

Press Release

Aurubis and enercity enter into contract for delivery of CO₂-free waste heat for Hafencity East

Hamburg, February 17, 2017 – **Today, in the presence of Hamburg’s Environmental Senator Jens Kerstan, Aurubis AG and enercity Contracting Nord GmbH signed a contract for the use of industrial waste heat for the energy supply in the Hamburg district Hafencity East. This will reduce carbon dioxide (CO₂) by more than 20,000 t per year in the future.**

In the contract, the partners agree to use industrial waste heat from the Hamburg Aurubis plant to provide energy-efficient district heating to Hafencity East. For this purpose, Aurubis extracts heat that is formed when sulfur dioxide – a by-product of copper smelting – is converted to sulfuric acid. This industrial waste heat is nearly free of CO₂, and utilizing it will reduce CO₂ emissions by more than 20,000 t per year. About half of this reduction results from the replacement of natural gas used to produce steam on the Aurubis plant premises, while the other half is saved by delivering the waste heat to enercity. In Hafencity East alone, about 4,500 t of CO₂ will be saved each year in the final expansion (target: 2029). Aurubis will deliver the heat to its plant boundaries. enercity Contracting Nord GmbH, a 100 % enercity holding located in Hamburg, will collect the heat, secure it and transport it further to the area that will use it.

Aurubis removes the heat from what is known as the contact plant, in which the gaseous sulfur dioxide that accumulates in the process transforms into liquid sulfuric acid. The contact plant consists of three lines. About 160 million kilowatt hours (kWh) can be extracted from each individual line annually, for a total of nearly 500 million kWh. The heat from one line is sufficient to supply Hafencity East, which is why only one line will be converted initially. “We could deliver significantly more district heating for the city of Hamburg and thus cut up to 140,000 t of CO₂ each year,” explained Jürgen Schachler, CEO of Aurubis. “However, at the moment, the technical, financial and contractual foundations haven’t been established yet. We are very interested in a solution and are intensively working on this.”

New solutions for providing heat to urban areas

In the first step, Aurubis will deliver the waste heat from one line of the contact plant. enercity will supply Hafencity East almost exclusively with industrial waste heat in this way. Jens Kerstan, Hamburg’s Senator for the Environment and Energy, stated, “We want to show how the energy transition works when it comes to the heat supply in Hamburg. The use of industrial waste heat plays a key role in our strategy, which is why we promote this approach. The agreement between enercity and Aurubis to supply Hafencity East with heat brings us one big step further in the heating transition. For the first time, an entire district will be almost completely supplied with waste heat from industry. The project shows that while

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urban areas present considerable challenges for climate protection, they also offer particularly constructive and collaborative solutions.”

“I’m very pleased that we’re contributing to a sustainable and climate-friendly heat supply in Hamburg with the use of industrial waste heat. The project is unique in terms of its reach and sets new benchmarks for future heat supply approaches in cities. The challenges of the energy transition are huge in urban areas especially. For us at enercity, it’s important to implement projects like this with and for our customers,” remarked Dr. Susanna Zapreva, Executive Board Chairwoman of enercity, regarding the project. “The intelligent use of existing local energy sources impressively shows how the urban energy transition can succeed.”

Jürgen Schachler added, “It is important to Aurubis and to me personally that we do everything to ensure that our company generates value in a way that conserves resources. According to our usual investment criteria, this project wouldn’t be efficient for us.” Nevertheless, the company decided to pursue heat extraction. “However, it would be easier for us, and certainly other industrial companies, to opt for industrial heat extraction if corresponding incentives were established,” the Aurubis CEO continued. “In the scope of emissions trading, we require certificates for each ton of CO₂ that we emit, but we don’t receive any compensation when we reduce CO₂ emissions in households in other ways.”

Companies’ investments are publicly funded

The plan is for the heat to start being extracted in April 2018. Until then, the contracting parties will carry out the construction work necessary to deliver the district heating for Hafencity East. Aurubis is investing roughly € 17 million to convert its facilities and move the heat pipeline to the plant boundary. enercity Contracting Nord will lay a new heat transport pipeline (district heat line) from the transfer point at the Aurubis plant to Hafencity. A new power station near the heat line will balance out the industrial heat volume, which fluctuates depending on current operation, for the district heating supply. The investment costs for enercity Contracting Nord’s power station and heat transport pipeline amount to around € 16 million.

Aurubis will receive funding for about 30 % of its investments from the German Federal Ministry for Economic Affairs and Energy (BMWi) via the Development Loan Corporation (KfW). A similar level of funding is planned for enercity Contracting Nord from the European Regional Development Fund (ERDF) via the funding program of the city of Hamburg’s Authority for the Environment and Energy (BUE), as well as the BMWi. The district heating agreement is one of ten case examples in the project “Flagships of Energy-Efficient Waste Heat Use” started by the German Energy Agency (dena).

About Aurubis

Aurubis is the leading integrated copper group and the largest copper recycler worldwide. We produce more than 1 million t of copper cathodes annually and from them a variety of copper products. Production expertise is our strength and the driving force of our success.

Aurubis has more than 6,400 employees, production sites in Europe and the USA and an extensive service and sales system for copper products in Europe, Asia and North America.

Thanks to our wide range of services, we rank among the global leaders in our industry. Our core business is the production of marketable copper cathodes from copper concentrates, copper scrap and other recycling raw materials. These are processed within the Group into continuous cast wire rod, shapes, rolled products and strip, as well as specialty wire and profiles made of copper and copper alloys. Precious metals and a number of other products, such as sulfuric acid and iron silicate, round off our product portfolio.

Customers of Aurubis include companies in the copper semis industry, the electrical engineering, electronics and chemical industries, as well as suppliers of the renewable energies, construction and automotive sectors.

Aurubis is oriented to growth and to increasing corporate value: the main focuses of our strategy are on expanding our leading market position as an integrated copper producer, utilizing growth opportunities and practicing a responsible attitude when dealing with people, resources and the environment.

Aurubis shares are part of the Prime Standard Segment of the Deutsche Börse and are listed in the MDAX and the Global Challenges Index (GCX).

Further information at www.aurubis.com

About enercity / enercity contracting

Stadtwerke Hannover AG (enercity) is one of the largest municipal energy service providers in Germany, with annual revenues of about € 2.0 billion. Under the overarching trademark "enercity", the company provides electricity, natural gas, water and heat, as well as energy-related services. With around 2,500 employees, enercity is active in key account management, with energy services and nationwide deliveries well beyond Hannover's city limits. Hannover's district heating supply has been operated by enercity (including the use of industrial waste heat) for over 50 years. enercity started with decentralized and transregional heat delivery projects in the residential building sector 25 years ago and is now active in all of Germany, extending into the entire Baltic region. Contracting is a central element of enercity's strategy. With its holdings – enercity Contracting GmbH, Danpower GmbH and Energie-Projektgesellschaft Langenhagen mbH – and their revenues of roughly € 300 million, enercity is a top provider of contracting services in Germany.

Further information at www.enercity.de and www.enercity-contracting.de