

HyNet North West

Next Steps to Deployment

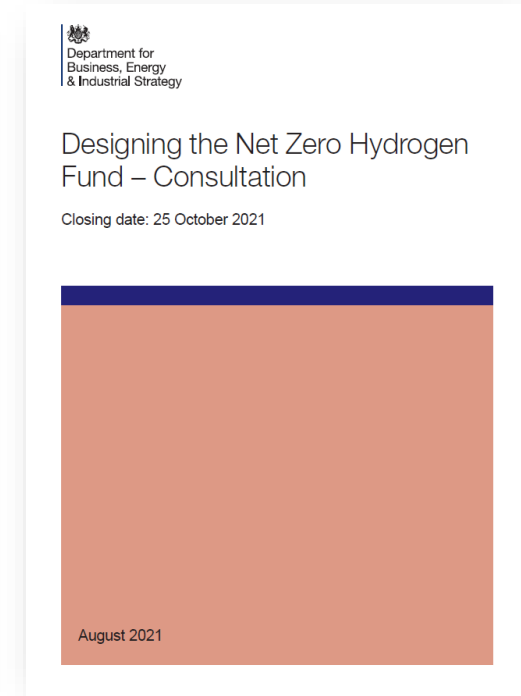
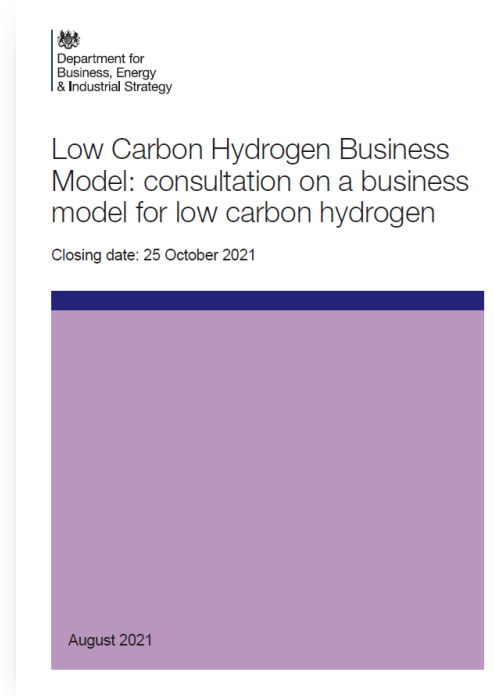
Hydrogen and Fuel Cells – The Time is NOW

