Department for Energy Security & Net Zero

UK CCUS Programme – Route to CCS Cluster Final Investment Decision (FID).

Adriana Rivadeneira – Power CCUS.
Department for Energy Security and Net Zero

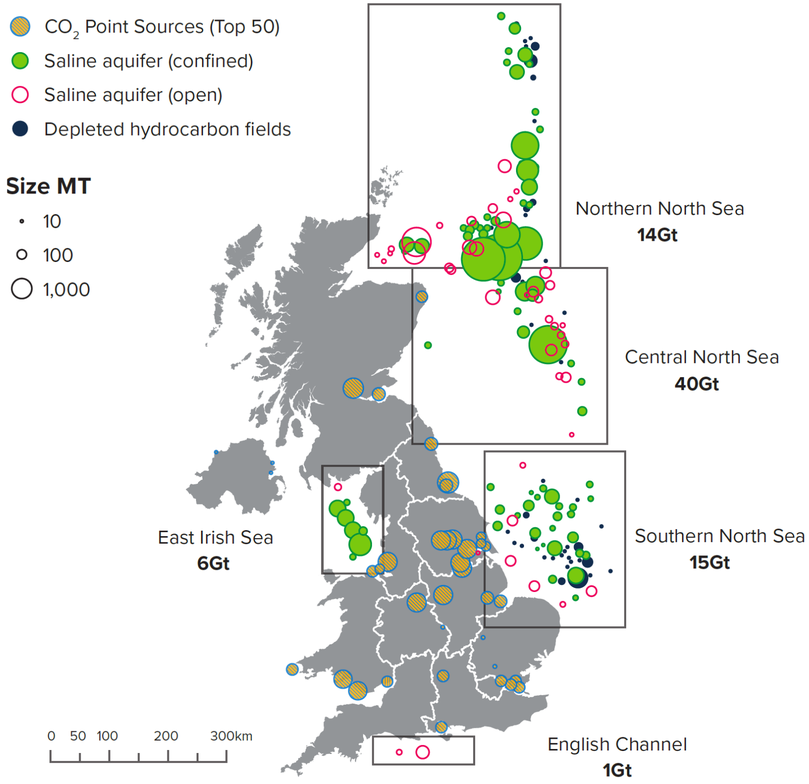
The UK has the potential to be a leader in CCUS

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 CO_2 transport and storage services with an estimated **78 billion tonnes of theoretical CO_2**, one of the largest potential CO_2 storage capacities in Europe

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

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 CO_2 storage site using shared infrastructure



Map showing storage potential around the UK

We have made significant progress on delivering CCUS in the UK

Earlier this month, 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

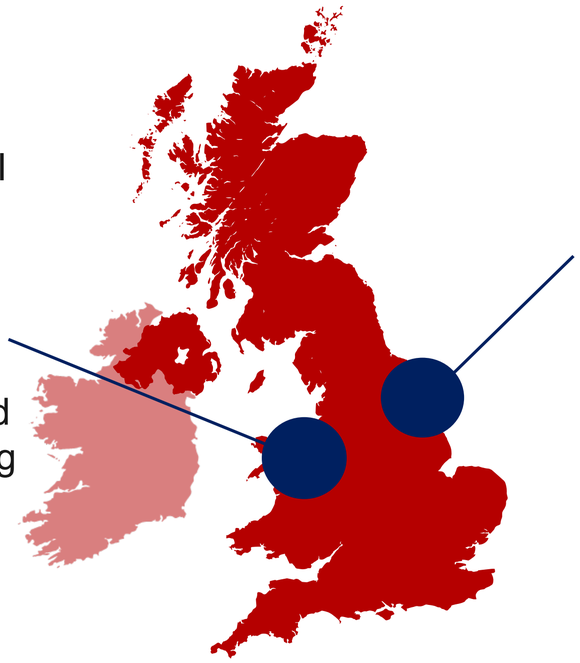
Transport and Storage Company

ENI: Eni’s network will have the capacity to transport of up to 4.7 million tonnes of CO_2 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 CO_2 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.

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 development of the first CO_2 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.

