

Minutes

CCS Development Forum

12 March 2014, 10.00 to 12.00

Attendees:

Chairs

Michael Fallon – Minister of State for Business & Energy, DECC & BIS
Michael Gibbons – CCSA Chair

Members

Ashley Ibbett - CEO, Office of Carbon Capture and Storage, DECC
Luke Warren - Chief Executive, CCSA
Leigh Hackett - Chief Executive, Capture Power Limited (White Rose)
Bill Spence - Head of CCS, Shell (Peterhead)
Eric Redman - Chief Executive, Summit Power (Captain Clean Energy Project)
Lewis Gilles - Chief Executive, 2CO (Don Valley)
Peter Whitton - Managing Director Progressive Energy (Teeside Low Carbon)
Peter Boreham - Director European Business Development, National Grid Carbon
David Clarke - Chief Executive, ETI
Rob Hastings - Director of Energy and Infrastructure, The Crown Estate (Storage Development Group)
Angela Whelan - Chief Executive, Ecofin Research Foundation (Commercial Development Group)
Prof Nilay Shah - Imperial College London; UK CCS Research Centre
Dave Robson – Technical Development Manager, SSI UK
Graeme Sweeny - Chairman, Zero Emissions Platform
Patrick Dixon - OCCS Expert Chair

Apologies:

Janice Munday - Director Advanced Manufacturing and Services, BIS
(BIS was represented by Christopher Pook, Deputy Director Green Economy)

Item	Discussion	Action
1	<p>Welcome and introductions – Minister Michael Fallon</p> <p>The Minister welcomed those attending. He highlighted that this was a positive time for CCS, with two UK projects now actively in FEED, and thanked members for agreeing to participate in the forum.</p> <p>The Minister noted that the Competition projects are a critical part of developing CCS in the UK, but these projects alone will not be sufficient to overcome all the barriers to deployment.</p>	

	Further work is needed between industry and government to identify and address these other issues, building on the work of the CCS Cost Reduction Task Force and work already undertaken by OCCS. It is hoped that this forum will be a venue for generating solutions.	
2	<p>Modus operandi of group, expectations and process – Mike Gibbons (MG)</p> <p>MG thanked the minister for his support; explained the forum would work to accelerate the deployment of CCS in the UK; and set out the Terms of Reference for the group.</p> <p>Members agreed the Terms of Reference, with one addition – clarifying the objective is ‘commercial’ deployment.</p>	<i>Secretariat to amend Terms of Reference accordingly.</i>
3	<p>Strategic scene setter – David Clarke (DC), Energy Technologies Institute.</p> <p>DC gave a presentation based on the energy system analysis undertaken by the ETI. The presentation highlighted the expected role CCS could play in a future low carbon energy mix in the UK; the cost savings that would accrue from this; and what would be involved in terms of infrastructure development.</p> <p>The following points were made in discussion:</p> <ul style="list-style-type: none"> • The analysis suggests CCS is the primary cost lever to keep costs down in a future low carbon energy mix in the UK. • Without CCS the energy mix will need to be radically different, including a significant increase in electricity demand likely doubling, with a total additional cost of approximately £30bn per year in 2050. • No value was attributed to EOR in the analysis – members noted additional benefit could be realised here, and that tax receipts from EOR could potentially balance CfD costs. • Relatively limited infrastructure would be required for CCS – not on the same scale as the UK’s offshore oil and gas infrastructure. For example by 2050, ETI estimate that requirements could be met by 6 shoreline hubs and 20 stores. • The importance of preparing for infrastructure roll-out and innovating to drive down costs was noted. Analysis was cited which suggested that once initial project infrastructure is built, costs fall very quickly. • The challenge of attracting interest in storage operation was noted, and members suggested returning to this topic at a future meeting. • Similarities to experience across Europe were noted and an offer to share a ZEP paper on this topic was made. • Members also noted international interest in investing in CCS projects in the UK, particularly related to EOR. • The importance of clarity on CfDs in order to secure investment was highlighted. • Members also discussed the important role Industrial CCS could play and the potential for negative emissions from biomass, noting the importance of incentivising action in these areas. 	<i>ZEP to share relevant papers with members.</i>

