



# Wednesday June 24



THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.  
San Francisco Chapter Presents:

## Increasing Renewable Generation in California – A Key to Meeting California and US Carbon Reduction Targets

### DATE & TIMES

*Wednesday, June 24, 2009  
12 p.m. – 1 p.m.*

### PLACE

*Pacific Gas & Electric Office  
77 Beale St.  
Room 305  
San Francisco*

*Check in with guard to verify  
your name on IEEE PES list*

### INFORMATION

*Closest BART Station is  
Embarcadero*

### RSVP REQUIRED

*RSVP by June 22, 2009 to:  
John Joven  
415-973-4873  
JRJJ@PGE.COM*

### LUNCH

*Free for IEEE members  
\$5 for non-members  
RSVP required*

The California Public Utilities Commission and the California Energy Commission unanimously agree with California Air Resources Board's recommendation to adopt requirements that by 2020 at least 33% of California's electricity needs be met by renewable resource. With Governor Schwarzenegger's executive order directing all state agencies to work toward a 33% Renewable Portfolio Standard by 2020, it is now clear that 33% renewable energy is likely to become an important part of California's clean energy future.

The implementation of higher amount of renewable generation offers many opportunities to the industry and fosters innovation in the areas of renewable technologies, storage technologies, and smart grid technologies. However, there are significant barriers that must be overcome before the power system can be operated in a reliable and economic manner.

Barney Speckman will provide an insight into the present and future of renewable generation in California and discuss the challenges of achieving the 33% RPS target by 2020. Mr. Speckman will also discuss the results of recent studies of the impact of high levels of renewable generation, and summarize some of the ongoing analysis work looking at the reliable and economic integration of renewable generation.

Mr. Speckman has over 38 years of engineering, operation and contracts experience with transmission and systems control, electric production and optimization. Mr. Speckman is currently the Vice President of Nexant's Energy and Power Systems where he has been recently involved in studies related to studying the impact of higher levels of renewable generation in California including the ongoing analysis of integration requirements of 33% renewable generation that is being conducted by CAISO.

Prior to joining Nexant, Mr. Speckman worked for PG&E where he led major initiatives in generation, transmission, control, automation, power contract restructuring and industry restructuring.