

CALIFORNIA ENERGY COMMISSION

1516 Ninth Street
Sacramento, California 95814

Main website: www.energy.ca.gov



Notice of Staff Workshop: Regional Integration of Renewables (RIR): Northern California Sub-Regional Renewable Transmission Integration Beyond 2010

California Energy Commission Public Interest Energy Research (PIER) staff will conduct an informational workshop to discuss progress of and present interim results from the Regional Integration of Renewables (RIR) project. All parties interested in learning about this project, the transmission planning assumptions, approach, modeling effort and the integration of diverse portfolios of renewables for California are encouraged to attend.

MONDAY, MARCH 30, 2009

1:00 p.m.

CALIFORNIA ENERGY COMMISSION

1516 Ninth Street

First Floor, Hearing Room B

Sacramento, California

(Wheelchair Accessible)

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 purpose of this workshop is to provide interested stakeholders an opportunity to review and comment on the progress of the Regional Integration of Renewables (RIR) project. Preliminary "least-regrets" transmission considerations, study scenarios and details of the analysis approach will be discussed along with some of the preliminary findings based on an initial set of transmission study scenarios. The project team interacted with a broad range of interested transmission and renewables stakeholders through monthly conference calls and face-to-face meetings to develop and finalize the transmission study scenarios. The Energy Commission encourages feedback at this workshop to help provide greater continuity with on-going planning efforts and to further

improve the applicability of the findings and results. Details on meeting notes and presentations may be found at [www.pge.com/rir].

The primary focus of the RIR technical research project is to develop conceptual transmission options that benefit multi-utility planning efforts for the region and that will enable Northern California to meet growing percentages of electricity demand using renewables from the present to 2020 and beyond. This analysis involves conducting power flow simulations, considering a diverse set of generation scenarios designed to bracket known and economically plausible development scenarios which are consistent with California policy goals, and analyzing results for common transmission challenges that must be addressed independent of any specific project.

Identification of these “least regrets” opportunities/challenges will enable transmission providers to anticipate required reinforcements to the transmission system *a priori* of any specific project details, and will:

1. Allow Northern California transmission owners to get a head start in investigating the transmission needs (consistent with expansion and reliability needs) to regionally inter-connect significant levels of renewables, and
2. Minimize risks and exposure to any single project developer (renewables or non-renewables) or utility by considering transmission projects of mutual benefit to the greater interconnect grid.

The effort has been developed by a Core Analysis Team (CAT) guided by stakeholder input. The Northern California team includes planning staff from the Pacific Gas & Electric Company (PG&E), the Western Area Power Administration (WAPA), the Transmission Agency of Northern California (TANC) and the Sacramento Municipal Utility District (SMUD), the California Energy Commission (Energy Commission), the California Public Utilities Commission (CPUC) and the California Independent System Operator (California ISO). The utilities have ownership and regulated planning responsibility (for reliability) of transmission assets in California.

Agenda topics include:

- Review of RIR project objectives and scope
- RIR project definition of “least-regrets” transmission and review of strategic value transmission assessment approaches (developing renewables to enhance the grid)
- List of renewable resource scenarios, on which to base the transmission planning study and details of analysis approach (i.e., renewable portfolio coverage and seasonal considerations for intermittent resources, assumptions, and rationale)
- Preliminary findings based on analysis of four select scenarios from the list
- Feedback on gaps/new scenarios/new renewable developments
- Question and Answer, Group Discussion

Background

To manage transmission-related risks from environmental and economic impacts, utility transmission owners/planners are hesitant to invest speculatively on new transmission

lines with the "build it and they will come" mentality. Renewables developers, on the other hand, are aware of the need to transform California's electric infrastructure (and the greater western grid) to accommodate increasing levels of renewables penetration but are not able to incur the upfront transmission cost of being the "first in" developer. The RIR is an effort to bridge the gap between transmission owners/planners and renewable project developers by addressing related transmission issues necessary to sustainably and reliably incorporate renewables.

The Energy Commission has been engaged over the past few years on a number of statewide renewable integration and transmission planning studies. Based on various efforts, the successful transformation of the state's electricity infrastructure to accommodate increasing renewables will require understanding, communication and pro-active involvement by a number of key entities including industry developers, utilities, and state and county agencies. RIR was kicked-off late in 2007 to complement the number of renewable scenario studies focused on identifying renewable resource areas and energy zones (e.g., IAP, RETI, California ISO Integration Study, WGA, and Federal Corridors Study). The RIR project is focused on identifying "least-regrets" transmission necessary to inter-connect the diverse renewable portfolios throughout the west, independent of project specifics and in an open, transparent process. Investigation of "least-regrets" transmission projects encourages pro-active planning by the utilities and encourages shared and regional planning efforts to begin prior to any one specific resource project.

For Northern California, the level of pro-active engagement between utilities and developers to cooperatively consider transmission options will enable a smoother transformation to a greener grid. Led by PG&E and supported by a Core Analysis Team, the group is actively developing a strategic approach to evaluate existing generation and transmission needed to meet California's renewable energy goals.

Written Comments

Written comments on the workshop topics are due by 5:00 p.m. on Friday, March 27, 2009. The Energy Commission encourages comments by e-mail. Those submitting comments by electronic mail should provide them in either Microsoft Word format or as a Portable Document format (PDF) to Mike Kane at [mkane@energy.state.ca.us]. Please include "RIR Project Comments" in the subject line or first paragraph of your comments. For comments by postal mail, please hand deliver or mail the original and one copy to:

California Energy Commission
Attn: RIR Project, Mike Kane
1516 Ninth Street, MS-47
Sacramento, CA 95814-5512

Including your name, organization and contact information on all correspondence is helpful but optional. All written material related to this workshop will become part of the public record.

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 the Public Adviser's Office 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]. For technical questions on the subject matter, please e-mail Mike Kane, at [mkane@energy.state.ca.us] or the CAT lead, Chifong Thomas at [clt7@pge.com].

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

Computer Logon with a Direct Phone Number:

- Please go to [<https://energy.webex.com>] and enter the unique meeting number 922 908 614
- When prompted, enter your information and the following meeting password meeting@1
- After you login, 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.

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- 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 login. 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):

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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.

KAREN DOUGLAS
Chairman and Presiding Member
Research, Development & Demonstration Committee

Mail Lists: research, transmission, research, geothermal, wind, renewable

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