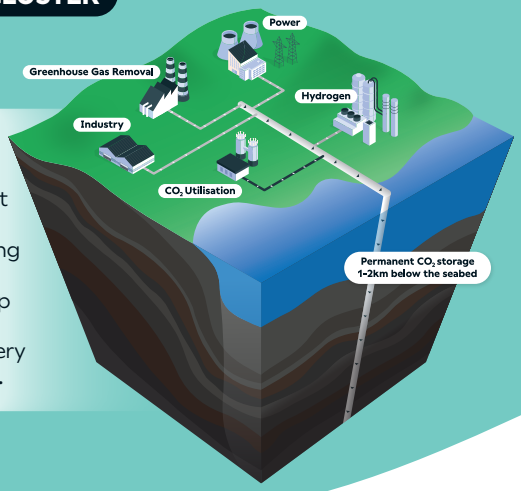
Carbon Capture, Utilisation and Storage in the East Midlands & North West

THE PEAK | MNZ CLUSTER



A CCUS Cluster

Multiple industries sharing CO_2 transport and storage infrastructure, enabling industrial and power decarbonisation, deep emissions reductions and supporting delivery of net zero pathways.

What is CCUS?

Carbon Capture, Utilisation and Storage (CCUS) captures carbon dioxide (CO_2) from industry, power plants or even directly from the air. The process involves three key steps:

1. **Capture:** CO_2 capture technology captures CO_2 from industrial or energy-related emissions or directly from the air.
2. **Transport:** The captured CO_2 is compressed and transported by ship, road, rail or pipeline to storage sites.
3. **Storage or utilisation:** CO_2 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.[1]

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_2 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_2 during production.

Removing CO_2 from the air: Greenhouse Gas Removal (GGR) technologies actively remove CO_2 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_2 storage potential, the UK is well positioned to lead in carbon storage and exports.

[1] Climate Change Committee (2025) The Seventh Carbon Budget (pg.14). Available here.

CCSA

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_2 transport by ship, road and rail.
3. **Implement policies and regulations** to stimulate low carbon products, carbon removal and European-wide CO_2 storage markets to enable the transition to a self-sustaining market.

CCUS in the East Midlands & North West: The Peak | MNZ Cluster

The Peak | MNZ Cluster will decarbonise the UK's cement and lime heartland in Derbyshire and Staffordshire, **which produces 40% of national cement and lime output**. Cement and lime are among the hardest industries to decarbonise because most emissions come from the limestone process itself, not fuel use.

By capturing and storing these unavoidable emissions, the cluster will enable continued UK production of essential building materials while cutting carbon pollution at source. **The project brings together Peak Cluster and Morecambe Net Zero (MNZ) to deliver the world's largest cement decarbonisation initiative.**

Peak Cluster

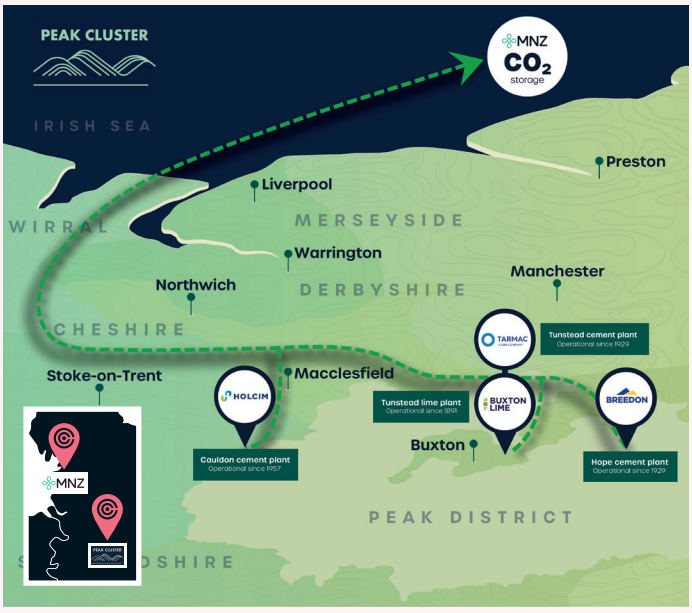
Peak Cluster unites leading cement and lime producers. New capture plants will be installed at manufacturing sites, with CO_2 transported via buried pipelines to offshore storage. Operations are targeted for 2032, subject to the Development Consent Order (DCO) – the national planning approval process for major infrastructure projects.

MNZ

MNZ will permanently store captured CO_2 in depleted gas fields beneath the East Irish Sea, providing **proven geological security and long-term storage** for Peak Cluster and wider UK industry.

Key benefits include:

- **CO_2 reduction:** Captures up to 3 Mt CO_2 per year, decarbonising around 40% of UK cement and lime production.
- **Job creation:** Safeguards ~2,000 jobs and creates thousands more during construction and operation.
- **Economic impact:** Unlocks around £5bn of investment in capture, transport and storage infrastructure.
- **Industrial resilience:** Supports domestic production at a time when UK cement output is at its lowest since the 1950s and imports have tripled.
- **Strategic infrastructure:** Creates a new CO_2 transport and storage corridor linking the East Midlands and North West.



Project overview: The Peak | MNZ Cluster

Leading industry partners

Peak Cluster: Tarmac, Breedon, Holcim, Buxton Lime, Progressive Energy, Sumitomo.

Morecambe Net Zero: Spirit Energy (with shareholders Centrica plc and Stadtwerke München)

National Wealth Fund: Cornerstone investor.

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