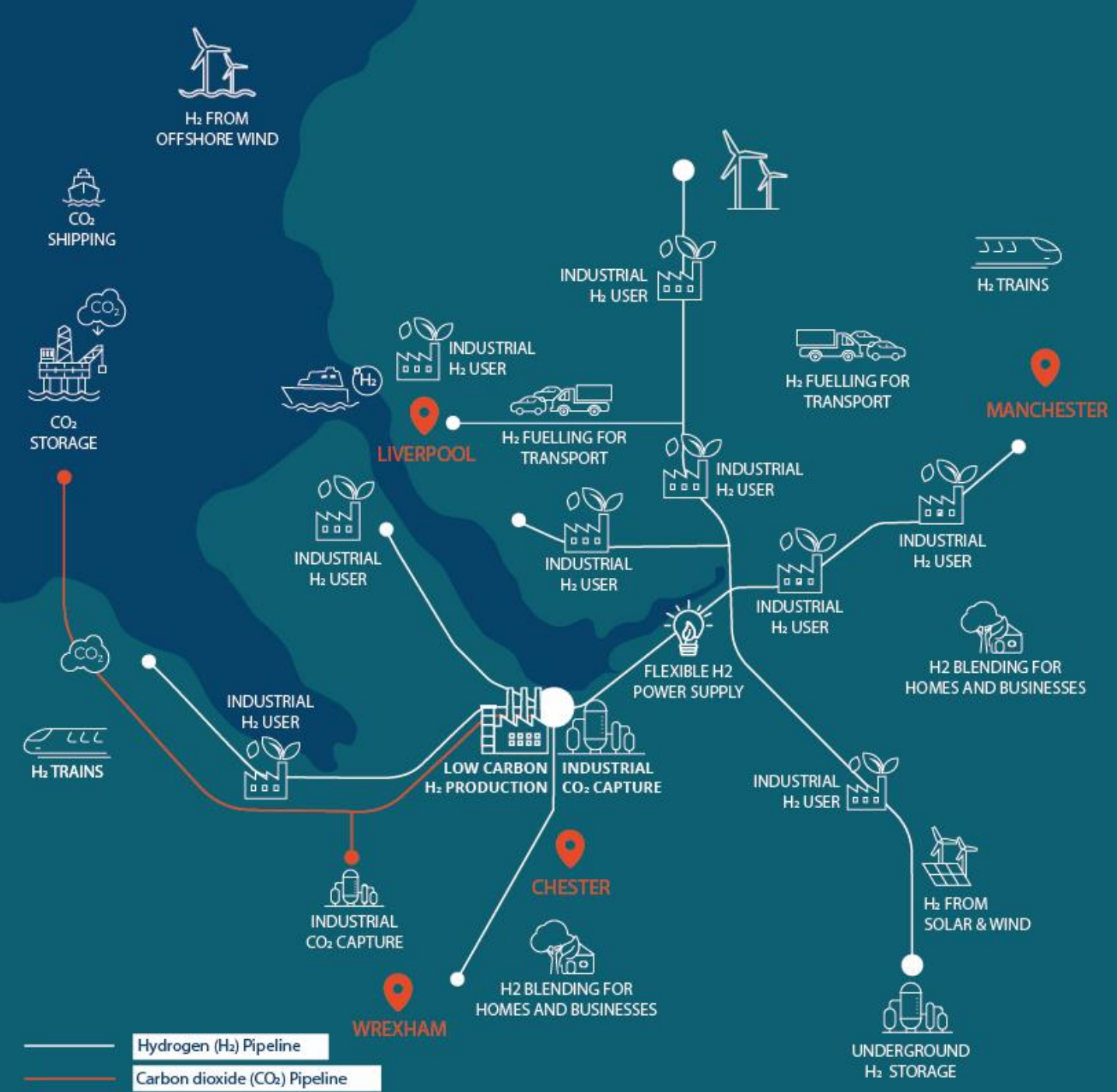
16th November 2021

Adam Baddeley, Progressive Energy



UK Hydrogen Strategy will ensure that only low carbon hydrogen is supported...





Elements of HyNet North West

As part of the HyNet North West project, we will build:

- Low-carbon hydrogen production plants
- A hydrogen pipeline network
- Salt caverns in which hydrogen can be stored ready for use
- Facilities to capture CO₂ emissions
- Underground pipelines to transport CO₂ emissions for permanent safe storage

HyNet: Project Structure

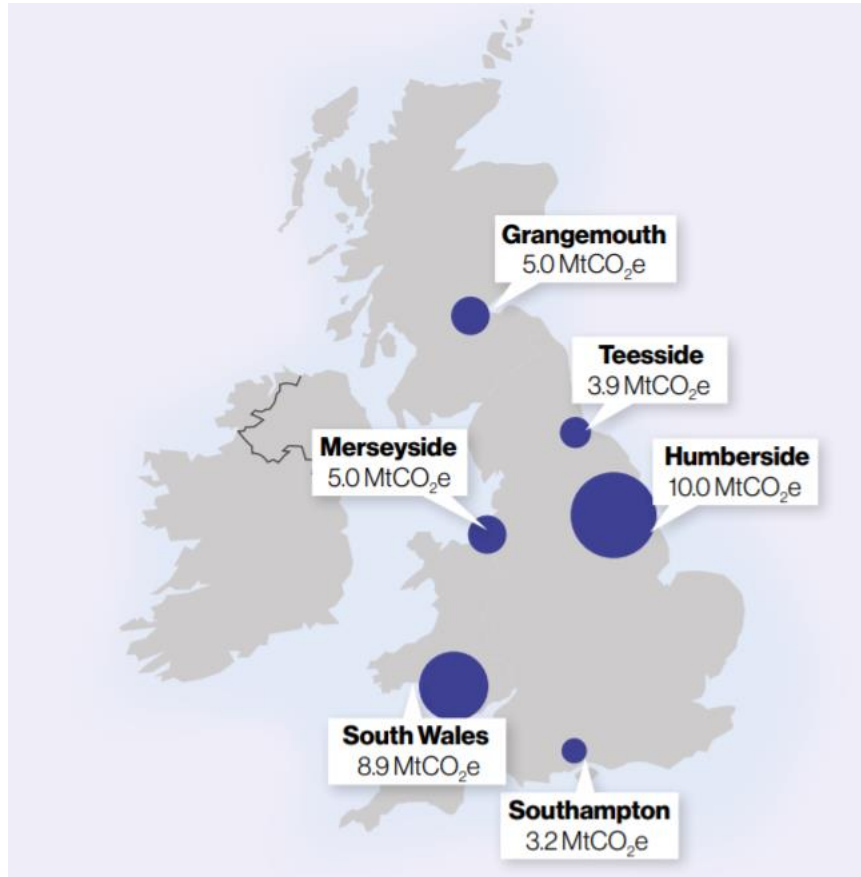


.....delivered by a committed consortium

.....and led by regional demand



HyNet: Selected as a 'Track 1' Cluster



Selection onto Track 1 is a huge vote of confidence for the region and means fast-tracking to delivery by negotiating support regimes with BEIS



