



Plains CO<sub>2</sub> Reduction (PCOR) Partnership  
Energy & Environmental Research Center (EERC)

## **TECHNICAL ADVISORY BOARD MEETING SCHEDULED**

### **Plains CO<sub>2</sub> Reduction (PCOR) Partnership Phase III Task 13 – Milestone M36**

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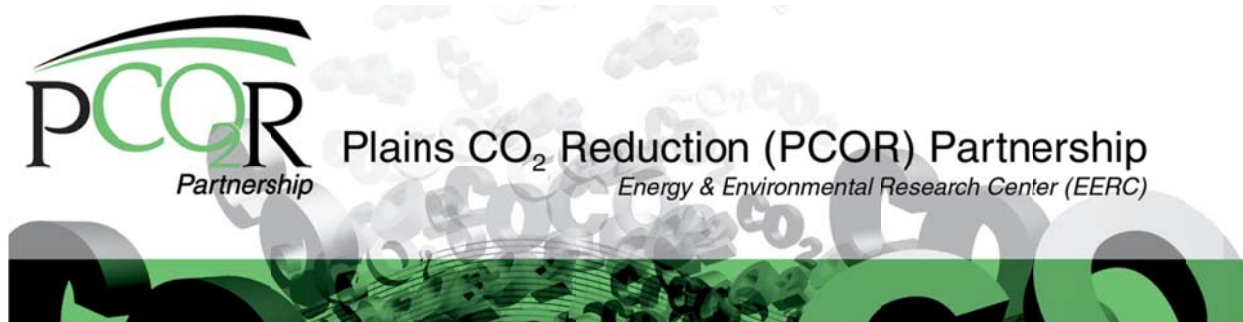
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## **TECHNICAL ADVISORY BOARD MEETING SCHEDULED**

### **BACKGROUND**

The Plains CO<sub>2</sub> Reduction (PCOR) Partnership is one of seven Regional Carbon Sequestration Partnerships (RCSPs) competitively awarded by the U.S. Department of Energy (DOE) National Energy Technology Laboratory (NETL) in 2003 as part of a national plan to mitigate greenhouse gas emissions. The PCOR Partnership is led by the Energy & Environmental Research Center (EERC) at the University of North Dakota and includes stakeholders from the public and private sector. The PCOR Partnership region includes all or part of nine U.S. states and four Canadian provinces.

Phase III, the development phase, a 10-year effort (2007–2017), is an extension of the characterization (Phase I) and validation (Phase II) phases. The Phase III efforts of the PCOR Partnership include two large-volume demonstration tests—one in Canada and one in the United States—that focus on injecting carbon dioxide (CO<sub>2</sub>) into deep geologic formations for CO<sub>2</sub> storage.

DOE required that an independent technical review be undertaken at the outset of the RCSP Phase III Program. DOE approached the IEA Greenhouse Gas R&D Programme (IEAGHG) to undertake this review because of its extensive experience with CO<sub>2</sub> injection projects worldwide. To review the RCSP Program and its Phase III activities, IEAGHG appointed an independent international panel of experts. The experts were drawn from onshore CO<sub>2</sub> injection projects under way in Canada, Europe, and Australia. This initial review was conducted in March 2008.

DOE, through NETL, which manages the RCSP initiative, required that a second independent review of the program should be undertaken in 2011. IEAGHG again organized this review, held March 14–17, 2011, at the Hilton Hotel in Arlington, Virginia. The ten-member panel comprised experts from Canada, the United Kingdom, Germany, Australia, Japan, and the United States. The PCOR Partnership gave an hour-long presentation, followed by 90 minutes of questions and answers, on March 15, 2011.

Following the presentation and question-and-answer session, the expert panel discussed its assessment of the PCOR Partnership's two demonstration-level projects and compiled comments and recommendations for each project. Based on these discussions and the written comments provided, IEAGHG prepared an evaluation for each project reviewed. The expert panel's evaluation of the PCOR Partnership's projects was received in June 2011. A fundamental

component of the NETL expert review process is that the recommendations identified by the expert panel are required to be addressed.

