



PSERC WEBINAR

Optimal and Collaborative Operations of Demand Response Programs in Power Systems

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The operations of power systems are becoming more complicated with higher penetrations of variable energy sources and increasing load uncertainty. Furthermore, the recent policy changes by FERC facilitate the participation of Distributed Energy Resources (DERs) and Inverter-Based Resources (IBRs) into the wholesale market (with aggregators). Therefore, the energy dilemma must be tackled with comprehensive and practical solutions. Moving toward demand side management (DSM) is one of most popular approaches, which can help electrical utilities and other stakeholders to achieve their goals. This transition has rapidly been accelerated by inventing new devices like energy storage, power electronics, opening liberalized markets, empowering customers with smart meters and controllable devices. In this presentation, we will discuss the optimal and collaborative operations of demand response programs in power systems based on three major applications: smart home management system (SHMS); relieving transmission congestion; reliability and efficiency improvement in microgrid.

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[LINK TO WEBINAR](#)

1:00-2:00 P.M. EDT

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Dr. Chengzong Pang received his B.S and M.S. degrees in electrical engineering from North China Electric Power University, China in 2000 and 2003, respectively, and PhD degree in electrical engineering from Texas A&M University, College Station in 2011.

Dr. Pang is an Associate Professor in the Department of Electrical and Computer Engineering at Wichita State University, Wichita, KS, USA. He is Site Director of PSERC, and Director of ECE Graduate Program. He was an Assistant Professor at North China Electric Power University (2003-2006), and he worked for Electric Reliability Council of Texas (ERCOT) as Market Support Analyst (2012-2013). His research interests include power system analysis, protection, stability and control, cascading outages; integration of renewable energy resources in smart grid, as well as public policy and technical issues associated with competitive power systems.

