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| <b>Project Title:</b>  | Hydrogen Energy Center Application for Certification Amendment  |
| <b>TN</b> #:           | 204068  |
| <b>Document Title:</b> | Notice of Staff Workshop 4-16-15 on:  |
| Description:           | Research Opportunities for Application of Carbon Capture Technologies to<br>California Natural Gas Power Plants |
| Filer:                 | Cenne Jackson   |
| Organization:          | California Energy Commission  |
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CALIFORNIA ENERGY COMMISSION 1516 Ninth Street Sacramento, California 95814

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# Notice of Staff Workshop on: Research Opportunities for Application of Carbon Capture Technologies to California Natural Gas Power Plants

California Energy Commission staff will conduct a workshop to discuss the research opportunities for carbon capture with emerging technologies on natural gas power plants. Natural gas power plants are California's largest category of point source emissions of carbon dioxide and the dispatchable backbone of the electric grid. Technologies particularly suited for California applications will use little or no water, perform effectively on hot summer days, impose minimal plant derates, accommodate load-following dispatch, use non-toxic materials, and be competitive in a cap-and-trade market. California Energy Commissioners may attend the workshop. The workshop will be held on:

> Thursday, April 16, 2015 10:00 a.m. CALIFORNIA ENERGY COMMISSION 1516 Ninth Street First Floor, Art Rosenfeld Hearing Room Sacramento, California Wheelchair Accessible

Remote Access Available by Computer or Phone via WebEx™ (Instructions below)

#### Background

An engineering-economic assessment of carbon dioxide capture, transportation, and storage for California natural gas combined cycle (NGCC) power plants was performed by CB&I (formerly Shaw Power Group and Stone & Webster, Inc.) and published by the Energy Commission in December 2014 (<u>http://www.energy.ca.gov/2015publications/CEC-500-2015-002.pdf</u>). The purpose of this report was to survey the landscape of CO2 capture technology developments and to estimate the cost and performance impacts of applying carbon capture and storage (CCS) at California NGCC power plants with dry cooling.

The workshop will start with a summary and discussion on the findings of the CB&I report. A brief discussion of CO2 transportation by pipeline and saline formation injection and storage may take place during the discussion of the CB&I report because this was an element of their research. After this discussion, the workshop will focus on emerging CO2 capture technologies that have advanced in their development status since CB&I's technology survey in 2012. To wrap up the workshop, Energy Commission staff will host a discussion of potential research initiatives to advance carbon capture for California NGCC power plants. The Energy Commission intends to release a competitive solicitation in the fall of 2015 to assess emerging CO2 capture technologies suited to California natural gas plants, which could potentially lead to a small scale demonstration. This workshop will assist staff in developing the scope of work for this upcoming solicitation.

## **Public Comment**

**Oral comments**. Staff will accept oral comments during the workshop. Comments may be limited to 5 minutes per speaker. Any comments may become part of the public record in this proceeding.

**Written comments:** Written comments will be accepted at the workshop. Additionally, written comments can be submitted via e-mail to Bryan Lee by 5:00 p.m. on April 30, 2015. Please note that written and oral comments, attachments, and associated contact information (e.g., address, phone, email) become part of the viewable public record. This information may become available via Google, Yahoo, and any other search engines.

The Energy Commission encourages comments by e-mail. Please include your name and any organization name. Comments should be in a downloadable, searchable format such as Microsoft® Word (.doc) or Adobe® Acrobat® (.pdf). Please indicate "Research Opportunities in Carbon Capture and Utilization in California" in the subject line. Send comments to: <u>Bryan.Lee@energy.ca.gov</u>

### **Public Adviser and Other Commission Contacts**

The Energy Commission's Public Adviser's Office provides the public assistance in participating in Energy Commission proceedings. If you want information on how to participate in this forum, please contact the Public Adviser, Alana Mathews, at <u>PublicAdviser@energy.ca.gov</u> or (916) 654-4489 or toll free at (800) 822-6228.

If you have a disability and require assistance to participate, please contact Lou Quiroz at <u>lquiroz@energy.ca.gov</u> or (916) 654-5146 at least five days in advance.

Media inquiries should be sent to the Media and Public Communications Office at <u>mediaoffice@energy.ca.gov</u> or (916) 654-4989.

If you have questions on the subject matter of this meeting, please contact Bryan Lee at <u>Bryan.Lee@energy.ca.gov</u>.

### **Remote Attendance**

You may participate in this meeting through WebEx, the Energy Commission's online meeting service. Presentations will appear on your computer screen, and you may listen to audio via your computer or telephone. Please be aware that the meeting may be recorded.

#### To join a meeting:

VIA COMPUTER: Go to <u>https://energy.webex.com</u> and enter the unique meeting number: 928 735 385. When prompted, enter your name and the following meeting password: **C@rbonCap1** 

The "Join Conference" menu will offer you a choice of audio connections:

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- 2. International Attendees: Click on the "Global call-in number" link.
- 3. To have WebEx call you: Enter your phone number and click "Call Me."
- 4. To listen over the computer: If you have a broadband connection, and a headset or a computer microphone and speakers, you may use VoIP (Internet audio) by going to the Audio menu, clicking on "Use Computer Headset," then "Call Using Computer."

VIA TELEPHONE ONLY (no visual presentation): Call 1-866-469-3239 (toll-free in the U.S. and Canada). When prompted, enter the unique meeting number: 928 735 385. International callers may select their number from <a href="https://energy.webex.com/energy/globalcallin.php">https://energy.webex.com/energy/globalcallin.php</a>

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Laurie ten Hope Deputy Director

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