

# Heimstaden’s Ambitious Climate Goals: what role do heat pumps play

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Heimstaden recently presented new sustainability goals aiming to significantly reduce its total CO<sub>2</sub> emissions in line with the Paris Agreement’s ambition level to limit global warming to 1.5°C and is investing approximately 500 million EUR to meet the goals. The company has set a climate road-map to achieve this ambitious target by focusing on five pillars and concrete KPIs, which are presented in this article, with a special focus on heating infrastructure.

Climate change is a real threat to our entire civilization. Mobilizing to reduce our emissions in line with the Paris Agreement, energy-efficiency in our homes, and building resilience to climate change are all important in tackling the climate crisis head-on. As one of Europe’s leading residential real estate companies, Heimstaden recognizes its responsibility to reduce its environmental footprint. Accordingly, in the coming years, we will reduce our greenhouse gas emissions in line with the Paris Agreement’s ambition level to limit global warming to 1,5 °C and have set a budget of SEK 5 billion for the same, which will grow as the company grows. Sustainability is integrated into Heimstaden’s business model, and Sustainable Mindset is an important strategic pillar of Heimstaden’s core business strategy. The company has an extensive climate road-map, with local pathways for all country organizations, on how to reach the bold targets.

In January 2021, Heimstaden Bostad was one of the first pan-European residential real estate companies to commit to the Science-Based Targets initiative (SBTi). After a thorough internal process and review of the operational and economic ramifications of raising its ambitions, the board approved the new climate targets in September:

- » Reduce absolute scope 1 and 2 greenhouse gas emissions (GHG) by at least 46% by 2030.
- » Reduce the amount of purchased energy by, on average, 2% per year and sqm till 2025.
- » Require that suppliers covering 70% scope 3 emissions will set science-based targets by 2025.

The new targets will supplement our existing sustainability targets.

*Varying cost and effectiveness of different measures - all are needed to reach our target*

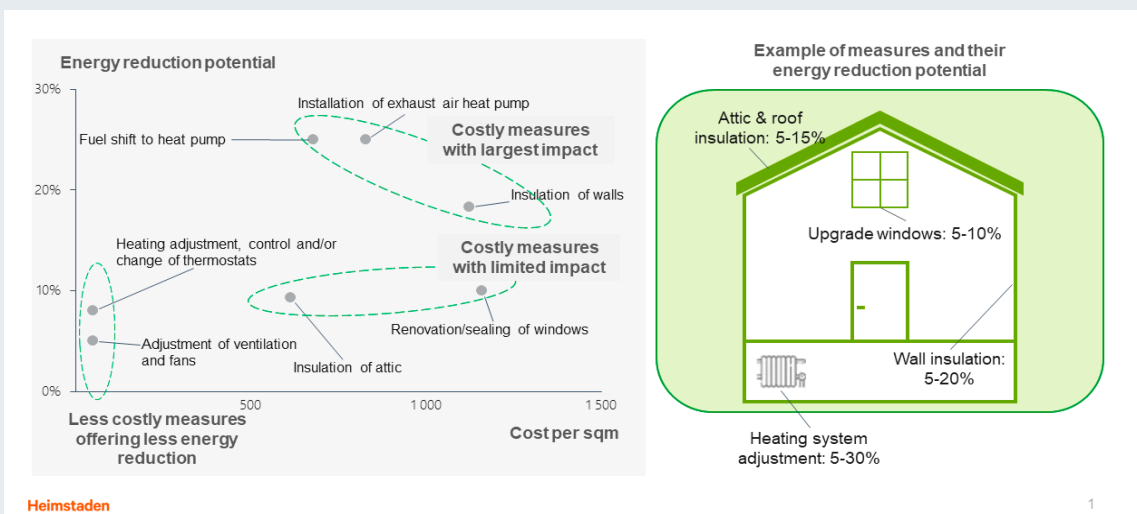


Figure 1. Relationship between energy reduction potential and varying cost and effectiveness of different measures

To succeed in such extensive work, we must be sure that the strategy is feasible and that the measures we implement have the effects we want. Therefore, we will submit our targets to the Science-Based Targets initiative (SBTi) and are looking forward to receiving validation and feedback from them. With the support from the initiative and a division of responsibilities that extends throughout the organization, from the Board of Directors (BoD) and senior executives to line managers and to individual employees, we are confident in our ability to realize these ambitions.

