



ZERO STARTS HERE

ZERO CARBON HUMBER:

A partnership to build the world's first net zero industrial cluster and decarbonise the North of England

SSE Thermal is developing the Keadby 3 low-carbon combined cycle gas turbine (CCGT) project at Keadby in North Lincolnshire. Keadby 3 will have a generating capacity of up to 910 megawatts (MW) and is currently in the planning process.

SSE Thermal has made a commitment to a net zero emissions future. This means that Keadby 3 will only be built with a clear route to decarbonisation. In line with this commitment the Keadby 3 low carbon CCGT power station will be fitted with a post combustion carbon capture facility at the site.

SSE Thermal is part of a consortium of leading energy and industrial companies with

a shared vision to transform the Humber region into the UK's first net-zero carbon cluster by 2040. Keadby 3 will be a key part of this cluster, providing clean power, protecting jobs and underpinning investment in the shared infrastructure needed to decarbonise the region.

Why the Humber region?

The Committee on Climate Change¹ (CCC) and the National Infrastructure Commission² (NIC), have identified that flexibly operated thermal generation is needed to help the transition

to Net Zero including decarbonised generation through the use of hydrogen fuel or the use of CCS.

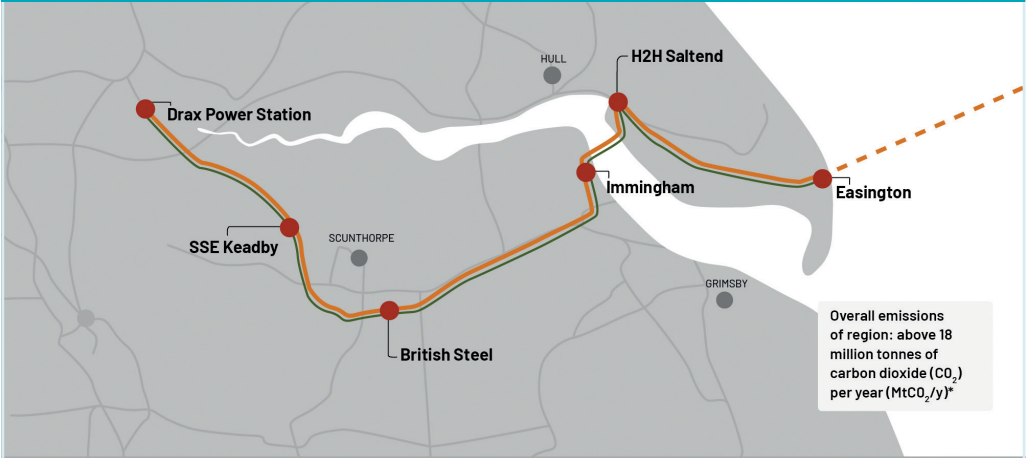
Industrial powerhouses like the Yorkshire and the Humber region are an essential and valued part of the UK's economy but produce high levels of carbon dioxide (CO₂) emissions: the Humber is the most carbon intensive industrial cluster in the country, emitting 12.4 million tonnes a year.

The Humber Estuary and surrounding regions offer the opportunity to deliver the UK's first zero carbon cluster and help position the North of England at the heart of the global energy revolution.

1 Net Zero Technical Report (CCC, May 2019: page 19)

2 Net Zero - Opportunities for the Power Sector (NIC, 2020: page 7)

ZERO CARBON HUMBER SITE MAP



Overall emissions of region: above 18 million tonnes of carbon dioxide (CO₂) per year (MtCO₂/y)*

KEY — Hydrogen pipeline (illustrative) — CO₂ pipeline (illustrative) ● ZCH businesses / facilities

* Combined industry and power emissions for the Humber, excluding Drax Power Station

ABOUT ZERO CARBON HUMBER

Zero Carbon Humber is a consortium of energy and industrial companies, including SSE Thermal, with a shared plan to decarbonise industrial emissions and transform the Humber region into the world's first Net Zero carbon industrial cluster by 2040.

The consortium is focused on using emerging CCS and hydrogen technology. The initiative has the potential to capture and store around 10% of UK's CO₂ emissions per year by 2040. The companies involved include some of the

largest businesses in the region. The plan has the potential to contribute to the future prosperity of the UK's largest industrial hub, which contributes £18bn towards UK Gross Value Added (GVA), and to safeguard up to 55,000 jobs across the region.

This vision will be made possible by shared pipelines for the capture and storage of CO₂ and the transmission of hydrogen across the Humber region. The map above shows the proposed route of the pipeline which Keadby 3 will connect in to.

"Zero Carbon Humber is a consortium of energy and industrial companies with a shared plan to decarbonise industrial emissions"

For more information, please visit <https://www.zeroarbonhumber.co.uk/>

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