

PORTLAND PORT DORSET:

A Material
Hydrogen
Hub

UKEn
POWERING BRITAIN

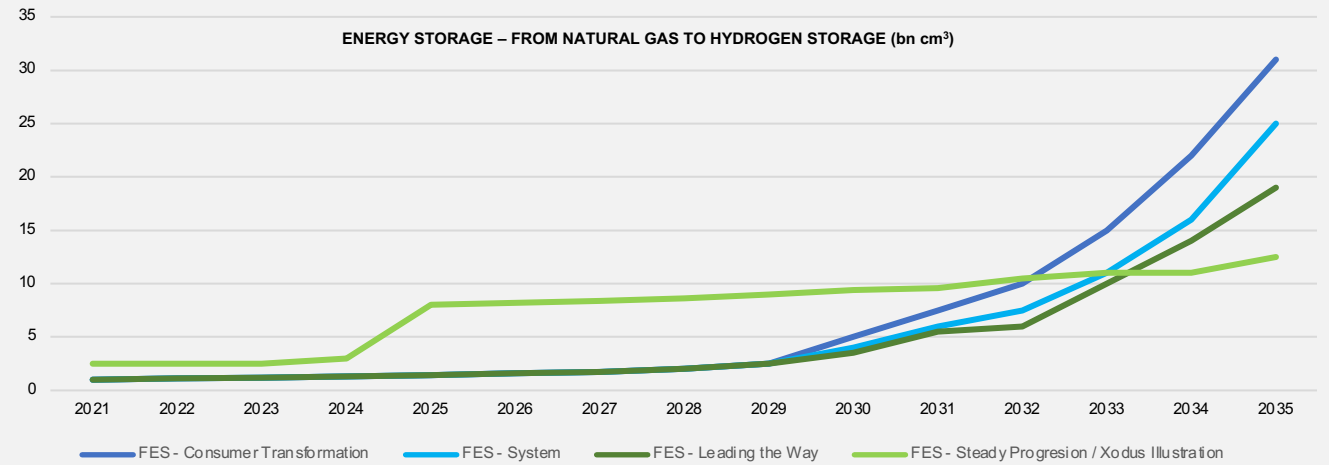


The UK government has expressed a strong commitment in its most recent Growth Plan 2022 document to **accelerating the delivery of priority major infrastructure projects across the country as a:**



UKEn stands with government in our own full and firm commitment to long-term energy security in the UK and a greener sustainable future.

UK HYDROGEN DEMAND SET TO OUTSTRIP STORAGE



WITHOUT SIGNIFICANTLY MORE STORAGE, THE UK'S HYDROGEN SECTOR CANNOT DEVELOP.

Hydrogen becomes a dominant component of our energy system under three of the four National Grid Future Energy Scenarios ("Consumer Transformation", "System Transformation", and "Leading the Way").

The FES estimates the need for between 17 and 32 bn m³ compared to a storage capacity of 2.4 bn m³ today and well above the range of possible new additional storage identified in the previous section.

THE BENEFITS



KEY FACTS ABOUT UKEn



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This major infrastructure project for sustainable British energy is an important addition to the government's list of hydrogen projects



The Portland Hydrogen hub would deliver 43 bcf (1.2 bcm) of new storage, a 70% increase in the UK's current capacity



Without the Portland site, the Southampton hydrogen project would need to generate up to five times more hydrogen merely to meet peak demand spikes



