



European
Commission



CO₂ TRANSPORT
AND STORAGE

INNOVATION FUND

Deployment of net-zero and innovative technologies

Silverstone: Silverstone: Full-scale CO₂ capture and mineral storage at the Hellisheidi power station

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

| Project Factsheet

Project Silverstone offers permanent CO₂ capture and mineral storage (CCMS) through a safer and more economical technology than provided by alternative Carbon Capture and Storage (CCS) solutions. The Carbfix technology imitates and accelerates geological processes that nature has applied for millions of years to regulate long-term CO₂ levels in the atmosphere, turning CO₂ into solid carbonate minerals underground.

The project will deploy full-scale CCMS at one of the largest geothermal power plants in the world, reaching a near-zero carbon footprint. The technology is proven at the project site to be safe, efficient, and environmentally friendly. For the planned CCMS activities, the site is entirely self-sufficient with respect to water, energy, storage and does not depend on any external feedstock. By injecting CO₂ dissolved in water into basaltic formations, it is rapidly and permanently

COORDINATOR

CARBFIX OHF

LOCATION

Iceland

CATEGORY

Carbon capture and geological storage (CCS)

SECTOR

CO₂ Transport and Storage

AMOUNT OF INNOVATION FUND GRANT

EUR 3,867,988

EXPECTED GHG EMISSIONS AVOIDANCE

149,970 tonnes CO₂ equivalent

STARTING DATE

01 December, 2021

ENTRY INTO OPERATION DATE

01 January, 2025

FINANCIAL CLOSE DATE

30 June, 2023

transformed to minerals and risks associated with conventional CCS are eliminated. The method has gained full support of the local community in Iceland as well as with national and municipal authorities.

The project will have considerable scale up potential, providing a significant impact for emission reduction within the geothermal sector. Roll-out of the technology in Iceland is supported by Iceland's Climate Action Plan where the Carbfix technology is recognized as instrumental for CCMS

of emissions from geothermal power production and energy intensive industries.

This project alone will deliver 10% of the emission reductions that Iceland's Climate Action Plan calls for 55% emission reductions by 2030 within the energy and industrial sectors not covered by the EU ETS. The replication potential of the project is not limited to the geothermal sector as the technology is adaptable to several hard-to-abate sectors, including steel, cement, ammonia, and waste management.

| Beneficiaries

CARBFIX OHF	Iceland
ORKUVEITA REYKJAVIKUR SF	Iceland
ON POWER OHF	Iceland