



Department for
Business, Energy
& Industrial Strategy

CCUS Council

Fifth meeting, 20 June 2019: summary

June 2019

CCUS Council, fifth meeting, 20 June 2019

Attendees

Co-chairs

James Smith, Former Chair of the Carbon Trust and Co-Chair of the CCUS Council

Council members

- Frank Aaskov, Senior Energy, Climate and Environment Policy Adviser, Make UK
- Rodney Allam, 8 Rivers & NET Power
- Kristofer Hetland – Senior Adviser Project Management, Equinor (on behalf of Stephen Bull)
- Cathryn Scott, Director for Wholesale Markets, Ofgem (on behalf of Dermot Nolan)
- Paul Booth, Chair, Tees Valley Local Enterprise Partnership
- Peter Whitton, MD Progressive Energy for Cadent, (on behalf of Ed Syson)
- Stuart Haszeldine, Director, Scottish CCS
- Sinead Lynch, UK Country Chair, Shell
- Peter Mather, Group Regional President, Europe & Head of Country, UK, BP
- Will Gardiner, CEO, Drax Group
- Ian Radley, Head of Gas Operations, National Grid (on behalf of Fintan Slye)
- Tom Shields, Acting Chair, Chemical Sciences Scotland Industry Leadership Group
- Lawrence Slade, Chief Executive, Energy UK
- Colin McGill, Project Director, OGCI Climate Investments (on behalf of Pratima Rangarajan)
- Laura Sandys, Chief Executive, Challenging Ideas
- Brianda Bugge-Mahrt, Principal Corporate Affairs, BHP (on behalf of Fiona Wild)
- John Scowcroft, Executive Advisor - Europe, GCCSI (on behalf of Brad Page)
- Luke Warren, CEO, CCS Association

Invited to attend

- Paul Davies, Chair, CCUS Advisory Group
- Patrick Dixon, Project Manager, CCUS Advisory Group

Observers

- Matt Taylor, Deputy Director, Carbon Capture and Renewable Sectors, BEIS
- Will Lochhead, Head of CCUS Policy Team, BEIS

- Andrew Russell, CCUS Policy Team, BEIS
- David Fielder, CCUS Policy Team, BEIS
- Jason Golder, The Crown Estate,
- Ed Hadley, HM Treasury
- Gavin Jackson, Linklaters
- Jonathan Dredge, Oil and Gas Authority
- Margo McGiver, Scottish Government
- Ron Loveland, Energy Advisor, Welsh Government

Apologies

- Dermot Nolan, CEO, Ofgem
- Dominic Emery, Vice President for Strategic Planning, BP
- Dustin Benton, Policy Director, Green Alliance
- Fintan Slye, Director of UK System Operator, National Grid
- Brad Page, CEO, Global CCS Institute
- Pratima Rangarajan, CEO, OGCI Climate Investments
- David Reiner, Cambridge University
- Charlotte Morgan, Linklaters
- Allan Baker, Global Head of Power Advisory and Project Finance, Societe Generale

Introduction from James Smith

James Smith, CCUS Council Co-Chair, began the meeting by explaining that Minister Claire Perry was unable to attend. He welcomed all members to the meeting and gave a particular welcome to new attendees and those representing Council members.

Minutes of the last meeting

The minutes of the last meeting held on 21 March were agreed.

CCUS Advisory Group (CAG) – update

Paul Davies introduced a session summarising the work of the CAG in recent months outlining the CAG's view on potential CCUS business models covering:

Electricity Production with CO₂ Capture

A dispatchable Contract for Difference for power CCUS, under a 20-year contract with funding from the electricity consumer.

Industrial Production with CO₂ Capture

Consider the option of doing “lower cost of abatement” industrial projects early with taxpayer funding. Suggested one of two models – 1) co-investment between plant-owners and HMG; or 2) separate company providing “decarbonisation service”.

Also discussed industrial CCUS contracts using ‘cost plus, open book system’ for early projects.

