

CALIFORNIA ENERGY COMMISSION

1516 Ninth Street
Sacramento, California 95814

Main website: www.energy.ca.gov



In the matter of,)	Docket No. 09-IEP-1P
Preparation of the)	
2009 Integrated Energy Policy Report)	NOTICE OF STAFF
(2009 IEPR))	WORKSHOP
)	

Notice of Staff Workshop on Commercial-Scale Geologic Carbon Sequestration and Policies to Support California's AB 32 Goals of 2020

In support of the *2009 Integrated Energy Policy Report (2009 IEPR)*, the California Energy Commission (Energy Commission) will conduct a staff workshop addressing the commercial-scale application of Carbon Capture and Storage (CCS) that may significantly reduce California's Greenhouse Gas (GHG) emission and the Assembly Bill 32 (Nuñez, Chapter 488, Statutes of 2006) goals for 2020. The workshop is intended to enable staff to receive input from stakeholders, CCS community representatives and other interested parties on policy questions to help further develop parameters to accelerate the adoption of cost-effective geologic sequestration strategies for the long term management of industrial carbon. Commissioner Jeffrey D. Byron is the Presiding Member and Vice Chair James D. Boyd is the Associate Member of the 2009 IEPR Committee. While this is a staff workshop, Commissioners from the Energy Commission and the California Public Utilities Commission may attend and participate in this workshop. The workshop will be held:

MONDAY, MAY 18, 2009
9 a.m.
CALIFORNIA ENERGY COMMISSION
1516 Ninth Street
First Floor, Hearing Room A
Sacramento, California
(Wheelchair Accessible)

DOCKET
09-IEP-1P

DATE _____

RECD. May 05 2009

Remote Attendance

Web Conferencing - Presentations and audio from the meeting will be broadcast via our WebEx web conferencing system. For details on how to participate via WebEx, please see the "Participation through WebEx" section at the end of this notice.

Purpose

The workshop furthers the Energy Commission's implementation of recommendations in the *2007 Integrated Energy Policy Report (2007 IEPR)* as well as the requirements associated with Senate Bill 1368 (Perata, Chapter 598, Statutes of 2006) and Assembly Bill 1925 (Blakeslee, Chapter 471, Statutes of 2006). The focus of the workshop is to address key policy questions regarding CCS legal, regulatory, and institutional issues and policy opportunities in California (permitting issues, subsurface access/ownership issues, long-term stewardship/liability issues, and policy administration issues) as well as give an update on carbon sequestration technology development and demonstrations worldwide including the West Coast Regional Carbon Sequestration Partnership (WESTCARB).

The information from this workshop will support development of the *2009 IEPR*, including analyzing changes to California's electricity system.

Background information on this topic is available on the Energy Commission's website at [www.energy.ca.gov/2007publications/CEC-500-2007-100/CEC-500-2007-100-CMF.PDF].

Background

As required by SB 1368, California has set a greenhouse gas emission performance standard for all new long-term investment in or purchases of baseload electricity generation by utilities. SB 1368 precludes new reliance on power plants with carbon emissions greater than 1,100 pounds per megawatt hour, similar to those of a modern natural gas combined cycle power plant. The *2007 IEPR* states:

The most likely way for coal plants to meet this standard is through the use of advanced coal technologies combined with geologic carbon sequestration, where carbon emissions are captured and stored underground in geologic formations for hundreds of years. However, sequestration has not yet been demonstrated at a commercial scale, and investor confidence in this technology appears low, making it unlikely that plants using this technology will be available to contribute to California's AB 32 goals for 2020.

AB 1925 requires the Energy Commission and Department of Conservation to develop "recommendations for how the state can develop parameters to accelerate the adoption of cost-effective geologic sequestration strategies for the long-term management of industrial carbon dioxide (CO₂).” In December 2007, the Energy Commission adopted *Geologic Carbon Sequestration Strategies for California: The Assembly Bill 1925 Report to the California Legislature*.

Policy questions framing this workshop include:

- 1) Commercial-scale application of CCS at a level to significantly reduce the state's GHG emission will invariably involve subsurface CO₂ storage spanning multiple property parcels. State law is unclear regarding the applicability of mineral estate laws to pore space in fully depleted hydrocarbon reservoirs or in non-hydrocarbon-bearing saline formations. In addition, the injection of CO₂ for long-term subsurface storage generally creates an elevated pressure area of influence beyond the extent of the CO₂ plume boundary. Trespass laws with respect to this subsurface elevated-pressure zone are also unclear. Finally, long-term liability for properly injected CO₂ remains uncertain (the proposed U.S. Environmental Protection Agency Class VI Underground Injection Control (UIC) rule for geologic sequestration wells, for example, does not cover this issue). Should California follow the example of other states and establish and/or clarify state law governing these situations?
- 2) Should California (e.g., Dept. of Conservation) seek primacy from U.S. EPA in implementation of the Class VI UIC permitting for geologic CO₂ storage wells once U.S. EPA issues the final rule?
- 3) The *2007 Low-Carbon Fuel Standard* (LCFS) report (Part 2, Policy Analysis) recommends that CCS projects "directly related to the supply of transportation energy" should be included within the LCFS. Are the requisite "enabling" technical and policy measures in place to allow CCS to develop to the point it could be considered an option in the LCFS compliance portfolio?
- 4) The adoption of CCS by electric power plants serving California markets could have significant implications for the electricity supply and dispatch models used by the Energy Commission, the California Independent System Operator, and others. Are the necessary technology transfer and modeling activities in place to support the WESTCARB efforts?
- 5) Depending on the pace of technology validation and resolution of legal and institutional issues, the adoption of CCS by California industrial facilities and out-of-state electric power plants serving California markets could make a significant contribution to AB 32 compliance. Are the necessary technology transfer and modeling activities in place between the WESTCARB research partnership and AB 32 rulemaking activities?

