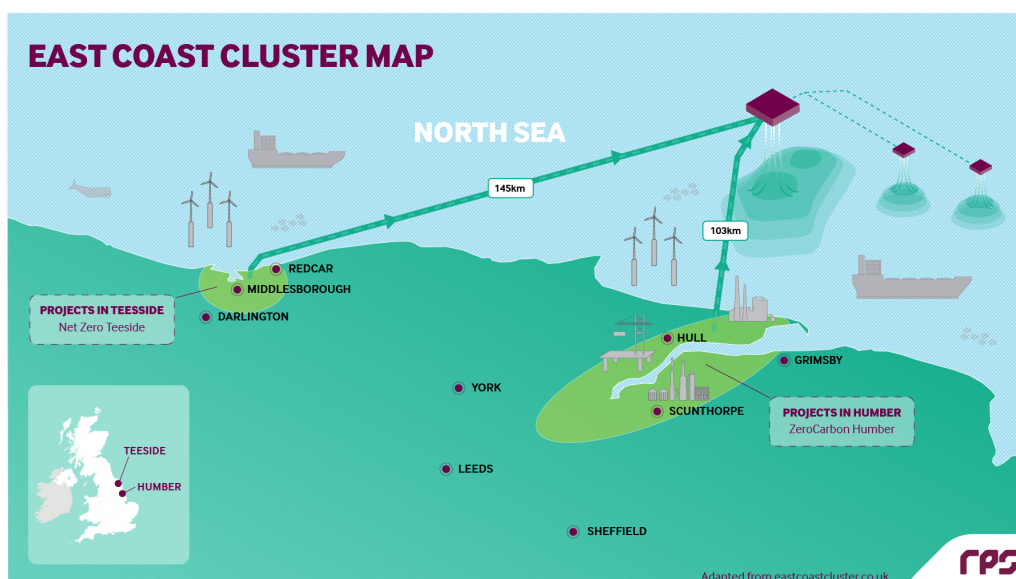


— BASELINE 3D SEISMIC SURVEY FOR THE NORTHERN ENDURANCE PARTNERSHIP'S CCS PROJECT

RPS provides bp with 3D seismic survey optimisation and simultaneous operations (SIMOPS) management for the Northern Endurance Partnership baseline seismic survey.

The Northern Endurance Partnership's CCS project

The **Northern Endurance Partnership (NEP)** is the CO₂ transportation and storage company designed to provide the East Coast Cluster projects the infrastructure needed to store CO₂ underground. The NEP is a partnership between bp, Equinor, National Grid, Shell and Total, with bp leading as operator. The project is named after Endurance, the dedicated saline CO₂ storage reservoir located approximately 145km offshore from Teesside in the UK North Sea. This reservoir has the capacity to store up to 450 million tonnes of CO₂. The 2022 seismic survey also covered potential expansion stores.



Map adapted from eastcoastcluster.co.uk

Monitoring for safe storage of CO₂

Site selection and continuous monitoring are critical factors in the safe storage of CO₂. RPS has provided by [**3D seismic survey optimisation and simultaneous operations \(SIMOPS\) management**](#) for the baseline survey, which started April 15th, 2022 and concluded in mid-June. The survey will be used in determining the CO₂ storage capacity of the structures, optimising well locations and act as a baseline for subsequent surveys. Future surveys will monitor any changes within the geological formations as CO₂ is injected into the reservoir, approximately 1.6km below the seabed. The repetition of subsurface surveys in the same location is also referred to as 4D seismic surveying.

The baseline survey must be planned carefully. Any inefficiencies in the seismic data acquisition will have potential knock-on impacts on future monitor surveys both in terms of data quality and project costs.

During mobilisation, the RPS optimisation specialist, using our proprietary Osprey technology, modelled different acquisition options to devise the most efficient method to acquire the survey concerning the sea currents in the region. The specialist also managed the SIMOPS during the project. Osprey supports our **SIMOPS** planning by generating a visual overview of the project location. As infield conditions change, coordinators and QC specialists use Osprey's unique visualisation tools to adjust plans and improve the efficiency of the seismic survey.



Establishing the Teesside and Humber regions as a globally-competitive climate-friendly hub

In a recent [**press release**](#) regarding the award of additional appraisal licenses off the coast of Humberside, Andy Lane, Northern Endurance Partnership's Managing Director, commented: "This is another important milestone for the East Coast Cluster, which will capture and safely store CO₂ emissions from a wide range of industrial and power projects, protect and create thousands of jobs and help establish the Teesside and Humber regions as a globally-competitive climate-friendly hub for industry and innovation."