ON has a solution.

"There is no doubt that the many worn-out local combined heat and power plants need to be replaced. They constitute a serious obstacle to going green. It is time that we take a serious look at more environmentally friendly solutions, such as heat pumps that utilise the heat in the air to heat the home," says business manager at E.ON Denmark, Brian Geppert.

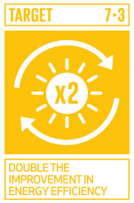
For E.ON, heat pumps are an interesting and promising business area. In addition to supplying district heating and producing biogas, the company operates about 30 smaller plants with local heat production. This is where the heat pumps could be brought into play:

"The heat pumps are both environmentally friendly and cheap in operation compared to oil, electricity and gas, for example. At the same time, air-to-air heat pumps can also

Sustainable Development Goals at play

SDG 7: Affordable and clean energy
Target 7.3: Double the improvement in energy efficiency

By 2030, double the global rate of improvement in energy efficiency.



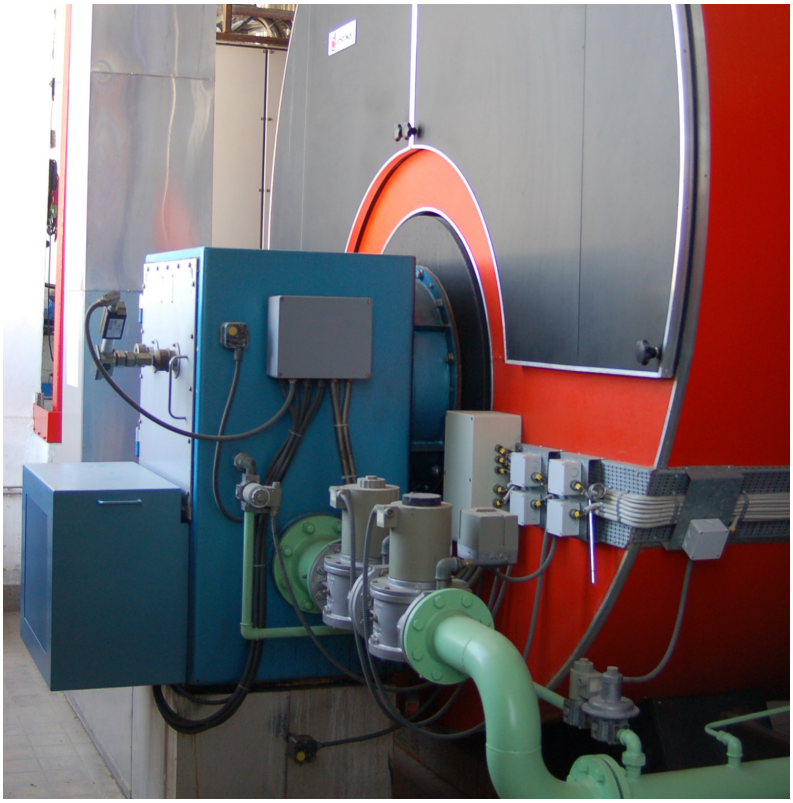
SDG Accelerator for SMEs is an innovation programme for small and medium-sized industrial enterprises created by the UNDP in 2018 with support from the Danish Industry Foundation. The programme focusses on developing and accelerating business solutions addressing the Sustainable Development Goals. The programme is implemented in collaboration with Deloitte and is tested in Denmark in 2018-2019 with 30 SMEs, after which the aim is to roll out in other countries.

Monitor Deloitte.
INDUSTRIENS FOND FREMMER DANSK KONKURRENCEEVNE
The Danish Industry Foundation
UNDP

function as air conditioning, as the pumps can actively cool the air, thus creating a better indoor climate," Brian Geppert explains.

However, the replacement of the old plants is far from cost-free. At the same time, one must find practical solutions for the infamous white boxes that take up space and make noise, says Brian Geppert:

"Obviously, the barrier is that the boxes are outside of the house, because it is not a model we are traditionally used to seeing in residential areas in Denmark. Nonetheless, we believe that consumer preferences are changing as the environmental benefits become clearer. The overriding barrier, however, is the economic model. If heat pumps are to cover a large area, the investment is significant. Very few housing associations have the opportunity to make it on their own. We need to gather all the players around the table. This clearly illustrates how the conversion to greater energy efficiency requires cooperation - usually cooperation between the public and private sectors."



E.ON brought all of these challenges into the SDG Accelerator for SMEs, where the focus has been on validating ideas and turning them into concrete a business case. That has been a great success according to Brian Geppert:

"Firstly, there is a spirit about the Sustainable Development Goals, which in itself is inspiring, even for an energy business like ours where sustainability is a natural part of our DNA. Secondly, we have used the process to assess ideas and receive feedback, and we have put our market approach to the test. This has expanded our horizon and given us a clearer direction. Before, we were hesitant. Now, we are ready to move on."

The next step for E.ON is to further develop a concrete business case to realise the business perspectives of the green conversion using heat pumps:

"A green future is unfortunately not free," says Brian Geppert. "Therefore, we need to look at the overall value chain. Fortunately, we know that customers would like to talk to us. We have just launched two pilot projects with housing associations in Denmark, for which we have high expectations."

Consequently, Brian Geppert is optimistic about the heat pumps:

"We still need to see the big commercial breakthrough for heat pumps in Denmark, but it is definitely on its way. Many of our neighbouring countries are far ahead. Although the pace seems slow at times, there is no doubt that the trend is going towards green energy. As a society, we have to free ourselves from fossil fuels. At E.ON, we work every day to make that happen."

This is how E.ON contributes to the Sustainable Development Goals

- E.ON is developing a business case for how eco-friendly heat pumps can replace fossil fuels in local heat production in, for example, housing blocks and schools.

Facts about E.ON

- Founded in 2000.
- Approximately. 80 employees in Denmark and 42,000 employees worldwide.
- Owned by E.ON Sweden AB.
- Geographically present in Europe and the United States.

"In the race to find new, energy-efficient alternatives to fossil fuels, the residential area is most notably lagging behind. We must be better at heating our homes in a sustainable way, for example through environmentally friendly heat pumps. SDG Accelerator for SMEs has been a great opportunity to explore new partnerships with the various players, thus speeding up green transition."

Tore Harritshøj
CEO, E.ON Danmark