UK policies and incentives

COP 29

Olivia Powis

18/11/2024

CCSA

CCSA members

CO_2 Storage

Shell, bp, equinor, eni, Harbour Energy, EXPRO, ExxonMobil, PERENCO, SPIRIT ENERGY, STOREGGA, TOTAL, veri ENERGY, slb, Navigator

Power & Industrial

Viridor, PHILLIPS 66, VEOLIA, CORY, drax, GE, evero, SIEMENS energy, RWE, kellas MIDSTREAM, SOLAR 21, e-on, uniper, COSTAIN, LYNEMOUTH POWER, sse Thermal, EET FUELS, EET HYDROGEN, VPI Immingham, MW, AIR PRODUCTS, enfinium, FCC Environment, TARMAC A CRH COMPANY, BREEDON, PETRONAS, WEST BURTON ENERGY, CNOOC

Carbon Capture Developers

carbon clean, Azuli, C-Capture, Carbon Engineering, PROGRESSIVE ENERGY, VELOCYS, AKER CARBON CAPTURE, calix, climeworks, Carbon Catalyst, MITSUBISHI HEAVY INDUSTRIES, RG H2, HOLCIM, Nuada, alfanar, 8 RIVERS, Cool Planet Technologies, ENCYCLIS More than energy from waste, MISSION ZERO TECHNOLOGIES, Svante, MITSUI & CO.

Engineering & Equipment

Baker Hughes, BECHTEL, SHEARWATER, Victaulic, T.EN TECHNIP ENERGIES, worley, B&W BABCOCK & WILCOX, 2JCP POWERING A BETTER WORLD, Sumitomo Corporation, AkerSolutions, Immaterial

CO_2 Transport & Distribution

GRTgaz, CAPITAL GAS SHIP MANAGEMENT CORP., CLARKSONS, national gas transmission, wintershall dea, subsea 7, interconnector fluxys, MOL, NSMP NORTH SEA MIDSTREAM PARTNERS, ABP ASSOCIATED BRITISH PORTS, snam

Financial, Consulting & Others

DNV, Net Zero Industry Wales, Goal7, SCCS, TEES VALLEY COMBINED AUTHORITY, UKCCS RESEARCH CENTRE, petrostrat applied stratigraphy, AFRY, DEML, EnergeX Partners, Baringa, GLJ, eosclimate, RAMBOLL, ERM, NORTH LONDON WASTE AUTHORITY, Gaffney Cline, NPL National Physical Laboratory, ECGA European Advanced Carbon and Graphite Materials Association, LATHAM & WATKINS LLP, Linklaters, SLAUGHTER AND MAY, sh Enterprise

The UK's historical support of CCUS

2017: **CCUS at scale in 2030s**
Establishment of Ministerial-led CCUS council & CCUS Cost Challenge Taskforce

2020: **10MtCO2/yr.** by 2030,
£1bn for 4 CCUS clusters by 2030

2021: **20-30 MtCO2/yr** by 2030,
50Mt/yr by 2035, with 10Mtpa for Track-2 clusters

Mar 2023: **£20bn** for early CCUS deployment

Oct 2023: Enabling legislation for CCUS business models

Nov 2023: **£4.5 bn** for strategic manufacturing sectors

Budget **£960 million GIGA** supply chain

Dec 2023: Govt. **CCUS Vision** for a self-sustaining CCUS sector,
Track-1 expansion at HyNet EOI,
Track-2 anchor phase 2024

Policy - UK cluster sequencing process

Track-1 Phase-1 and Phase 2

- 2 clusters to be operational in mid-2020s (Nov ‘21)
- 8 projects (from 41) final negotiations for T1 CO_2 infrastructure
- **Funding of £21.7bn over 25 years for 5 projects; EET-H, Protos EfW, NZT and 2 transport & storage networks in HyNet & East Coast Cluster (Oct ‘24)**
- **Financial Close – priority for whole industry to move forwards**

Track-2

- At least 10Mtpa CO_2 by 2030 (March 23)
- Acorn & Viking confirmed for Track-2
- Plan for anchor project selection needed (expected early ‘24)

Track-1 Expansion

- Unsuccessful /new projects to access T1 infrastructure (March ‘23)
- HyNet T1 Exp launched (Dec 23)
- Shortlisted projects hoping for FID 2026 (Autumn 2024)
- Tbc East Coast Cluster…

State of play across the CCUS business models

Near final

CO_2 Transport & Storage (TRI):
- Regulated Model
- TRI business model draft HoT last updated Dec 2023
- Draft CCS Network code HoT updated Feb 2024

