

UK CCUS Council Meeting Minutes
28th February 2022, hybrid meeting

Attendees	Organisation
Rt Hon Greg Hands- Co-Chair	Minister for Energy, Clean Growth and Climate Change
James Smith (JS)- Co-Chair	Former Chair, Carbon Trust
Syrie Crouch (SC)	Shell
Andy Lane (AL)	BP
Grete Tveit (GT)	Equinor
Charlotte Morgan (CM)	Linklaters
Dame Judith Hackett (DJH)	Enduring Chair- CCUS Supply Chain Working Group
Frank Aaskov	Make UK
Jarrad Daniels	Global CCS Institute
Guloren Turan	Global CCS Institute
David Reiner	Cambridge University
Dustin Benton	Green Alliance
Roz Bulleid (RB)	Green Alliance
Ruth Herbert (RH)	CCS Association
Ronnie Quinn	NECCUS
Hywel Thomas	Cardiff University
Karl Smyth	Drax
Andrew Benjamin	National Grid
Julian Leslie	National Grid ESO
Matthew Ball	Ofgem
Paige Truelove	Energy UK
Neil Golding	EIC
Andrew Storer (AS)	Nuclear AMRC
Phillip Hemmens (PH)	ENI
Laura Sandys (LS)	Challenging Ideas
Allan Baker	Societe Generale
David Parkin (DP)	Progressive Energy
Chris Robinson (CR)	Tees Valley Combined Authority
Kristina Dahlstrom (KD)	OGA
Nicola Cocks	Storegga
Andy Lightfoot	ESSO
Rich Denny	IPA

Observers	Organisation
Alex Milward (AM)	Director, CCUS, BEIS
Stephanie Murphy (SM)	Director, Hydrogen and ICC, BEIS
Beatrice Filkin (BF)	Deputy Director, CCUS, BEIS
Will Lochhead (WL)	Deputy Director, HICC, BEIS
Chris Thackery (CT)	Deputy Director, CCUS, BEIS
Noor Rashid (NR)	Project Manager, CCUS, BEIS
Sherif Kahky (SK)	Programme Manager, CCUS, BEIS

Opening remarks from the Minister for Energy, Clean Growth and Climate Change and James Smith

The Minister welcomed members to the CCUS Council meeting and noted the progress made since the last meeting, including the publication of government responses to two consultations as well as a transport and storage Regulatory Investment (TRI) model update and highlighted the important work of industry in driving forward the deployment of CCUS. JS congratulated the Minister for his appointment as co-chair and looked forward to working with him as the co-chair of the council. JS iterated the importance of the supply chains in the delivery of CCUS and welcomed the work of Dame Judith, the supply chain working group and the CCSA for progressing this agenda.

1. Supply Chain working group update

DJH presented on the findings of the CCUS supply chain intervention strategy, a sprint review carried out by Nuclear AMRC for the supply chain working group.

DJH noted the need to raise awareness and build confidence in opportunities in CCUS among manufacturers and iterated that the report was an initial view of the sector rather than the complete picture. DJH commented on the importance of ensuring that work on the supply chain was joined up to minimise duplication of effort and asked for guidance from the council on how to take this forward.

AS presented the findings of the report and noted the applicability of the 'Fit For Nuclear' model for the deployment of CCUS and commented on the potential to extend the Fit For programme to cover the whole energy system. AS noted the need to establish timescales and databases of companies that could work across the energy sector to limit work taking place in silos.

1a. Government response to the approach

GH clarified that the demand slide as part of the pack, clusters in track-2 process was not yet completed and the Acorn cluster was a reserve as part of track-1. GH invited AM for comments. AM explained the reasoning behind this piece of work was to ensure a capable supply chain existed to deliver into the UK Infrastructure. SM iterated her thanks to the team for their work on this. SM noted the BEIS team had commissioned a study to look at supply chain for the industry, potential capability for the UK supply chain, developing archetypes and retrofit ICC capture plants. Feedback on this piece of work would be acquired by end of March. SM commented on the need for industry and government to work together.

