

Industrial heat for Hamburg — Aurubis and Hamburger Energiewerke decarbonizing district heating supply



Flagship carbon-neutral district heating project

Hamburger Energiewerke and Aurubis are decarbonizing district heating in Hamburg with carbon-neutral industrial heat and providing more households with climate-friendly heat. Starting in the 2024/25 heating period, the project will supply up to 20,000 households with carbon-neutral heat, which prevents up to 100,000 t of CO₂ per year. This is yet another example of how the two companies are contributing to Hamburg's climate targets.

Hamburger Energiewerke and Aurubis are actively driving the heat transition in Hamburg. The industrial heat provided by Aurubis replaces some of the coal used in district heating. Aurubis is recycling the heat generated in a sub-process of copper production and, in tandem with Hamburger Energiewerke, improving the city of Hamburg's carbon footprint. The heat

transport pipeline from the Aurubis plant can carry up to 60 megawatt (MW) and Hamburger Energiewerke has contracted 40 MW.

The exemplary project showcases how innovative projects can drive the decarbonization of district heating and benefits both partners, the city of Hamburg, and the environment.

Funding agencies

Gefördert durch:



aufgrund eines Beschlusses
des Deutschen Bundestages



Innovative contribution to the heat transition

The flagship project is setting global precedent and is unique in Germany in both size and complexity. It highlights the key role of industry as part of the solution and allows energy not needed for production to be reused to generate heat, closing loops. In this and other projects, Hamburger Energiewerke is harnessing

the power of Hamburg as a port city and industrial hub and tapping into regionally available heat sources. The Tiefstack energy park in Hamburg is replacing the Tiefstack cogeneration plant with a variety of climate-friendly heat sources and assuring the phaseout of coal by 2030 at the latest.

Facts and figures



Furnishing heat

The heat volume can supply up to 20,000 four-person households for about a year.



Protecting the climate

The Industrial Heat project prevents up to 100,000 t of CO₂. This roughly corresponds to the emissions of 42,000 mid-sized cars driving 12,000 km a year.



Conserving water

The Hamburger Energiewerke pressure heat accumulator holds four million liters of water, equivalent to 1.6 Olympic-size swimming pools.



Aurubis AG is a leading global provider of non-ferrous metals and the largest copper recycler worldwide. Hamburg is home to the largest Aurubis site, which is also the company's headquarters. The company was founded there as Norddeutsche Affinerie AG in 1866. Today, it is one of the most modern and environmentally friendly copper smelters in the world. The company's main area of expertise is the processing and optimal utilization of concentrates and recycling raw materials with complex qualities. Aurubis' customers include companies in the semiconductor industry; the electrical, electronics, and chemical industries; and suppliers of the renewable energies, construction, and automotive sectors.



Hamburger Energiewerke GmbH is an energy utility completely owned by the city of Hamburg. The company supplies over 160,000 Hamburg customers with green electricity and gas. Hamburger Energiewerke also operates one of the largest district heat networks in Germany and delivers city heat to over 525,000 residential units for heating and hot water. The municipal utility company's over 1,000 employees are committed to ensuring the success of the energy and heating transition. By 2030 at the latest, black coal will be completely phased out for heat generation, and the heat supply will be carbon-neutral by 2045. The renewable energy plant portfolio is being expanded at the same time. Hamburger Energiewerke is the largest contributor to achieving Hamburg's climate targets.