Department for
Business, Energy
& Industrial Strategy

Business Model
Support Negotiation

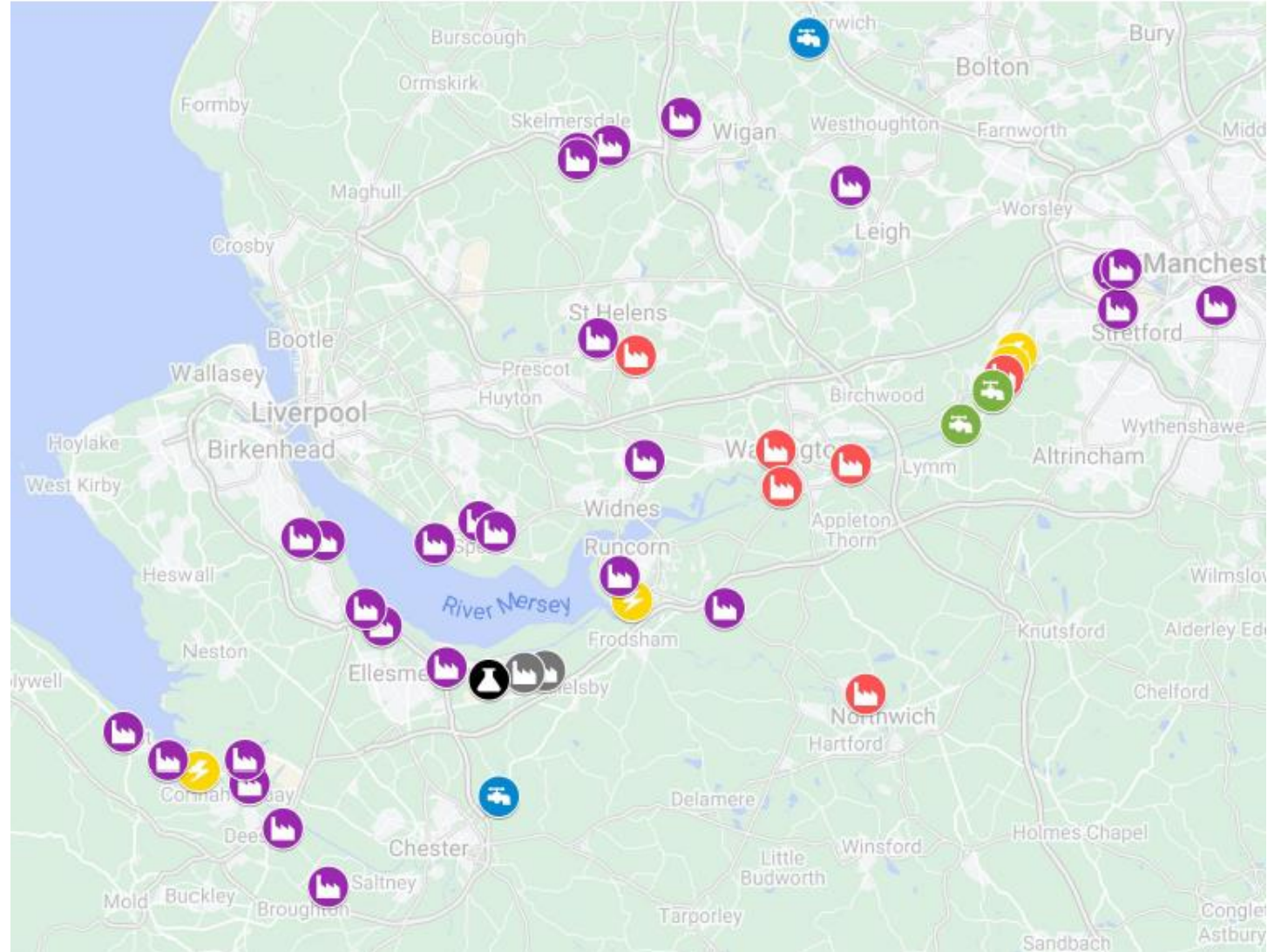
HyNet: Momentum and Deliverability

- Project design and consenting: fully funded (£33m BEIS/UKRI + £39m private)
- Leading hydrogen production: using UK Johnson Matthey LCH™ technology
 - Only UK hydrogen production project that has undertaken FEED
- Advanced consenting and permitting activity:
 - CO₂ storage licence secured, CO₂ pipeline DCO in public consultation
 - Hydrogen production plant planning permission in public consultation
 - Hydrogen network DCO being prepared
 - Hydrogen salt cavern storage – only requires a variation to existing consent
- Selection as a Track 1 Cluster enables acceleration



