



## Launch of an industrial heat recovery system in collaboration with Dalkia and Lyon Metropolitan Area

Vénissieux, 12<sup>th</sup> November 2025 – We are excited to announce the commissioning of a waste heat recovery system at the Vénissieux site. This innovative project is a model of public–private cooperation in support of the energy transition, which aims to provide low-carbon heating and hot water for the equivalent of 4,000 homes.

The installation, designed and operated by Dalkia, a subsidiary of EDF, captures heat that was previously lost from the Tokai COBEX furnaces following the production process involving baking cathode blocks in temperatures reaching around 1,000°C. At the end of the process (during aeration and ventilation), the hot gases resulting from combustion were discharged through the chimneys at around 155°C, representing a significant energy loss.

Thanks to the new heat recovery installation built by Dalkia, this exhaust heat can now be recovered and directed to a high-performance heat exchanger that transfers it to water. The superheated water is then transported to the Lyon Metropolitan District Heating Network. After the heat recovery process the temperature of the gases released through the chimneys is reduced to 60°C, illustrating the system's efficiency.

This installation transforms waste heat into a renewable and recovered energy source (EnR&R) without consuming any additional resources. The €5.4 million project is supported by ADEME (the French Agency for Ecological Transition) with €1.6 million in funding through the Fonds Chaleur (Heat Fund). Installation work took place from January to October 2025.

### Key Benefits of the Project

- 4 MW of recovered waste heat
- 30 GWh of heat valorised annually – the equivalent of the heating needs of nearly 4,000 homes in Vénissieux, produced without additional energy input and in a circular economy approach
- **8,000 tons of CO<sub>2</sub> avoided per year**, equivalent to removing 4,000 vehicles from the road

This operation aligns with the Lyon Metropolitan Area's strategy to reduce dependence on fossil fuels. For Tokai COBEX, this partnership is a concrete illustration of its commitment to decarbonization and its Net Zero objective.

### A Natural Phenomenon: The White Plume

A white plume may be visible at the top of the chimney. This is simply water vapor condensation, a normal and harmless phenomenon associated with the system's operation. It is the

visible sign that the installation is effectively capturing and transferring furnace heat to the urban heating network.

### **Educational Film**



<https://m.youtube.com/watch?v=jV7vcC3phFI>

### **About Dalkia**

*For 85 years, Dalkia, a subsidiary of the EDF Group and a leader in energy services, has been investing in and developing renewable and recovered energy sources, supporting its clients over time to help them save energy and reduce CO<sub>2</sub> emissions.*

*More than 20,000 employees across France and internationally ensure the maintenance and operation of industrial sites, tertiary buildings, local authorities, healthcare facilities, and residential complexes. They deliver innovative, high-performance solutions that accelerate the decarbonization of sites and territories.*

Discover our sustainable solutions at <https://www.dalkia.fr/>

### **About Tokai COBEX**

*Tokai COBEX, a subsidiary of the Tokai Carbon Group, is globally recognized for its specialization in manufacturing high-quality carbon and graphite products. The company's diverse product portfolio includes cathode blocks for aluminium smelting, linings for blast furnaces used in pig iron production, carbon electrodes, Soederberg paste for metallurgical smelting processes, and specialty graphite products for various applications, including those in the chemical industry. Our team of seasoned professionals offers innovative solutions, technical expertise, and knowledge in product development and application. Headquartered in Wiesbaden, Germany, Tokai COBEX operates four state-of-the-art production plants: two in Poland (Racibórz and Nowy Sącz) and two in France (Vénissieux and Notre Dame de Briançon).*

<https://tokaicobex.com/>