European Commission

OTHER ENERGY INTENSIVE INDUSTRIES

INNOVATION FUND

Deploying innovative net-zero technologies for climate neutrality

INNOZHERO: Innovation for Zero Emissions in Helsingborg

The Innovation Fund is 100% funded by the EU Emissions Trading System

| Project Factsheet

INNOZHERO is a pioneer project in the waste-to-energy (WtE) sector that aims to install one of Europe's first carbon capture and conditioning (CCC) plants at the Filbornaverket WtE facility in Helsingborg, Sweden. The project will implement an end-to-end value chain for capturing, transporting, and storing CO2 to achieve climate-neutral district heating and waste incineration, and to generate negative emissions. INNOZHERO aims to capture approximately 200 000 tonnes of CO2 annually. During its first ten years of operation, the project is expected to prevent nearly 1.9 million tonnes of greenhouse gas (GHG) emissions from reaching the atmosphere, supporting the achievement of Helsingborg's net-zero targets by 2030 as part of the EU Climate-Neutral Cities initiative. As a replicable model, it aspires to become a reference in the global WtE sector's transition to carbon neutrality.

INNOZHERO developed several innovations. On the one hand, the project will integrate a full-scale CCC unit in an existing plant with complete heat recovery,

COORDINATOR
ORESUNDSKRAFT KRAFT AKTIEBOLAG

LOCATION
Sweden

CATEGORY
Energy intensive industries (EII)

SECTOR
other

AMOUNT OF INNOVATION FUND GRANT
EUR 54,106,252

EXPECTED GHG EMISSIONS AVOIDANCE
1,869,656 tonnes CO2 equivalent

STARTING DATE
01 April, 2025

FINANCIAL CLOSE DATE
31 December, 2025

ENTRY INTO OPERATION DATE
31 October, 2028

CALL NAME
InnovFund-2023-NZT

** Calculated vs. the 2021-2025 ETS benchmark of 6.84 tCO2e/tH2, not taking into account additional carbon abatement due to substitution effects in the H2 end use application, i.e. conservative estimate.*

boosting the whole system's efficiency. On the other hand, INNOZHERO will generate new revenue streams by implementing Carbon Neutrality as a Service (CNaaS), offering climate-neutral waste treatment and carbon removal certificates. The project also provides significant carbon capture and storage (CCS) value chain advancements. Indeed, its optimised multimodal CO2 transport system (trucks, railways and ships) expands the inland CCS potential.

By integrating CCS in the WtE sector, the project aligns with European and Swedish net-zero targets. It also supports the European Carbon Dioxide Removal (CDR) market and contributes to the EU's sustainable technology leadership. It bridges waste management and clean energy production, enhancing district heating and circular economy links. INNOZHERO's business model fosters demand for carbon-neutral solutions, boosting the European carbon credit market.

INNOZHERO enhances energy resilience and cost savings through improved district heating and energy efficiency while at the same time attracting investments. The project also strengthens the local and regional economies by generating high-quality jobs and contributing to skills development. By fostering a CCS business cluster and regional innovation ecosystem, the project contributes to developing a CCS value chain. INNOZHERO's scalable model in WtE plants sets the groundwork for further deployment, driving the net-zero transition in Europe. Last but not least, the project will support economic resilience by reducing the reliance on non-European supply chains for clean tech components and services.

| Participants

ORESUNDSKRAFT KRAFT&VARME AKTIEBOLAG	Sweden

Additional information on the EU Funding and Tenders Portal.