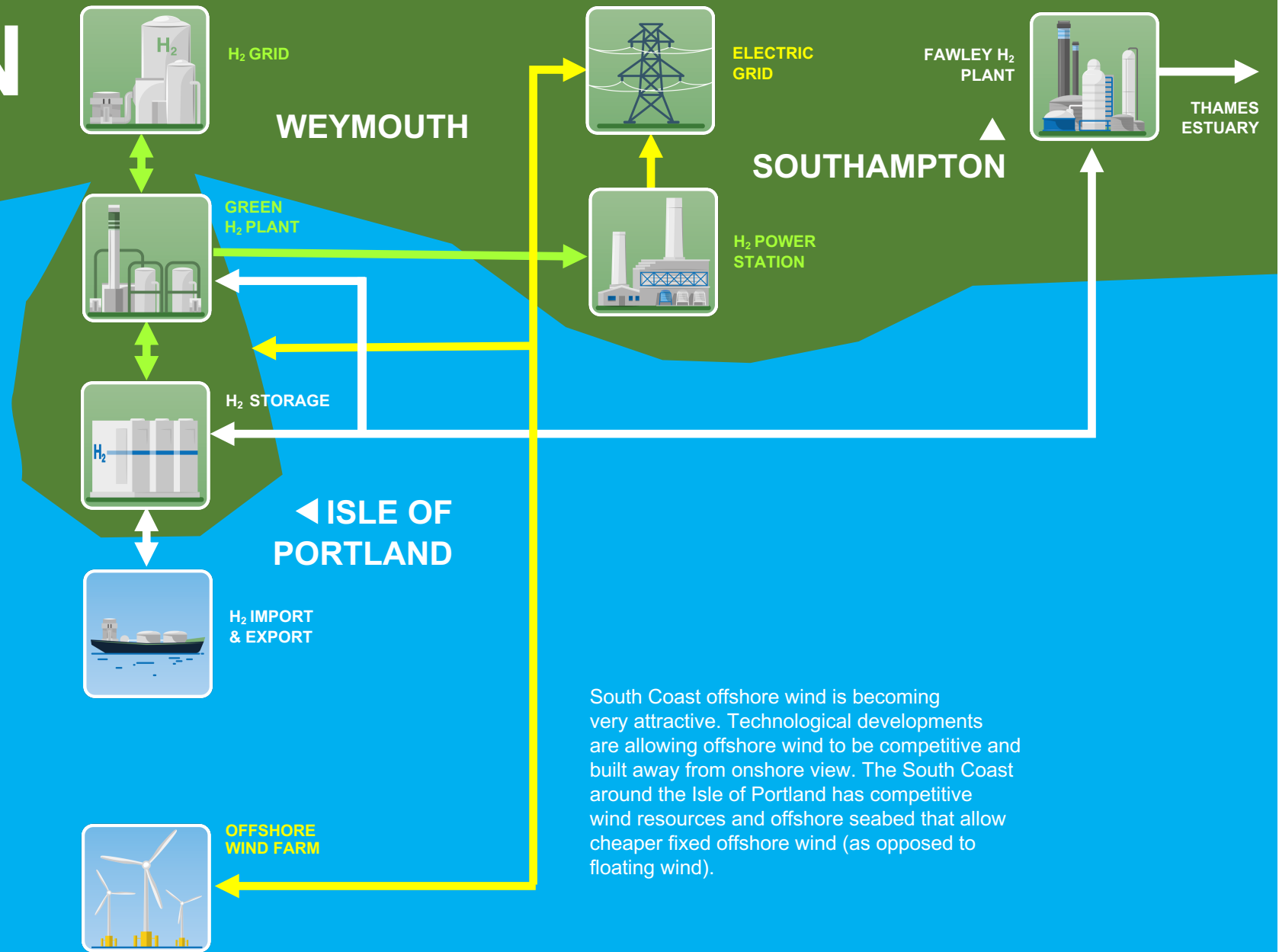
The initial throughput ambition is 1 bcf/day (28m m³/day), or approximately 14% of the UK's current daily natural gas demand

SOUTHERN PATHWAY HUB

The Portland hydrogen hub would provide critical infrastructure to service a South Coast hydrogen hub development and attract further investment to the region.

The Portland hydrogen hub would give:

- Modular storage facilities to serve the initial transition to hydrogen for the grid.
- Storage capacity to the 4.3GW Blue Hydrogen project in Southampton (Exxon and SGN).
- ~6% of FES average storage needs forecast in 2050 in line with the regional population.
- Support future green hydrogen powered by local offshore wind.

