

CCS Cost Reduction Task Force

11.00-15.00, 12 December 2012

Norton Rose offices, 3 More London Riverside, London SE1 2AQ

Minutes of the 6th meeting

Morning session

1. The Chair, Dr Jeff Chapman, welcomed all participants to the 6th meeting of the CCS Cost Reduction Task Force. He outlined the structure of the meeting which would consist of a morning session for members to discuss the further work that would be needed to produce the final report. This would be followed by an afternoon session which would be attended by John Hayes, Minister of State at the Department of Energy and Climate Change. The Minister had expressed a strong interest in meeting the Task Force following the publication of the Interim Report and wanted to discuss the issues raised.

Minutes of previous meeting

2. The Chair invited comments on the minutes of the 5th meeting held on 26 November. These were agreed, except for one amendment which was requested to paragraph 12 to clarify the role of the workstream leaders. Amended minutes will be published on the DECC website.

3. The Chair noted that the actions from the last meeting had been completed or were in the course of completion.

Report Status

4. Following publication of the Interim Report on 21 November, the Task Force now needed to consider the scope of future work that would be required to produce its final report. Publication was expected in the spring. At the previous meeting on 26 November, workstream leaders who had led teams working on the Interim Report were asked by the Chair to continue to lead groups to consider issues for the final report. There would be some issues that were relevant to other work streams and would require the input of other members.

Discussion on steps to produce final report

5. The discussion covered a Gap Analysis of the actions underway to meet Candidate Actions and to agree in principle a scoping document for further work. It had been agreed at the previous meeting that a gap analysis would be required to assess the Candidate Actions set out in the Interim Report and the further actions required to meet those gaps.

6. The Chair asked workstream leaders to set out the steps needed to achieve clear outcomes and actions for each workstream. Workstream leaders would need to identify the issues and those members who could provide input.

Generation and Capture (Thomas Stringer – Alstom)

7. A range of options needed to be considered: the flexibility of CCS, what it is worth, and the role that CCS can play alongside other low carbon technologies. It was noted in discussion that these were not ‘first generation’ issues – costs would reduce from plants in the 2020s. It would be important to move from plants with 300-400 MW of CCS to full scale as soon as possible in order to achieve significant cost reductions. The Task Force would need to determine what the order of magnitude for the next generation would be required and what the costs and risks would be. There would be need to be a clear, consistent message particularly if investors were inclined to favour gas generation or other low carbon sources.

Storage and Infrastructure (Alastair Rennie – AMEC)

8. The workstream would focus on collective agreements and actions on the key issues that needed action by industry and Government. There were a number of transport and storage issues that were underway but required further action. A clear signal of commitment by Government would be important. The Interim Report had identified a number of the transport and storage actions and The Crown Estate had carried out a lot of work on storage which could feed into the Task Force’s work.

Commercial and Finance (Allan Baker – Societe Generale)

9. The workstream would be influenced by the Electricity Market Reform programme and the incentives and market flexibility that would result. It was noted that there would be linkage with the Generation and Capture workstream on some issues where they would need to work together. The £7.6bn made available to support low carbon technologies under the Levy Control Framework was very important, and how much would be allocated to CCS would have a major impact in the relation of CCS to other low carbon energy sources.

10. It was noted that the Invitation to Participate in Discussions (ITPD) documentation that had been published on the DECC website needed to be promoted further so that a wider audience was aware that it was in the public domain.

11. The Chair asked workstream leaders to scope their work further so that more discussions could take place before work gets underway. This would be important in assessing the level of further external consultancy work that may be required.

ACTION: Workstream leaders to set out detailed proposals for the scope of future work.

Cross-Cutting group (CCSA to lead)

12. The Chair announced that the CCSA would lead the fourth workstream, which will deal with cross-cutting issues that do not necessarily fall within the other workstreams. The DECC Expert Chair offered to provide support to the group.

13. The meeting then discussed the issues that the cross-cutting group would need to focus on and how it would interact with the other workstreams. Following discussion the areas the group would address were agreed as follows:

- Enhanced Oil Recovery
- Industrial CCS
- Wider system benefits of CCS
- Planning and location of CCS plant

14. It was also commented that the Carbon Capture Readiness requirements would need to be studied and reviewed.

Next steps

15. The Chair raised the issue of support to the Task Force's ongoing work and discussed how to apply resources to the continuing work.

The following members offered to provide support:

- Allan Baker offered to provide administrative support by Societe Generale staff on his workstream meetings;
- Thomas Stringer offered to provide administrative support by Alstom staff on his workstream meetings;
- David Clarke offered to provide support by Energy Technologies Institute.

16. The Chair thanked members for their offers of support. The morning session closed at this point.

Afternoon session

17. The Chair welcomed Energy Minister John Hayes to the meeting and invited him to address the Task Force.

John Hayes, Minister of State, DECC

18. The Minister(in the Chair) opened by saying that the Energy Bill was to be introduced to Parliament the following week. The reforms to the electricity market set out in the Bill would provide certainty to investors in planning for the future.

