



4th December 2024

UK CCUS Programme

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Japan CCS Forum, 2024

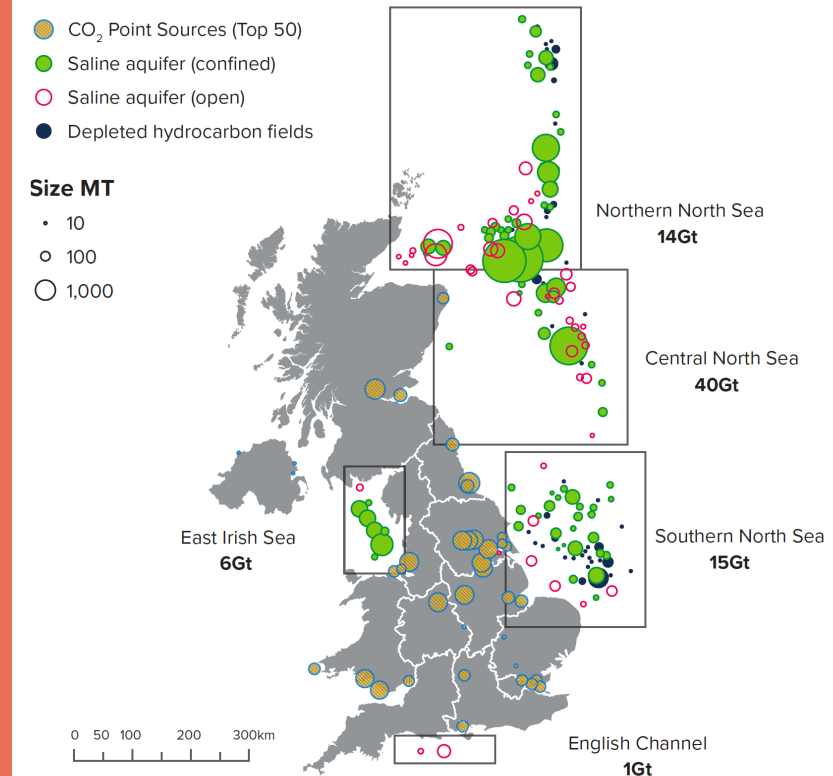
The UK has the potential to be a leader in CCUS

Our **2050 Net Zero Strategy** emphasised the importance of decarbonising industry and energy, generating hydrogen and negative emissions.

The UK can lead the world in the provision of CO₂ transport and storage services with an estimated **78 billion tonnes (78,000 Mt) of theoretical CO₂ storage**, one of the largest potential CO₂ storage capacities in Europe.

Industrial CCUS clusters can be the starting point for a new **carbon capture industry** with a **sizeable export potential**.

UK CCUS 'Clusters' take advantage of the fact that many **emissions-intensive facilities are located in tight geographical clusters** and would be able to connect to a large-scale CO₂ storage site using shared infrastructure



Map showing storage potential around the UK

We have made significant progress on delivering CCUS in the UK

In October, the UK government announced **up to £21.7 billion of funding** available over 25 years for the development of the first two CCUS clusters, HyNet and East Coast Cluster (“Track 1”).

This is a monumental step forward - by making funding available to industry based on the deals that have been negotiated, this government is equipping industry with the tools they need to kickstart the CCUS and hydrogen industries, delivering clean energy investment and jobs.

HyNet

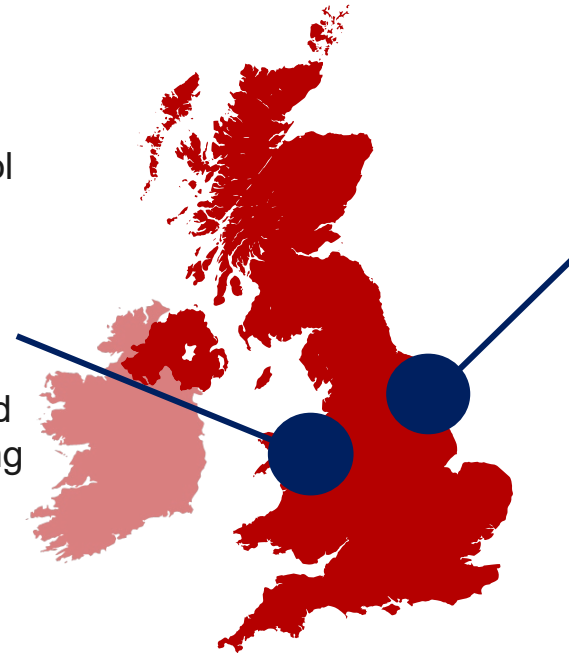
Transport and Storage Company

ENI: Eni’s network will have the capacity to transport of up to 4.7 million tonnes of CO₂ each year to deep geological storage in Liverpool Bay.

