

John Panek CSLF Secretariat

June 11, 2012



- Update on Project Classification
- Review of Previous CSLF Meetings
- Update on Upcoming CSLF Events



Update on Project Classification

Project Classifications

- 1. Active (24)
- 2. Completed (9)
- 3. Withdrawn by Sponsor (5)
- 4. Inactive (1)

Project Score Sheet Summary



Active

- CANMET Energy Technology Centre (CETC) R&D Oxyfuel Combustion for CO₂ Capture
- CCS Bełchatów Project
- CCS Rotterdam
- CGS Europe Project
- CO₂ Capture Project Phase 3
- CO2CRC Otway Project
- CO₂ Field Lab Project
- CO₂ GeoNet
- CO₂ Separation from Pressurized Gas Stream
- CO₂ Technology Centre Mongstad Project
- Demonstration of an Oxyfuel Combustion System
- Fort Nelson Carbon Capture and Storage Project

- Geologic CO₂ Storage Assurance at In Salah, Algeria
- Gorgon CO₂ Injection Project
- IEA GHG Weyburn-Midale CO₂ Monitoring and Storage Project
- ITC CO₂ Capture with Chemical Solvents
- Lacq CO₂ Capture and Storage Project
- Quest CCS Project
- Regional Carbon Sequestration Partnerships
- Rotterdam Opslag en Afvang Demonstratieproject (ROAD)
- SaskPower Integrated CCS Demonstration Project at Boundary Dam Unit 3
- Zama Acid Gas EOR, CO₂ Sequestration, and Monitoring Project
- Zero Emission Porto Tolle Project (ZEPT)

Project Score Sheet Summary



- Alberta Enhanced Coal-Bed Methane Recovery Project
- CASTOR
- China Coalbed Methane Technology/CO₂
 Sequestration Project
- CO₂ Capture Project Phase 2
- CO2STORE

- Dynamis
- ENCAP
- Frio Brine Pilot Project
- Ketzin Test Site Project (formerly CO₂ SINK)
- Regional Opportunities for CO₂ Capture and Storage in China

Project Score Sheet Summary



Withdrawn by Sponsor

- CCS Northern Netherlands Project
- CO₂ Storage in Limburg Coal and Sandstone Layers Project
- Heartland Area Redwater Project (HARP)

- TX Energy Carbon Management and Gasification Project
- ZeroGen Project



Inactive

 Feasibility Study of Geologic Sequestration of CO₂ in Basalt Formations of (Deccan Trap) in India Project





Review of Previous CSLF Meetings

- 1. GCCSI/CSLF Technical Workshop on Project Integration (London, Nov. 2011)
- 2. CCUS Financing Roundtable (Paris, Jan. 2012)
- 3. Capacity Building Workshops (Mexico City, Mar. 2012)



London, United Kingdom November 3, 2011

- Approximately 50 Attendees
- Interactive discussions Among Participants
- Open Panel Discussions on Key Integration Themes



London, United Kingdom November 3, 2011

- Integrating a Capture Facility into a Host Plant
- Integrating the CCS Chain Adding Transport and Storage
- A Commercial and Management Perspective

Presentations available at:

http://cdn.globalccsinstitute.com/sites/default/files/publications/33016/gccsicslf-thematic-workshop-ccs-project-integration-final-feb-2012-v2.pdf http://www.cslforum.org/meetings/workshops/technical_london2011.html



London, United Kingdom November 3, 2011

Highlights of Workshop Discussions

- First large scale demonstration plants focus on "Making CCS Work at Scale"
- Real innovation was something for "next of a kind" projects
- Importance now is to strike proper "balance between plant operation and integration"

c c c b c n sequestration leadership forum

Global CCS Institute/CSLF Technical Workshop on Project Integration

London, United Kingdom November 3, 2011

Highlights of Workshop Discussions

- More work is needed:
 - Plant heat (and cooling) in the CO₂ capture process
 - Integration of environmental control systems (SOx, NOx, and CO₂ removal) to maximize efficiency
 - Improvement of options for operational flexibility in conjunction with CCS System reliability
 - Impacts of CO₂ compositions and impurities for CCS operations and transportation systems
 - Identify and understand the "scale-up risks" of CO₂ capture processes



London, United Kingdom November 3, 2011

Highlights of Workshop Discussions

- Key to success:
 - Intensive collaboration and communication (Need for the project team to "be in the same tent")
 - Identify the risks and rewards in CCUS projects from the start
 - Risk of the private sector and the role of government in derisking a project
 - Storage is on the critical path recommend that storage be secured (characterized and permitted) before commencing on a capture FEED study
 - Recommend a portfolio of storage options from the start of the project to help manage risk



London, United Kingdom November 3, 2011

Outcome of Workshop Discussions

- Incorporate information into upcoming events
- Online CCS project management guide
- Focus on commercial and financial issues related to CCS project development
- Study business cases for CCS projects

Capacity Building Program Events Held in Mexico

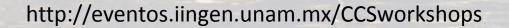


In order to promote interest in the Academic Community, two Capacity Building workshops were carried out at the end of March:

- Geological Storage of CO₂ from March 21 23, 2012
- CO₂ Capture on March 28 30, 2012

http://eventos.iingen.unam.mx/CCSworkshops

Mexico CO₂ Storage



Geo

Agenda

program

CO Sectoria toroase to recovery e





Mexico CO₂ Capture Workshop





Upcoming CSLF Events

- 1. Risk and Liability Workshop (Paris, July 2012)
- 2. Capacity Building (Brazil, Aug. 2012)
- 3. Capacity Building (China, Oct. 2012)
- 4. CSLF Annual Meeting (Perth, Oct. 24-26, 2012)