The panel's recommendations for both of the PCOR Partnership's projects, i.e., the Fort Nelson Carbon Capture and Storage (CCS) Project and the Bell Creek Integrated CO<sub>2</sub> Enhanced Oil Recovery (EOR) and CO<sub>2</sub> Storage Project, included for consideration the "appointment of scientific and/or operational advisory boards or committees." When formal responses to the recommendations were submitted in August 2011, the EERC decided to establish a single-panel advisory board to provide scientific guidance on the entire PCOR Partnership Program, including both demonstration sites.

In September 2011, DOE issued a contract modification, No. 21, authorizing the creation of an advisory board under the Statement of Project Objectives (SOPO) Task 13 – Project Management. DOE also agreed to fund meetings and associated expenses through September 30, 2015. The SOPO was amended to include the following provisions:

#### Subtask 13.2 – Advisory Board Meetings

*Subtask 13.2.1 – Select Advisory Board Members.* An advisory board, consisting of no fewer than five non-EERC advisors, will be selected from among knowledgeable persons in the fields of CCS and EOR. The advisors will have no term requirements or limits, but their service will be dependent upon availability.

*Subtask 13.2.2 – Hold Advisory Board Meetings.* Advisory board meetings will be scheduled to occur prior to the annual project meeting and will take into consideration the availability of selected advisors and, when feasible, be held in conjunction with another carbon management event or conference. The recommendations of the advisory board shall be reported at the successive annual project meeting.

In addition, a new milestone, M36, was created, and due dates were scheduled on March 31 for Program Years 5–8 (2012–2015).

#### **Creation of the PCOR Partnership Technical Advisory Board (TAB)**

The PCOR Partnership TAB was created in 2012 with various CCS and EOR experts. The following individuals comprised the first TAB:

- Bill Jackson, BillyJack Consulting, Inc. (Chair)
- Stefan Bachu, Alberta Innovates – Technology Futures
- Ray Hattenbach, Blue Strategies
- Lynn Helms, North Dakota Industrial Commission
- Mike Jones, Lignite Energy Council
- Steve Melzer, Melzer Consulting
- Tom Olle, Texas International Energy Partners
- Steve Whittaker, Global CCS Institute
- Neil Wildgust, Petroleum Technology Research Centre

There has been no change in the composition of the TAB at the time of this reporting. The above nine members continue to act as part of the TAB.

### **Inaugural TAB Meeting Scheduled and Held**

The inaugural TAB meeting was held February 15 and 16, 2012, in San Diego, California. All nine members of the TAB were in attendance. After several presentations and discussions, the TAB commended the EERC and its PCOR Partnership for fostering and establishing numerous industrial partnerships. In addition, the *PCOR Partnership Atlas* was highlighted as an extremely valuable tool for identifying potential sources of CO<sub>2</sub> in the region.

### **TAB WebEx Meeting Scheduled and Held**

A technical WebEx meeting was held on January 3, 2013. This format was preferable to the TAB members to accommodate their busy travel schedules, and this meeting was held in lieu of a face-to-face meeting at the EERC. The PCOR Partnership presented to the TAB members the surface and near-surface monitoring, verification, and accounting (MVA) activities being conducted at one of its demonstration sites. The TAB members commented on these activities and provided advice on how to incorporate them into an overall MVA program for this project.

### **Second TAB Meeting Scheduled and Held**

The second TAB meeting was scheduled and held March 5–6, 2013, in Orlando, Florida (see Appendix A for the meeting agenda). Eight of the nine appointed TAB members were able to attend. The following members were present and participated in the meeting (Figure 1):

- Bill Jackson, BillyJack Consulting, Inc. (Chair)
- Stefan Bachu, Alberta Innovates – Technology Futures
- Ray Hattenbach, Blue Strategies
- Lynn Helms, North Dakota Industrial Commission
- Mike Jones, Lignite Energy Council
- Steve Melzer, Melzer Consulting
- Tom Olle, Texas International Energy Partners
- Neil Wildgust, Petroleum Technology Research Centre

Steve Whittaker of Global CCS Institute was unable to attend the meeting.

Several presentations were given to update the TAB on the most recent status of the PCOR Partnership's projects, including near-future plans. The TAB commended the PCOR Partnership on its work to date, encouraging it to continue working with its industry partners and writing peer-reviewed journal articles. In addition, they encouraged the PCOR Partnership to remember the site-specific nature of each CCS project and cautioned against practices that could become prescriptive.



