

**MEHC – PacifiCorp
Integrated Gasification Combined Cycle Working Group**

**Thursday, August 3, 2006
9:00 am – 2:00 pm (Pacific Time)
10:00 am – 3:00 pm (Mountain Time)**

Meeting Summary

Idaho	None
Oregon	Ed Durrenberger (OPUC), Jason Eisdorfer (Citizens Utility Board), Steve Weiss (NW Energy Coalition), Jeff King (NPCC), Irion Sanger (ICNU),
Utah	Sam Liu (DPU), Cheryl Murray (CCS), John Harvey (UT-PSC), Carol Revelt (UT-PSC), Betsy Wolf (SLCAP), Rusty Ruby, Glade Sowards and Regg Olsen (Utah DAQ), Kathy VanDame (Wasatch Clean Air Coalition), John Veranth (University of Utah/Utah Air Quality Board), Ron Daniels (Utah State Governor’s – Energy Policy Coordinator), Ray Levey (University of Utah-EGI), Milind Deo (University of Utah)
Wyoming	Bryce Freeman (WY-OCA)
PacifiCorp	Salt Lake City: Nick Rahn, Jim Lacey, Greg Betenson, Ian Andrews Portland: Greg Duvall, Kyle Davis, Michael Liljenwall Phone: Bob Tarantola, Bill Whitney (MidAmerican Energy Holdings Co.)
Other	Vicki Stamp (CO ₂ Program Manager, DOE), Roger Swenson (E-Quant), Doug Cortez (Clean Air Task Force Representative), Kelly Francone (Energy Strategies - Utah Association Energy Users), Eric Guidry (Western Resource Advocates),
Phone-In	Steve Ellenbecker, Graciela Etchart (WUTC), Wendy Holly Lowe (Wyoming Pipeline Authority), Nancy Kelly (Utah CCS), Bryan Hassler (Wyoming Pipeline Authority), Jim Bryant, Kyle DeWinkle (ODOE) Jim Bryant, Mark Doel

Introduction

This was the third meeting of the Integrated Gasification Combined Cycle (IGCC) Working Group. A presentation was made by the Big Sky CO₂ Sequestration Partnership on their current and planned CO₂ mapping and sequestration studies. The Company provided an overview of recent developments by some of the major IGCC suppliers and the Company's IGCC current development efforts. A summary presentation was made by the Company on barriers to implementation and what changes or factors could pave the way for IGCC. An open discussion followed on coal plant development in general, state CO₂ and energy policy regarding IGCC, and potential topics for upcoming meetings.

Summary of Presentations

The meeting was held in Salt Lake City and video-linked with PacifiCorp's Portland office. A number of individuals also participated via phone. The meeting agenda and presentations had been posted on the PacifiCorp IGCC Working Group site (<http://www.pacificorp.com/Article/Article66610.html>) on August 1, 2006.

PacifiCorp summarized some of the recent major project and commercial announcements made by Siemens, General Electric and Shell. PacifiCorp provided a brief summary of high-level observations made during a recent European visit hosted by the Great Plains Initiative. Bryce Freeman and the Company summarized the Wyoming Infrastructure Authority July 17 Request for Proposal for a 200 MW IGCC project in Wyoming using Wyoming fuel which demonstrates CO₂ capture and sequestration capability.

Travis McLing from the Idaho National Laboratories made a presentation on the current and planned programs and tests being performed as part the Big Sky Partnership for CO₂ Sequestration. One of the major messages of the presentation is that the use of enhanced oil recovery as a CO₂ sequestration option is relatively small compared to the large sources of CO₂. One of the major deliverables of the Big Sky Partnership effort will be the ability to provide estimates of the sequestration potential within the Big Sky states. It is expected that this effort will identify favorable locations for sequestration as well as to develop a life of project CO₂ injection plan.

In the afternoon PacifiCorp identified the major issues and concerns related to implementation of IGCC and what factors may help address or mitigate those issues. Following the presentation, there was open discussion on the objectives of the group and how best to achieve them.

Issues Raised at the Meeting

A variety of opinions and views regarding IGCC development in comparison to pulverized coal were expressed. The point was made that IGCC is viewed as the next evolutionary step in coal-fired generation technology, primarily because it appears that CO₂ emissions can be reduced more cost effectively from IGCC plants than they can from traditional pulverized coal plants. The uncertainty in the timing and level of potential future carbon controls is a key factor influencing the adoption of IGCC as the technology of choice for base load generation. Another factor is the concern that

alternative, more-cost effective, CO₂ capture technologies may emerge that are applicable to pulverized coal plants.

Some indicated that the major objective of the group was to prepare a technical report on the costs and performance of IGCC. Others felt that more was needed and that it would be helpful to understand how each state viewed IGCC from the perspective of state energy and economic policy as interpreted by regulators/commission staff. Regulatory views on IGCC are clearly influenced by state energy policy with regard to coal-fired generation and CO₂. The need to understand the views on IGCC by ratepayer groups was also expressed. The question was raised if this was the appropriate forum for a general discussion of energy policy, inasmuch as there is a working group devoted to climate change. At the end of the day, it was clear that there was still a significant interest in this type of feedback from utility regulatory and consumer groups.

Future Meeting Topics

The group identified the following as potential topics or areas of interest for the next meeting:

1. As just discussed, presentations by different state utility regulators and customer groups regarding their energy policy on coal, IGCC, and CO₂. Presentations by other stakeholder groups (ratepayer groups) are also of interest. Steve Ellenbecker and Bryce Freeman will investigate this for Wyoming. Ed Durrenberger will investigate for Oregon. John Harvey will investigate for Utah. Washington will need to be contacted to determine if they will make a similar presentation.
2. A review of current state laws with regard to states assuming CO₂ risk. Vicki Stamp indicated she may be willing to explore this further.
3. A comparison of the difference in water use consumption between a supercritical pulverized coal resource and IGCC. PacifiCorp will follow up on this.
4. A presentation on the expected costs to transport CO₂. Kinder-Morgan was recommended as a company that may be willing to make a presentation. PacifiCorp will follow up on this.
5. A presentation by the University of Utah on EOR projects in Utah. PacifiCorp will follow up on this.
6. A comparison of the differential operating and maintenance costs for a supercritical coal resource and IGCC. PacifiCorp will follow up on this.
7. A presentation of the guarantees IGCC suppliers are willing to provide. PacifiCorp will follow up on this.
8. One of the proposed IGCC Working Group product deliverables is a final report; additional discussion among the Group is needed to define the content of the report.

Next Scheduled Meeting of the IGCC Working Group

The next IGCC Working Group Meeting is scheduled for Thursday, September 14, 2006 starting at 10:00 AM (Mountain), 9:00 AM (Pacific).

The meeting in Salt Lake City will be held in the North Temple Office, 1407 West North Temple, Salt Lake City, Utah.

The meeting in Portland will be held in PacifiCorp's offices at the Lloyd Center Tower, 825 NE Multnomah, Portland, Oregon.