

CCSA Supply Chain Working Group Meeting

Tuesday 24th September 2024



House Keeping & Introductions

- Slides & Recording will be available for members after the meeting.
- CCSA Competition Law Policy notice is attached to the meeting invite and available on the CCSA website.
- If you are not speaking please mute your microphone.
- Please **raise your hand** if you wish to comment, you will be invited to come off of mute, if you can also turn on your camera.
- Please also pose any **comments in the chat** and these will be picked up by the secretariat.
- Approval of June minutes.



Agenda

	Time	Topic	Speaker
1.	10:00	Introductions & Housekeeping	Steve Martin - Supply Chain WG Co-chair
2.	10:05	CCSA Updates	Georgina Katzaros - CCSA UK Policy Manager Max Musing - CCSA UK Senior Policy Officer Charles-Albert Bareth - CCSA EU Senior Policy Officer
3.	10:30	Cost Reduction Strategies for CCUS	Samuel Levin – KPMG Piers Johnston – KPMG
4.	11:15	Break	
5.	11:20	CCUS Supply Chain Guiding Principles	Graeme Rafferty - OEUK Supply Chain Manager Max Musing - CCSA UK Senior Policy Officer
6.	11:55	AOB	Steve Martin - Supply Chain WG Co-chair

CCSA Updates

Georgina Kataros - CCSA UK Policy Manager

Max Musing - CCSA UK Senior Policy Officer

Charles-Albert Bareth - CCSA EU Regulatory Affairs Manager



UK cluster sequencing process

Track-1 Phase-1 and Phase 2

- 2 clusters selected November 2021 to be operational in mid-2020s
- 8 projects (from 41) moved to enter final negotiations to access T1 CO₂ infrastructure in March 2023
- **Financial Close – priority for whole industry to move forwards**

Track-2

- Launched March 2023; 2 T2 clusters to store at least 10Mtpa CO₂ by 2030
- Acorn & Viking confirmed for Track-2
- Plan for anchor project selection expected in early 2024 (targeting deployment from 2028-2029)
- **T2 needs clarification on timelines & next steps - DESNZ working with new ministers to push forward**

Track-1 Expansion

- March 2023 – previously unsuccessful /new projects to access T1 infrastructure
- December 2023 - HyNet T1 Exp launched - app window closed 28/03/24
- April – Eligibility checks (3 weeks)
- Pre-election timetable: Summer (June) 2024 – project shortlisting, Autumn 2024 - project negotiation list published, final negotiations, FID 2026
- To be developed in due course for East Coast Cluster
- **Expecting possible Autumn market update on T1X (including ECC)**

Spring/Autumn Budget 2023

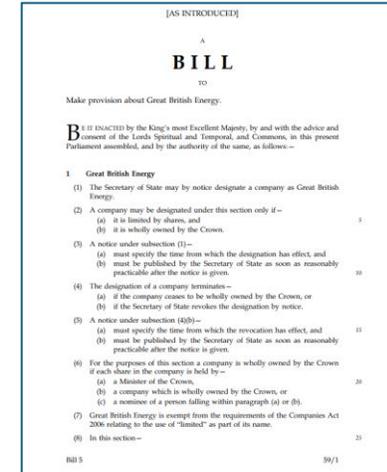
- **£20bn** for early deployment of CCUS in March 2023
- Autumn Budget **£960 million GIGA** supply chain

Spring budget 2024

- £2-3bn Annual revenue support envelope from 2028
- **Autumn Budget Submission 2024**
- **Annual revenue support envelope + cost reduction strategies**



The new UK government



4 June: General Election – Labour majority of 411 seats

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

17 July: Legislation - **GB Energy, The Crown Estate, National Wealth Fund, SAF, Planning and Infrastructure, Skills England.**

22 July: CCSA President’s Reception - Sarah Jones, Minister for Industry.

25 July: GB Energy Bill introduced, and announcement made of GB Energy partnership with The Crown Estate.

Autumn onward



Key Bills Related to CCUS

1. Great British Energy Bill

- **Stage:** Passed 2nd Reading (Commons, 5 Sept); **Committee on 15 Oct**
- **CCSA Ask:** Push for CCS & H2 in "Clean Energy" definition

2. Crown Estate Bill

- **Stage:** Passed 2nd Reading (Lords, 2 Sept); **Committee on 14 Oct**
- **CCSA Ask:** Define the Crown Estate powers clearly; prevent overlap with other regulators. Ensure CCUS infrastructure investment

3. National Wealth Fund Bill

- **Stage:** Not yet introduced
- **CCSA Ask:** Prioritise CCUS in decarbonising industry investments