HyNet: Hydrogen Pipeline Network DCO

- DCO (and FEED) information currently under development
- Network to be deployed in three main phases
- 25 MoUs in place with large industrial and power sector emitters



HyNet: TCP Application for H₂ Production Plant

HyNet North West

[Home](#)

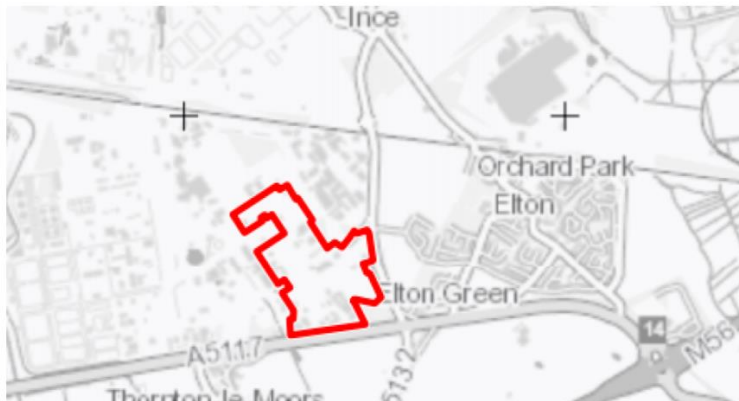
[Our current consultation](#)

[Get in touch and stay updated](#)

Where will it be located?

The HPP will be located on a largely redundant plot of land in the South East corner of the Stanlow Manufacturing Complex, near to Pool Lane and the A5117 (shown below). The site was identified as the most suitable following an evaluation of a number of sites within the complex.

Proposed Site at Stanlow Manufacturing Complex



HyNet North West

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View of Phase 1 Hydrogen Process Area & Associated Infrastructure from the North



What are the benefits?

HyNet: CO₂ Pipeline Network DCO

The screenshot displays the HyNet North West website interface. At the top, the navigation bar includes the logo and three menu items: Home, Our current consultation, and Get in touch and stay updated. The main content area features a map of the North West region, showing various pipeline options. A 'Feedback map' sidebar on the left lists four options: 'New Pipeline - Option G' (blue), 'New Pipeline - Option I' (red), 'Existing Pipeline' (brown), and 'Connection to Existing Pipeline at Connah's Quay Variations' (grey). The map itself shows several numbered green circles (2, 4, 7, 8, 10, 12, 13) and colored lines representing pipeline routes. A search bar at the top right of the map area contains the text 'Find a place by typing it here'. Below the search bar are zoom controls (+/-) and a person icon. A green button labeled '+ Add a comment' and a white button labeled 'Change map view' are positioned at the bottom right of the map. The map data is attributed to Google and dated 2021.

HyNet Industrial Fuel Switching Programme

HyNet: Objectives of Fuel Switching Programme

- To create evidence to enable **participating and wider sites** to switch to H₂
- To determine the **costs of switching** relevant industrial sites to H₂
- To prove that there is **no detrimental impact** upon existing plant and equipment
- To demonstrate that sites can operate in conformance with all **safety regulations**
- To prove that H₂ can be fired in compliance with **environmental permitting** standards



HyNet: Industrial Fuel Switching Programme



WP1: Project Management

WP2: H₂ Supply

WP3: Direct Firing

WP4/5: Boilers

WP6: Refinery

Lead / Partner



PILKINGTON



Unilever



Main Contractors



Demonstration 'launched' on 24th August



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Efficiency & Environment, Top Stories

Liverpool to produce glass using hydrogen in world first

The trial aims to demonstrate how hydrogen can provide a feasible solution to clean up energy intensive industries

[Become a BusinessGreen member](#)

'World first': Sheet glass produced with hydrogen at UK plant for first time



Cecilia Keating

25 August 2021 • 4 min read

HyNet: Next Steps

HyNet: Next steps

- Begin negotiations with Government on long-term business model support for HyNet CO₂ transport and storage infrastructure
- Provide information to enable NW sites to bid in Phase 2 of Government Cluster Sequencing process (bids due end Jan 2022)
- Bid into new £55M BEIS Industrial Fuel Switching Competition (bids due 29th Nov)
 - PEL leading a bid with 7 industry partners in the North West
- Continue with three core consenting (and FEED) processes
 - Support various others for specific CO₂ capture sites
- Move all above areas of project development along together in concert!

HyNet North West

