

Symposium Speakers – Smart Energy

Oncor's SmartGrid Journey



Joe Wolf

**T&D
Manager**

Oncor

Joe Wolf is T&D Services Manager at Oncor. He is responsible for the Smart Grid Distribution Management System which includes Mobile Workforce Management, Outage Management, Distribution SCADA, and Distribution Network Analysis. Joe has 34 years at Oncor with 20 of those years associated with operating, supervising, and managing Oncor's Distribution Operating Centers. Joe was part of a cross-functional team who successfully integrated power grid, outage management, supervisory controls, data acquisition, advanced metering infrastructure and Big Data services.

Abstract:

Smart Grid builds on many technologies already used by electric utilities but adds communication control and analytic capabilities that will optimize the operation of the entire electrical grid. Smart Grid is also positioned to take advantage of new energy technologies, such as plug-in hybrid electric vehicles, various forms of distributed generation, solar energy, wind energy, advanced metering, lighting management systems, distribution automation, and micro grid storage. This presentation will narrate Oncor's journey in building the smart grid foundation and answer the most asked questions including the market drivers of the technologies, advances of the technologies, the benefits for end-use consumers, and new business and job opportunities.

Semiconductor Technologies Driving Smart Grid Innovation



Markus Staebelin

**General Manager of Smart
Grid Business Unit**

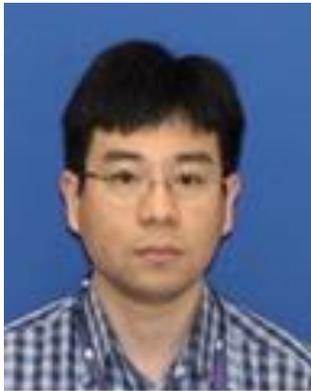
Texas Instruments

Markus Staebelin is the general manager of Smart Grid for Texas Instruments where he is responsible for developing smarter grid solutions through innovative semiconductor products, leading edge software and compliant integrated system solutions. Staebelin has more than 15 years of semiconductor experience, specifically in the automotive, industrial and smart energy sectors. Prior to TI, Staebelin was a product manager for servo inverters at INDA GmbH, sales manager at Lenze GmbH & CoKG and completed his apprenticeship at German utility company, Stadtwerke Mainz AG.

Abstract:

A smart grid can be described as an intelligent electricity transmission and distribution network incorporating measuring, monitoring/analyzing and real time feedback from the energy generation all the way to a load in a home or building. The realization of the smart grid has required changes of key components like substations, meters and home/building management. New silicon developments have enabled more accurate energy measurement for billing, quality monitoring, load analysis and fault detection. Wired and wireless communication technologies have revolutionized the way utilities manage their power substations / electricity meters and end-user connecting their electrical devices to have for the first time full control of their energy usage.

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Dr. Fred Huang

**Supervisor of Dynamic
Studies Group**

**The Electric Reliability
Council of Texas
(ERCOT Inc.)**

Wind Generation Development in ERCOT

Dr. Shun-Hsien (Fred) Huang received the B.S. and M.S. degrees from Tatung University, Taipei, Taiwan and the Ph.D. degree in Electrical Engineering specializing in Power Systems from University of Texas at Arlington in 1997, 1999 and 2006, respectively. He was a teaching lecturer in Tatung University, Taiwan, from 2001-2003. Since 2006, he has been at the Electric Reliability Council of Texas (ERCOT Inc.). He is currently the supervisor of Dynamic Studies group of ERCOT system planning department.

Abstract:

There are 11 GW wind generation capacity currently connected to the ERCOT grid, and the total wind generation capacity connected to ERCOT is projected to exceed 18 GW in 2017. Wind resources are generally located in the area that can be remote from synchronous generators and load centers. This presentation will discuss the challenges and experience to integrate large amount of wind generation in the ERCOT grid.

Transmission Planning Value from Midcontinent Independent System Operator (MISO) Process



Rao Konidena

**Senior Manager,
Transmission Asset
Management**

**Midcontinent Independent
System Operator (MISO)**

Rao Konidena is a graduate of Energy Systems Research Center, M.S.E.E. Spring 2012. In his role as Senior Manager at MISO in Eagan, Minnesota, he coordinates compliance activities and business management, budgets, and process management for Transmission Asset Management. His area is also responsible for overall development of the MISO Transmission Expansion Plan Report. Rao has also completed an Executive MBA from University of Minnesota's Carlson School of Management.

Rao's primary interests lie in energy storage, demand response and energy efficiency (i.e. clean technology options), specifically around the role they play in wholesale grid-scale energy and ancillary market applications. He approaches this interest with "process" framework.

Abstract:

MISO's Transmission Expansion Planning (MTEP) process incorporates reliability, economic and policy objectives. This "value based planning" is centered on minimizing the cost to the end users. Effective planning for transmission and generation needs must balance system reliability, market efficiency, and state and federal energy policies. MISO Transmission Expansion Plan (MTEP) identifies issues and opportunities, develops alternatives for consideration, and evaluates those options to determine effective transmission solutions. Find out more about how MISO is approaching this value based planning, and what this means to you.