

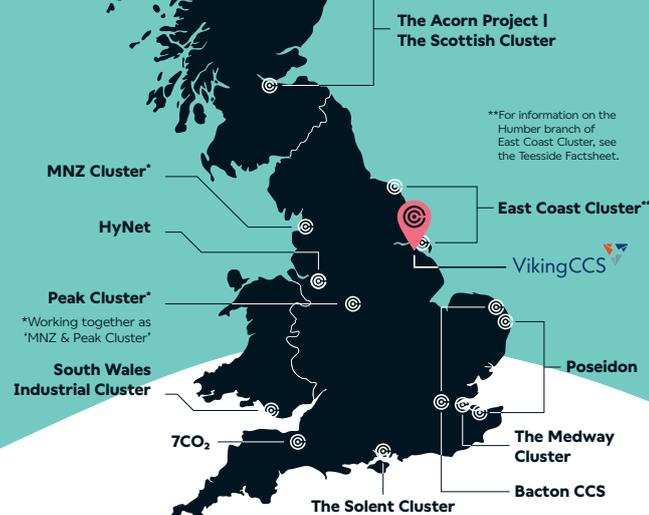
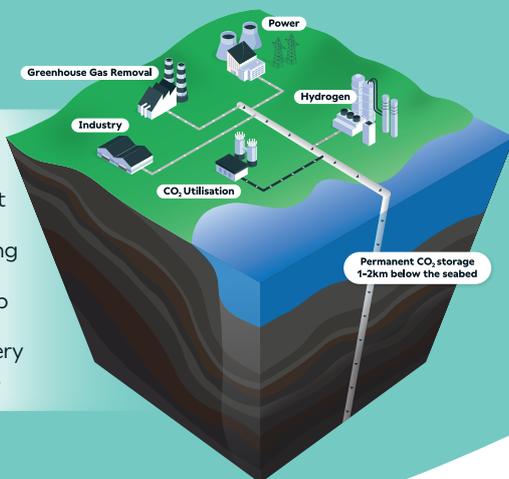
# Carbon Capture, Utilisation and Storage in the Humber



## VIKING CCS

### A CCUS Cluster

Multiple industries sharing CO<sub>2</sub> transport and storage infrastructure, enabling industrial and power decarbonisation, deep emissions reductions and supporting delivery of net zero pathways.



\*\*For information on the Humber branch of East Coast Cluster, see the Teesside Factsheet.

## What is CCUS?

Carbon Capture, Utilisation and Storage (CCUS) captures carbon dioxide (CO<sub>2</sub>) from industry, power plants or even directly from the air. The process involves three key steps:

- 1. Capture:** CO<sub>2</sub> capture technology captures CO<sub>2</sub> from industrial or energy-related emissions or directly from the air.
- 2. Transport:** The captured CO<sub>2</sub> is compressed and transported by ship, road, rail or pipeline to storage sites.
- 3. Storage or utilisation:** CO<sub>2</sub> is injected into geological formations offshore 1-2km below the seabed (e.g., depleted oil and gas fields or saline aquifers) or used in products like concrete or fuels.

## CCUS industry is delivering in the UK:

CCUS is being developed in **regional industrial clusters**. The first projects are under construction in **Merseyside, North Wales and Teesside**, where industries share transport and storage infrastructure. Further projects are in development in the **Humber, Scotland, Derbyshire & Staffordshire, East Anglia, South Wales, the South Coast and Avonmouth**.



**The UK Climate Change Committee highlights that CCS is essential to meeting the UK's climate commitments.<sup>1</sup>**

## CCUS is a vital tool for:



### Cutting emissions from foundational industries:

CCUS is the only realistic way to decarbonise industries like cement, chemicals and refining by capturing emissions created as a by-product of the production process.



### Delivering deep emissions reductions:

CCUS can capture 50–60 million tonnes (Mt) of CO<sub>2</sub> annually by 2035 – a level the Climate Change Committee says is essential for meeting the UK's climate targets, equivalent to offsetting the carbon footprint of Greater London twice over.



### Retaining UK industries:

CCUS enables industry to cut emissions, remain competitive the global low-carbon products market and supports up to 50,000 jobs by 2050.