4. Sustainable Aviation Fuel (SAF) Bill

- **Stage:** Not yet introduced
- **CCSA Ask:** Promote CCUS in SAF production for emissions reduction

5. Planning & Infrastructure Bill

- **Stage:** Not yet introduced
- **CCSA Ask:** Simplify planning for CCUS projects, including pipelines and storage

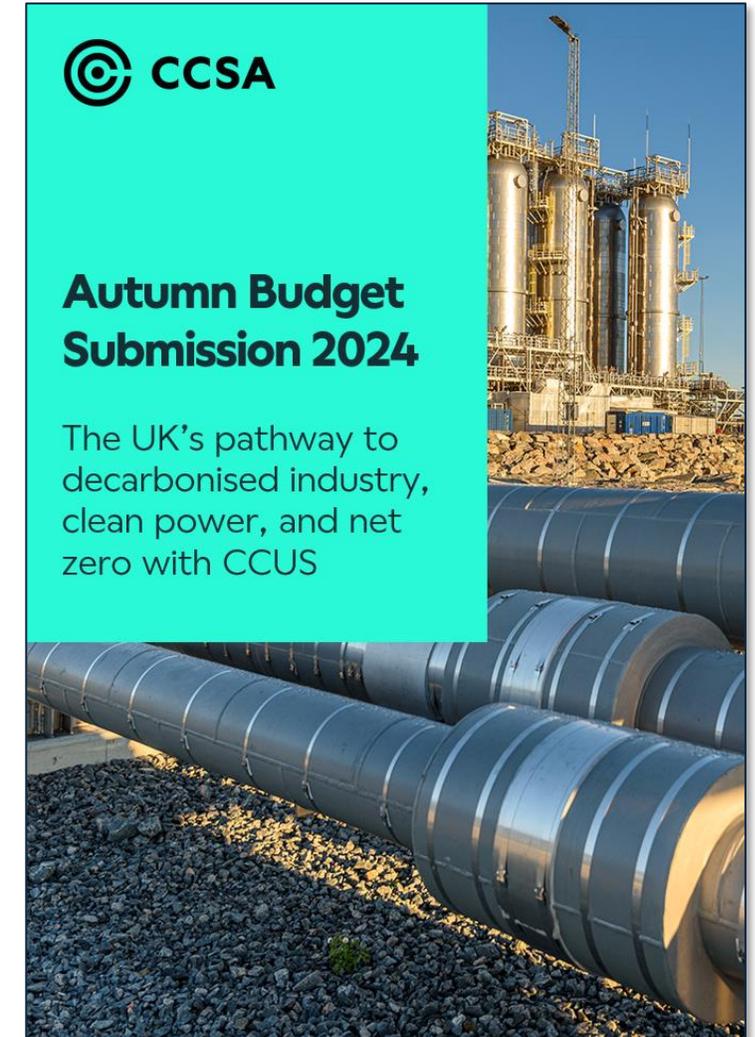
6. Skills England Bill

- **Stage:** Not yet introduced
- **CCSA Ask:** Support skills development for CCUS deployment

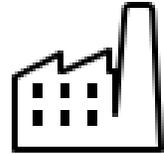
Autumn Budget

Key messages:

- **Growth:** Investing in CCUS presents clear opportunities to the UK's growth outlook by inducing benefits across the economy from supply chain activity, attracting businesses to the UK's low carbon infrastructure, and the export of CO2 storage
- **Revenue support:** Revenue must be committed in 2025/26 to deliver the volumes anticipated in Track-2 and Track-1 Expansion from 2028 and maintain momentum in the CCUS project delivery pipeline. Other projects could be ready along similar timeframes and we need a full allocation envelope in the Spring Spending Review
- **Cost reductions:** CCUS deployment cost and government subsidies will reduce over time. Industry is already working to reduce delivery costs. Continued policy development by government is needed to help drive cost down
- **Public capital:** Great British Energy (GBE) and the National Wealth Fund (NWF) could have a key role to play in mobilising private capital, accelerating delivery, and ensuring effective use of government funding by de-risking hard-to-finance projects



Main conclusions



CCUS key for industries



'Clean Industrial Deal' narrative
is good for CCUS



'Green protectionism'

von der Leyen II & supply chain

Industrial Decarbonisation Accelerator Act

- speed up planning, tendering and permitting

Aggregate demand mechanism

- securing supplies including hydrogen and critical raw materials

Revision of the Public Procurement directive

- Preference to be given to European products in public procurement for certain strategic sectors