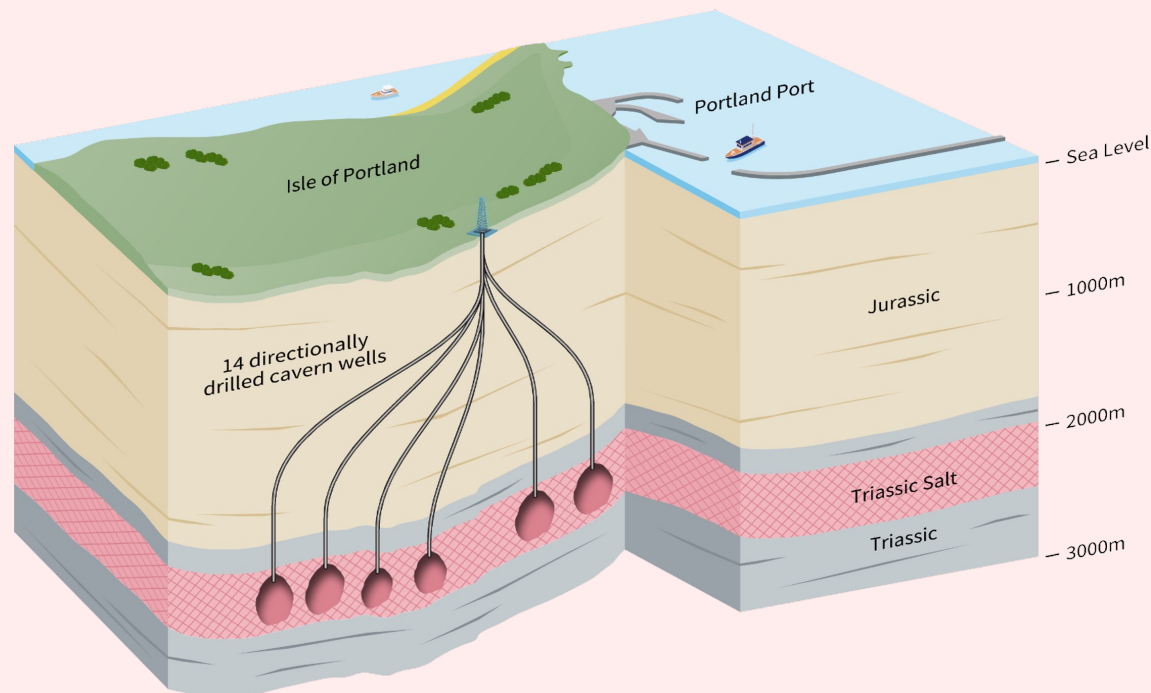


South Coast offshore wind is becoming very attractive. Technological developments are allowing offshore wind to be competitive and built away from onshore view. The South Coast around the Isle of Portland has competitive wind resources and offshore seabed that allow cheaper fixed offshore wind (as opposed to floating wind).

PORTLAND: UNDERGROUND ENERGY STORAGE IN SALT CAVERNS



“... hydrogen’s ability to store energy for long periods of time and in large quantities is central to its strategic value to a fully decarbonised energy system and we envisage hydrogen storage being a key part of future network infrastructure. **As such, I warmly welcome UKOG’s project proposal.**”

