



Power Systems Engineering Research Center

Retail and Wholesale Power Market Operations under Increased Penetration of Price-Responsive Demand

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PSERC Public Webinar
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2-3 PM Eastern Time (11 AM-Noon Pacific Time)

Description

This talk will report on the development and use of an Integrated Retail and Wholesale (IRW) Power System Test Bed to explore the IRW effects of increased Demand Response (DR) in the form of price-responsive retail demand. An important barrier to DR implementation to date has been the lack of a compelling business model that accounts for the interests and concerns of all stakeholders. The IRW Test Bed permits the business case for DR proposals to be carefully explored within a reasonably realistic simulation environment, thus providing a bridge between theory and commercial application. Illustrative findings will be presented for a test case in which retail households have smart A/C system controllers responsive to energy prices.

The home page of the IRW Project is <http://www.econ.iastate.edu/tesfatsi/irwprojecthome.htm>.

Biography

Auswin George Thomas received the B.E. degree in electrical and electronics engineering from SSN College of Engineering, Anna University, Chennai, India, in 2010. He received the M.S. degree from the ISU Department of Electrical and Computer Engineering (ECpE) in 2012, where he is currently pursuing a Ph.D. degree. His research interests include the operation of power systems and power markets, with a special focus on smart grid aspects such as the increased penetration of price-responsive demand and renewable energy resources.

Leigh Tesfatsion received the Ph.D. degree in economics, with a minor supporting program in mathematics, from the University of Minnesota, Minneapolis. She is currently a Professor of Economics at Iowa State University, with courtesy appointments as Professor of Mathematics and Professor of ECpE. Her current research focuses on integrated retail and wholesale power market operations with smart grid functionality, reformulation of wholesale power markets for improved handling of uncertainties, and the development of decision support tools for studying relationships among water, energy, and climate change. Additional bio info is available at <http://www.econ.iastate.edu/tesfatsi/bio.htm>.

Registration for Webinar Participation: None required. There is no charge for participating!

Participation by Webinar: There are several options for participating.

- Recommended option: We will be using the Adobe Connect 9 webinar platform. You will be able to watch the presentation slides on your computer from the designated site <https://connect.asu.edu/pserc> and listen to the webinar through your computer's speakers or headphones. [Click here](#) for the connection details and instructions for testing your connection. If you cannot hear the presenter, check to make sure your speaker is not muted in Adobe Connect. It may also be possible to use the app "Adobe Connect™ Mobile" to participate via smartphone or tablet.
- You can also listen to the audio over the public phone bridge at 712-432-0800 (passcode: 937250#). Be sure to mute your phone (press *6) so sounds in your room do not go out to the phone bridge with other listeners. Should you not be able to connect to the webinar, you can also download the slides from the PSERC website and listen to the audio over the phone.
- You can watch the archived webinar at a different time by [clicking here](#) and then on the link for this webinar. Note: This is also another way to watch the webinar in real-time.

Asking Questions During the Webinar: You are invited to ask questions or make comments during the webinar using the Adobe Connect webconferencing platform. Just enter your question into the Q&A box.

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". *Include the name and title of each participant.*

Assistance: If you have any questions, please call 480-965-1643 or email pserc@asu.edu.

PSERC's Webinar Coordinator: Venkataramana Ajjarapu, Iowa State University, vajjarap@iastate.edu.

Ajjarapu welcomes feedback on the webinars and suggestions for future ones.