

Humber carbon capture projects progress as FOUR shortlisted for further phase

A clutch of Humber-focused pioneering carbon capture projects have moved a step closer to delivery.

Schemes involving new power and hydrogen production, as well as existing industrial emission abatement have been selected for the due diligence stage of the government's cluster sequencing process.

Keadby Three, H2H Saltend, Humber Zero and Prax Lindsey Oil Refinery all progress, as part of the [East Coast Cluster](#), announced last year as a forerunner. Linking up with Teesside industry, it will transport CO2 to sub-North Sea storage in depleted oil and gas fields.

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In total 20 projects have met the Whitehall criteria, with the North East, North Wales and North West making up the balance.

The process is described as “accelerating decarbonisation ambitions, realising economic benefits in the regions and kickstarting the hydrogen economy,” by the Department for Business, Energy and Industrial Strategy, putting the UK “on a path to decarbonising our power system by 2035, while maintaining security of supply”.

Hundreds of millions of pounds of investment, with thousands of jobs – both created and secured – have been highlighted.

Phillips 66 Humber Refinery is a lead organisation in Humber Zero. Chris Gilbert, Humber decarbonisation projects manager there, said: “We are pleased to be a part of the announcement

of shortlisted projects, and we look forward to receiving further clarity for future stages and selection. This announcement provides confidence that CCUS and Net Zero remains a government priority.



A labelled visualisation of the carbon capture infrastructure to be added to Phillips 66's Humber Refinery.

"The Phillips 66 Humber Refinery carbon capture plans are part of Humber Zero, a world-scale carbon reduction project, which aims to prevent up to eight million tonnes of CO₂ from the Immingham industrial area entering the atmosphere by around 2030.

"Carbon capture and storage is vital in supporting the decarbonisation of the UK industry. Our carbon capture facility would be the first of its kind for a refinery. This has the potential to have a huge impact on reducing industry carbon emissions and support refineries across the globe to do the same through knowledge sharing."

Energy major SSE Thermal is behind Keadby Three, the proposed addition to the generating cluster west of Scunthorpe. It would bring a further 910MW of power, and could be operational by 2027.

Catherine Raw, managing director, said: “As we continue to scale up renewables across the UK, the need for flexible generation to keep the lights on and provide vital backup becomes ever more critical. Keadby Three Carbon Capture Power Station can do exactly that and will be crucial in meeting our net zero ambitions.

“The Humber is the UK’s most carbon intensive industrial cluster, and our proposed plant will not only help to decarbonise the region but will also ensure a just transition for workers and communities. We are delighted that BEIS has recognised the strength of our project, which is being developed alongside Equinor, and we look forward to engaging with them as we move closer to delivering on the promise of carbon capture.

“Ultimately, both carbon capture and hydrogen will be essential to the UK’s decarbonisation journey, and momentum continues to build towards this low-carbon future with SSE leading the way through its ambitious Net Zero Acceleration Programme, which will see £24 billion invested this decade alone.”



How SSE Thermal's Keadby power generation cluster is envisaged.

Also shortlisted as part of the East Coast Cluster in the North East leg was Net Zero Teesside Power and Whitetail Clean Energy in electricity generation, with BP H2 Teesside and H2NorthEast joining Equinor's Saltend proposal in hydrogen.

Industrial carbon capture projects CF Fertilisers Billingham Ammonia, Tees Valley Energy Recovery, Norseia, Redcar Energy Centre and ZerCaL250 all progress.

The sister forerunner to East Coast Cluster in the North West, HyNet, saw its hydrogen production project included, with industrial abatement plans progressing for Hanson Padeswood Cement Works, Viridor Runcorn, Protos Energy, Buxton Lime and EssarOil UK.

It comes as bioenergy with carbon capture and storage is also progressed in a separate strand from Whitehall, with Drax – the leading developer – having welcomed the move.

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