

HyNet North West

The HyNet low carbon cluster uses hydrogen and CCUS to decarbonize industrial facilities across northwest England and north Wales.



Key facts & stats

- Location: northwest England/north Wales
- Potential impact by 2030: 10 Mt CO₂/year
- Hub developer: Progressive Energy, in consortium with Eni UK, Essar Oil UK, Cadent, Inovyn, CF Fertilisers, Hanson UK and the University of Chester
- CO₂ sources: hydrogen production, refineries, fertilizer, cement, other hard-to-abate industrial products
- T&S company: Eni UK
- Transport: pipeline
- Storage site: offshore depleted gas fields in Liverpool Bay
- Status: pre-construction phase; final investment decision expected in 2023
- In operation: 2025

[Website](#)

HyNet is one of the UK's leading industrial decarbonization projects. Run by a consortium, the project aims to reduce carbon emissions in industry, homes and transport across this broad region. The UK government has shown support for the project, placing it on a [fast track for incentives and regulatory approval](#), alongside the East Coast Cluster.

HyNet will initially entail construction of two hydrogen production plants at the Stanlow Manufacturing Complex. The plants will convert gas and fuel gas from the refinery into low carbon hydrogen, with the CO₂ produced during the process captured and transported by new and pre-existing, repurposed pipelines to offshore storage in Liverpool Bay.

Cadent will develop a new pipeline network to supply the hydrogen to industrial operations in the region, including from companies like Jaguar Land Rover and PepsiCo. Hydrogen will also be blended for use in transport and electricity generation. Inovyn will provide hydrogen storage in pre-existing salt caverns in Cheshire.

A number of industrial companies have signalled their intention to store CO₂ with HyNet. These include CF Fertilisers, which aims to capture 400,000 tonnes annually, Hanson UK, part of HeidelbergCement (800,000 tonnes), and waste management firm Viridor (950,000 tonnes).

Eni UK is licensed to manage the storage facilities, using gas fields approximately 29 km offshore in Liverpool Bay. These fields are expected to end production before HyNet's CO₂ storage operations kick off in 2025 and offer total storage capacity of 130 Mt. Additional storage sites in nearby Morecambe Bay gas fields are expected to cease gas production by 2030 and could [add](#) another 1.5 Gt.

The close proximity of these sites to HyNet's cluster of industrial emitters – in addition to the existing pipelines that can be repurposed to transport CO₂ and new technologies to produce H₂ – could make HyNet's hydrogen particularly cost-effective.

HyNet is expected to store 4.5 Mt CO₂/year, expanding to 10 Mt/year by 2030. It would also deliver almost 50% of the UK's new 10 GW low carbon hydrogen target for transport, industry and homes by 2030. It is estimated to add up to £17 billion in economic growth by 2050 and create 6,000 jobs annually.