Clean Trade and Investment Partnerships

- help secure supply of raw materials, clean energy and clean tech from across the world



EU regulation Net-Zero Industry Act

Supply chain impact

- CCUS manufacturing can have faster permitting, single point of contact...
- CCS projects can have **faster permitting**, planning & administrative procedures
- Faster environmental assessments

Public procurement

- **Sustainability** as a minimum mandatory requirement
- Resilience criterion requires public buyers to **diversify supply sources in cases of high dependency**

European net-zero industry academies

- Learning programmes on net-zero technologies



Critical Raw Materials Act

Supply chain impact

- at least 10% of the EU's annual consumption for extraction
- at least 40% of the EU's annual consumption for processing
- at least 25% of the EU's annual consumption for recycling
- no more than 65% of the EU's annual consumption from a single third country

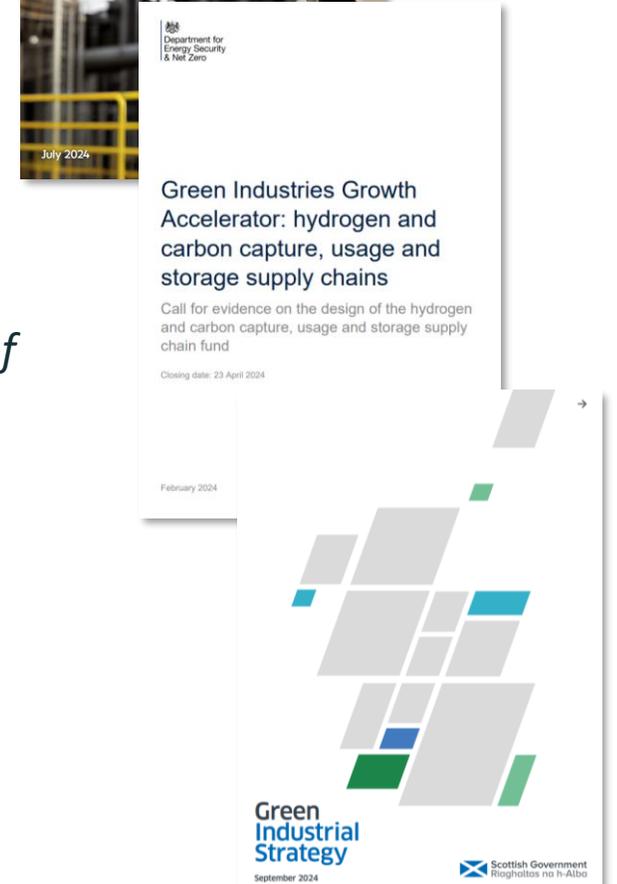
Strategic raw materials

- bauxite/alumina/aluminium, bismuth, boron — metallurgy grade, cobalt, copper, gallium, germanium, lithium — battery grade, magnesium metal, manganese — battery grade, graphite — battery grade, nickel — battery grade, platinum group metals, rare earth elements for permanent magnets (Nd, Pr, Tb, Dy, Gd, Sm, and Ce), silicon metal, titanium metal, tungsten



UK Supply Chain Updates

- **Key CCSA Supply Chain CCSA Activity**
 - Reviewing the Insights from the Supply Chain Initial Insights Report.
 - Feeding into the Cost Reduction work package from the CCUS Vision.
 - **National Wealth Fund** and the UK Infrastructure Bank.
 - Progress update on the **Green Industries Growth Accelerator**.
 - **UK Content requirements** and how this fits with the new Government priorities. *Part of the Industrial Strategy?*
 - Scottish Government **Green Industrial Strategy**, recently published, focused a lot on building supply chains.
 - Understanding the strength of local supply chains, strengthening breadth and resilience, driving productivity.
 - Delivering a supply chain excellence programme.
-
- **Potential for other task subgroups?**
-



Skills Updates

- **CCS Task and Finish Group.** What has been the follow up from the publication of the GJDG CCS TFG findings and recommendations of the group report?
- **Skills England.** Its remit is still tbc. Formation is expected by spring 2025.
 - The Skills England Bill has not yet been introduced to parliament, however the CCA would ask for it to support the CCUS skills needs.
- Scottish Government's **Green Industrial Strategy** has focused a lot on skills.
 - Developing a better understanding of skills needs for the net zero transition.
 - **Raise the profile of green job opportunities** and support re-training.
 - **Enhance the transferability of skills (the Just Transition Fund),**
 - Support employers in opportunity areas to invest in training.
- Parliamentary inquiry into **Skills for the Future.** Comments deadline is 25th September.
- **Skills and Training Task Subgroup.** Please note if you would like to be included in this task subgroup.



