CCS Cost Reduction Task Force

10.00 - 12.30, 18 February 2013

Societe Generale offices, 41 Tower Hill, London, EC3N 4SG

Minutes of the 7th meeting

1. The Chair, Dr Jeff Chapman, welcomed all participants to the 7th meeting of the CCS Cost Reduction Task Force. The meeting would consider the issues and the work needed for the four workstream groups to complete the Task Force's final report.

Minutes of last meeting and actions

- 2. The minutes of the last meeting held on 12 December 2012 were agreed, except for one amendment which was requested to the attendance list to show that Element Energy was represented. Revised minutes will be published on the DECC website.
- 3. The actions arising from the last meeting, which were for the workstream leaders to scope their work, had been completed with further work ongoing.

Summary Update

4. The Chair said that work was progressing well on the individual workstreams that had been agreed at the last meeting. Workstream leaders would be asked to give updates. Following the publication of the Interim Report, Poyry had been retained to produce a gap analysis of the work needed to produce the final report.

Funding Update

5. The Chair announced that in response to his request for Task Force members to provide contributions towards the funding needed to produce the final report, a number of members has already responded favourably and has had given commitments or an indication that their companies would provide funding.

Workstream lead updates

6. The Chair asked workstream leaders to update Task Force members on the current position of their work.

<u>Generation and Capture – Thomas Stringer</u>

7. The Generation and Capture working group had so far held one meeting by teleconference and had considered the work needed to address a number of issues. The discussions had focussed on the issues set out in the Candidate Actions in the Interim

Report (Annex B, 4.2). They had looked at current scale of plants of 250-450 MW and the need to look ahead at the next scale of 650-800 MW, and beyond to 1000 MW size.

- 8. The group had also considered the range of work currently being undertaken, what actions would be needed to drive the market forward, load factors and how plants would operate in markets with Contracts for difference (CfDs). They would also need to consider possible constraints of CfDs depending on what percentage would be applied to capture rate and how that would impact on generators. The group was considering the need for a funded study.
- 9. The group had also discussed knowledge sharing as an issue that emerged from the first CCS competition and the implications for the current competition. They felt that there was the need to develop a UK-wide knowledge sharing network and it was agreed that this would be discussed further with the CCSA and DECC. DECC agreed to consider these points further and advise on current Knowledge Transfer actions.

ACTION: DECC to consider Knowledge Transfer issues and potential UK Knowledge Sharing network. [John Overton/Louise Barr]

10. The group had considered R&D funding and would produce more work on current support schemes and sources of funding. Funding by Government was welcomed but a question was raised about whether the current balance of support was right and whether R&D too focussed on "third generation" issues. There was a feeling that some R&D funding should be focussed on actions that would complement the current CCS competition rather than those projects that were less directly connected to current projects. It was noted that one of the sessions at the Advanced Power Generators Technology Forum (APGTF) taking place on 20 and 21 February would address this. DECC agreed to feed these points back to the R&D team.

ACTION: DECC to feed back points raised regarding projects supported under current R&D funding [Sarah Johnson/Matthew Billson].

<u>Commercial and Finance – Allan Baker</u>

11. The Commercial and Finance workstream had begun to scope their work and had considered the production of a risk matrix, mainly drawing from the Invitation to Participate in Discussions (ITPD) documentation that had been published on the DECC website for the CCS competition. Working with Poyry, they had been looking at information already produced by the Energy Technologies Institute (ETI). It was noted that these issues were also relevant to the other work streams, particularly the Cross-cutting issues group, and they would need to consider linkages as the work developed.

12. The group had also considered the Electricity Market Reform programme and how CfDs would be applied, whether the flexibility of plant would be rewarded for turning off power if there was too much capacity in the system. It was agreed that there needed to be clarity for the market to know how much credit CCS developers would be given. It would also be important to know for the next phase of CCS projects how a project without CfD support would operate.

<u>Infrastructure – Alastair Rennie</u>

- 13. The Infrastructure group had studied the actions listed in the Interim Report were six actions from the Interim Report. They had discussed with The Crown Estate the extent of their work on storage resource and they had also studied the ETI storage database.
- 14. There was a need to consider the short-term actions and to identify the stakeholders who could feed into the working group. There would also be a need to be a process of tracking and analysis and then reporting back to the Task Force. The scope of the work was extensive and it would be possible to produce more detailed assessments of the interdependencies if working to a longer time scale to produce the report but it was recognised that the Task Force had committed itself to produce the final report by early 2013.
- 15. It was agreed that an Infrastructure workshop would be held for members to further scope the work programme. It was agreed that this would be held on 28 February.

<u>Cross-Cutting Issues Group – Jeff Chapman</u>

- 16. The Cross-Cutting Issues group summarised the range of actions they were working on the following:
 - <u>Industrial CCS</u>: BIS was actively working on issues to support the development of Industrial CCS. BIS were working with Element Energy and the UK CCS Centre.
 Proposals would be taken to the Clean Energy Ministerial to be held in New Dehli in April 2013. More would be known following the conclusion of the discussions.
 - Enhanced Oil Recovery the group was working with Element Energy, who had produced a paper on the potential for CCS with EOR and the tax incentives associated with it.
 - Planning and Consenting Framework the group was working with the Crown Estate.
 - <u>Location of CCS</u> David Clarke (ETI) was working with Poyry.
 - Wider System Benefits David Clarke (ETI) was working with Poyry.
 - <u>Regulatory Framework</u> there were no specific actions needed for the Task Force to undertake, but as regulatory work was constantly evolving there would be the need to be fully aware of implications.

It was suggested Poyry do a gap analysis of regulatory issues working with the CCSA, The Crown Estate and DECC.

Next Steps

17. The Task Force then discussed the extent of the work to be completed for the final report in view of the planned spring publication date. Members discussed whether a longer timeframe would allow more detailed analysis of the issues but it was agreed that the Task Force should aim to publish the final report in the spring as agreed.

AOB

18. The date of the next meeting was agreed as 19 March 2013 and will be held at the Shell Centre, London SW1

CCS Cost Reduction Task Force: 7th meeting

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Attendees

1. Jeff Chapman	Chair
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2. Allan Baker Societe Generale

3. David Clarke ETI

4. Patrick Dixon DECC

Mike Farley Scottish Enterprise/IPA

6. Jason Golder The Crown Estate

7. Colin Imrie Scottish Government

8. Dewie ab lowerth CCS TLM

9. Robin Irons E.ON

10. Bryony Livesey Costain (by telephone)

11. Wilfried Maas Shell

12. Max Mawby BIS

13. Belinda Perriman Shell

14. Alastair Rennie AMEC

15. Tom Stringer Alstom

16. Owain Tucker Shell

17. Jim Ward National Grid

18. Angela Whelan Ecofin

19. Peter Whitton Progressive Energy

Consultants

- 1. Phil Hare Poyry
- 2. Stuart Murray Poyry

Secretariat

1. Ian Donaldson The Crown Estate

2. John Overton DECC

3. Sarah Johnson DECC

4. David Fielder DECC

Apologies

1. Leigh Hackett Alstom

2. Torgeir Melien Statoil

3. Richard Metcalf Norton Rose

4. Ian Phillips CO2 Deepstore

5. Luke Warren CCSA