



Power Systems Engineering Research Center

Integration of Renewables in California

David Hawkins

Lead Industry Relations Representative
California Independent System Operator

Research Tele-seminar

October 2, 2007

2:00-3:00 p.m. Eastern Time (11:00-12:00 Pacific)

Description

The California Energy Commission recently published the Intermittency Analysis Project (IAP) report. Copies of this report can be found on the [CEC website](#). This report describes the extensive amount of work that has been done to identify the issues and solutions for integrating large amounts on intermittent resources on the grid. The CAISO has built upon the material from the IAP study to further investigate the transmission and operational challenges involved in meeting the 20 percent Renewable Portfolio Standard (RPS) Target in California. This involved a detailed analysis of the Tehachapi Transmission Plan for voltage and transient stability analysis. It also involved the development of a new methodology for assessing the amount of regulation resources, supplemental energy dispatches, ramping issues and over-generation issues.

Expansion of intermittent resources directly impact resource adequacy requirements. New generation with greater flexibility is essential. Better forecasting of intermittent resources is essential to achieve the value of renewables. New storage technology and new demand response programs will also help to solve some of the problems.

This seminar will provide a brief overview of the CAISO work on Integration of Renewable Resources to meet California's 20 percent RPS target.

Biography

David Hawkins is the project lead for the integration of renewable resources at the CAISO. He is also responsible for assessment of new technologies and their potential application for solving operating issues. He has served on many professional and industry committees including the WECC Performance Work Group and Chair of the Wide Area Measurement Task Force. He is a Life Member of the IEEE, a graduate from the University of Michigan in Electrical Engineering and a graduate of Kalamazoo College with a degree in Physics.

Participation: Live audio will be provided via teleconference phone bridge. The presentation slides can be downloaded from the [PSERC website](#) on October 2. The audio-slide production of the tele-seminar will be available by web streaming a day after the tele-seminar.

Registration: To indicate that your organization would like to have an access line, send an email to pserc@asu.edu with the subject "Hawkins Seminar". To use our limited phone bridge capacity efficiently, we ask that people in an organization meet together to participate rather than calling in separately, if at all possible. Connection information will be sent before the seminar. There is no charge for participating!

Professional Development Hour Certification: PDH certification is available for PSERC members (only). Send an email requesting PDH certification to pserc@asu.edu with the subject "PDH" after the seminar. *Include the name and title of each participant.*

Seminar Logistics and Assistance

Connection information will be emailed to you after you submit your request. If you have any questions, please contact Theresa Herr, PSERC's administrative assistant, at 480-965-1643 or pserc@asu.edu. You can also contact Dennis Ray, PSERC Executive Director, at 608-265-3808 or djray@engr.wisc.edu.

Speaker Contact Information

David Hawkins
Email: DHawkins@caiso.com
Phone: 916-351-4465

PSERC's Seminar Coordinator

Shmuel Oren, University of California at Berkeley
Email: oren@ieor.berkeley.edu

Shmuel welcomes feedback on the tele-seminars and suggestions for future ones.