Net Zero North West

Driving the decarbonisation of the North West industrial sector

Presentation for UK Research and Innovation / All Energy Webinar

Thursday 18th March 2021

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NORTH WEST BUSINESS LEADERSHIP TEAM

North West decarbonisation challenge

- Our region has the **highest concentration of advanced manufacturing and chemical production in the UK**
- We currently produce around **40 million tonnes of CO_2 annually**
- The scale of the North West's decarbonisation challenge demands a **joined up and collaborative approach**

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Net Zero North West

- We are an **industry-led cluster** acting as a public and private sector **investment accelerator** for industrial decarbonisation and clean growth projects in the North West.
- Net Zero North West covers the **traditional industrial powerhouses** of the Liverpool and Manchester city regions, as well as Cheshire and Warrington
- We unite business, LEPs, city-regions, boroughs and academia to build a **united voice and holistic vision for industrial decarbonisation in the North West**
- Through this work we aim to supercharge the UK's green recovery by **driving job creation, innovation, and investment in the North West and net zero economy**

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ABB

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Cheshire energy hub

Peel NRE PART OF PEEL L&P

Cheshire and Warrington 87 Local Enterprise Partnership

SIEMENS

North West Hydrogen Alliance

Liverpool City Region Local Enterprise Partnership

Greater Manchester Local Enterprise Partnership

Net Zero NW Cluster Plan

- As part of the Government's Industrial Decarbonisation Challenge, we have received **UK Research and Innovation funding** to prepare the North West and North East Wales for a net zero future
- Our core mission is to become the **UK's first low carbon industrial cluster by 2030** and **world's first net zero industrial cluster by 2040**
- The Net Zero NW Cluster Plan will create a **deliverable investment, technology and infrastructure blueprint** to support the region's net zero transition and low carbon recovery post-COVID-19
- It brings together a **coalition to identify skills requirements, and work alongside FE and HE** to deliver

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Our unique strengths

- The North West has all the elements required to deliver a low carbon industrial cluster by 2030 – **including renewables, hydrogen, Carbon Capture Usage and Storage, nuclear and smart grids**
- With an unrivaled range of projects, the Cluster offers a **multi vector energy system that can boost clean growth**
- We are a leading national hub for **advanced manufacturing, chemicals production, ICT, biotechnology, pharmaceuticals, aerospace, shipping, and telecommunications**
- We have excellent **air, rail, and road transport links** – plus the iconic **Port of Liverpool** that continues to serve as a key international transport hub
- We have the **industry and infrastructure to deliver** alongside natural geological assets such as the Irish Sea gas fields, with the capacity for decades of emissions disposal. The Cheshire salt caverns are perfectly positioned for hydrogen storage

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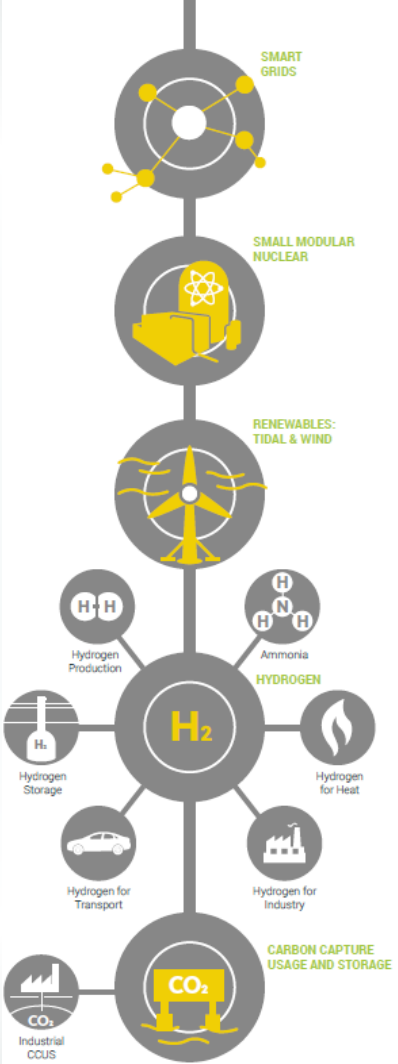

Major Net Zero North West projects

Project: HyNet

Investment opportunity: £1bn+

Timescales: Operations to start in 2024, subject to consenting and Government Business Models for Low Carbon Hydrogen and CCUS.

Overview: The UK's leading low carbon hydrogen and CCUS project offers a low cost, low risk route to decarbonise the North West industrial cluster and other sectors of the regional economy. Kick starting the hydrogen economy, it will deliver a material contribution to net zero and considerable economic benefit. Repurposing Liverpool Bay gas fields infrastructure provides a low capital entry for CCUS deployment of 1 million tonnes of CO_2 per year with incremental growth to 10 million tonnes per year and beyond.

Project: Mersey Tidal Power Project

Investment opportunity: £ Multi-Billion Capital

Timescales: Early stage Development.

Overview: The high tidal range in Liverpool Bay and the Mersey estuary provides a unique opportunity to reliably generate abundant and predictable long-term renewable energy. Progression of the new scheme over the next decade will 'lock-in' long term, low carbon generation for the urban and industrial area for a century. The scheme is an important jigsaw piece in the whole energy system integration of electricity, storage and hydrogen and will provide resilience in the wider region network, whilst also providing a boost in employment and skills for the city region.

Project: Protos

Investment opportunity: £1.5bn

Timescales: Immediate project specific opportunities around plastic recycling and recovery, BioSNG, hydrogen production and Carbon Capture and Utilisation. Extending to a 15-year business plan across later phases.

Overview: Developed by Peel L&P Environmental, Protos is a strategic cluster of energy generation and energy intensive industry in Cheshire; with over 54 hectares consented and a wider masterplan extending to 280 hectares. Existing infrastructure includes a 50 MW windfarm and 26MW biomass facility. Protos has the opportunity for Carbon Capture and Storage and will provide multi energy vector, local networks to support energy intensive industry.

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The opportunity

- This is a **game-changing opportunity** to level up the North West and deliver inclusive growth across the region, help build a green future for current and future generations, and secure a better deal for energy consumers
- We have the **shovel ready projects** primed for investment, **existing workforce** and developing **pipeline of skills and talent** from top universities and colleges to capitalise on this opportunity
- With appropriate investment, our region can be a **world leader** in developing and delivering low carbon technologies, **spearheading the fourth industrial revolution** and creating sustainable high value-add jobs of the future

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