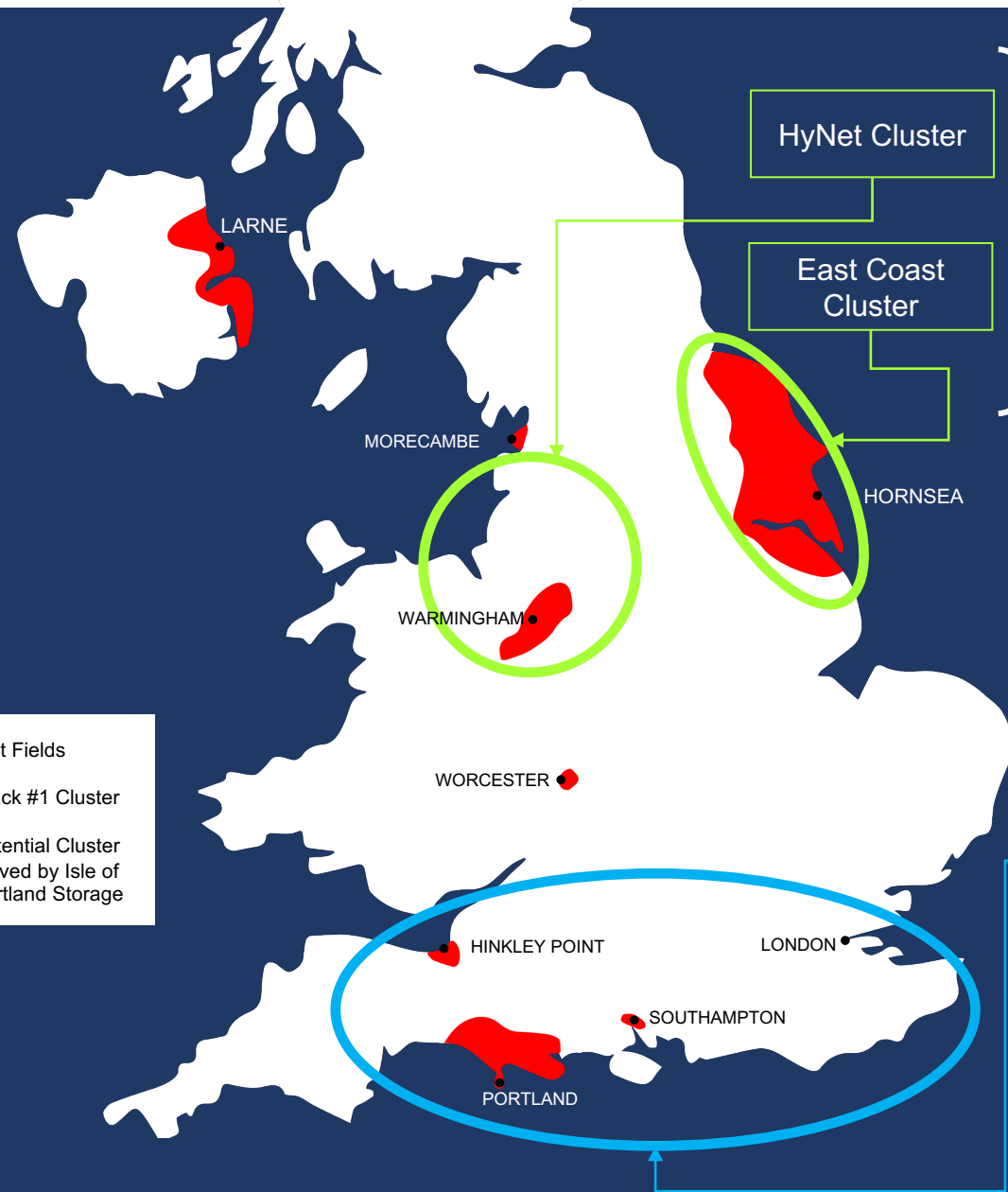
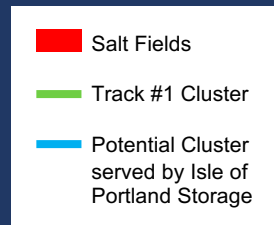


Source: After Egdon Resources Ltd, Chadwick & Evans BGS©NERC and BGS 2007.

Source: Cabinet Minister Rt Hon K. Kwarteng MP, Secretary of State, BEIS, letter to Stephen Sanderson, 22nd June 2022

CREATING A HYDROGEN HUB IN THE SOUTH OF THE UK

- The UKEn site is located on the Isle of Portland, between the South Wales and Southampton industrial hubs.
- Unique site in the South and West of England.
- Closest facility to London and the heavily populated South East.



Track #1 Cluster
 supported by Government incl. CCUS, CO₂ capture, hydrogen production and hydrogen Storage

Portland hydrogen hub within South Coast Cluster and closest to London

THANK YOU

FOR FURTHER INFORMATION
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