CCSA

CCUS Delivery Plan Update 2025

Executive Summary

UK achievements

77 $MtCO_2pa$ capture in the pipeline to the mid-2030s

exceeding CCC CB7 estimate of **73 $MtCO_2pa$** by 2050.

2 & **3** **transport and storage networks** **capture projects** have reached financial close and begun construction.

4 **CO_2 storage permits granted.**

Industry delivering 50% UK content in construction of projects.

Number of CO_2 capture projects have grown from **~90 projects** in 2023 to OVER **100** projects in 2025.

Industry potential

OVER **1/3** of projects that responded to our survey said they would need non-pipeline transport, with more also looking to receive emissions from Europe.

Almost **14** **GW** of low carbon dispatchable power capacity in the pipeline.

22 **CO_2 storage licenses in progress,** with an estimated combined storage capacity of over **100 $MtCO_2pa$** by the mid-2030s.

44 **$MtCO_2pa$** of EU-captured CO_2 would be most cost-effectively stored in UK sites.

OVER **18** **$MtCO_2pa$** greenhouse gas removals in the pipeline.

Funding commitments

£21.7 Bn

committed over 25 years to support initial CCUS projects.

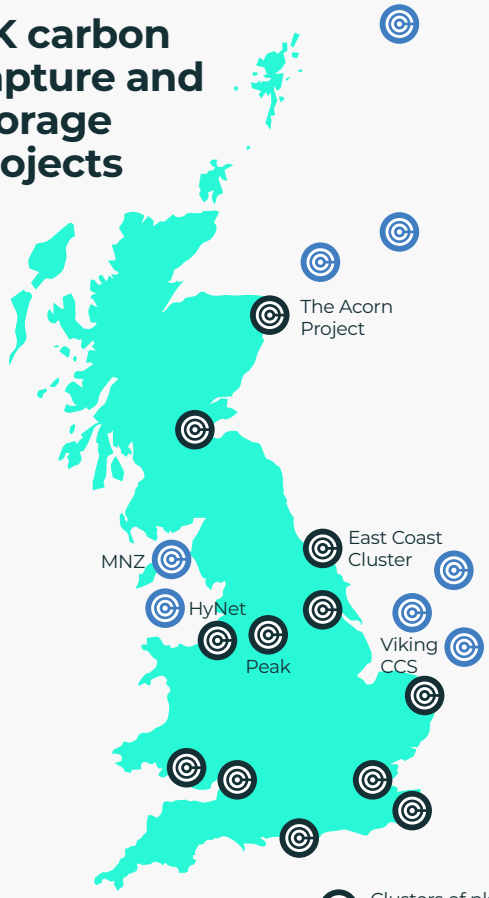
£9.4 Bn

in this parliament to support the build-out of HyNet and East Coast Cluster, and bring The Acorn Project and Viking CCS to financial close.

£28.6 M

National Wealth Fund equity investment in MNZ | Peak Cluster.

UK carbon capture and storage projects



(Named cluster or store indicates in receipt of government support or public sector finance)

What is at risk?

27 CANCELLED

CCUS projects have been mothballed or cancelled since 2023.

ALMOST 1/3 of projects that responded to our survey have already **paused spending on project development in the UK.**

Project timelines have slipped by an average of **2 YEARS** due to government delays and uncertainty.

64% of projects that responded to our survey are **at risk if they don't get clarity from government ASAP.**

2026: a crucial year for maintaining momentum

The UK's Carbon Capture, Utilisation and Storage (CCUS) sector is now more advanced than ever, with two Transport & Storage (T&S) networks and three capture projects having reached final investment decisions (FIDs) with Government. These are underpinned by government funding commitments that have enabled significant private investment to enter the UK.

Maintaining this momentum is essential, as a substantial pipeline of future projects is ready to be deployed, bringing opportunities for economic growth, job creation and decarbonisation. Achieving this will require a clear understanding of how projects in development view the current market, and the specific actions needed to build a fully established and self-sustaining industry.

The CCSA has conducted new research across the CCUS sector to assess the status of UK developments. Through surveys and interviews with project developers — both members and non-members — we gathered the latest information on projects. This report updates the CCSA's previous Delivery Plan publications from 2022[1] and 2023[2] and, as in past years, sets out the status of the CCUS pipeline across the full value chain.

