

Developing Carbon Capture, Utilisation & Storage Clusters for a Net Zero UK

Carbon Capture and Storage Association

21 July 2021



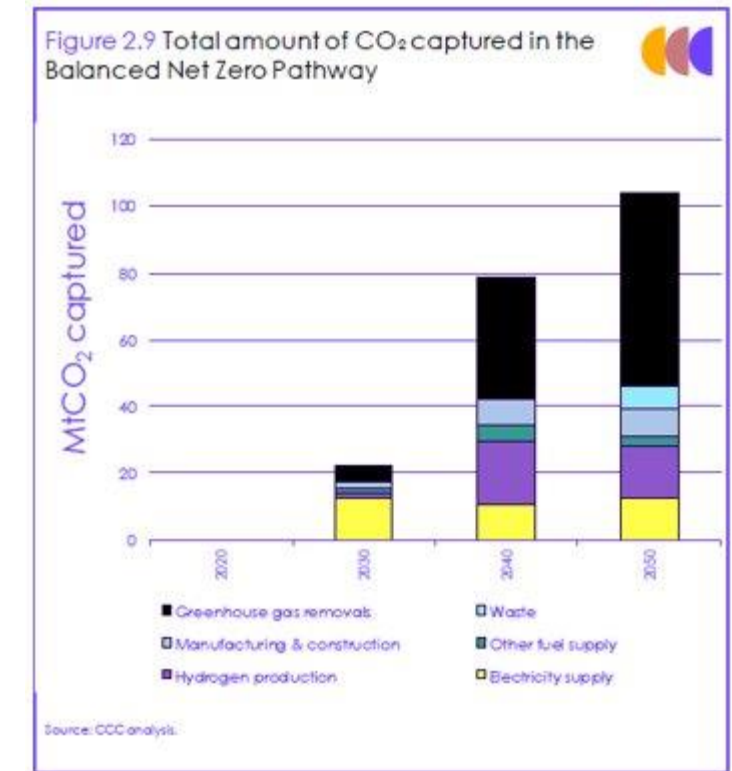
Role of CCUS in Net Zero by 2050

- CCUS reaches harder to decarbonise sectors – it plays a critical role in;
 - Clean hydrogen
 - Greenhouse Gas Removals
 - Industry
 - Power

- Government's 10 Point Plan (Nov 2020): Ambition to capture 10 MtCO₂ and four clusters operating by 2030
- CCC 6th Carbon Budget (Dec 2020): The UK will require 75-180Mt of CO₂ storage pa by 2050
- In the Balanced Net Zero Pathway, the UK requires 104Mt of CO₂ storage pa by 2050.
 - 22Mt pa in 2030
 - 53Mt pa in 2035
 - 79Mt pa by 2040

- CCS is *a necessity not an option* for reaching net zero – accelerated action requires first clusters to be deployed in the mid-2020s

- Sixth Carbon budget advice of 78% GHG emissions reduction by 2035 enshrined in law



Clusters supporting industrial regions

- **Clusters** - CCUS infrastructure will create high-value, low carbon CCUS clusters and up to 10,000 new jobs in key UK industrial regions (Scotland, Teesside, Humber, South Wales and North-West)
- **Industry** - CCUS infrastructure will support heavy industry as the UK transitions to a low carbon economy and help retain the approximately 1.5 million jobs (direct and indirect) in steel, cement, refining, chemicals, ceramics and glass*
- **Global leader** - Geological assets, industrial infrastructure and skills capability means the UK has competitive advantage and could become a global leader in CCUS, low carbon hydrogen markets and industrial decarbonisation.



* BEIS, *The UK carbon capture usage and storage deployment pathway: an action plan*, Nov 2018

**BEIS, *Energy Innovation Needs Assessment – Sub-theme report: Carbon capture, utilisation, and storage*. Oct 2019

Cluster Sequencing Timeline



August 2020: BEIS CCUS Business Model consultation response

Nov 2020: Spending Review & 10 Point Plan

- Ambition to capture 10 MtCO₂ and four clusters operating by 2030
- £1bn CCS Infrastructure Fund
- Ambition of 5GW of hydrogen production capacity by 2030

December 2020: Business model update

- T&S, DPA and ICC contract

Feb 2021: CCUS Cluster Sequencing update

- 2 clusters operational by mid-2020s
- 2 more clusters by 2030

May 2021: CCUS publications including:

- Business Models Update
- Supply Chain Roadmap Update
- Detail on the CCUS Infrastructure Fund
- Cluster Sequencing Response & Guidance
- **at least** 2 clusters by mid 2020s, more clarify on Track-2, further detail in October

July 2021: Submission of Cluster Plans

October 2021: Announcement of Cluster Sequencing

November 2021: Capture Application Deadline

2022: Final Investment Decisions (Track 1 clusters)

