



Pioneering Green Hydrogen

Pioneering Green Hydrogen Energy Solutions

August 2022



PRoTIUM

- Founded in 2019
- Now with 40+ employees.
- Recently closed £40.5m fundraising.
- UK largest green hydrogen project developer (pipeline >£1bn).
- Focus on industrial decarbonisation of heat and mobility.
- Two flagship projects with AB InBev (Wales) and this project in Teesside.

Why Hydrogen?

Hydrogen is the most abundant element in the universe, making up more than 90% of all matter

Hydrogen is

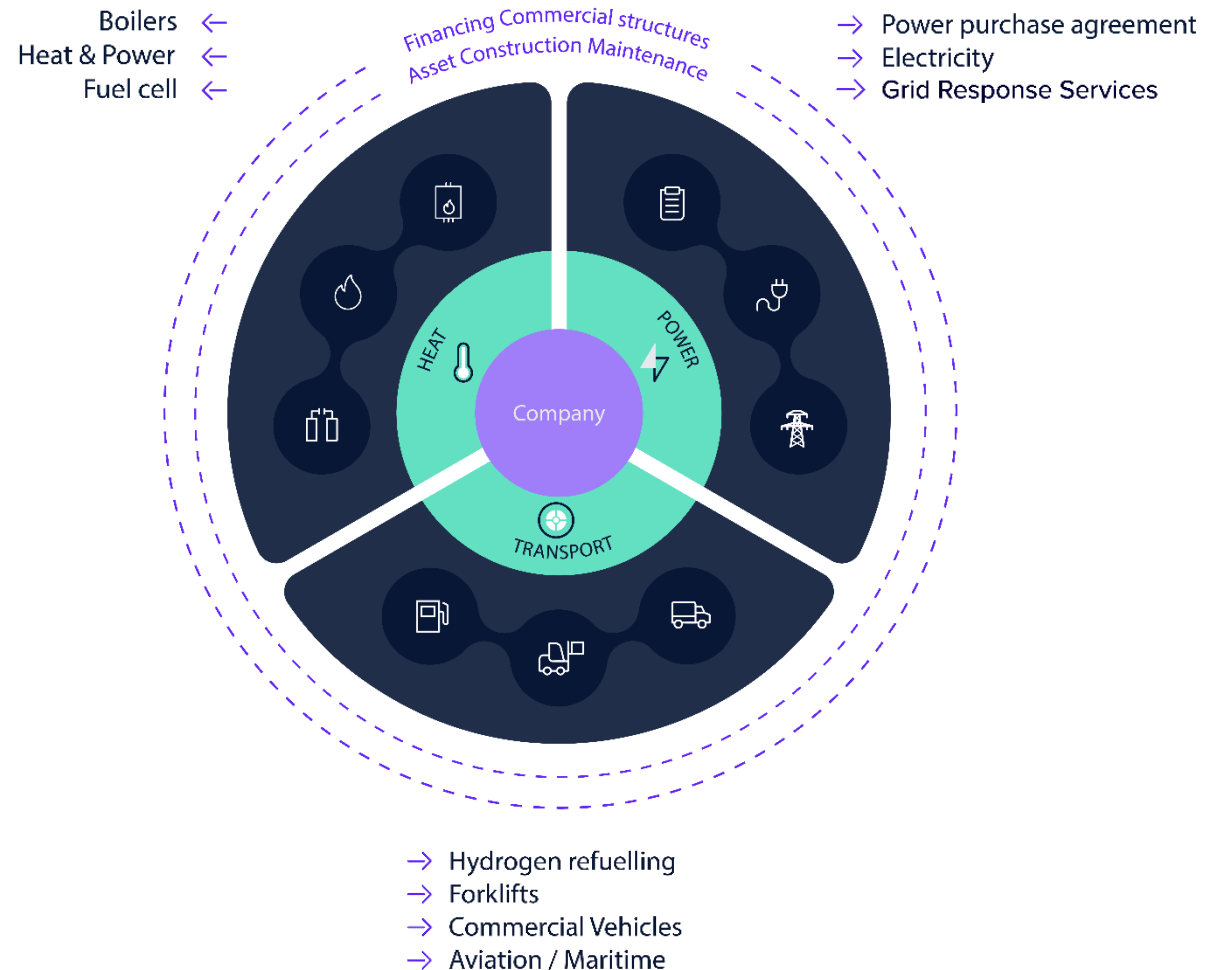
- Safe
- Mobile
- Zero Carbon*
- easy to store



