

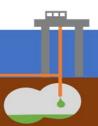


# Carbon Capture, Usage & Storage (CCUS)

Department for Energy Security and Net Zero

Dr. Chris Wiseall



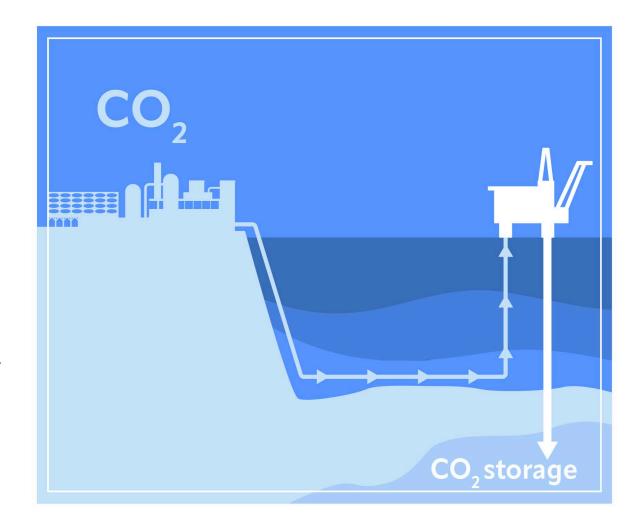


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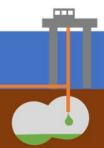
# What is CCUS?

CCUS is the process of capturing carbon dioxide (CO2) before it is released into the atmosphere and storing it in geological structures. CO2 can be captured from emitters such as power stations or energy-intensive industries (i.e. cement, chemicals or steel plants), as well as on some hydrogen production facilities that reform natural gas. CO2 can also be captured directly from the air.











# **CCUS** in the Budget

£20bn

The government will also provide up to £20 billion funding for early deployment of Carbon Capture and Storage (CCS), to help meet the government's climate commitments.

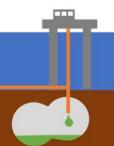
Track-1 Expansion

Launch a Track-1 expansion process this year.

Track-2

2 additional clusters will be selected through a Track-2 process









# PROTOS









# **Track-1 Project Negotiation List (T-1 PNL)**

### **HyNet**

- Hanson Padeswood Cement Works Carbon Capture and Storage Project
- Buxton Lime Net Zero
- Viridor Runcorn Industrial CCS
- Protos Energy Recovery Facility
- HyNet Hydrogen Production Plant (HPP1)

### **East Coast Cluster**

- Net Zero Teesside Power
- bpH2Teesside
- Teesside Hydrogen CO<sub>2</sub>Capture

- Power
- Waste Industrial Carbon Capture
- Industrial
  Carbon Capture
- H2

Clusters Decided

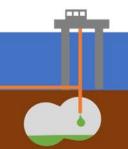
- August 2022 Shortlist Published
- Cluster Integration Check of August 2022 Shortlisted projects

Track-1
Project
Negotiation
List
published

Stage 3 Negotiations

Contracts Awarded First 2 CCUS clusters are operational

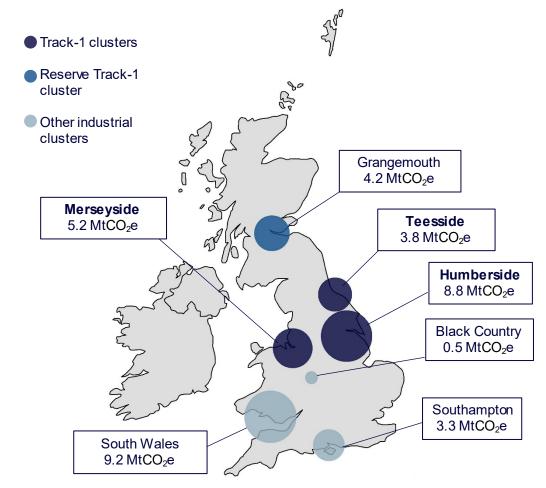




# **Track-1 Expansion and Track-2**

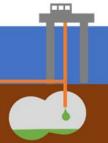
To contribute to our ambition of capturing and storing 20-30Mt CO<sub>2</sub> per year by 2030 we will launch:

- Track-1 Expansion (T1x): We will launch a process later this year to enable further expansion of the Track-1 clusters beyond the initial deployment, to increase the benefits they can deliver.
- Track-2 of the cluster sequencing process will initially identify two additional Transport & Storage (T&S) systems, to put us on a pathway to store at least a further 10Mtpa of CO2 by 2030.









# The Government has launched Track-2 which aims to establish two CCUS clusters, contributing to our ambition to capture 20-30 Mt CO<sub>2</sub> per year across the economy by 2030

- At this stage, Government is seeking to identify **two transport and storage (T&S) systems** that can meet the Track-2 eligibility criteria and can deliver Government's objectives for Track-2.
- We consider the **Acorn and Viking** T&S systems, at this stage, best placed to deliver our objectives for Track-2, subject to due diligence and value for money assessments.
- Other T&S systems that are able to meet the eligibility criteria had the **opportunity to express an interest in** being considered for Track-2. **That process closed on the 28th April.**
- We will set out the **next steps for Track-2**, in the summer, following the closure of the expression of interest process.





# CCUS will play a key role in achieving a net zero economy, as well as the levelling up of our industrial regions.

### Why are we investing in CCUS

- ➤ CCUS forms part of the most cost-effective route to net zero, and represents a significant economic opportunity, with the potential to support up to 50,000 jobs by 2030.
- > Potential £4-5bn in GVA from UK CCUS exports by 2050

### • The UK is well placed to lead in CCUS globally with:

- > A worldwide reputation as an international centre of engineering excellence
- Extensive experience from the oil, gas and petrochemicals sector
- Substantial CO2 storage potential and industrial infrastructure
- ➤ Total UK captured turnover from CCUS could be up to £8.3bn by 2050
- ➤ UK is in the top 5 countries globally for CCUS readiness

## **Other CCUS Announcements**

### There were several other CCUS announcements at the end of March

#### **Power BECCS**

The conclusion of the power BECCS project submission process.

### **CCUS Investor Roadmap**

Slide deck outlining joint government and industry commitments to UK CCUS deployment

**BECCS** the conclusion of the power BECCS project submission process.

#### **Business Models**

Consultation on proposals for revenue support regulations

#### **Various CCUS Contributions**

**Net Zero Growth Package** 

Skidmore Response

CCC Response

Judicial Review Responses

**Energy Security Plan Green Finance Strategy** 