Capture Projects

Protos Energy Recovery Facility: One of the UK’s first CCUS-enabled Energy from Waste facilities, treating up to 400,000t of non-recyclable waste whilst generating enough electricity to power 80,000 UK homes.

EET Hydrogen (HPP1): UK’s first CCUS-enabled (blue) hydrogen plant at scale with 350MW of hydrogen production capacity.



East Coast Cluster

Transport and Storage Company

Northern Endurance Partnership (NEP): NEP’s network will have the capacity to transport up to 4 million tonnes of CO₂ each year from Teesside to geological storage under the North Sea.

Capture Projects

Net Zero Teesside Power (NZT): UK’s First-Of-A-Kind gas CCUS power plant will provide 0.74 GW of low carbon flexible generation from 2028.

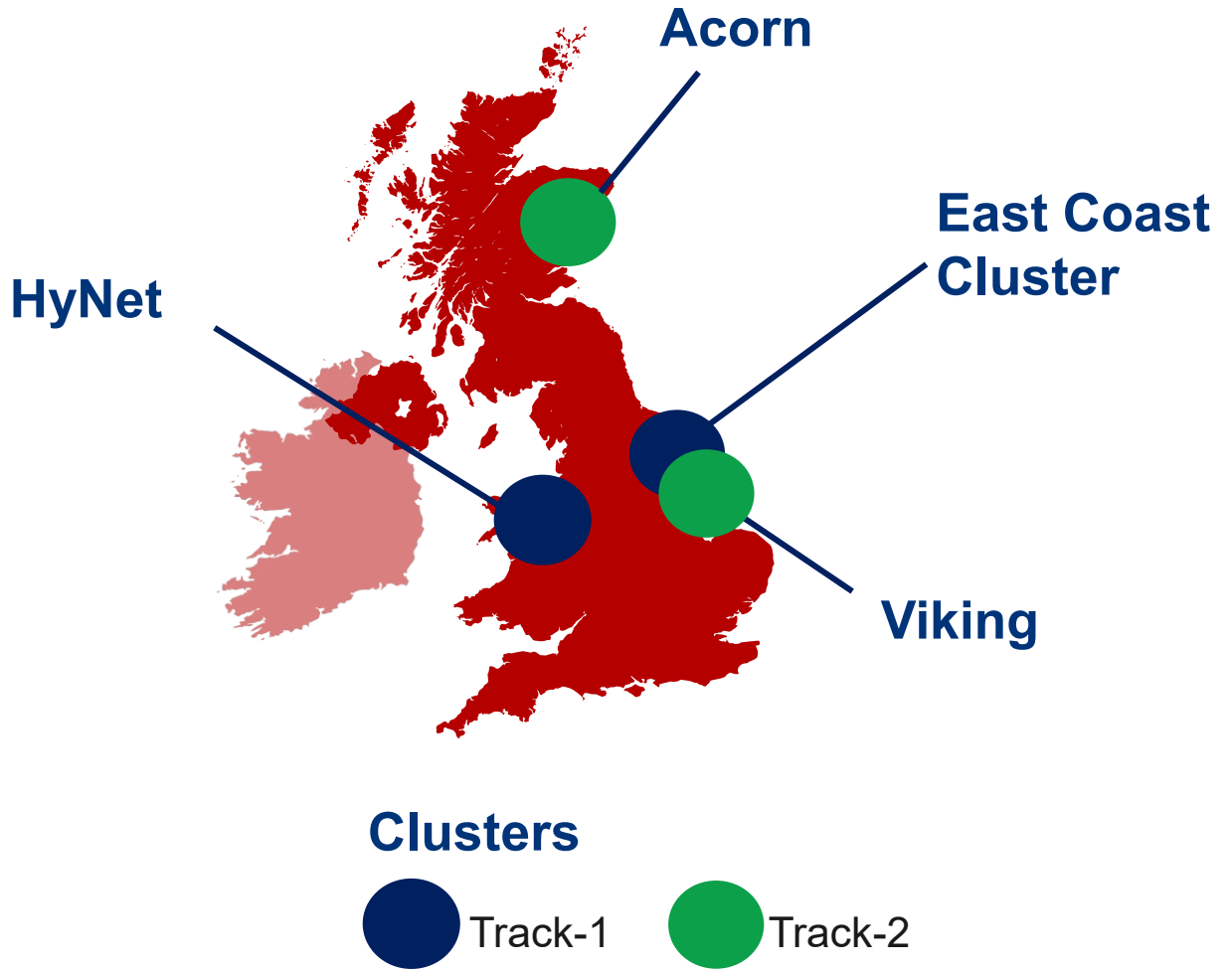
Next steps: Track 1 Expansion and Track 2