The research presents a mixed picture. Significant progress and momentum has been achieved, and there is now real confidence that projects are on course to be operational before 2030. However, uncertainty persists, as the majority of capture and storage projects still lack a clear route to market, with several having been paused or cancelled. As a result, the UK's CCUS sector stands at a critical juncture.

Building the momentum

For the first time, this Delivery Plan is able to include projects that have entered the construction phase, creating new jobs and stimulating the local supply chain. This marks a major milestone for the UK CCUS sector and is underpinned by a government commitment of £21.7 billion over 25 years to support early deployment.

The role of CCUS is now firmly embedded within both the Government's industrial and decarbonisation strategies. CCUS and Greenhouse Gas Removals (GGRs) are together identified as one of six 'Frontier Clean Energy Industries' in the Government's Industrial Strategy,[4] while the Government's *Carbon Budget Delivery and Growth Plan* reaffirms that CCUS is *"part of the most cost-effective route to net zero and represents a significant economic opportunity, decarbonising industry and power in a way that drives growth."*[5]

Similarly, the Climate Change Committee's (CCC) Sixth and Seventh Carbon Budget advice both identify a critical role for CCUS, with the latter stating that the CCC *"cannot see a route to net zero without CCS,"*[6] emphasising its critical role across power, industry, fuel supply, waste management, and engineered GGRs.

1. CCSA (2022) CCSA Delivery Plan 2025
2. CCSA (2023) CCSA Delivery Plan Update – 2023
3. CCSA (2025) Next Steps for UK CCUS Deployment
4. DBT and DESNZ (2025) *Clean Energy Industries Sector Plan* part of The UK's Modern Industrial Strategy 2025
5. DESNZ (2025) Carbon Budget and Growth Delivery Plan
6. CCC (2025) The Seventh Carbon Budget

Key milestones in CCUS delivery across the industry in 2024 and 2025

October 2024, Government announced £21.7 billion over 25 years to support delivery of first Track 1 projects in HyNet and East Coast Cluster (ECC).

December 2024, the Northern Endurance Partnership T&S infrastructure and Net Zero Teesside Power reached Financial Close on the ECC.

April 2025, Perenco successfully concluded the UK's first CO_2 injection test for CCUS, as part of Project Poseidon.

April 2025, Eni Liverpool Bay T&S Infrastructure reached FID, enabling the HyNet Cluster to enter the construction phase.

May 2025, UK-EU Reset talks took place with the resulting Common Understanding committing to negotiations on aligning the UK and EU Emission Trading Schemes. This opened the potential for agreements on cross border CO_2 storage.

June 2025, UK's Modern Industrial Strategy and Infrastructure Strategies were published. 'CCUS including GGRs' identified as one of six "Frontier Clean Energy Industries."

June 2025, Comprehensive Spending Review committed £9.4 billion in capital funding this parliament, to support filling the storage capacity in the ECC and HyNet clusters, plus committed development funding for The Acorn Project and Viking CCS to work towards FID within this parliament, subject to readiness and affordability.

July 2025, National Wealth Fund (NWF) announced £28.6m equity investment, to support the development of MNZ | Peak Cluster, specifically to help development of the pipeline between the Peak Cluster and Morecambe Net Zero (MNZ).

July 2025, the Department for Energy Security and Net Zero (DESNZ) ran a market-sounding exercise to gather data on potential projects in Teesside looking to connect to ECC.

July 2025, Ofgem approved additional development expenditure (devex) by the Northern Endurance Partnership (NEP) to appraise expansion stores in 2025-26, to serve ECC in the Humber and Teesside

August 2025, Government published the HyNet Expansion: Project Negotiation List (PNL). Confirming 10 capture projects being progressed into negotiations with Government. Five marked as 'Priority' and five as 'Standby'.

September 2025, the first HyNet PNL priority projects, Heidelberg Materials' Padeswood CCS cement works & Encyclis' Protos Energy Recovery Facility (ERF), reach FID with government.

October 2025, first appraisal well drilled on North Sea Transition Authority (NSTA)'s first-round carbon storage licence for Eni's Bacton CCS project.

November 2025, Government confirmed intention to launch a new ECC Teesside selection process for capture projects in early 2026.

UK CCUS in numbers

Overall, our research finds that the current UK policy environment has enabled a robust pipeline of potential projects to emerge, which includes:

Over **100** CO_2 capture projects

at some stage of development, from concept to having started construction. This is an increase from over 90 identified 2023.