Press release

Skills England to transform opportunities and drive growth

New body launched to bring together key partners to meet the skills needs of the next decade across all regions.

From: [Department for Education](#), [The Rt Hon Sir Keir Starmer KCB KC MP](#) and [The Rt Hon Bridget Phillipson MP](#)

Published 22 July 2024



The Prime Minister and Education Secretary
Skills England to bring together



CCUS 2024: Capturing a Net Zero Future, 15-16 October

There are just 3 weeks to go – remember to book your tickets!

Discounted member-rate tickets can be booked here:

<https://registration.ccus.events/product/member/>

- Venue: Central Hall Westminster
- 700 – 800 expected delegates across both days
- Over 100 speakers confirmed across 28 sessions
- Delegations from US, Canada and China attending
- **DESNZ Meet & Greet** (with civil servants): Day 1 (15th Oct) – morning coffee break & lunch break
- **Dinner:**
 - Taking place on the 14th Oct at the IoD in Pall Mall
 - **Tickets are still available [here](#)** (individual tickets or a whole table of 10)
 - We will again be presenting a Lifetime Achievement Award.



Any questions?



Cost Reduction Strategies for CCUS

Piers Johnston – KPMG

Samuel Levin – KPMG

KPMG



KPMG is supporting the CCSA across three areas of work



Workstream 1

Autumn Budget submission 2024

Aug-Sep 2024 (complete)

The submission includes:

- The immediate sector and policy **priorities for 2025/26**
- A high level narrative that illustrates the **cost reductions** associated with increased and/or accelerated CCUS deployment
- A showcase of the potential additive role of **GB Energy** and the **National Wealth Fund** in deploying the industry at scale

In progress

Workstream 2

Cost reduction analysis

Sep-Nov 2024

This workstream includes:

- **Workshops with CCSA members** to explore the key areas of potential cost reduction for CCUS
- Working with AFRY to **quantify elements of the cost reduction analysis**
- Summarising **findings and policy levers for government** to support a cost-effective and self-sustaining CCUS industry in the UK

In progress

Workstream 3

Spring Budget submission 2025

January 2025

This workstream includes:

- An update of the total **revenue support envelope** using latest cost and project data
- **Quantified ranges for cost reduction potential** associated with CCUS deployment and government levers to deliver cost reductions (including GB Energy and National Wealth Fund)
- Outline of the **growth opportunities and benefit to UK Plc and HMG**, with case studies

The cost reduction analysis framework

An initial high-level overview of the cost reduction analysis was conducted for the Autumn Budget submission. This analysis identified key cost categories and levers that will be quantified ahead of the Spring Budget Submission.

Key cost areas

Creating a sustainable and fully commercialised CCUS market requires a reduction in two key areas:

1

The cost to deploy CCUS

Cost to deploy CCUS is **the £/tCO₂e for capture and T&S projects** and includes the technology costs, financing and insurance, and efficient project delivery.

2

The level of government subsidy

Subsidy is the amount of support government have to provide (via CfD). This gap will close as the cost to deploy comes down, but can also be addressed through increasingly **robust and clear market frameworks** that allow costs to be passed through to consumers to reflect the cost of unabated carbon.

Cost reduction levers

Cost reductions for both areas can be addressed through three main categories:

- **Sector development:** e.g. scaling the supply chain, skills development, and knowledge transfer.
- **Financing:** e.g. early engagement and collaboration with private and public finance, and early investment in projects and enabling infrastructure.
- **Policy:** e.g. clear and robust policy frameworks for carbon markets, low carbon power, hydrogen, and CCUS allocation rounds, and streamlining regulatory compliance processes.

13+ cost reduction levers have already been identified across the different cost areas and categories

Next steps

- This initial cost reduction analysis outlines a qualitative overview of the work that CCSA is currently undertaking.
- Further in-depth analysis and quantification of these cost reduction measures will be completed over the coming months. This will include:
 1. **Engaging with CCSA members** to explore the key areas of potential cost reduction
 2. **Quantification** of cost reduction elements and levers
 3. **A summary of findings and policy levers** for government

Questions for membership

-  What are the largest cost drivers for you in deploying CCUS?
-  What work have you already done to quantify potential cost reductions in these cost drivers?
-  What are the policies or market changes that government need to prioritise to support cost reductions?
-  How can public finance organisations (e.g. NWF, GB Energy, UKIB) best support the sector in driving cost reductions?
-  What are the 'no-regret' policy decisions or sector investments to reduce costs?