Dispatchable Power Agreement (DPA):
- Adapted CfD
- Last updated Nov 2022

Industrial Carbon Capture (ICC):
- CfD
- Update for Track-1 expansion & Track- 2 April 2024
- Transition to an applicable carbon market reference price from a fixed trajectory reference price

Near Final/Advanced

Industrial Carbon Capture (EfW):
- Adapted CfD
- April 2024 - Update for Track-1 expansion & Track2, potential addition of a biogenic content cap

Low Carbon Hydrogen Production:
- CfD
- Draft Low Carbon Hydrogen Agreement published Aug 2023
- LCHS updated Dec 2023
- DENSZ working on updating LCHA which was expected to be published Q2 2024

Early phases

Engineered GGRs:
- CfD
- Indicative heads of terms published
- 20 Dec 2023 – update due

Power BECCS:
- 'Dual' CfDc (carbon) & CfDe (electricity)
- proposed commercial framework 20 Dec 2023

Hydrogen Transport (RAB) **and storage** (Revenue Floor):
- Regulated model
- Market Engagement consultation on BM design - Feb 2024
- full application guidance in Q2 2024 /first allocation round launch Q3 2024 (delayed)

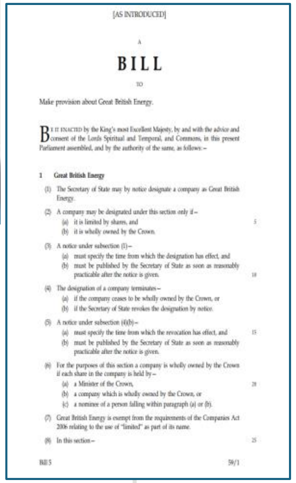
Not started/no update

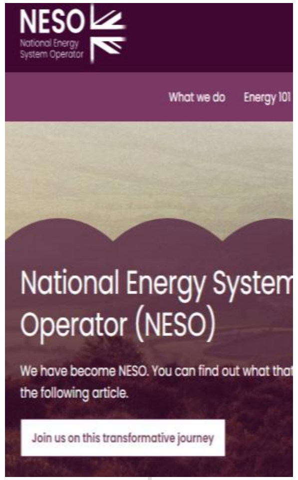
Non-Pipeline Transport:
- NPT call for evidence published in May 2024, deadline 16th July

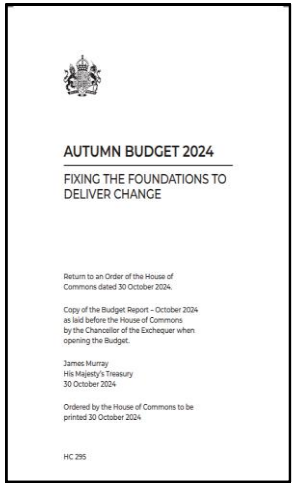
CCU:
- Currently ineligible for BM support – further work in 2024

Dispersed Sites:
- CCUS vision 20th Dec 2023 – spatial plan for energy infrastructure & NPT will support dispersed sites

The new UK government CCUS related policies (2024)



4 July: 2024 General Election – Labour majority of 411 seats.

9 July: Chris Stark appointed to **lead Mission Control for Clean Power by 2030**. **National Wealth Fund** launched - align the UK Infrastructure Bank and the British Business Bank.

25 July: GB Energy Bill introduced, GB Energy partnership with The Crown Estate. National Wealth Fund, SAF, Planning and Infrastructure, Skills England

1st October : Official launch of the NESO and development of Clean Power 2030 plans

4th October: £21.7bn funding committed to first CCUS projects

14th October

Industrial Strategy; Invest 2035 at the International Investment Summit

30th October

Autumn Budget and pretext to Spending Review: Spring 2025

30th October

New UK target to reduce emissions by 81% by 2035 @ COP29 (incl.CCUS)

Towards a Market Framework

- **Long-term Regular Allocation Framework**
  - To provide long-term certainty and competition
  - Stimulate supply chain & skills
  - Drive cost reduction in the CCUS industry

- **Market and mandate levers**
  - Evolution of business models
  - Role of carbon price and ETS in driving down costs and selling credits
  - Low carbon products and fuels markets
  - Role of storage & low carbon product mandates

- **Opening up Cross border CO2 Market**
  - Enabling CO2 shipping and bi-lateral cross-border agreements
  - Competitive CO2 transport & storage market.
  - Clarity on market mechanism e.g. ETS & CBAM recognition between UK and Europe

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