



IEA Greenhouse Gas R&D Programme



# Workshop on Operating Flexibility of Power Plants with CCS

## Introduction

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## IEA Greenhouse Gas R&D Programme

- 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)



# IEA Greenhouse Gas R&D Programme



## Members and Sponsors of IEA GHG





## IEA GHG Activities

- Studies (>100)
- Communications
- Facilitating and focussing R&D activities
- R&D networks
  - CO<sub>2</sub> storage
    - Risk Assessment, Well Bore Integrity, Monitoring
  - CO<sub>2</sub> 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
  - CO<sub>2</sub> 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



## 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



## 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