*if generated renewably

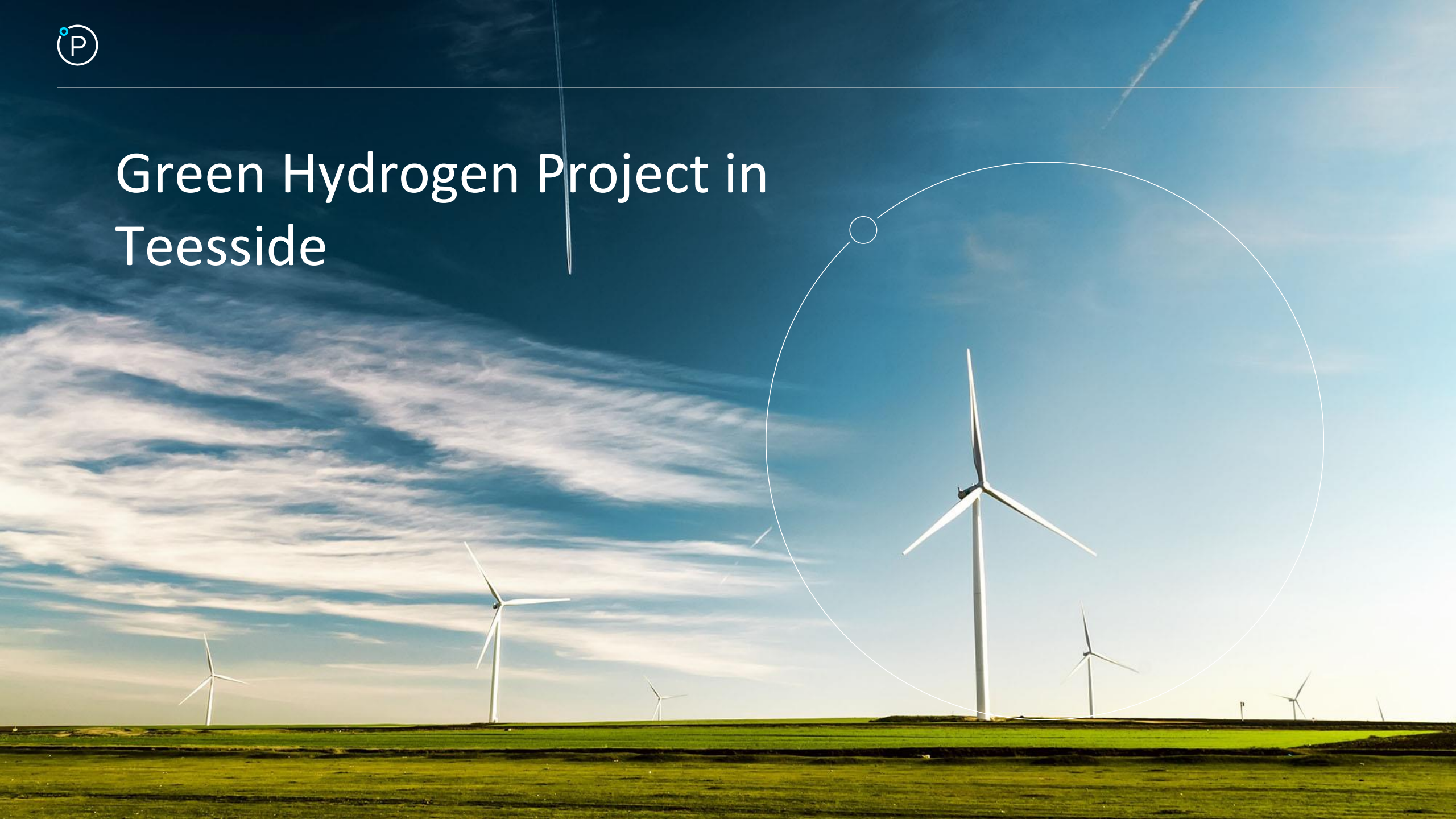
Protium's Mission to End Fossil Fuel Use in The UK and Beyond

