

TECHNICAL ADVISORY BOARD MEETING SCHEDULED

Plains CO₂ Reduction (PCOR) Partnership Phase III Task 13 – Milestone M36

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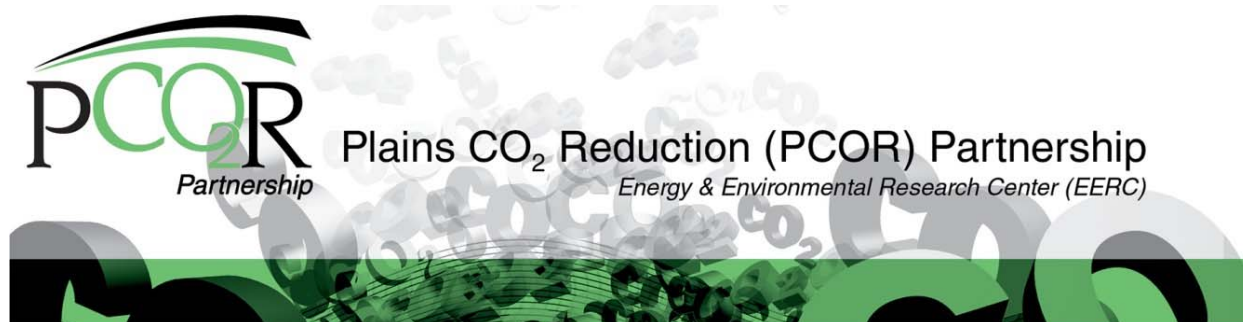
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TECHNICAL ADVISORY BOARD MEETING SCHEDULED

BACKGROUND

The Plains CO₂ 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 (CO₂) into deep geologic formations for CO₂ 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 CO₂ 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 CO₂ 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 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 the PCOR Partnership included 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 its 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 carbon capture and storage (CCS) and enhanced oil recovery (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 will 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, Lonestar Resources, Inc.
- Steve Whittaker, CSIRO
- Neil Wildgust, Global CCS Institute

At the time of this reporting, the nine listed continue serving as members of the TAB.

TAB MEETING SCHEDULED

The fourth annual TAB meeting was scheduled and held March 3–4, 2015, in Phoenix, Arizona (see Appendix A for the meeting agenda). Eight of the nine appointed TAB members were able to attend. Dr. Dave Nakles of The CETER Group, Inc., served as meeting facilitator. 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
- Neil Wildgust, Global CCS Institute
- Steve Whittaker, CSIRO

TAB member Tom Olle was unable to attend the meeting.



Figure 1. Attendees of the fourth annual PCOR Partnership TAB meeting; back row (from left): Steve Melzer, Stefan Bachu, Ray Hattenbach, Mike Jones, Steve Whittaker; front row (from left): Dave Nakles (facilitator), Bill Jackson, Neil Wildgust, and Lynn Helms.

Several presentations were given to update the TAB on the most recent status of PCOR Partnership projects. Topics covered included the Bell Creek and Aquistore projects, outreach activities, the upcoming edition of the PCOR Partnership Atlas, best practices manuals, the transition between CO₂ EOR and CO₂ storage, and potential value-added reports. The TAB provided feedback in each of these areas and encouraged the PCOR Partnership to continue to disseminate the results of its work through various avenues, including peer-reviewed literature. Additionally, the TAB recommended that the PCOR Partnership continue to evaluate the unique data sets collected at its field projects, especially the passive seismic data.

ADDITIONAL TAB ACTIVITY

Two additional TAB activities took place between March 2014 and March 2015, including a WebEx meeting and a 2-hour face-to-face meeting held in conjunction with the PCOR Partnership Annual Membership Meeting.

IMPACT AND FUTURE OF THE TAB

The PCOR Partnership has greatly benefited from the TAB's recommendations and guidance since its inception. The annual face-to-face meetings, combined with shorter Webinars throughout the year, provide regular opportunities for the TAB to comment on the PCOR Partnership's activities from both technical and strategic perspectives. This consistent feedback provides an independent review by industry-leading experts and contributes to a more scientifically sound and robust research program. From the PCOR Partnership's perspective, these meetings have been invaluable in guiding the technical components of the PCOR Partnership's work. For example, during a Webinar on soil gas- and groundwater-monitoring activities at Bell Creek, the TAB recommended that the PCOR Partnership drill two deep groundwater-monitoring wells. The Bell Creek Field operator took this recommendation seriously and implemented it, resulting in a stronger overall monitoring program for the project.

The original scope as established by the PCOR Partnership SOPO provides funding for the TAB through September 2015; however, because of the enormous benefit to the PCOR Partnership Program, the EERC will request additional funding from DOE in the next Continuation Application. The requested funding will likely be similar to the original request and would allow the PCOR Partnership to continue its TAB-related activities. Should DOE provide funding to continue the TAB activities, the next annual TAB meeting is tentatively scheduled for March 2016.

APPENDIX A

PLAINS CO₂ REDUCTION PARTNERSHIP TECHNICAL ADVISORY BOARD MEETING AGENDA



**2015 PCOR
PARTNERSHIP
TECHNICAL ADVISORY
BOARD MEETING**
Renaissance Phoenix Downtown Hotel
MARCH 3-4, 2015

AGENDA

2015 Technical Advisory Board (TAB) Meeting

TAB Members

TUESDAY, MARCH 3

Pueblo Room

TIME	ACTIVITY	DISCUSSION LEADER(S)
8:30 a.m.	Welcome and Introductions/Breakfast	All
9:30 a.m.	Project Updates: Bell Creek, Aquistore	Charlie Gorecki
10:15 a.m.	Break	
10:45 a.m.	Transition from CO ₂ Enhanced Oil Recovery (EOR) to CO ₂ Storage	Wes Peck
11:45 a.m.	Working Lunch	
1:00 p.m.	Documentary: Coal and the Modern Age	Ed Steadman
1:30 p.m.	Best Practice Manuals	Charlie Gorecki
2:45 p.m.	Break	
3:15 p.m.	PCOR Partnership Atlas	Wes Peck
4:00 p.m.	Value-Added Reports	Charlie Gorecki, Ed Steadman, and Dave Nakles
4:45 p.m.	Upcoming Webinars	Charlie Gorecki
5:00 p.m.	Adjourn	
6:30 p.m.	Business Dinner	All and Guests

WEDNESDAY, MARCH 4

TIME	ACTIVITY	DISCUSSION LEADER(S)
8:30 a.m.	Working Breakfast	All
9:00 a.m.	Terms of Reference	Bill Jackson
9:30 a.m.	Member Time	Dave Nakles
10:30 a.m.	Break	
11:00 a.m.	Member Time, continued	Dave Nakles
11:30 a.m.	Wrap-Up	Charlie Gorecki
11:45 a.m.	Working Lunch	
12:45 p.m.	Adjourn	
1:00 p.m.	Postmeeting Discussion	Bill Jackson, Dave Nakles, John Harju, Ed Steadman, Wes Peck, 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, Lonestar Resources
Steve Whittaker, CSIRO
Neil Wildgust, Global CCS Institute (GCCSI)

Meeting Facilitator:

Dave Nakles, The CETER Group, Inc.

Ex Officio Members:

John Harju, EERC
Ed Steadman, EERC
Charlie Gorecki, EERC
Wes Peck, EERC

Additional Participants:

Scott Ayash, EERC