

STATE OF CALIFORNIA – THE RESOURCES AGENCY

Arnold Schwarzenegger, Governor

California Energy Commission

1516 Ninth Street
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**Notice of Staff Workshop:
Regional Integration of Renewables -
Northern California Sub-Regional Renewable
Transmission Integration Beyond 2010**

The California Energy Commission (Energy Commission) Public Interest Energy Research (PIER) Renewables staff is seeking public comment and participation for the Kick-off of the Regional Integration of Renewables (RIR) technical project. The focus is on assessing Northern California renewable integration and longer-term, sub-regional transmission planning options. All parties interested in learning about transmission planning, modeling needs and integration of a diverse portfolio of renewables with transmission benefit are encouraged to attend.

The workshop will be held:

TUESDAY, OCTOBER 2, 2007
2 p.m.
CALIFORNIA ENERGY COMMISSION
1516 Ninth Street
First Floor, Hearing Room B
Sacramento, California
(Wheelchair Accessible)

(WebEx Participation Information Below)

Purpose

The purpose of this workshop is to introduce the Regional Integration of Renewables (RIR) project - the core analysis team, the research effort, stakeholder involvement and public benefits. Stakeholder participation at this kick-off by all interested parties is encouraged to understand the objectives of this research, contribute data and help improve the analytical effort.

Core Analysis Team - comprised of Northern California utilities, including Pacific Gas & Electric (PG&E), Western Area Power Administration (WAPA), Sacramento Municipal Utility District (SMUD), Transmission Agency of Northern California (TANC) who have ownership and planning responsibility of transmission assets in California, additional team members include the California Independent System Operator transmission planning staff, the California Public Utilities Commission (CPUC) and the Energy Commission. This technical effort is tailored to build on the recommendations of the Energy Commission's Intermittency Analysis Project (IAP) and statewide renewable strategic resource assessments. These efforts support the state's goal to ensure sustainable transmission capacity to access renewable resources through a comprehensive, coherent and transparent integrated transmission planning process that cross multi-utility service areas. Core Analysis Team members will contribute staff analysis, information and offer perspective.

Research & Analysis - A number of studies have already been conducted in the state, mostly in Southern California by the Tehachapi and Imperial Working Groups. Their primary focus was on transmission access to key renewable resource areas, such as large concentrations of wind or geothermal resources. Though valuable in determining transmission investment options, interconnection to remote pockets of a single resource make it difficult to maintain a statewide grid reliability focus or consider the operational impact of competing or multi-resources in the region. A Northern California perspective has also been lacking and is needed to look at intermittency impacts, transmission capacity and operational response, mitigations and climate impacts while considering characteristics of all generating resources (existing, newly planned and retiring) in the sub-region.

Technical in nature, the RIR research and analysis will focus on developing a set of multi-utility transmission planning scenarios that leverage a diverse portfolio of renewable energy generation technologies (wind, geothermal, hydro, biomass and solar) available in Northern California to supply projected electricity demand in Northern California from now to beyond 2020. Scenarios will enable:

- Highlight of repeated and aggregated transmission needs as diverse renewable resources are considered for the region.
- Foresight to consider transmission development/investment options in advance of site-specific resource proposals.
- Proactive exploration of transmission constraints outside of conventional transmission planning paradigm.
- Development of optimal configuration options, priorities and system upgrade requirements necessary to anticipate and attain reliable performance with high renewable penetration.

These scenarios will be further developed into conceptual transmission and distribution options with the goal of generating preferred ranking of transmission developments and upgrades that will maximize grid benefits with a complement of renewable resources developed in the area. The planning scenarios will apply economic feasibility, transmission simulations and sound transmission planning principles. The research will also leverage existing statewide transmission integration activities and will benefit from collaborations with all Western Electricity Coordinating Council (WECC) and other study groups.

Public Participation & Benefit - Stakeholder participation in this effort by all interested parties is encouraged to review, comment and provide substantive input to the scenario development, analysis and findings, as the project progresses. Specifically, renewable project developers are encouraged to engage and provide insight on projects, performance characteristics and feedback on data. Monthly conference calls will keep interested parties abreast of project status, preliminary findings and address questions and any problems encountered. Public workshops will also be conducted as preliminary findings are produced.

If conceptualizing longer-term transmission expansion is to include explicit consideration of known areas of renewable resource potential (in advance of generator-specific information), and if financial risk to customers and impacts on the environment are to be minimized, then the conventional transmission planning process will have to be applied in new, proactive ways. By working together, transmission planning entities, renewable project developers, decision makers and the research community will gain insight on integration needs for today and for sustaining the future.

Background

Transmission owners are hesitant to invest speculatively with the "build it and they will come" mentality. Developers are not necessarily aware of the "cans" and "cannots" placed upon the transmission owners nor are they amenable to incurring the price of being the first-in. The RIR is an effort to bridge the gap between transmission owners and renewable project developers by providing transmission options.

The Energy Commission has been engaged over the past few years on a number of statewide transmission planning and renewable integration studies. Staff from the state's public and independently owned utilities were involved as technical advisors on many of the PIER renewable integration studies and found the methodology of locating renewables in areas with transmission benefits to be very valuable. PG&E, Northern California's largest investor owned utility, volunteered to be the first utility to demonstrate and implement the strategic approach in evaluating their generation resources and collaboratively developed the RIR project with other interested utility members of the existing Core Analysis Team group (Energy Commission/PIER, CPUC, California ISO, WECC, and other Northern California transmission owners including WAPA, TANC and SMUD).

Written Comments

Written comments on the workshop topics are due by 5:00 p.m. on Friday, October 5, 2007. 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 Dora Yen at dyen@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, Dora Yen
1516 Ninth Street, MS-43
Sacramento, CA 95814-5512

Please include your name, organization and contact information on all correspondence. 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 pao@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 Claudia Chandler, Assistant Executive Director, at (916) 654-4989, or by e-mail at mediaoffice@energy.state.ca.us. For technical questions on the subject matter, please email the Commission contact, Dora Yen-Nakafuji, at dyen@energy.state.ca.us or CAT lead, Chifong Thomas at clt7@pge.com.

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

To participate in the meeting using the WebEx onscreen and audio functions, please go to the following URL in your web browser on the date and time of the meeting: <https://energy.webex.com/energy/j.php?ED=95335047&UID=1004928837>

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Participation through audio only

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Please be aware that the workshop's WebEx audio and onscreen activity will be recorded.

Date Posted: September 21, 2007

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

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