1b. Industry's response to the report

GH asked within the 11 categories presented, which parts were the most important in terms of value and jobs? AS answered heat exchanges in general and pipework/pipelines were key in building a viable supply chain. GT commented on the role of local content and the need to match the timelines of CCUS projects with the timelines needed to develop the supply chain.

CT commented on the opportunities in the off-shore market and the desire to integrate off-shore and on-shore components to ensure join up. The OGA referenced the OGA pathfinder portal as a good example of this. SC iterated the need for a stable funnel of projects to incentivise investment and showed support for the approach put forward by the report and agreed with GT's former comment. SC also suggested considering where this compared with the UK's industrial competency.

PH noted the importance of this piece of work. PH added the projects were currently undergoing a technical evaluation and Hynet was preparing the invitation to tender for the transport and storage system and the cluster could build on this work moving forwards. DP commented there were several key players active in this space and suggested coherence would be useful. DP noted the importance of the working at the local level as well as the regional.

LS iterated the need for dynamic reporting throughout the supply chain and noted the need for innovation of the whole system to bring together separate parts to make up an intelligent supply chain. AL noted that this work on the supply chain was focused more on hardware than software. RH suggested considering carbon capture as a service, modularisation, and integration of the system in terms of forward-looking opportunity. CR asked if any work had been carried out in terms of non-pipeline transport and how that would integrate with the CO2 deployment scheme. SC agreed with RH's comment on modularisation of CCUS and further noted the need to protecting the IP of companies and ensuring capture recipes not being readily accessible to prevent replication.

DJH thanked the Council for the positive feedback and steers given by the Council. DJH highlighted the clear funnel of opportunity and further discussions around the issue of coherence were needed to resolve this.

2. CCUS Deployment

RH presented the CCUS delivery plan, prepared by the CCSA in partnership with KPMG. RH commented on the UK storage capacity in comparison to the availability of licenced storage capacity over the next twenty years. RH iterated the need for more storage capacity and the need for near term action to address this. RH commented that there would likely be financial benefits to acting sooner due to the length of time needed to develop storage capacity in the UK and secure a license.

RH commented on the availability of storage which could be exploited but required licensing and appraisal. RH noted the need for a smooth development of the build out rate and iterated that UK benefits could be maximised through this development.

2a. CCUS Deployment, CCUS Council Discussion

DP commented on the link between the delivery plan and the supply chain. DP iterated the limitations of the current allocation of tonnes of CO2 saved by CCS projects and the potential for demand to go above the Government's current targets as CCUS was fundamental to the decarbonisation of certain sectors. DP further commented that sight of a roadmap for Track-2 would drive forward the decarbonisation and the supply chain agenda.

GT commented on the need for an effective CO2 licensing programme that was linked to offshore wind storage to ensure join up. GT noted the opportunities for further development of the Track-1 clusters past the end date for the East Coast Cluster and commented that once the pipeline was in place between emitter regions and the store, there would be others wanting to connect in. DP agreed with the desire to create this as soon as possible as it would lead to the creation of economies of scale.

Industry asked if having mini-CCS licensing rounds could prevent licensing rounds from being a blocker to the critical path in the future. KD noted the uncertainty around storage sites being successful and commented that there needed to be more planned storage in the event that some sites did not receive a licence but may consider a similar approach in the future. AL iterated the difference between the availability of storage and the ability to inject into the storage capacity. AL

commented on the need for more appraisal work. There was also some debate around OGA capacity for future and OGA iterated working closely with together to prevent creation of a bottle-neck.

RB commented that a key challenge was that CCUS was not always viewed as the first option for decarbonisation due to the unbalanced views within the market. PH iterated the challenge behind acquiring a license and then acquiring a storage permit. PH suggested having a suitable number of licenses being issued.

SC was supportive of the previous comments on storage capacity and ramping up. SC commented on the potential that not all sites being evaluated would make it through the funnel and asked about the transition from a subsidised world to a market driven world. CM suggested having a future item on legislative update re timelines.

3. AOB & Close

GH thanked the members for attending and for a productive discussion. JS thanked the members for attending, and the Minister for his support of the council. JS brought the meeting to a close.