The next stage of the CCUS programme includes further building out of the first two Track-1 clusters (“**Track-1 Expansion**”).

The HyNet expansion process was launched in December 2023. We are now in the shortlisting and cluster integration stage of the process, which will identify which projects we will take through to negotiations. We are aiming to publish the Project Negotiation List from Spring 2025.

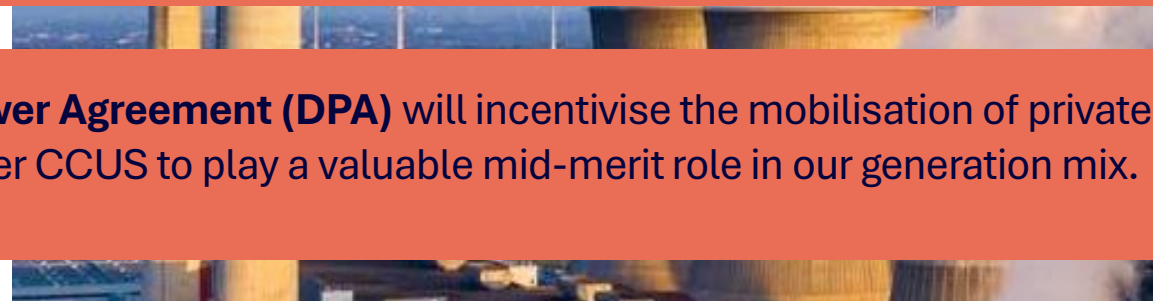
In 2023, we also set out the next stage of our CCUS programme, the **Track-2 approach**, which aims to establish two further CCUS Clusters.

Acorn & Viking transport and storage (T&S) companies have been confirmed as best placed to deliver Track-2 objectives, subject to final decisions, due diligence, consenting, subsidy control, affordability and value for money assessments.