Climate change is a societal challenge that cannot be tackled without a concrete strategy, and our climate road-map includes the following five pillars:

- » Origin-certified renewable electricity
- » Fuel shifts
- » Energy provider improvements
- » Energy efficiency improvements
- » Encourage tenants to reduce energy usage

Table 1. describes each of the pillars in more detail.

Heimstaden has local pathways for each country that will help us achieve the company-wide target. We will focus on the above-mentioned five pillars to lower our company-wide carbon dioxide emission. A major chunk of our emissions comes from the Czech Republic, which has a high proportion of solid fuels such as coal in the energy systems. 37 000 flats are connected to district heating infrastructure, which partly uses coal as a source of energy. Therefore, in the Czech Republic, the focus will mainly be on shifting from coal-based local boilers to more efficient central gas boilers. We will also disconnect from fossil-based district heating to heat pumps driven by origin-certified renewable electricity in selected buildings. These measures will increase the standard of living for tenants and drive major emission reduction.

We have already seen how energy efficiency measures and fuel shifts can lead to a substantial positive impact. For example, in Sweden, in one of our properties in Katrineholm, the buildings' energy usage went down by 10% from 2017 to 2019 by installing new, local building connected, district heat exchangers, pumps, valves, and control systems. Similarly, in one of our properties in Trelleborg, by installing heat pumps (heat recovery from the exhaust and air ventilation), completed with other optimization actions and fine-tuning, we managed to reduce the energy usage of the property by 37% from 2017 to 2019. Many of our buildings have these kinds of systems where exhaust air fans with no heat recovery are installed. This area is one of our focus areas where we have performed various installations of heat pumps, and this is ongoing also for the coming years.

## Conclusions

There is a consensus within the global scientific community that climate change is real, rapidly escalating, and caused by humans. Heimstaden bases its sustainability

Table 1: Additional information, pillar by pillar

### Origin-certified renewable electricity

- » Ensure origin-certified renewable electricity for all properties
- » Include renewable energy production in all newbuilds
- » Substantially increase renewable energy production capacity for existing properties

### Fuel shifts

- » Local heating and energy production
- » Install heat pumps or electric boilers with origin-certified renewable electricity rather than fossil-based heating

### Energy provider improvements

- » Actively engage energy providers to reduce their use of fossil fuels

### Energy efficiency improvements

- » Insulation, ventilation improvements
- » Smart control systems & optimization of heating systems

### Encourage tenants to reduce energy usage through the following measures

- » Customer Engagement Program
- » Nudging projects
- » Create awareness through smart technical solutions

strategy in climate science, and by raising our climate ambitions, we strive to have a positive impact on the global effort to combat climate change and takes responsibility for our environmental footprint, for the betterment of the planet and, hopefully, to the inspiration of the housing industry.

## References/Footnotes

### About the Science Based Targets initiative:

The Science Based Targets initiative (SBTi) is a collaboration between Carbon Disclosure Project (CDP), the United Nations Global Compact, World Resources Institute (WRI), and the World Wildlife Fund (WWF) to define and promote best practice in science-based target setting. Offering a range of target-setting resources and guidance, the SBTi independently assesses and approves companies' targets in line with its strict criteria.

### Green House Gas Emissions Scopes:

Scope 1 covers direct emissions from owned or controlled sources. Scope 2 covers indirect emissions from the generation of purchased electricity, heating, and cooling consumed by the reporting company. Scope 3 includes all other indirect emissions that occur in a company's value chain.

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