Figure 1. PCOR Partnership TAB members in attendance; back row (from left): Tom Olle, Ray Hattenbach, Stefan Bachu, Mike Jones; front row (from left): Steve Melzer, Neil Wildgust Lynn Helms, and Bill Jackson.

### **Future TAB Meetings**

The next TAB meeting is tentatively scheduled for late February or early March 2014. In addition, up to three technical WebEx meetings will be held in the next 12 months. No dates have been set.



## **APPENDIX A**

# **PCOR PARTNERSHIP TECHNICAL ADVISORY BOARD MEETING AGENDA**



# PCOR PARTNERSHIP TECHNICAL ADVISORY BOARD MEETING



**March 5–6, 2013**  
Caribe Royale Hotel and Convention Center  
Orlando, FL

## AGENDA

**Tuesday, March 5 – Wednesday, March 6, 2013**

**Caribe Royale Hotel and Convention Center  
Cayman I & II**

### PURPOSE:

**PCOR Partnership Technical Advisory Board (TAB) Meeting**

### **Tuesday, March 5, 2013 – Day 1**

TIME	ACTIVITY	DISCUSSION LEADER(S)
8:30 a.m.	Welcome and Introductions/Breakfast ( <i>The Falls Lounge</i> )	AI
9:20 a.m.	TAB Meeting Expectations ( <i>Cayman</i> )	Dave Nakles, Facilitator
9:30 a.m.	Update on Action Items from TAB Meetings in Milwaukee and San Diego	Bill Jackson, Chair
10:00 a.m.	January 3, 2013, WebE: Discussion and Recommendations	Dave Nakles
10:30 a.m.	Break	AI
	<b>TECHNICAL SESSIONS (<i>Cayman</i>)</b>	
10:45 a.m.	Outreach Update and Discussion	Charlie Gorecki
11:15 a.m.	Regulatory Update and Discussion	John Harju
11:45 a.m.	Working Lunch ( <i>The Falls Lounge</i> )	AI
1:00 p.m.	Fort Nelson, Zama, Basal Cambrian, and Aquistore Updates	Jim Sorensen
1:45 p.m.	Fort Nelson, Zama, Basal Cambrian, and Aquistore Challenges and Opportunities	Jim Sorensen
2:45 p.m.	Break	AI
3:00 p.m.	Bell Creek Update	Charlie Gorecki
4:00 p.m.	Bell Creek Challenges and Opportunities	Charlie Gorecki
5:00 p.m.	Adjourn Day 1	
6:30 p.m.	Business Dinner ( <i>Venetian Room</i> )	AI and Guests

**Wednesday, March 6, 2013 – Day 2**

TIME	ACTIVITY	DISCUSSION LEADER(S)
8:30 a.m.	Working Breakfast ( <i>The Falls Lounge</i> )	All
9:00 a.m.	Member Time/Open Discussion ( <i>Cayman</i> )	Dave Nakles
10:30 a.m.	Break	All
11:00 a.m.	TAB Meeting Outcome and Action Items/Recommendations	Bill Jackson
11:55 a.m.	Next Meeting	John Harju
Noon	Adjourn (optional lunch to follow)	
1:30 p.m.	Wrap-Up Meeting ( <i>Cayman</i> )	Bill Jackson, Dave Nakles, John Harju, Ed Steadman, Charlie Gorecki, Jim Sorensen, and Scott Ayash

**PCOR Partnership TAB Members:**

Bill Jackson, BillyJack Consulting, Chair  
Stefan Bachu, Alberta Innovates – Technology Futures  
Ray Hattenbach, Blue Strategies  
Lynn Helms, North Dakota Industrial Commission  
Mike Jones, Lignite Energy Council  
Steve Melzer, Melzer Consulting  
Tom Olle, Lonesar Resources  
Steve Whittaker, Global CCS Institute (absent)  
Neil Wildgust, Petroleum Technology Research Centre

**Meeting Facilitator:**

Dave Nakles, The CETER Group, Inc.

**Ex Officio Members:**

John Harju, EERC  
Ed Steadman, EERC  
Charlie Gorecki, EERC  
Jim Sorensen, EERC

**Additional Participants:**

Scott Ayash, EERC