<p>4</p>	<p>Industry update – from Commercial Development Group (CDG) and Storage Development Group (SDG) representatives.</p> <p>The two leadership groups provided some background on their approach and an overview of work completed and planned for the year ahead.</p> <p>The following points were also made in discussion:</p> <ul style="list-style-type: none"> • The CDG highlighted the value of feedback from industry on the kinds of issues being faced when seeking to finance projects and where they could provide assistance. • Welcoming the government’s commitment and support for competition projects, members felt a shared vision highlighting the interim milestones to the commercialisation of CCS would also be helpful and could build investor confidence. • The important role of the finance community was noted, and members highlighted the importance of bringing them along with any vision. Members also noted that familiarity with CCS was not extensive across the sector and efforts should be made to improve this. • Comparisons to international experience were made, and the benefits of CfDs for projects in the UK were noted. • The time lags associated with infrastructure development were noted, and the importance of acting soon was highlighted. • The SDG highlighted their focus on Storage, Transport and EOR. Particular issues of interest included learning from FEED; the value proposition of transport and storage; and identification of drivers for power generators to make investment in CCS. • Members noted the need to pursue EOR and storage in saline formations together so as not to rely on a single source or site. • The forthcoming CCS Directive review was raised, and the importance of engagement on this by all parties was highlighted. • It was suggested that the work of the forum could usefully be linked with other initiatives being undertaken in the area. 	<p><i>Leadership groups to take forward work programmes and report on progress at next Forum meeting.</i></p> <p><i>Members to engage with leadership groups on workstreams and workshops.</i></p> <p><i>CDG to consider how to inform wider elements of finance community about CCS, and encourage production of ‘Sector Papers’.</i></p> <p><i>OCCS and CCSA to lead engagement on CCS Directive Review.</i></p> <p><i>Secretariat to facilitate the sharing of information from members with the forum.</i></p>
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<p>5</p>	<p>Government update – Ashley Ibbett (AI), Office of Carbon Capture and Storage, DECC</p> <p>AI provided an update on recent developments in CCS policy and a forward look of upcoming work.</p> <p>The following points were also made in discussion:</p> <ul style="list-style-type: none"> • Both the Peterhead and White Rose projects have now commenced their FEED programmes. • A supply chain event is being organised for 12 May in London to highlight the opportunities associated with these projects. • An overview of discussions between industry and government on CfDs for CCS projects was provided, with members highlighting the importance of ‘line of sight’ to a CfD. • AI referred back to the rationale behind the competition process, and noted that CfDs for CCS would go through a detailed process of development as part of this. The minister noted that the generic CfD itself has yet to be finalised – there is a great deal of work involved in ensuring it is successfully developed. • Members noted that indicative CfD terms and a range of prices were published for renewables and a similar approach would be appreciated for CCS. • Members also thought it would be helpful if CCS could be mentioned in high level discussions on 2030 framework, noting the importance of a level playing field for low carbon technologies. • Potential funding opportunities in Europe were highlighted, and also the positive facilitative role the North Sea Basin Task Force could play (particularly with a strong secretariat). Proposals for this are currently being considered. • Members felt further clarity around phase 2, as set out in the Oct 2013 report, would be valuable. A policy scoping document was proposed to further develop thinking around the second and subsequent phases of CCS deployment. The minister supported this in principle and tasked OCCS, with CCSA and the wider industry, to produce a policy scoping document by the summer. 	<p><i>OCCS to develop policy scoping paper in association with CCSA and wider industry by the summer</i></p>
<p>6</p>	<p>Closing remarks by the Chairs</p> <p>The chairs thanked members for giving up their time to attend and asked for suggestions of key issues that the forum should be considering at future meetings, and in work programmes in between. Suggestions included: attracting storage operators; improving the investability of projects; incentivising EOR; UK leadership internationally (and encouraging other countries); vision for deployment; incentivising industrial CCS; countering skills shortages; addressing financial hurdles; encouraging power generators to pursue CCS; and LCF funding.</p>	<p><i>Secretariat to consider issues to take to next forum meeting with Chairs</i></p>
<p>7</p>	<p>Next Steps</p> <p>The next meeting will be held in September 2014, date to be confirmed.</p>	