



Department for
Business, Energy
& Industrial Strategy

CCUS COUNCIL

Third meeting - summary

15 November 2018

Attendees

Co-chairs

- Ashley Ibbett, Director, Clean Electricity Directorate, BEIS (on behalf of Minister of State Claire Perry)
- James Smith, Former Chair of the Carbon Trust and Co-Chair of the CCUS Council

Council members

- Frank Aaskov, Senior Energy and Environment Adviser, EEF (on behalf of Roz Bulleid)
- Rodney Allam, 8 Rivers & NET Power
- Faisal Bachlani, Head of Public Affairs, Equinor (on behalf of Stephen Bull)
- Allan Baker, Global Head of Power Advisory & Project Finance, Societe Generale
- Rebecca Barnett, Deputy Director, Commercial and Assurance, Ofgem (on behalf of Dermot Nolan)
- Paul Booth, Chair, Tees Valley Local Enterprise Partnership
- Simon Fairman, Director of Safety and Network Strategy, Cadent
- Stuart Haszeldine, Director, Scottish CCS
- Sinead Lynch, UK Country Chair, Shell
- Niall MacDowell, Senior Lecturer in Energy and Environmental Technology and Policy, Imperial College London (on behalf of David Reiner)
- Peter Mather, Group Regional President, Europe & Head of Country, UK, BP (on behalf of Dominic Emery)
- Cathy McClay, Head of Future Markets, National Grid (on behalf of Fintan Slye)
- Charlotte Morgan, Partner, Linklaters
- Tom Shields, Acting Chair, Chemical Sciences Scotland Industry Leadership Group
- Lawrence Slade, Chief Executive, Energy UK
- Hywel Thomas, Pro Vice-Chancellor, Research, Innovation and Engagement, Cardiff University
- Guloren Turan, General Manager, Advocacy, GCCSI (on behalf of Brad Page)
- Luke Warren, CEO, CCS Association

Observers

- Matt Taylor, Deputy Director, Carbon Capture and Renewable Sectors, BEIS
- Will Lochhead, Head of CCUS Policy Team, BEIS
- Amy Cutter, CCUS Policy Team, BEIS
- John Waldron, CCUS Policy Team, BEIS
- David Fielder, CCUS Policy Team
- Adrian Fox, The Crown Estate,
- Sian Wilson, The Crown Estate Scotland
- Jonathan Dredge, Oil and Gas Authority
- Meg Nicolaysen, HM Treasury
- Stuart McKay, Scottish Government

- Kate Hearnden, Welsh Government
- John Snowcroft, GCCSI

Apologies

- Claire Perry, Minister of State for Energy and Clean Growth and Co-Chair of the CCUS Council
- Dermot Nolan, CEO, Ofgem
- Dominic Emery, Vice President for Strategic Planning, BP
- Laura Sandys, Chief Executive, Challenging Ideas
- Fiona Wild, VP sustainability and Climate Change, BHP
- 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

Introduction from James Smith

- James Smith, CCUS Council Co-Chair, began the third Council meeting by referencing three key reports that had been published since the previous meeting in July:
 - The October 2018, IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels.¹
 - IEA 2018 World Energy Outlook, published shortly before the Council.²
 - The July 2018 report by the CCUS Cost Challenge Taskforce (CCTF), on progressing CCUS in the UK.³
- James stated how these studies had underlined the importance of CCUS to meeting our climate ambitions but also highlighted the challenges that are still faced in deploying CCUS at scale.
- James suggested that the Council could use this session to consider in more detail the challenges to deployment, possible solutions and what could be done next to address them.

Opening remarks from Ashley Ibbett

- Ashley Ibbett, Director, Clean Electricity, BEIS, welcomed Co-Chair, James Smith, and the participants to BEIS on behalf of Minister of State Claire Perry.
- Ashley thanked Charlotte Morgan, Chair of the CCTF, and the individual workstream leads, for the Taskforce Report published in July 2018.
- Ashley set out that Government, following the publication of the Taskforce report, will be:
 - Publishing the CCUS Deployment Pathway: An Action Plan before the end of the year. This is designed to set out the next steps which industry and Government need to take to achieve Government's ambition on CCUS; and,
 - Organising an International CCUS Summit, in Edinburgh, on 28 November, which Claire Perry will host, alongside Fatih Birol from the IEA.
- Looking forward to the Summit, Ashley explained how the Minister will use the Summit to set out three challenges which need to be addressed to progress CCUS both in the UK and globally:
 - One, how do we incentivise CCUS in industry?
 - Two, how do we get the CO₂ transport and storage infrastructure in place?
 - Three, how do we create market-based frameworks to support CCUS in the UK?