Appendix

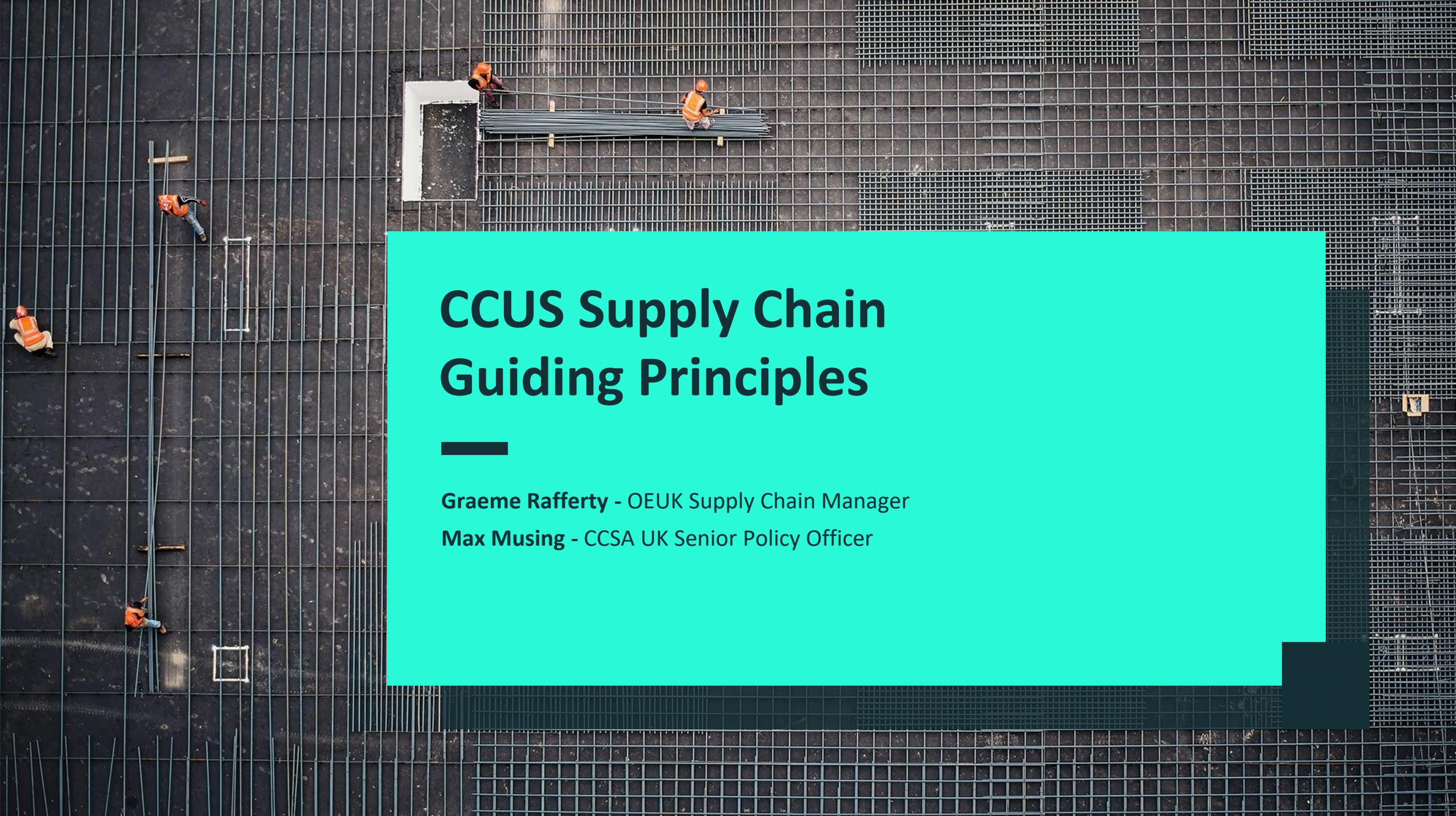


The existing cost reduction work packages will feed into the analysis

Work package	Cost reduction lever category		
	Sector development	Financing	Policy
1 Supply chain and commodity costs	✓		✓
2 Skills	✓		✓
3 Technical components	✓		✓
4 Contracting strategies	✓		✓
5 Legal & regulatory compliance			✓
6 Finance and insurance	✓	✓	✓
7 Allocation frameworks for government funding			✓
8 Cross-border CO2 transport and storage	✓		✓
9 Markets and mandates			✓

5 Minute Break!





CCUS Supply Chain Guiding Principles

Graeme Rafferty - OEUK Supply Chain Manager
Max Musing - CCSA UK Senior Policy Officer