Hydrogen Production with CO₂ Capture

Consider development of low carbon hydrogen production as part of a CCUS Cluster development during the 2020s, and to consider whether additional cost of low carbon hydrogen production, storage and distribution could be borne by gas consumers or through taxation.

Biomass to Energy with CO₂ Capture

Consider option of biomass to energy with CO₂ capture electricity generation projects being supported with a Contract for Difference (CfD) or similar arrangement; consider developing a framework for providing income to create negative emissions through BECCS.

CO₂ Transport and Storage

Considered a Regulated Asset Base (RAB) model would be viable, indicating a preference towards the privately financed RAB.

CCUS Specific Risks

CAG had also been considering measures that could mitigate CCUS specific risks such as Transport and Storage Assets being temporarily unavailable; long term failures of the Transport and Storage Assets.

Next Steps

Advisory papers produced by the CAG will be published alongside BEIS consultation documents in the summer. CCUS Council members were encouraged to study these in detail alongside the BEIS consultation.

Points raised in discussion

Members congratulated the CAG on their work, and made a number of points to consider, including:

- Competition was an issue and how it would be defined. We need to attract international investment to stimulate innovation and finance it, but the most competitive price might not provide best value for the UK.
- Strong support for an integrated plan with collaboration rather than competition between clusters.
- Projects that combine heat and power and shipping projects also need to be considered. (Example of Dusseldorf -Norway project).
- There was the need for urgency with the UK target to reach Net Zero by 2050 - and noted that Scotland had set a target to achieve this by 2045.
- CAG produced good work on power and bioenergy with CCS (BECCS). Pricing of negative emissions was a difficult issue that needed to be addressed.
- Some concerns about a competitive process and felt there could be a role for the CAG to continue in future as work progresses.
- There was still a need to work together for efficiencies in developing CCUS and looking at legalities and financing. The next big step would be to get the technical solutions evaluated to the next level.
- Important to develop as an industry and work on a detailed scope which needs to align with BEIS strategy. More work needs to be done on State aid.
- BEIS recognised the important work of the CAG, which had greatly helped inform the forthcoming consultations, including the consideration of irreducible risks and how business models can mitigate these risks, and how best we manage those risks collectively. BEIS would now need to ensure all ambitions around CCUS, IETF and Industrial Clusters Mission are aligned to maximise opportunities.

The Chair concluded by thanking the CAG for their work, before outlining how the economics of CCUS operates at three levels – overall energy system macroeconomic goals; the point of investment decision making on individual projects; and the operational choices about which parts of the energy infrastructure are most efficiently deployed under different circumstances.

It is important to focus on what such analysis tells us about whether CCUS is necessary to avoid climate change. We must show how action is cost effective and how early action will benefit economies. Whilst the CCC uses the language of levelized cost, material positive systems value is key, and the ESME model will provide further evidence on this. However, we should not lose sight of micro-economics for each individual project.

BEIS forthcoming consultation on possible CCUS Business Models

Rachael Massey introduced the planned summer consultation on CCUS Business Models. Following a period of stakeholder engagement, the consultation will set out a broad range of questions and gather views on options critical to developing CCUS and meeting Action Plan commitments. Documents produced by the CAG will be published alongside the consultation to enable respondents to fully assess the proposals.

BEIS forthcoming consultation on re-use of existing infrastructure

Nathan Wyatt introduced the planned summer consultation on potential re-use of oil and gas infrastructure for CCUS projects. Recommendations for re-use have been made to Government in a number of reports, including the Parliamentary Advisory Group on CCS and the CCUS Cost Challenge Taskforce. Work commenced in January with engagement with regulators and industry alike, to gain views on infrastructure and on policy approaches.

CCUS communication and engagement

Luke Jones introduced a future BEIS workstream on the public acceptance of CCUS, working with Sciencewise - an external organisation that conducts public dialogue.

There was a strong level of interest from members to contribute to this work during discussion. A representative from the Council will sit on the steering group. The Chair said there is an intention to establish a group to look at the general theme of engagement and communication on CCUS, covering the interest of a wide range of stakeholders.

AOB

The next meeting is due to be held in September 2019.