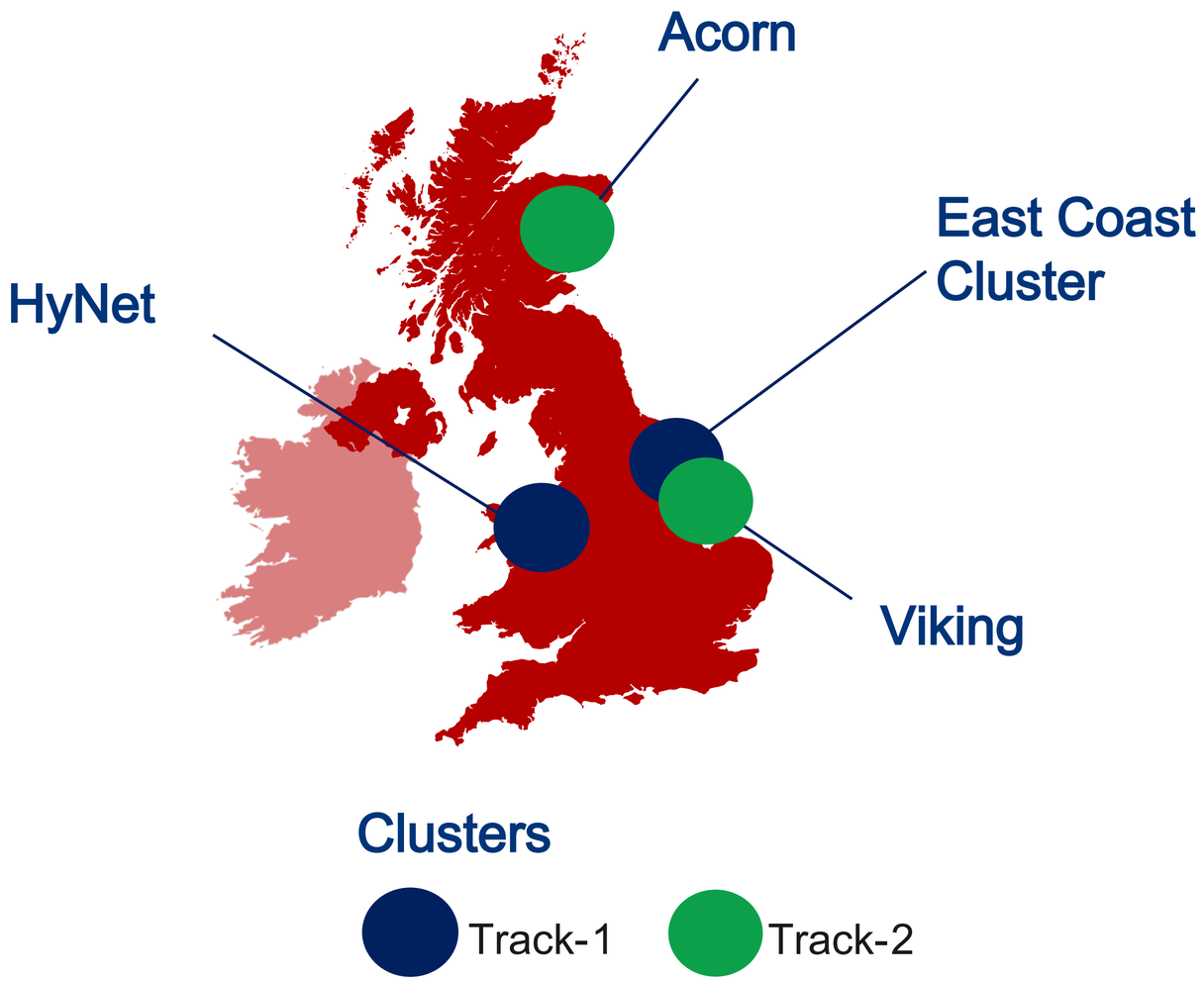
Next steps: Track 1 Expansion and Track 2

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

The Project Negotiation List of potential projects to join the Hynet cluster was announced in August 2025. There are six projects identified that passed required criteria and will now be entered into negotiations with.

A market sounding exercise for interested projects to join the East Coast Cluster was completed in August 2025.

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.



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.

