



Monday March 22



THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
San Francisco Power Engineering Society Presents:

Demand Response

DATE & TIMES

*Monday, March 22, 2010
12 p.m. – 1 p.m.*

PLACE

*Pacific Gas & Electric Office
245 Market St.
Main Auditorium
San Francisco*

*Check in at the West Lobby to
verify your name on the IEEE
PES list*

INFORMATION

*Closest BART Station is
Embarcadero*

RSVP REQUIRED

*RSVP by March 19, 2010 to:
John Joven
415-973-4873
JRJJ@PGE.COM*

LUNCH

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

It is technically possible for direct control load management programs to provide spinning reserve and voltage regulation in wholesale electricity markets thereby simultaneously improving system reliability, lowering operating cost and avoiding energy use related to meeting these standard operating requirements. However, before load management resources can be integrated into the wholesale operating environment, their availability and reliability must be demonstrated. To assess the ability of PG&E's residential air conditioner direct control program to meet technical requirements for CAISO ancillary services operations, a pilot was conducted in August and September of 2009. The test was carried out on four feeders located in different weather zones in the PG&E service territory. Enrollment of customers in the air conditioner direct control program was sufficient to allow observation of the load impacts at the feeder level using SCADA. In addition, a representative sample of customer air conditioners was telemetered to allow real time observation of the responsiveness of the air conditioning systems during test events. This case study will highlight the enabling technology that was designed for this pilot focusing on some major key findings: the reliability of the communication network related to signal latency and system responsiveness, accuracy of the data sample as compared to the rest of the population and the reliability of the SmartAC resource to comply with the CAISO bidding requirements.



Bashar Kellow is a Senior Program Manager at Pacific Gas & Electric Demand Response Emerging Technology Group. He works on qualifying new technologies to enable Demand Response functionalities and offering in different market segments focusing on the Ancillary Services market. Bashar received his Masters of Science from the Electrical Engineering Department (EE) at California Polytechnic State University – San Luis Obispo in December 1998.