Written Comments

Staff requests the participation of stakeholders, CCS community representatives and other interested parties in this workshop to present their views either orally at the workshop or through written comments. Public comments will be taken immediately following the workshop presentations.

Written comments on the workshop topics must be submitted by 5:00 p.m. on May 26, 2009. Please include the docket number 09-IEP-1P and indicate "2009 IEPR - Geologic Carbon Sequestration" in the subject line or first paragraph of your comments. Please hand deliver or mail an original to:

California Energy Commission
Dockets Office, MS-4
Re: Docket No. 09-IEP-1P
1516 Ninth Street
Sacramento, CA 95814-5512

The Energy Commission encourages comments by e-mail. Please include your name or organization's in the name of the file. Those submitting comments by electronic mail should provide them in either Microsoft Word format or as a Portable Document (PDF) to [docket@energy.state.ca.us]. **One paper copy** must also be sent to the Energy Commission's Docket Office.

Participants may also provide an original and ten copies at the beginning of the workshop. All written materials relating to this workshop will be filed with the Dockets Office and become part of the public record in this proceeding.

Public Participation

The Energy Commission's Public Adviser's Office provides the public assistance in participating in Energy Commission activities. If you want information on how to participate in this forum, please contact Elena Miller, Public Adviser, at (916) 654-4489 or toll free at (800) 822-6228, by FAX at (916) 654-4493, or by e-mail at [PublicAdviser@energy.state.ca.us]. If you have a disability and require assistance to participate, please contact Lou Quiroz at (916) 654-5146 at least five days in advance.

Please direct all news media inquiries to the Media and Public Communications Office at (916) 654-4989, or by e-mail at [mediaoffice@energy.state.ca.us]. If you have questions on the technical subject matter of this forum, please call Bryan Lee at (916) 653-8906 or by e-mail at [blee@energy.state.ca.us]. For general questions regarding the IEPR proceeding, please contact Lynette Esternon Green, IEPR project manager, by phone at (916) 653-2728 or by e-mail at [lesterno@energy.state.ca.us].

The service list for the *2009 IEPR* is handled electronically. Notices and documents for this proceeding are posted to the Energy Commission website at [www.energy.ca.gov/2009_energypolicy/index.html]. When new information is posted, an e-mail will be sent to those on the energy policy e-mail list server. We encourage those who are interested in receiving these notices to sign up for the list server through the website at [www.energy.ca.gov/listservers/index.html].

Participation through WebEx, the Energy Commission's on-line meeting service

Computer Log on with a Direct Phone Number:

- Please go to [<https://energy.webex.com>] and enter the unique meeting number **923 379 455**
- When prompted, enter your information and the following meeting password **IEPRmeeting@9am**
- After you log in, a prompt will appear on-screen for you to provide your phone number. In the Number box, type your area code and phone number and click OK to receive a call back on your phone for the audio of the meeting. International callers can use the "Country/Region" button to help make their connection.

Computer Log on for Callers with an Extension Phone Number, etc.:

- Please go to [<https://energy.webex.com>] and enter the unique meeting number **923 379 455**
- When prompted, enter your information and the following meeting password **IEPRmeeting@9am**
- After you log in, a prompt will ask for your phone number. CLICK CANCEL.
- Instead call 1-866-469-3239 (toll-free in the U.S. and Canada). When prompted, enter the meeting number above and your unique Attendee ID number which is listed in the top left area of your screen after you log in. International callers can dial in using the "Show all global call-in numbers" link (also in the top left area).

Telephone Only (No Computer Access):

Call 1-866-469-3239 (toll-free in the U.S. and Canada) and when prompted enter the unique meeting number above. International callers can select their number from [<https://energy.webex.com/energy/globalcallin.php>].

If you have difficulty joining the meeting, please call the WebEx Technical Support number at 1-866-229-3239. Please be aware that the meeting's WebEx audio and on-screen activity may be recorded.

Mail Lists: energy policy

Note: California Energy Commission's formal name is State Energy Resources Conservation and Development Commission.