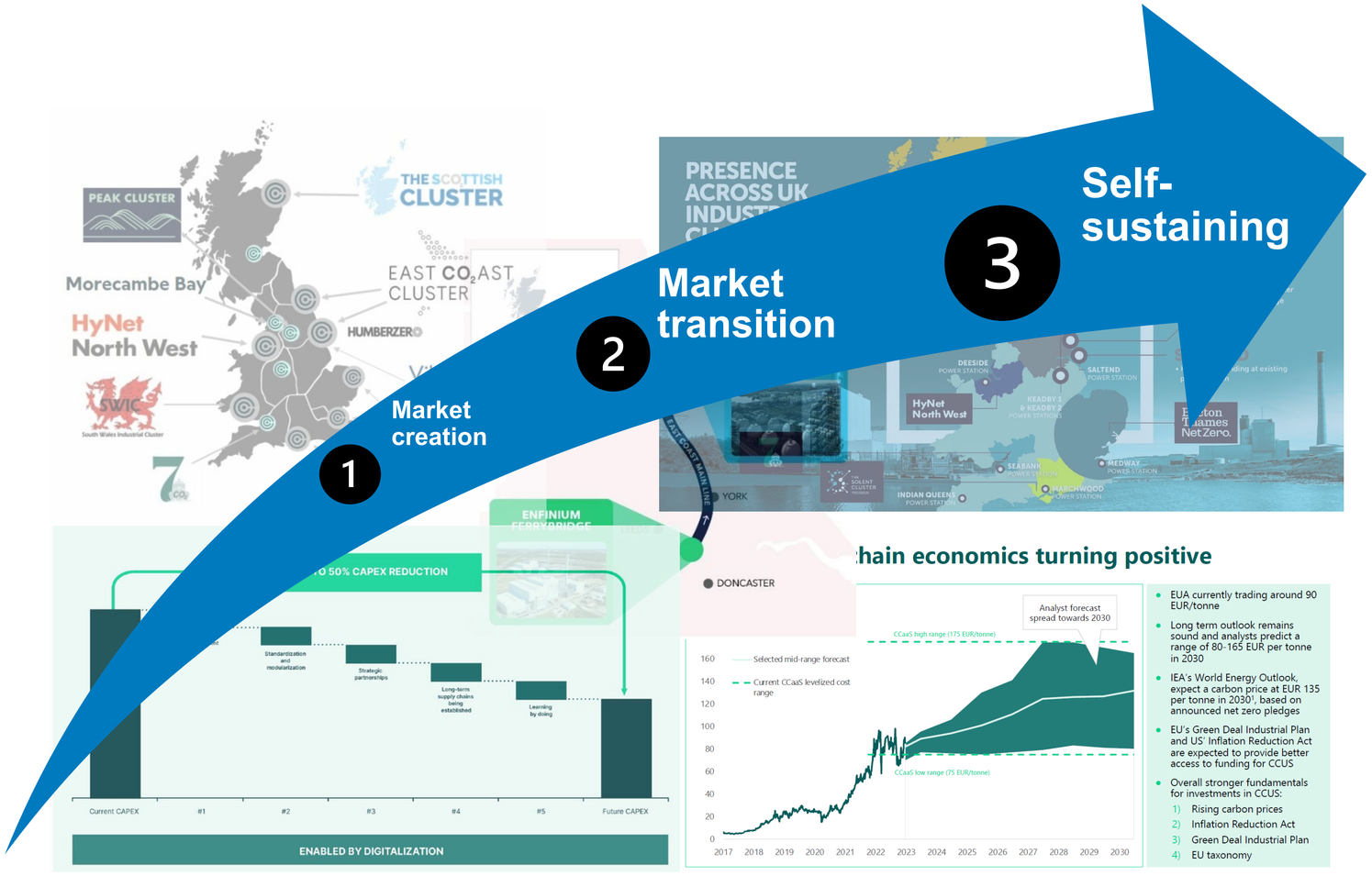
The first-of-a-kind **Power Bioenergy CCS (BECCS)** business model will incentivise private finance enabled projects that will provide negative emissions and firm low carbon electricity.

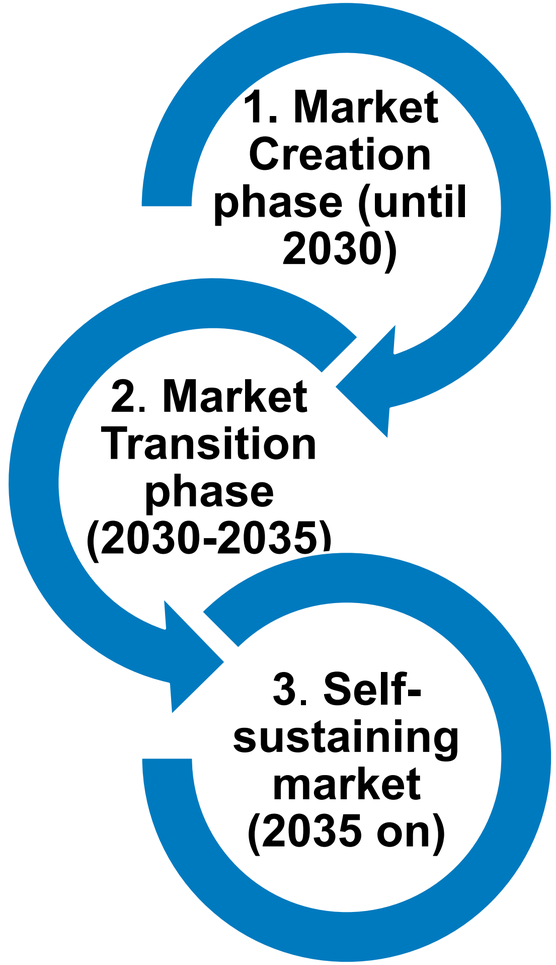
The **Greenhouse Gas Removals (GGRs) Business Model** is being developed to attract private investment in a portfolio of engineered GGR technologies including Direct Air Carbon Capture and Storage (DACCS).