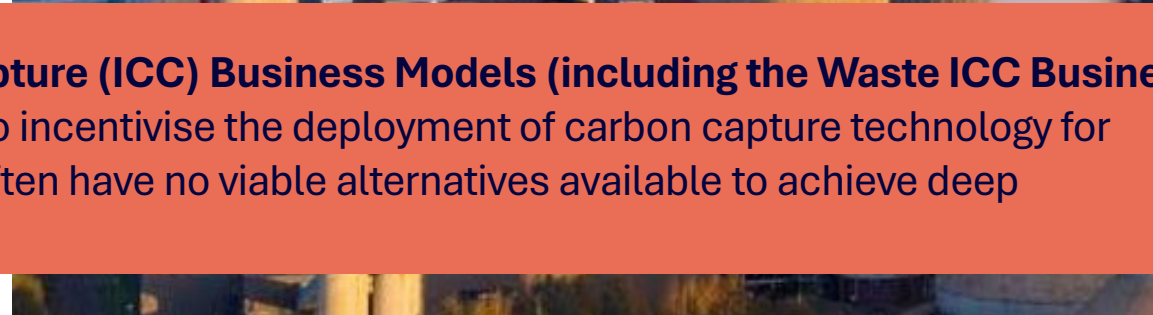




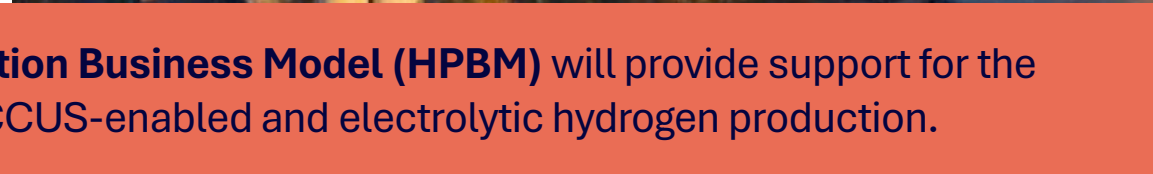
The development of the first CO₂ Transport and Storage Networks in the UK is being supported by a **Transport and Storage (T&S) Regulatory Investment (TRI) Model**, which is based on the successful regulated asset base model. This includes mechanisms to address and mitigate First-of-a-Kind (FOAK) risks associated with developing T&S Networks.



The **Dispatchable Power Agreement (DPA)** will incentivise the mobilisation of private finance to enable power CCUS to play a valuable mid-merit role in our generation mix.



Industrial Carbon Capture (ICC) Business Models (including the Waste ICC Business Model) are designed to incentivise the deployment of carbon capture technology for industrial users who often have no viable alternatives available to achieve deep decarbonisation



The **Hydrogen Production Business Model (HPBM)** will provide support for the development of both CCUS-enabled and electrolytic hydrogen production.



UK business models for CCUS deployment: Track-1

We have designed a series of **CCUS business models** to provide clear, long-term sight of revenue models and a stable investment environment.

The first-of-a-kind **Power Bioenergy CCS (BECCS)** business model will incentivise private finance enabled projects that will provide negative emissions and firm low carbon electricity.

The **Greenhouse Gas Removals (GGRs) Business Model** is being developed to attract private investment in a portfolio of engineered GGR technologies including Direct Air Carbon Capture and Storage (DACCS).

UK business models for CCUS deployment: Track-1 Expansion and Track-2

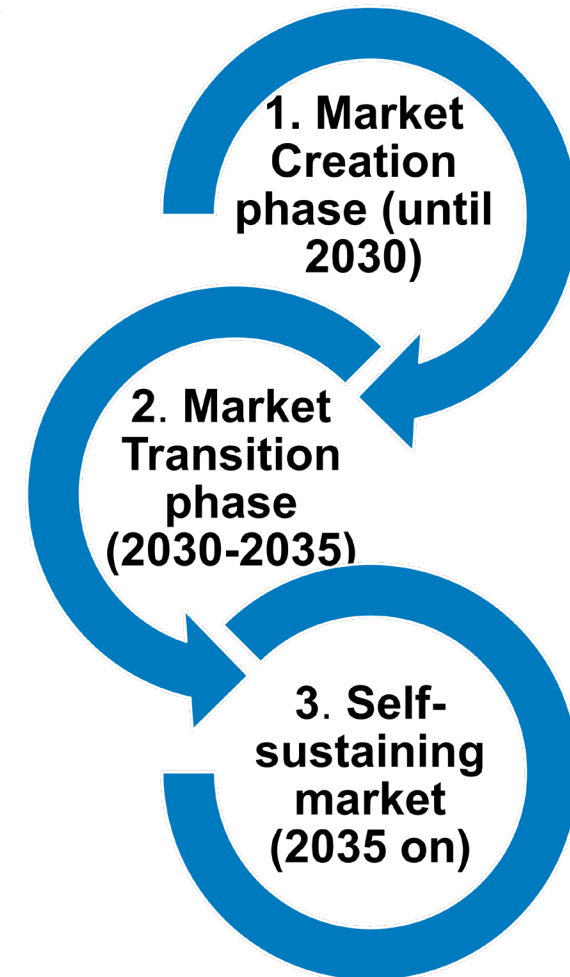
Under Track-1 Expansion and Track-2, we will also offer support for projects delivering negative emissions, including power bioenergy and carbon capture (BECCS) and other technologies.



Moving forward: the CCUS Vision

In December 2023, the previous UK government published the document 'Carbon Capture, Usage and Storage: A Vision to Establish a Competitive Market'. This document is widely known as the 'CCUS Vision'.

This set an ambition to transition to a self-sustaining CCUS sector in the UK which remains our current direction.



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