### Producing low-carbon hydrogen:

CCUS enables low-carbon hydrogen for industry by capturing CO<sub>2</sub> during production.



### Removing CO<sub>2</sub> from the air:

Greenhouse Gas Removal (GGR) technologies actively remove CO<sub>2</sub> from the atmosphere, complementing decarbonisation efforts by helping address emissions from hard-to-abate sectors, such as agriculture and aviation.



### Powering millions of homes:

Gas-fired power stations with CCUS will produce 2-7 Gigawatts (GW) of low carbon, flexible power by 2030, enough for up to 5.25 million homes and balancing the grid when renewables are not available.



### Boosting the UK economy:

Building out CCUS will help unlock £26 billion in private investment by 2030, supporting a growing UK CCUS supply chain worth up to £2.6 billion by 2040, generating up to £30 billion in taxable revenue annually by 2050 and adding £94 billion Gross Value Added (GVA). With around a third of Europe's CO<sub>2</sub> storage potential, the UK is well positioned to lead in carbon storage and exports.

<sup>1</sup> Climate Change Committee (2025) The Seventh Carbon Budget (pg.14). Available [here](#).

## What comes next?

The UK now has a credible pipeline of CCUS projects, but the next projects and clusters must move forward without delay. To secure a self-sustaining CCUS industry and realise its industrial, economic and climate benefits, the CCSA urges Government to:

**1 Deliver the actions required** to progress the build-out of the East Coast Cluster and HyNet as well as confirming the allocation of the development funding committed to Viking CCS and The Acorn Project.

**2 Provide an allocation framework** for government support contracts in the 2027 Spending Review and a clear nationwide route to market for CCUS deployment. This should include enabling Viking CCS, The Acorn Project, East Coast Cluster Humber Expansion and MNZ | Peak Cluster to reach financial

close within this Parliament, and supporting other projects and clusters to deploy, including those using CO<sub>2</sub> transport by ship, road and rail.

**3 Implement policies and regulations** to stimulate low carbon products, carbon removal and European-wide CO<sub>2</sub> storage markets to enable the transition to a self-sustaining market.



## CCUS in the Humber: Viking CCS

**Viking CCS** is strategically located in the UK's most industrialised and largest CO<sub>2</sub>-emitting region, providing significant demand for CCUS infrastructure. The cluster involves the capturing of carbon emissions from power generators and heavy industry predominantly in the Humber region, before being transported in underground pipelines for secure storage offshore in the Southern North Sea. The Viking store **offers over 400 Mt of independently verified secure storage capacity** off the coast of Immingham.

The Viking CCS plans to begin construction from 2028 with initial projects aiming for first storage in 2032.

In Q1 2025, Viking CCS completed Front End Engineering and Design (FEED) for the anchor phase and in April, the Secretary of State granted development consent for the onshore pipeline to be constructed. Viking CCS is well advanced into the Cluster development process. **At the 2025 Spending Review, development funding was announced for the Viking CCS transport and storage (T&S) network.** This funding, once allocated, will allow for material work to be completed to progress the project to FID in this parliament.

### Key benefits include:



**CO<sub>2</sub> reduction:** Can capture 4 Mt of UK emissions per year from 2032 (with line of sight to 10 Mt from the mid-2030s), with initial storage capacity of over 400 Mt.



**Job creation:** Can create 8,000 jobs during peak construction initially, rising to nearly 20,000 in the build out phase. The billions of capital investment through to the mid-2030s and beyond will generate sustained demand for skilled jobs in the supply chain across the region.



**Economic impact:** The initial phase could attract over £3 billion of private sector CAPEX investment in the initial phase, delivering over £7 billion in GVA across the value chain.



**Clean energy target:** Aiming to decarbonise 4 GW of power generated from gas, energy from waste and bioenergy and reindustrialise the region by transitioning major manufacturing sites.

### Leading industry partners

Harbour Energy, bp, VPI, Philips 66, RWE, Cory, West Burton Energy, Drax and ABP.



Project overview: Viking CCS

### Related CCUS infrastructure in the Humber

The Humber is also served by the **East Coast Cluster**, providing CO<sub>2</sub> capture, transport and storage across Teesside and parts of the Humber. See the **East Coast Cluster factsheet** for more information.