Moving forward: the CCUS Vision

In December 2023, the 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.





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Lessons the UK has been learnt from attempts to deploy CCUS

2008-11

- £1bn committed
- Focussed on coal power

2015

- £1bn rolled over for Power CCS including gas.
- Funding pulled due to affordability and Value for Money issues.
- Risk allocation was challenging due to ‘full chain model’ with single entity responsible for capture, transport and storage.

2021 - present

- ‘Split the chain’ with tailored business models and support for different parts of the chain and different capture sectors.
- Focussed on clusters initially to increase economies of scale and decrease stranded asset risk through connecting multiple emitters in a variety of industries.
- Government is taking on cross-chain risk such that in general T&S operators are insulated from issues on the capture side (and vice versa).
- UK Government also taking on liability for low-probability, high impact risks which the private sector cannot currently efficiently price (e.g. CO2 store leakage).
- Government involved in matching capture projects with storage capacity.

FINANCIAL CLOSE IMPLEMENTATION PLAN

LCCC Process

Start: SoS Instructs LCCC

LCCC signs and issues RSA → T&SCo signs and dates RSA → T&SCo submits CP Evidence to LCCC → LCCC verifies CP evidence for RSA → LCCC issues notice of ICP satisfaction for RSA

If CPs not satisfied see waiver process

LCCC signs and issues DPA → NZT signs and dates DPA → NZT submits CP Evidence to LCCC → LCCC verifies CP evidence for DPA → LCCC issues notice of ICP satisfaction for DPA

RSA live

DPA live

Pre-Escrow Process

- ✓ Escrow Release Condition Documents signed
- ✓ Escrow Documents signed
- ✓ T&SCo finance documents signed ("Initial T&SCo Finance Documents")
- ✓ Emitter finance documents signed (check process)
- ✓ T&SCo conditions precedent satisfied (subject to escrow release process)
- ✓ Emitter conditions precedent satisfied (subject to escrow release process)
- ✓ DESNZ verifies CP satisfaction of all CPs required to be satisfied prior to signing the CP and Escrow Agreement

Escrow Process

Start: all parties sign CP and Escrow Agreement → Parties deposit Escrow Documents and Escrow Release Condition Documents with Escrow Agent

- Escrow Agent confirms receipt of Escrow Documents and Escrow Release Condition Documents
- SoS issues SoS CP Satisfaction Letter confirming satisfaction of SoS Conditions Precedent
- LCCC issues RSA Counterparty CP Satisfaction Letter and DPA Counterparty CP Satisfaction Letter (see above LCCC process)

SoS issues Escrow CP Satisfaction Letter → NSTA awards storage permit → SoS grants licence on a conditional basis subject to determination of FSD gaps

T&SCo Finance Documents Closing Legal Opinions are delivered to Escrow Agent and held to order for release upon Financial Close **

Confirmation of readiness for User financial close **

T&SCo Hedging Execution Protocol and Financial Close Protocol to be in agreed form and confirmed by SoS **

T&SCo Funder Representative confirms that there is no change to the T&SCo Finance Documents CP Satisfaction Letter **

T&SCo receives confirmation from Hedging Execution Bank that all swap novation agreements are signed and held in escrow **

*** Boxes shaded in coral are not sequential steps and may occur concurrently.*
CP = Conditions Precedent.

Hedging Process

Hedging Execution Call → Nominal swap rate determined by hedging bank and agreed on Hedging Execution Call

Financial Settlement Document Gaps and T&SCo Financial Documents Gaps are determined in accordance with the Financial Close Protocol

T&SCo Licence becomes unconditional

Release of all docs in escrow and which are subject to release of escrow

T&S Financial Close

Escrow Agent dates the Escrow Documents

Emitter Financial Close

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Barriers to FID…

- CO_2 specification and measurement requirements.
- Challenge periods to Consents.
- Complexity and time pressures – significant financial & legal due diligence across multiple contracts, agreements, licenses and CCS Network Code.
- Legislation – laying of enabling legislation and available parliamentary time.

Q&A