



**SECURING A
LOW CARBON
FUTURE**

Carbon Capture and Storage: industry

The Peak Cluster is an innovative collaboration to capture, transport and permanently store carbon dioxide (CO₂) emissions from the cement and lime industry in Derbyshire and Staffordshire, as well as neighbouring industries in Cheshire.

Five cement and lime plants across Derbyshire, Staffordshire, owned by Tarmac, Breedon, Lhoist and Aggregate Industries, SigmaRoc, together with Lostock Sustainable Energy Plant in Cheshire (known locally as LSEP, have come together with Progressive Energy to form Peak Cluster.

The project will capture and transport carbon dioxide emissions from industry across the region before permanently locking it away beneath the eastern Irish Sea.

Cement and lime

The Peak District's unique geology means that the cement and lime industry is part of its rich industrial heritage and has been a feature of its landscape for more than a century.



Tunstead late 1950s, Tarmac CRH

Cement is essential for the UK economy, including the construction sector which produces mineral based products used to build schools, hospitals, social housing as well as roads and vital utility infrastructure. Lime is also a fundamental, but often unseen, ingredient for many key UK industries including purifying our water and environmental remediation.

Fact: Around 40% of the UK's cement is manufactured in and around the Peak District.

However, as cement and lime are created, unavoidable CO₂ emissions are produced. Approximately two thirds of carbon dioxide emissions from cement and lime come from the raw materials themselves.

This means that in order for the cement and lime industry to reach net zero and decarbonise, switching their fuel won't be enough to tackle the vast majority of emissions they produce. The only option is to capture and store their CO₂ emissions in order to reach net zero.

Energy from Waste

Energy from Waste (EfW) plants take our refuse to generate energy by processing the waste left over after reusable and recyclable material has been removed.

The new Lostock Sustainable Energy Plant (LSEP) is currently being constructed in Cheshire. It will take 600,000 tonnes of waste each year to produce generate enough electricity to power the equivalent of around 125,000 homes. However, this process emits carbon dioxide. Connecting into the Peak Cluster allows LSEP to become one of the first EfW sites in the UK to capture, and lock away, its CO₂ emissions.

Benefits

Both industrial sectors have provided high skilled jobs for generations of families and boosted the local economy for decades.

In addition to enabling the continuation of these industries in a sustainable manner, Peak Cluster will help support around 1,000 direct skilled jobs.

From 2030, the project will prevent over three million tonnes of CO₂ emissions each year.

We want to hear from you

If you have any questions, queries or comments on Peak Cluster, please do chat to us. You can find the ways to contact us on our website: www.peakcluster.co.uk.