- Protium develops, builds, finances, and operates renewable energy projects that produce **green hydrogen** from water and renewables.
- We focus on projects and sectors where **early commercial traction** is viable without relying on government grants or subsidies.
- We believe hydrogen is the **key energy carrier** to replace fossil fuels in the hardest areas to decarbonise, including:
 - Industrial Heating
 - Commercial Transport
 - Aviation & Airports and Maritime



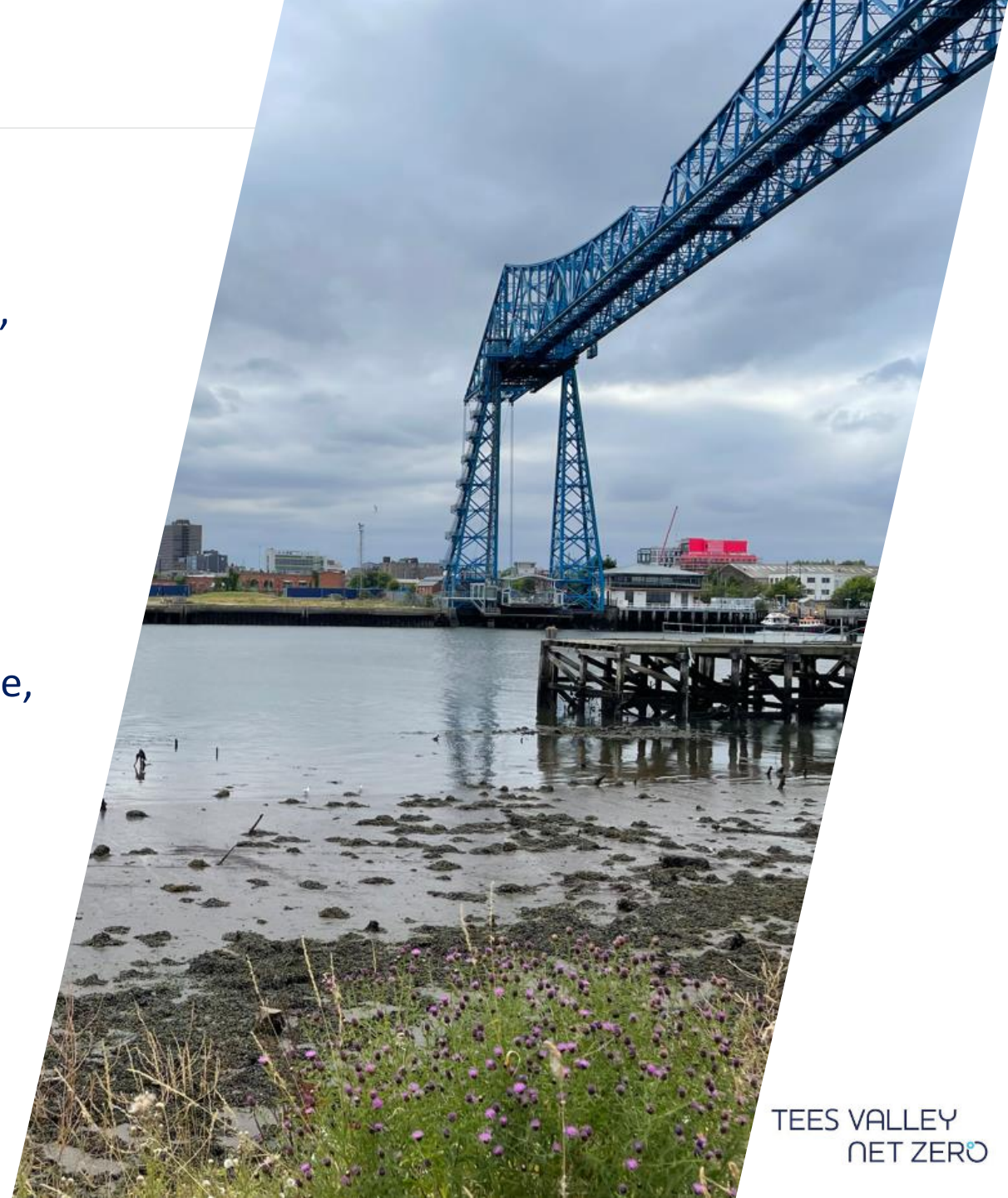


Green Hydrogen Project in Teesside



Why Teesside?

- **Tees Valley is ideally situated** to become a multi-sector, sustainable and zero-carbon industrial zone, which services the whole of the UK.
- **Innovation is a key feature of the Tees Valley economy**, central to production, its future and growth.
- By developing this '**green hydrogen hub**' in Teesside, we are able to service multiple off-takers with different energy requirements.
- Along with other similar projects in Teesside, Tees Valley Net Zero would assist in making Teesside a **global pioneer in the green hydrogen economy**.