Total projected capture volume of **77 $MtCO_2$pa**

exceeding the CCC's Carbon Budget 7 which estimates a need for 73 $MtCO_2$pa by 2050.

Over **100 $MtCO_2$pa** of storage capacity

could be delivered by the mid-2030s, if all currently licensed CO_2 stores become operational.

2 Transport and Storage (T&S) networks have reached FID:

Liverpool Bay T&S, (serving HyNet), and Northern Endurance Partnership T&S (serving the East Coast Cluster).

4 CO_2 storage permits

having been granted for the first 2 clusters.

50% UK content

for first projects, in line with industry-wide voluntary ambitions.

22 CO_2 storage licences are in progress

accompanied by strong demand for UK storage of CO_2 captured in the Europe, opening storage export opportunities.

44 $MtCO_2$pa of EU-captured CO_2 could be cost-effectively stored in UK sites

2 T&S networks with committed government supported devex

The Acorn Project and Viking CCS, are in active bilateral engagement with government with intention to take FID this parliament.

£28.6m National Wealth Fund

equity investment in MNZ | Peak Cluster, as development funding for the pipeline between the Peak Cluster and Morecambe Net Zero. Also with the intention of taking FID in this parliament.

3 CO_2 capture projects have reached FID

Net Zero Teesside Power, Padeswood CCS cement works and Protos Energy Recovery Facility.

Just under **14 GW** of CCUS-enabled low carbon power projects

that could be deployed by 2035, to contribute to energy security. This puts the UK on track to meet CCUS requirements for both the Government's Clean Power Mission and the CCC's seventh carbon budget.

4.9 $MtCO_2$pa of industrial CCUS projects

are in the pipeline and are currently at pre-FEED or FEED[7], **with a further 8.3 $MtCO_2$pa in earlier development stages**, all of which have the potential to deliver a low carbon future for key foundational industries in the UK.

A potential for **18.2 $MtCO_2$pa** of greenhouse gas removals

that could be delivered by 2035, putting the UK on course to meet the CCC's anticipated need for 20.7 $MtCO_2$ pa by 2040.

36% of the CO_2 capture projects surveyed

stated that they would or might need non-pipeline CO_2 transport.

7. FEED – Front-End Engineering and Design; Pre-FEED – Preliminary Front-End Engineering and Design

Understanding the challenges

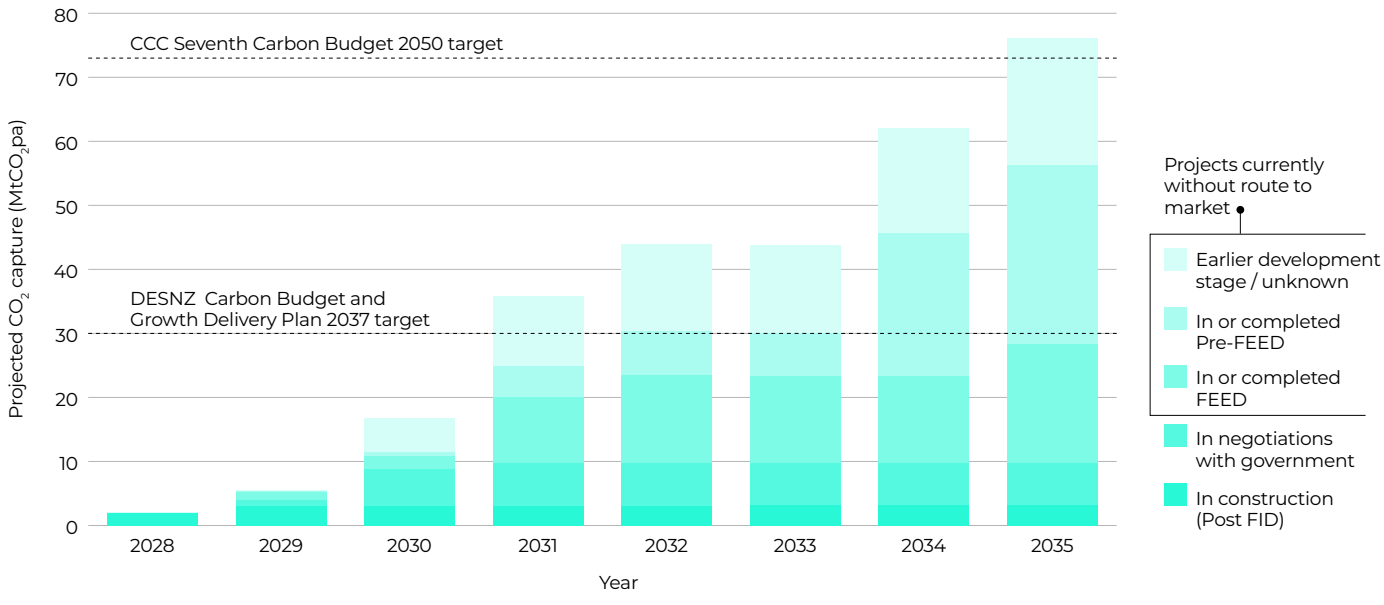
Despite this progress and substantial pipeline of projects, our research also reveals a significant level of uncertainty. The pace of delivery has fallen short of the trajectory set out in our 2023 Delivery Plan Update, as demonstrated in our survey responses:

- **27 CO_2 capture projects have been cancelled or mothballed** since being counted in the last delivery plan (2023).
- **Over 15 $MtCO_2$pa** of capture projects in the pipeline lost since 2023, reflecting, in part, the loss of UK industries that could have been decarbonised with CCUS, along with the jobs and essential materials they would have continued to provide.
- **Average projected CO_2 capture per project has fallen from 0.8 $MtCO_2$pa in 2023 to 0.4 $MtCO_2$pa in 2025.**
- **2-year average slippage to project timelines** of the projects we gathered data on in both 2023 and 2025, almost all have seen delays to their project timelines.
- **75% of respondents** would consider reallocating UK development expenditure (devex) to other markets if government policy does not move on quickly.
- **Over 30% of projects** that responded stated they had already paused some form of devex spend on CCUS in the UK.

Together, these responses make clear that, although the CCUS sector has established a solid foundation, the future project pipeline faces significant uncertainty. This places the significant levels of private sector devex investment — much of it concentrated in the UK's industrial heartlands — along with the associated future tax revenue, at risk, as developers' boards consider whether to redirect investment to other markets. In turn, this jeopardises the sector's potential economic contribution, risking the loss of over £94 billion in GVA and more than 50,000 jobs by 2050.[8]

There are several factors contributing to this ongoing uncertainty. Delayed decision-making across successive governments has meant key polices are still not in place to enable projects to move forward. Most immediately, this includes The Acorn Project and Viking CCS, who await confirmation on when development funding committed through the 2025 Spending Review will be allocated. These clusters, alongside all clusters and projects outside the first committed projects, require a defined route to market to be established, alongside the development of a future allocation framework for government support contracts where necessary in the value chain.

Figure 1: UK project pipeline projected operational CO_2 capture capacity by year



8. Wider enabled benefits identified through a literature review of the cluster-specific studies for the Track - 1 and Track - 2 clusters. See CCSA SR25 response for further details.

