

HyNet North West is the UK's leading industrial decarbonisation cluster - a low carbon energy project at the forefront of the UK's journey to a Net Zero future.

From the mid 2020's, HyNet will produce, store and distribute hydrogen as well as capturing and storing carbon to decarbonise the North West of England and North Wales through the creation of state-of-the-art infrastructure.

Low carbon hydrogen will be generated at Stanlow, with carbon dioxide safely captured and stored offshore in the Liverpool Bay gas fields. A new pipeline network will transport the low carbon hydrogen to power industry, fuel transport and to heat homes.

HyNet has the potential to reduce carbon dioxide (CO₂) emissions by 10 million tonnes every year by 2030 –

the equivalent of taking four million cars off the road. It can deliver over three-quarters of the Government's 10 Point plan 2030 target for hydrogen production and 100% of the target for CO₂ sequestration.

The project will form a low carbon hub, attracting investment to the area and supporting the retention of industry, much of which is vulnerable to carbon price increases. This will result in thousands of jobs, as well as enabling long-term sustainability for businesses, safeguarding jobs and creating financial security for communities across the region.

The HyNet project is being developed by a world-class consortium of regionally located partners, Progressive

Energy, Cadent, CF Fertilisers, Eni UK, Essar, Hanson, INOVYN (part of the INEOS Group) and the University of Chester.

Why choose the North West?

The HyNet cluster stretches from Flintshire and Wrexham, through Cheshire, Warrington, Liverpool City Region and Greater Manchester into Lancashire. This area boasts the largest concentration of advanced manufacturing and chemical production in the UK and is home to a host of energy intensive users.

The North West is an ideal location. HyNet will not only benefit from the existing regional technical skill base in chemicals production, refining and offshore oil and gas production and processing, but also has existing infrastructure already in place, including existing natural gas pipelines to transport the captured CO₂. Repurposing of existing infrastructure is not only cost effective, it also allows for speedy delivery of the project to make the urgently needed rapid reductions in CO₂ emissions.

The regions geology also lends itself very well to the project. The captured CO₂ will be stored in depleted gas reservoirs under the seabed in Liverpool Bay in perpetuity. In addition, to manage peaks in demand, hydrogen will be stored safely in underground salt caverns within Cheshire's salt basin, a technology which is already used extensively for natural gas storage.

Demand-led

HyNet is a project led by industry demand. Multinationals and well-known brands, who manufacture the products across the region want to decarbonise and produce low carbon products for their consumers. HyNet provides the shared infrastructure, expertise and

systems allowing organisations across the region to work collectively decarbonise at scale. Almost 30 major employers across the region have agreed to work with the HyNet low carbon cluster to decarbonise the food, ceramics, paper, glass and automotive sectors.

Why now?

Our entire energy system needs to be decarbonised rapidly to prevent the damaging and evident effects of climate change. There is no single solution - we need to deploy multiple approaches to transition as quickly as possible to clean energy.

Here in the North West, HyNet is delivering one of the lowest cost carbon capture clusters in the UK. We can accelerate the country's transition to a low carbon future, supporting the levelling up agenda.

With ongoing support from Government and continued collaboration across business, industry, public sector and academia we stand ready to deliver. As Secretary of State for Business, Energy and Industrial Strategy Kwasi Kwarteng said, "the ability of HyNet to transform the North West, safeguarding jobs, creating new ones and positioning the region at the forefront of green innovation is hugely exciting".



Rachel Perry, Project Manager, HyNet North West