-  1. Risks and costs should be borne appropriately, proportional to the work scope and the opportunity for good performance should benefit everyone.
-  2. Contractual terms and conditions will seek to utilise industry standards including mutual payment terms. Buyers shall strive towards supporting the Government Prompt Payment Code and 30-day payment terms.
-  3. All parties should ensure they have the competence and skills to deliver the work being tendered.
-  4. Contract cancellations should not be without good reason or cause. If buyers and suppliers must have the ability to terminate a contract, the circumstance or risk should be outlined, explained and understood.
-  5. Purchasers shall endeavour to optimise their tendering and audit requirements to respect the supplier's time and resources.
-  6. Tender processes and evaluation should be based on value-added rather than unit rates and be flexible to evaluate alternative offers as part of the bidding process.
-  7. An alternate bid (either technical or commercial) which a buyer sees as a winning proposition should be selected for award on its merit.
-  8. Buyers and suppliers should discourage the practice of "low-ball" bidding which will lead to contracts being renegotiated early on.
-  9. Buyers should agree clear rate escalation mechanisms and move away from the practice of fixing labour rates for several years.
-  10. Where a supplier (or potential supplier) feels unfairly treated, it should notify the buyer's CEO to ensure that speaking up is not held against it.

Working as One Survey

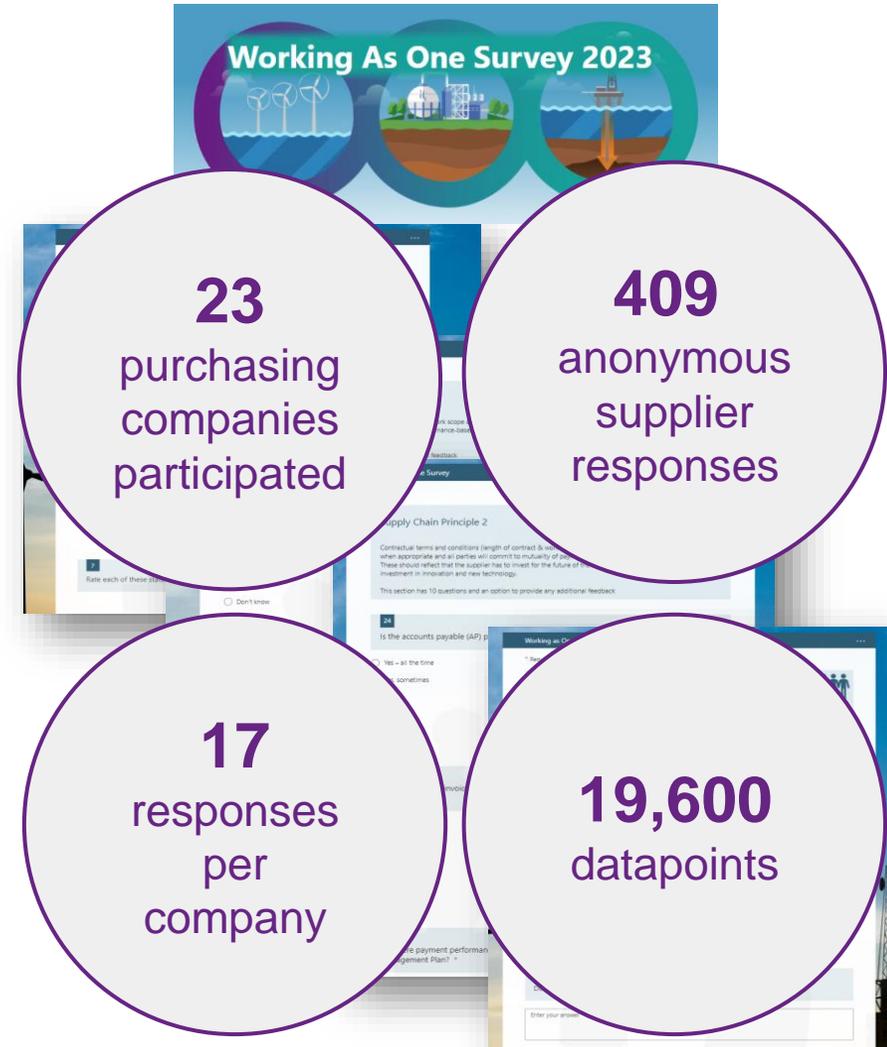
A strong, sustainable, well-resourced, competitive supply chain

An industry wide survey which measures adherence to the Supply Chain Principles.

Opportunity for purchasing organisations to gain valuable feedback from their supply chain.

Supports continuous improvement and the development of good procurement practice.