Discussion on tackling the delivery challenges identified by the CCUS Cost Challenge Taskforce

The market frameworks for CCUS in industry and power

- James Smith began the discussion by presenting a series of slides on the key challenges and discussion points, focusing on the following topics:

¹ <https://www.ipcc.ch/sr15/>

² <https://webstore.iea.org/world-energy-outlook-2018>

³ <https://www.gov.uk/government/groups/ccus-cost-challenge-taskforce#report>

- the market frameworks for CCUS in industry and power;
 - development of transport and storage infrastructure; and,
 - industry delivery capability.
- James concluded by stating that although it is less obvious who would operate projects, especially in transport and storage (T&S) when compared to for instance Thames Water in the case of the Thames Tideway, the real question we need to answer now is the “how” rather than the “who” to ensure the framework for CCUS in the UK enables the development required. Allan Baker, Global Head of Power Advisory & Project Finance, Societe Generale, echoed this point suggesting numerous companies and partnerships are ready to invest but that these players don't know how to engage currently.
 - Luke Warren, CEO of the CCSA, followed by introducing the recent Energy UK and CCSA workshop which had highlighted the need to reach out beyond the tight-knit CCUS community to others that may need to play a role, for example more actively involving energy intensive industries and utilities.
 - The Council then discussed how best to address the key delivery challenges address by the CCTF.
 - Luke Warren reflected on this discussion and said that industry needs to understand the limits of government. He suggested that government and industry should work together on a short, targeted piece of work to answer some of these key questions on enabling CCUS deployment.
 - Ashley Ibbett agreed that continued collaboration between government and industry would be useful.
 - Charlotte Morgan highlighted the huge amount of value to be created by working closely in this way, and the Council were supportive of the idea of setting up a joint delivery group.
 - James Smith focused in on the call for a programme or delivery group to advise Government on further policy decisions and led a discussion on what this group should be tasked with.
 - Various suggestions were made on how best to use the delivery group, with the Council focusing in on the following key topics:
 - project costs;
 - incentivising transport and storage of carbon dioxide;
 - cross cutting barriers (e.g. how finance needs and risks will be allocated);
 - criteria for successful clusters;
 - testing business models (e.g. with an example cluster); and,
 - value for money compared to other technologies, and communication of the benefits and value of CCUS;
 - links between CCUS and other opportunities (e.g. hydrogen, biomass for negative emissions, and carbon dioxide utilisation).

Priorities for the Council and forward look

- James Smith drew the session to a close and summarised the conclusions from the discussion:
 - It is important to now focus on the “how” rather than the “who” and ensure the framework for delivering CCUS in the UK is correct.
 - The next step should be the establishment of a delivery group with Government and industry participation. This group would rapidly progress key issues.
 - A potential vision for this group would be that a central group could begin work on general concepts and barriers, in consultation with clusters, with the potential to set up sub-groups. If specific project details need to be discussed in a later stage, then those conversations would need to be commercial confidential.
- James highlighted several areas that both the delivery group the Council could focus on going forward:
 1. Criteria for clusters – encompassing both eligibility criteria and criteria to determine the phasing of cluster development;
 2. Transport and storage infrastructure – including consideration of existing assets;
 3. Business models and risk allocation for transport and storage, power generation and industrial CCUS;
 4. Hydrogen and the opportunities for the UK;
 5. Communication of the benefits and value of CCUS;
 6. CCUS and biomass for negative emissions; and,
 7. CO₂ utilisation and innovation opportunities

Accelerating CCUS Global Summit and Conference

- Matthew Taylor, Deputy Director Carbon Capture and Renewable Sectors, BEIS, updated the Council on the upcoming International CCUS Summit and Conference in Edinburgh on 28 and 29 November 2018. Matthew also provided an update on the progress of work on the CCUS Deployment Pathway.
- In response the Council welcomed the progress of Government on the Deployment Pathway and looked forward to the Summit and Conference which represented an opportunity to drive momentum for CCUS.
- James Smith, on behalf of the Council, gave thanks to the BEIS team for their hard work on the CCUS Delivery Pathway and in preparing for the Conference, and passed on his best wishes to Minister Perry ahead of the International CCUS Summit.

Summary of agreed actions and next steps

- The Terms of the Reference for a Government-industry delivery group should be developed following this Council meeting, before a discussion with Claire Perry at the beginning of 2019 to formally establish the delivery group.

- The next meeting of the CCUS Council will be held in March 2019.