19. The Minister welcomed the Task Force's Interim Report and thanked the Chair and members for their work. It showed the opportunities for cost reduction across the CCS

chain which would need to be achieved for CCS to realise its potential. CCS gave fossil fuels the opportunity to continue to contribute in a decarbonised electricity sector. Developing CCS in the UK would not only help our energy security but will enable us to export our expertise around the world. The report represented an important step that would lead to the development of CCS alongside other low carbon technologies. The Minister noted that the final report should be focussed on setting out practical actions to drive cost reduction.

20. The Chair then asked Ashley Ibbett, Chief Executive of the Office of Capture and Storage, to address the meeting.

21. Ashley Ibbett briefly summarised progress on the CCS competition which had been launched in April 2012. Eight bids had been received. Four bids had been shortlisted for the next phase of the competition and a number of meetings to discuss revised bids were underway.

22. The Chair then asked Jeff Chapman to summarise the work of the Task Force to date. In May 2012, Charles Hendry, then Energy Minister, had asked him to set up the CCS Cost Reduction Task Force. Since the first meeting in June 2012 they had made good progress and published their Interim Report on 21 November. He thanked The Crown Estate, Poyry, DECC, and the workstream leads for their work on the report. He outlined the issues the Task Force would address.

23. The Chair then invited each workstream lead to summarise the actions carried out by the workstreams so far and the further actions needed in order to publish their final report. The three workstream leaders spoke about their work covering the issues detailed at the morning meeting: Thomas Stringer (Capture and Generation), Alastair Rennie (Storage and Infrastructure), Allan Baker (Commercial and Financing)

Discussion

24. The Chair invited members to discuss the issues raised. The discussion noted that the challenge would be how much money was allocated to CCS projects in future following whichever projects are supported under the CCS competition.

25. The meeting also discussed the £7.6bn made available under the Levy Control Framework and the amount that would be made available to support CCS projects. The Minister explained that at this stage it was not possible to say how much would be awarded to each low carbon technology. This would depend on a number of factors. The reforms to the electricity market set out in the Energy Bill were designed to provide a number of incentives to the market and encourage competition between low carbon technologies.

26. Members also raised concerns that new gas generation may be favoured by some investors but noted that there were three coal projects in CCS competition.

27. The meeting closed at this point. A date for a further meeting has not yet been set.

CCS Cost Reduction Task Force: 6th meeting

11.00-15.00, 12 December 2012

Norton Rose offices, 3 More London Riverside, London SE1 2AQ

Attendees

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|----------------------|---|
| 1. Jeff Chapman | Chair |
| 2. Alan Baker | Societe Generale |
| 3. Paul Bryant | CCS TLM |
| 4. David Clarke | ETI |
| 5. Patrick Dixon | DECC |
| 6. Mike Farley | Scottish Enterprise/ Industry and Power Association |
| 7. Jason Golder | The Crown Estate |
| 8. Leigh Hackett | Alstom |
| 9. Stuart Haszledine | Scottish Centre for CCS |
| 10. Sam Holloway | BGS |
| 11. Bryony Livesey | Costain |
| 12. Wilfried Maas | Shell (by telephone) |
| 13. Richard Metcalf | Norton Rose |
| 14. Jane Paxman | 2CO |
| 15. Harsh Pershad | Element Energy |
| 16. Alastair Rennie | AMEC |
| 17. Tom Riley | Shell |
| 18. John Scott | Zurich |
| 19. Thomas Stringer | Alstom |
| 20. Peter Whitton | Progressive Energy |

Consultants

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|-------------------|-------|
| 21. Phil Hare | Poyry |
| 22. Stuart Murray | Poyry |

Secretariat

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| 23. Ian Donaldson | The Crown Estate |
| 24. John Overton | DECC |
| 25. David Fielder | DECC |

Also in attendance at the afternoon session:

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| 1. John Hayes | Minister of State, DECC |
| 2. Ashley Ibbett | Chief Executive, OCCS, DECC |
| 3. Jonathan Holyoak | DECC |
| 4. Sarah Johnson | DECC |
| 5. Belinda Perriman | Shell |
| 6. Max Prangnell | CO2 Deepstore |

Apologies

1. George Clements SSE
2. Claude Heller Air Liquide
3. David Hurren Air Liquide
4. James Lorsong 2CO
5. Adrian Lumley-Smith 2CO
6. Torgeir Melien Statoil
7. Derek Parkin E.ON
8. Ian Phillips CO2 Deepstore
9. Andy Read E.ON
10. Lynsey Tinios Shell
11. Luke Warren CCSA
12. Angela Whelan Ecofin Research Foundation