



VERTEXHYDROGEN

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Vertex Hydrogen submits plans to deliver UK's first low carbon hydrogen hub

The submission marks another milestone hit in the development of the HyNet cluster.

Vertex Hydrogen announces the submission of plans to build the UK's first low carbon hydrogen production hub as part of the Government's Cluster Sequencing process.

The hub, which will be built at the Stanlow Manufacturing Complex in Ellesmere Port, Cheshire includes technology which will capture carbon dioxide (CO₂) emissions to produce low carbon hydrogen. CO₂ emissions will be stored offshore in Liverpool Bay. The hydrogen will replace the use of fossil fuels in industry, as well as heating homes, and fuelling transport across the North West England and North Wales.

Vertex's submission to the Government's Department of Business, Energy and Industrial Strategy ('BEIS') details plans for delivery of the UK's first low carbon hydrogen production hub and marks another milestone in the development of HyNet North West. HyNet is the UK's leading industrial decarbonisation cluster which was successfully selected by Government to drive forward the removal of carbon emissions from industry within Track 1 of the cluster sequencing process.

Vertex Hydrogen is a transformative new joint venture between Essar and Progressive Energy, two partners within the HyNet consortium. Vertex Hydrogen has been formed to provide a catalyst for a low carbon economy across North West England and North Wales, as a central part of the HyNet decarbonisation cluster.

Providing low carbon hydrogen across North West England and North Wales

The UK's first low carbon hydrogen plant will sit at the heart of the HyNet low carbon cluster. Beginning production in 2026, it will generate over 1GW of hydrogen, the equivalent to the energy used to heat all of the homes across Liverpool City Region.

HyNet is vital for the North West of England and North Wales to hit their net zero targets by 2050, playing their part in the fight against climate change. The low carbon hydrogen will be used to reduce the carbon footprint of a wide range of companies across the chemicals, ceramics, paper, glass and flexible power generation sectors. These include Tata Chemicals Europe, Encirc, InterGen, Solvay, Ingevity, Novelis, Pilkington Glass and Saica Paper.

By 2030, HyNet aims to reach 80% of the Government's target to produce 5GW of low carbon hydrogen for power, transport, industry and homes.

Prashant Ruia, Essar Chairman, said: "Essar is massively committed to investing in energy transition and is building a portfolio of companies in this space. Vertex Hydrogen is a central component of that vision, which will be instrumental in helping create a hydrogen future for the North West and North East Wales. This will see over £1 billion of investment, thereby creating jobs and supporting local communities for decades to come."



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Chris Manson-Whitton, Director at Progressive Energy, explained: “As the founding developer of HyNet, we see the submission of Vertex’s plans to build the North West’s low carbon hydrogen production hub as a very important milestone. Vertex is central to unlocking the low carbon hydrogen economy, reducing emissions, create a cleaner world for future generations whilst creating and safeguarding jobs.”

Justin Madders, MP for Ellesmere Port, commented: “Ellesmere Port is ideally positioned to develop as the heart of the UK’s hydrogen economy as the HyNet low carbon cluster continues to grow. Hydrogen is a key catalyst in the green jobs revolution as we evolve our economy to hit net zero by 2050.”

Notes to Editors

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Driving the UK’s low carbon transformation

In November 2020, the UK Government published its Ten Point Plan for a Green Industrial Revolution, providing a roadmap to driving innovation, boosting export opportunities, and generating green jobs and economic growth across the country to level up regions of the UK.

As part of the plan, government committed to deploy Carbon Capture, Usage and Storage (CCUS) in two industrial clusters by the mid-2020s, with a further two clusters coming on-line by 2030. The successful deployment of CCUS is critical to meeting the UK’s net zero goals and remains crucial for industrial decarbonisation, low carbon power, engineered greenhouse gas removal technologies and delivering the Government’s 5GW by 2030 low carbon hydrogen production ambition.

About Vertex Hydrogen

Vertex Hydrogen was launched in January 2022. A joint venture between Essar Oil UK (90%) and Progressive Energy Ltd (10%), Vertex will deliver the UK’s first low carbon hydrogen production plant to lead the country’s hydrogen production economy. Using Johnson Matthey’s Low Carbon Hydrogen (**LCH™**) technology, the hydrogen production plant will sit at the heart of HyNet North West, the UK’s leading industrial decarbonisation cluster. HyNet will deploy a combination of low carbon hydrogen, distributed by Cadent Gas Ltd, and carbon capture and storage (CCS) infrastructure, provided by ENI, to decarbonise industry, transport and transform how we heat our homes across North West England and North East Wales.

About Essar in the UK

Essar Oil UK is a leading UK-focused downstream energy company whose main asset is the Stanlow Manufacturing Complex, one of the most advanced refineries in Europe situated close to the major cities of Liverpool and Manchester. Stanlow has 800 employees, and is a key strategic national asset, annually



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producing over 16% of the UK's road transport fuels, while playing a key role in Britain's broader petrochemical industry.

Since acquiring Stanlow in 2011, Essar has invested \$1 billion in margin improvement and other efficiency initiatives to ensure the refinery remains competitive in a rapidly changing market. The company is a major supplier in the North West and beyond with customers including most of the major retail brands operated by international oil companies and supermarkets, Manchester Airport, leading commercial airlines and the region's trains and buses.

Essar is committed to playing a key role in the decarbonisation of the UK economy, with ambitious plans to build a green energy industrial cluster at Stanlow. These include the construction of two new low carbon hydrogen production units on site as part of the HyNet consortium, with a planned total investment of approximately £850m to deliver the hydrogen production hubs. Follow on capacity growth is planned to reach 80% of the UK Government's new target of 5GW of low carbon hydrogen for power, transport, industry and homes by 2030.

Fulcrum BioEnergy has announced a £600 million project to create a new facility at Essar's Stanlow site, to convert several hundred thousand tonnes of non-recyclable household waste each year into sustainable aviation fuel (SAF) for use by airlines operating at UK airports.

www.essar.co.uk

About Progressive Energy Ltd

Progressive Energy are experts in project development and implementation with extensive experience of overcoming the technical and commercial challenges associated with bringing new technologies to market. The team are passionate about tackling climate change by creating meaningful and deliverable projects. Progressive Energy translate innovative technologies, such as hydrogen and carbon capture, utilisation and storage (CCUS), into concepts and ideas all the way through to their deployment to make a material difference to climate change. Progressive Energy originated and leads the development of the HyNet decarbonisation cluster.

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