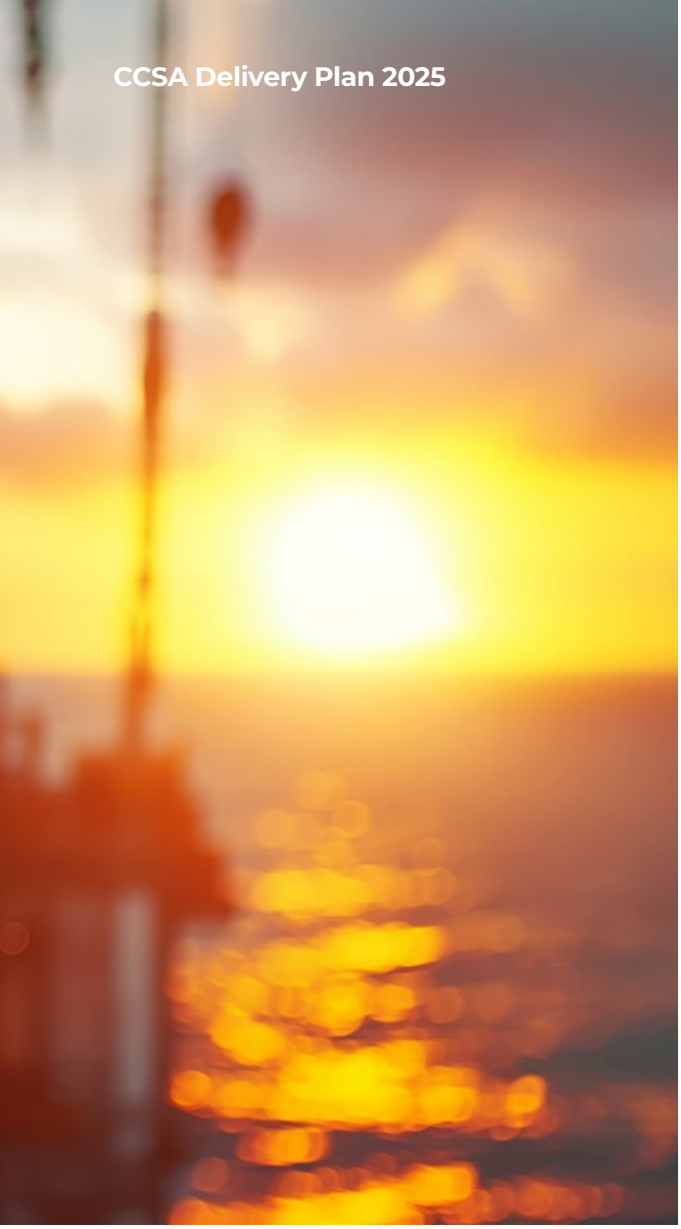
Moving the market forward in 2026

Addressing these challenges in 2026 will be critical to maintaining momentum, reducing market uncertainty, and ensuring delivery across the identified project pipeline. Several significant market and political milestones are approaching (See figure 2). Notably, this includes the 2027 Spending Review (SR 27), the outcome of which will be pivotal in driving future project delivery and advancing the sector. Achieving this will require close collaboration between industry and Government to both consider next steps and demonstrate how the sector can deliver cost reductions and transition toward a self-sustaining model.

Additional deadlines also exist across the policy and regulatory landscape. Current storage licences begin to expire from 2027 onwards, meaning storage developers will need clarity in 2026 to continue progressing their projects. It is equally vital that non-pipeline transport (NPT) market frameworks are advanced at pace, following recent delays, to unlock the advantages NPT offers. These include lowering the cost of managing cross chain risks, supporting merchant CO_2 stores, facilitating CO_2 storage exports, and catalysing private investment for regional emitters not connected to pipelines.

Looking further ahead, the EU's Net Zero Industry Act (NZIA) introduces a review in 2028 and a 2030 deadline that is also relevant to the UK market. Under NZIA, obligated parties must have access to sufficient storage capacity to inject substantial volumes of CO_2. Ensuring UK storage capacity is progressing now, alongside removing regulatory barriers to cross-border CO_2 storage, is essential if the UK is to have the option to provide CO_2 storage opportunities to European emitters.

For capture projects, the priority remains the creation of supportive revenue markets that enable them to build viable business cases and reduce reliance on Government support. In 2026, focus should therefore be placed on developing these markets – expanding low-carbon product markets, establishing cross-border CO_2 storage agreements to access EU markets, and stimulating demand for GGRs. Together, these measures will help generate new revenue streams and drive long-term sector value.



