

HUBS IN ACTION – LESSONS FROM OGCI’S KICKSTARTER HUBS

NET ZERO TEESSIDE

Aiming to create the UK’s first decarbonized industrial cluster, this hub will provide offshore carbon storage to industries in the northeast of England.

Net Zero Teesside will capture and store carbon dioxide from industries near the mouth of the River Tees in north-east England. Teesside is an attractive site for a CCUS hub, with 5.6% of the UK’s industrial emissions concentrated in a compact area and plenty of brownfield land for redevelopment, all close to suitable storage sites under the North Sea.

OGCI Climate Investments acquired the original government-funded concept and developed it into a commercial project, working with industries, interest groups, and local and national government. The project is now being developed by a consortium of OGCI member companies, led by bp.

To anchor the project, the consortium will commission a natural gas power plant with post-combustion carbon capture. This will be linked to a large pipeline with the spare capacity to transport carbon dioxide from other sources, likely including a biomass powerplant, a hydrogen plant and a fertilizer plant, and potentially carbon dioxide imports. By 2030 the project plans to capture up to 10 million tonnes of carbon dioxide per year from the Teesside industrial area.

This carbon dioxide will be stored in a saline aquifer called the Endurance Reservoir, 145 km offshore and about 1.6 km below the bed of the North Sea. Geological assessments indicate that Endurance can safely store 450 million tonnes of carbon dioxide, and other nearby storage sites have the potential to boost that to a billion tonnes.

Another CCUS hub project, [Zero Carbon Humber](#), plans to use the same reservoir to store up to 17

Location

northeast England

Potential impact by 2030

10 MtCO₂/year

Hub developer

bp, Equinor, TotalEnergies

CO₂ sources

gas power plant, biomass power station, hydrogen production facility, fertilizer

Transport

pipeline

Storage site

Endurance

Reservoir

Status

final, investment decision expected in 2022

In operation

2026

Website

<https://www.netzeroteesside.co.uk/>



million tonnes of carbon dioxide per year, further sharing infrastructure costs and creating other economies of scale. The two hubs successfully bid jointly for government funding as the [East Coast Cluster. Storage](#) will be managed by the Northern Endurance Partnership, a collaboration between bp, Equinor, National Grid, Shell and TotalEnergies, formed in 2020.

As well as capturing and storing carbon dioxide, Net Zero Teesside will provide infrastructure to regenerate the region – attracting companies that use carbon dioxide or want to cut their emissions. That should enable exports of low-carbon industrial products and build a world-leading skill base in CCUS. An assessment of the project’s construction phase estimates it will directly create 5,500 jobs in construction. Beyond that, it should safeguard existing local industries and employment, and help create at least 7,000 additional jobs.

LEARN MORE

▶ NYT (March 2021): Oil giants prepare to put carbon back in the ground