Independently run every 2 years.



Working as One Survey

A strong, sustainable, well-resourced, competitive supply chain

Focus Areas

62% of correctly submitted invoices are paid on time

45% have experienced repetitive tendering

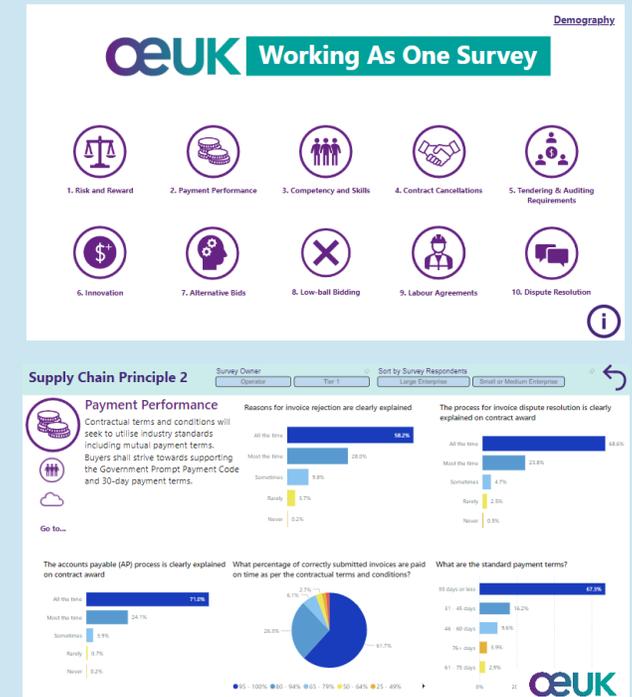
A majority feel that they are taking the contract risk

Openness to alternative bids remains low

36% do not receive visibility on forward work plans

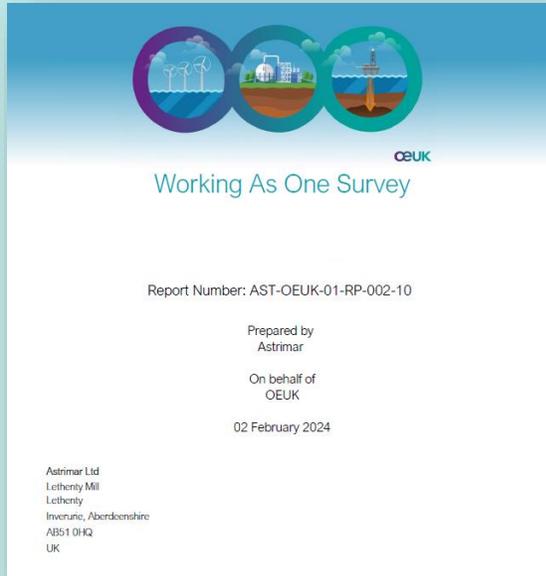
43% always make an adequate return on investment

Power BI



How Can We Encourage Adherence?

A strong, sustainable, well-resourced, competitive supply chain



Issue Working as One company reports and publish industry findings



Develop and publish supply chain management good practice



Gain cross sector support and association endorsement

Supply Chain Principles Awards

A strong, sustainable, well-resourced, competitive supply chain



Based on the results of the **Working as One** survey, the awards celebrate companies who are committed to good procurement practice and who show positive collaborative behaviour.

23 Companies Awarded:

10 Gold

9 Silver

4 Bronze

Supply Chain Guiding Principles – Insights from the Initial Forecast Report



Provide information of **UK-based alternatives** in supply chain decisions.



Engagement in **cross-sector leadership**.



Workforce commitments and worker benefits.



Good industrial relations across the whole supply chain.



Fair and **timely payments** to suppliers.



Deliver **feedback to unsuccessful bidders** and opportunities for reengagement.



Promote new companies into the **CCUS supply chain** from other sectors.



Sustainability in the supply chain.

Supply Chain Guiding Principles – Potential project objectives and deliverables

- The objective of the project is to **define and agree a set of voluntary SCGP** for stakeholders and businesses involved in the CCUS supply chain. These principles could:

Promote fair business practices

Drive adoption of principles

Highlight standards to external stakeholders

Minimise certain risks between competitors

- The SCGP should act as a standalone document which can work alongside individual organisations own guiding principles, where these have already been developed. The document would include:

- Rational for SCGP**



The principles



Endorsements



Member Input

- What is the scope for updating the principles?
- How broad should the principles be?
- Cross sector sign up and adoption?
- Nex steps in the process? Participation in follow up workshops?