Recommendations

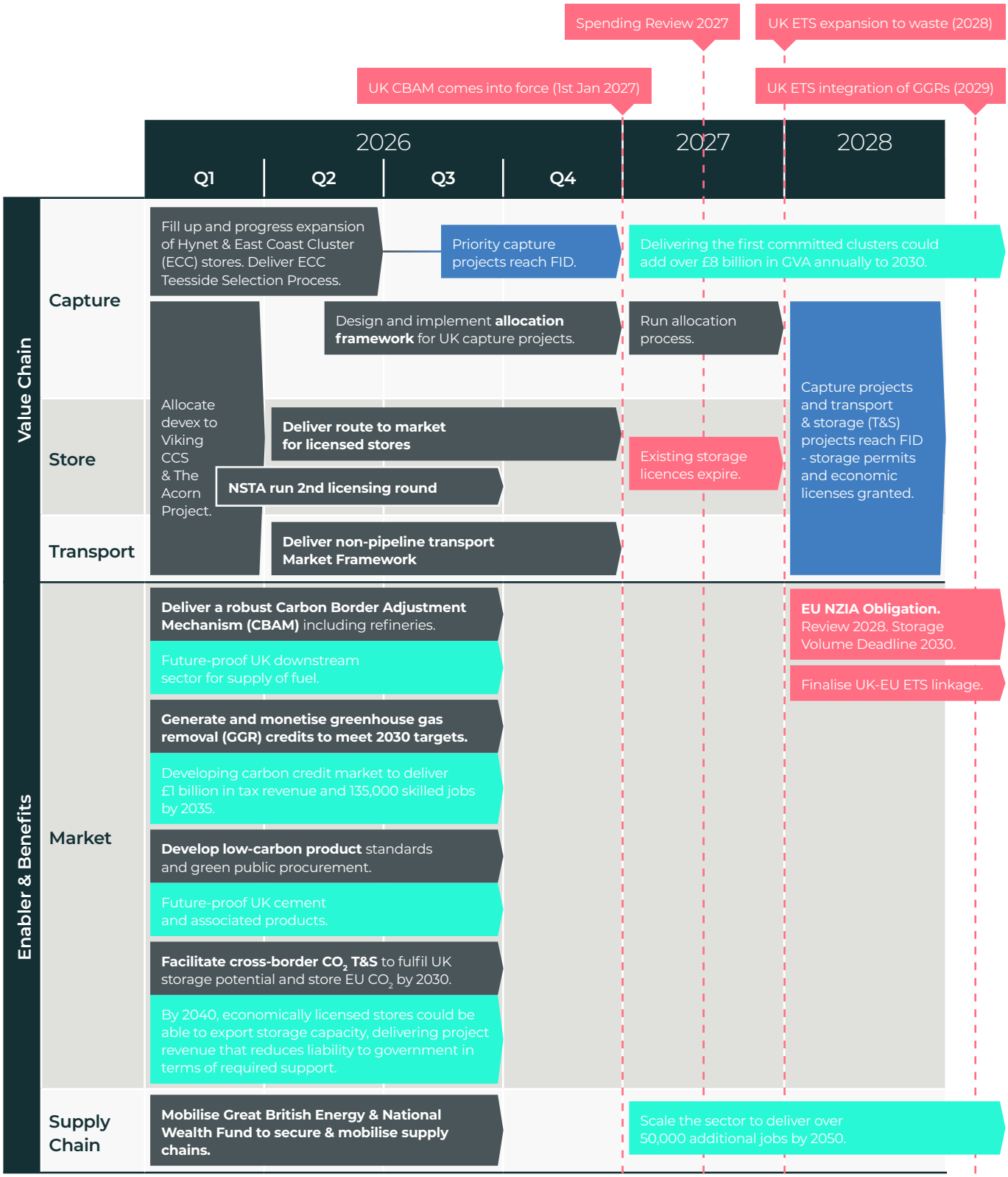
To achieve these aims and build on the success already achieved, we reiterate the key non-fiscal asks the CCSA has raised with Government ahead of the 2025 Autumn Budget. These are explored in more detail in the full report, but can be summarised as:

1. **Deliver the actions required to progress the build-out of the East Coast Cluster and HyNet, as well as confirm the allocation of the development funding committed to Viking CCS and The Acorn Project.**

2. **Provide an allocation framework for government support contracts in the 2027 Spending Review and a clear nationwide route to market for CCUS deployment. This should include enabling Viking CCS, The Acorn Project, ECC Humber Expansion and MNZ | Peak Cluster to reach FID within this Parliament, and support other projects and clusters to deploy, including those using CO_2 transport by ship, road, and rail.**

3. **Implement policies and regulations to stimulate low-carbon product, carbon removal and European-wide CO_2 storage markets to enable the transition to a self-sustaining market.**

Figure 2: Actioning CCUS deployment



About the CCSA

The CCSA is the lead trade association accelerating the commercial deployment of CCUS, with offices in the UK and Belgium. We work with members, governments and other organisations to ensure CCUS is developed and deployed at the pace and scale necessary to meet net zero goals and deliver sustainable growth across regions and nations.

The CCSA represents more than 120 member companies engaged across the full carbon management value chain—including carbon capture and removal technologies, CO_2 transportation by pipeline and ship, utilisation, and geological and other permanent storage solutions. Our membership spans power generation, industrial production, waste management, fuels and hydrogen producers, as well as engineering, construction, supply-chain specialists, and legal and financial advisers.

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Carbon Capture &
Storage Association