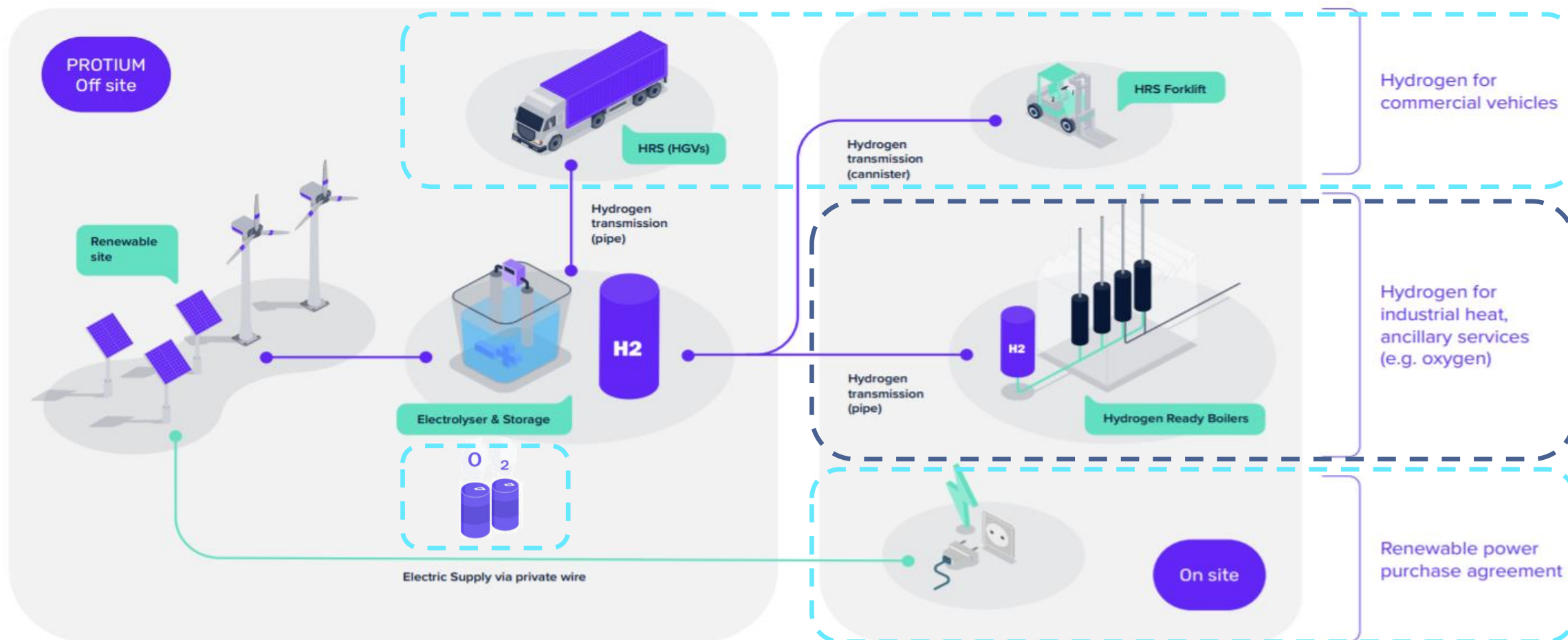


Green Hydrogen Hub for Teesside

- Flagship project to install ~70MW of electrolysis.
- Targeted at the decarbonisation of industries in Teesside.
- Targeting first of the green hydrogen production to be ready in late 2025.
- Most of the job creation will occur during construction with sustained employment during operation.

Applications

- Hydrogen for mobility & heat.
- Renewable power.
- Oxygen.



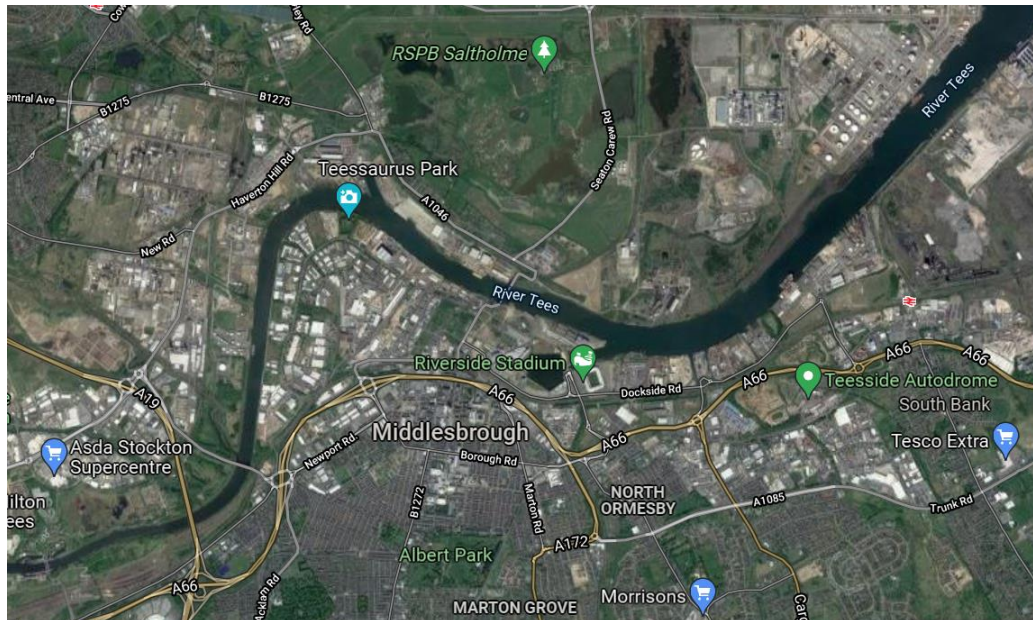


Main Project Location

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The main site is located at Haverton Hill, on the north side of the River Tees across from the 'Teessaurus Park'.

An example of the likely infrastructure to be included on this site is shown on the next slide.



Phase 1: Onstream 2025

18MW



Phase 2: Onstream 2026

68MW



The Benefits

Environment

- **Improving local air quality** through use of Fuel Cell Electrical Vehicles (FCEVs) - our vehicles only emit water vapour whilst filtering particulates out of the air as they move.
- **Reducing sound pollution**, FCEV's make little noise when operating.
- **Reducing greenhouse gas emissions** – improving the environment and providing a future for our children.

The Benefits

Community

- Support Teesside to become a **leader in green technology**.
- **Increased job security** – providing an increase in highly skilled local jobs in an emerging green technology sector.
- Use of and engagement with the **local Teesside supply chain**
- Bringing hydrogen sustainability **education to local schools and universities** to inspire future STEM careers.

PROTIUM

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TEES VALLEY
NET ZERO