Summary, Final Questions & AOB

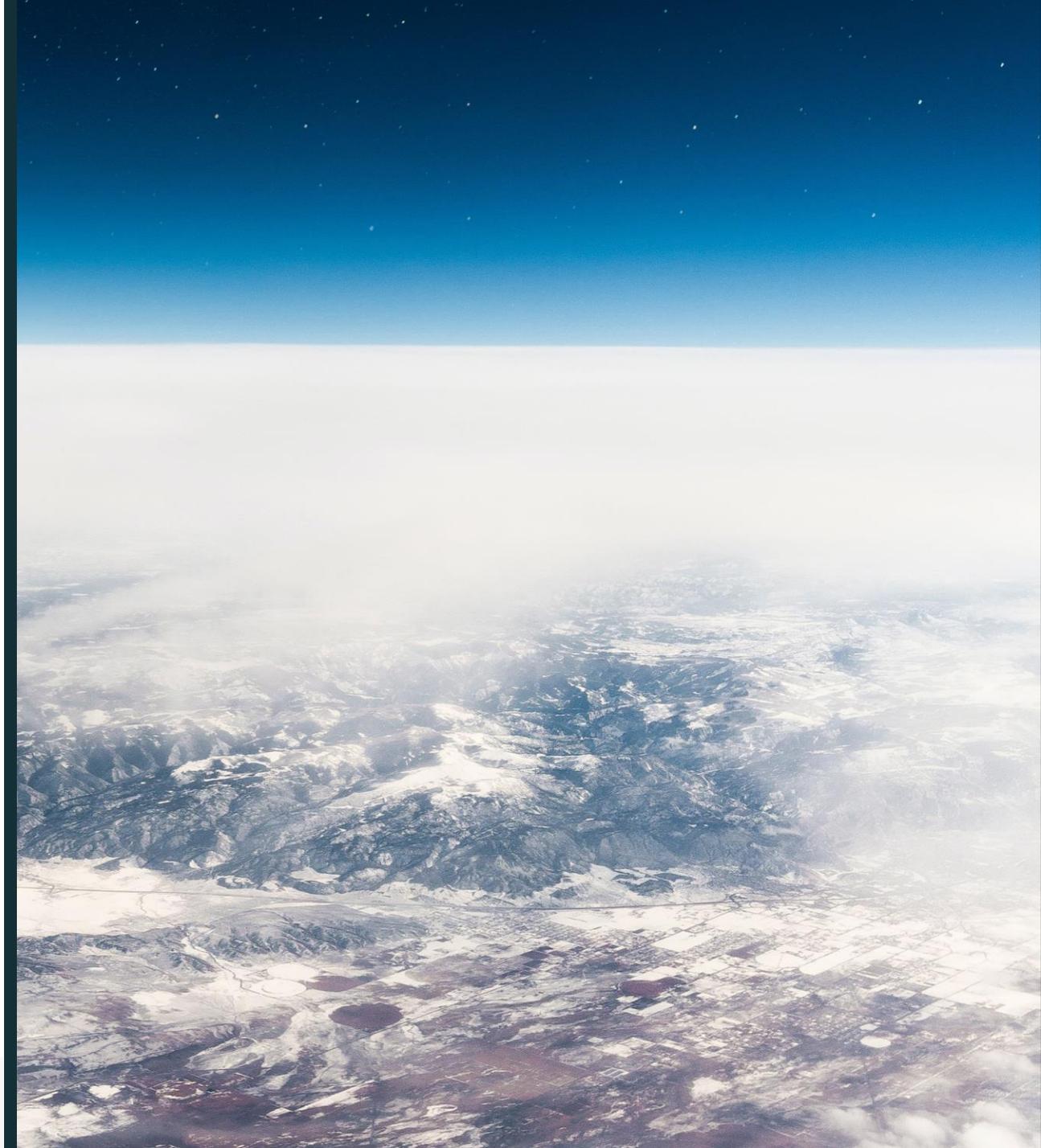
- Co-Chairs summary of the meeting
- AOB
- Next Meeting Dates:

 19th Mar 2024

 26th June 2024

 24th Sept 2024

11th Dec 2024





The Carbon Capture and Storage Association (CCSA) is the trade association focused on accelerating the commercial deployment of carbon capture, utilisation and storage (CCUS).

We work with our 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 has over 100 member companies who are active in exploring and developing different applications of carbon capture, CO2 transportation by pipeline, ship and rail, utilisation, geological storage, and other permanent storage solutions, both end-users of the technology and those in the supply chain, as well as members from management, legal and financial consulting sectors.

www.ccsassociation.org

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