Workshop on Operating Flexibility of Power Plants with CCS

Introduction

John Davison
IEA Greenhouse Gas R&D Programme
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• A collaborative research programme which started in 1991
• Aim is to:

  Provide its members with impartial information on
  the role that technology can play in reducing
  greenhouse gas emissions

• Based in the UK
• Main focus has been on CCS
• Funding approx £2 million/year (US$3 million/year)

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IEA GHG Activities

- Studies (>100)
- Communications
- Facilitating and focussing R&D activities
- R&D networks
  - CO₂ storage
    - Risk Assessment, Well Bore Integrity, Monitoring
  - CO₂ capture
    - Post combustion and Oxy-combustion
    - High temperature solids looping
Why a Workshop on CCS Flexibility?

- Operating flexibility of CCS plants is important
- For utilities
  - Flexibility has practical and economic advantages
  - It could affect the choice of CCS technology
- For policy makers
  - It could affect the extent to which CCS can be used
- There is little information on CCS plant flexibility
Aims of the Workshop

- Review the flexibility requirements for CCS
- Discuss the state of knowledge on CCS plant operating flexibility
- Build contacts between people working in the field
- Identify key issues and the need for further work
Agenda

• Day :1 Wednesday
  • Electricity systems and CCS operating requirements
  • CO₂ transport and storage
  • Overview of CCS plant flexibility modelling
  • Pre-combustion capture plants
• Day 2: Thursday
  • Oxy-combustion capture plants
  • Post combustion capture plants
  • Discussion and priorities for further work

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Where to go from here?

- A report of the meeting will be distributed
  - Presentation slides will be included
- Questionnaire
  - Do we want any further meetings?
  - If so, how should they be organised?
  - What topics should be included?
  - Please leave paper copies here or respond to the e-mail questionnaire

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Thanks

- Thanks to Imperial College Centre for Carbon Capture and Storage for providing the room
- The UK CCS Community network for sponsoring the dinner
- Imperial College staff, especially Hannah Chalmers Victoria Harding and Jon Gibbins for helping to organise the workshop