The Smart Grid Experience:
Applying Results, Reaching Beyond

Agenda

October 27 – October 29, 2014
Opening Plenary Session: Realization of the Smarter Grid

Speakers:
- Patricia A. Hoffman – Assistant Secretary Department of Energy, Office of Electricity Delivery and Energy Reliability
- Mark McGranaghan – Vice President of Power Delivery and Utilization, EPRI
- Becky Harrison – CEO, GridWise Alliance

Transforming the Grid Through Integration

Moderators: Matt Wakefield EPRI / Merrill Smith DOE

Speakers:
- Andre Wellington – Consolidated Edison
- Tom Bonner – Exelon
- Eva Gardow – FirstEnergy
- Brian Arellano – PNM Resources
- Ed Hedges – Kansas City Power & Light

Session Description: The integration of DER is a challenge that utilities are facing today even with only one prominent DER technology, solar, making up the majority of the DER interconnections. As other technologies become viable, such as storage, electric vehicles and wind, utilities will be tasked with efficiently operating the grid with multiple DER technologies along with the traditional resources of demand response and conservation voltage reduction. In order to address the concurrent operation of two or more DER technologies on the same distribution circuit, participating utilities have successfully demonstrated the ability to overcome this challenge over the past 6 years. This session will offer insights into the demonstrations, results from their practical hands-on experiences, lessons learned throughout the demonstrations, and recommendations on how future deployments need to be operated.

Evening Social Event at the NASCAR Hall of Fame
## Tuesday Morning, October 28

### Coffee and Continental Breakfast: 7:15 – 8:00 AM

### 8:00 – 10:00 AM

#### Conservation and Optimization Via Volt/VAR Control

**Moderators:** Jared Green EPRI / Joe Paladino DOE  
**Speakers:**  
- Brian Schell – American Electric Power  
- Bruce Lovelin – Central Lincoln  
- Daniel Fournier - Hydro-Québec  
- Jim Parks – Sacramento Municipal Utility District  
- Jay Oliver – Duke Energy  
- Jeff Roark - EPRI

**Session Description:** Volt/VAR Optimization (VVO) and Conservation Voltage Reduction (CVR) have and will continue to provide utilities with benefits, such as energy savings, load reduction during peak periods, and reduced system losses. Several different approaches, from centralized to decentralized control schemes, were tested and verified as part of the demonstration projects. The results varied slightly from one project to the next due to the diversity of feeders being analyzed and the methodologies used to quantify the impacts of volt/VAR control. The panel session will focus on the technologies used in the various control schemes and the assessment strategies for quantifying the benefits of volt/VAR control.

### Morning Break: 10:00 – 10:30 AM

### 10:30 – 12:30 PM

#### Systems Driving the Integrated Grid

**Moderators:** John Simmins EPRI / Eric Lightner DOE  
**Speakers:**  
- Ron Melton – Battelle  
- Walter Bartel – CenterPoint Energy  
- Melanie Miller – Duke Energy  
- Bruno Prestat (or designee) – Electricité de France (EDF)  
- Bob Hay – EPB (Chattanooga TN)  
- Will Odell – Snohomish PUD  
- Joe Schatz – Southern Company

**Session Description:** An important part of the integrated grid is the systems that enable the coordination of the distributed energy resources. The demonstrations of these systems, such as the advanced distribution management systems (DMS), Distribution Automation (DA), distributed energy resource management systems (DERMS), and demand response management systems (DRMS), will be highlighted as part of this session. Panelists will share their experiences of deploying and operating these systems.

### Lunch: 12:30 – 1:30 PM
<table>
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<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>1:30 – 3:00 PM</td>
<td><strong>Communications &amp; Cyber Security: Foundations of the Modern Grid</strong></td>
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<td><strong>Moderators:</strong> Jeff Roark EPRI / Chris Irwin DOE</td>
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<td><strong>Speakers:</strong> Stuart Laval – Duke Energy</td>
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<td>Craig Miller – NRECA</td>
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<td>Bob Yinger – Southern California Edison</td>
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<td>Ron Simmons – San Diego Gas &amp; Electric</td>
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<td>Joe Nowaczyk – Salt River Project</td>
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<td><strong>Description:</strong> Three key topics in this session will be communications, field area networks (FAN), and cyber security. A plurality of communication systems are in use today. While a goal of grid communication is technology and protocols that are “communication system agnostic”, this session will look at what is used today and what is being learned and envisioned in this enablement. In addition, the session will offer insights into the demonstrations of FAN and other networks. The other topic area to be covered in this session will be cyber security, a core piece of any modern grid system involving communications.</td>
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<td>Afternoon Break: 3:00 – 3:30 PM</td>
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<td>3:30 – 5:00 PM</td>
<td><strong>AMI Beyond Meter Reading</strong></td>
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<td><strong>Moderators:</strong> Gale Horst EPRI / Debbie Haught DOE</td>
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<td><strong>Speakers:</strong> Dave Herlong – Florida Power &amp; Light</td>
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<td>Ruth Kiselewich – Baltimore Gas and Electric Co.</td>
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<td>Jayme Holland – Central Maine</td>
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<td>Sara Kaplan – Iowa Association of Municipal Utilities</td>
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<td>Joe Schatz – Southern Company</td>
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<td><strong>Description:</strong> AMI provides many opportunities for utilities to lower costs and improve services beyond automated meter reading including outage detection and management, remote service connections and disconnections, theft/tamper detection, and new customer offerings such as time-based rates and web portals. These applications also benefit customers by providing new capabilities for managing consumption, costs, and home appliances; faster service restoration following outages; and a wider array of new programs and rate offerings. The purpose of this session is to present results from AMI deployments that demonstrate these applications and benefits and provide concrete examples from actual experiences of utilities, service providers, and customers. Smart meter data is providing utilities with new capabilities for identifying outage locations and pinpointing repair operations to precise locations. Ways to leverage AMI investments and build on communications and data management systems to expand grid modernization will also be discussed including opportunities for monitoring premise-level voltage profiles and using these and other smart meter data to boost the effectiveness of outage management, voltage controls, and customer services. Data on voltages can identify potential problems with transformers so repairs can be accomplished before the equipment fails.</td>
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Wednesday Morning, October 29

Coffee and Continental Breakfast: 7:15 – 8:00 AM

8:00 – 9:30 AM

Studying the Smarter Consumer

**Moderators:** Bernie Neenan EPRI / Peter Cappers LBNL

**Speakers:**
- Jim Eber – Commonwealth Edison
- Rebecca Leiter – FirstEnergy
- Jenny Potter – Sacramento Municipal Utility District

**Description:** This session will engage 4-5 panelists on a series of issues relevant to the design, implementation and evaluation of DOE’s and ERPI’s consumer behavior studies. Panelists will be asked to provide their insights on four main topics (each covering about 15 minutes): ability to implement a randomized control trial (the original intent of the SGIG FOA); degree of success in getting customers to participate in the study; installation and use of enabling technologies offered as treatments; and findings in terms of statistically significant responses. In each topic, panelists will be asked to relate how their experiences have or are likely to inform the utility’s decisions on a going-forward basis. The last 30 minutes will engage the audience in Q&A.

9:30 – 10:15 AM

Engaging the Smarter Consumer

**Moderators:** Bernie Neenan EPRI / Peter Cappers LBNL

**Speakers:**
- Gail Allen – Kansas City Power & Light
- Dennis Sumner – City of Fort Collins
- Karen Lefkowitz - PepCo

**Description:** This session will bring 2-4 more panelists up for a broader discussion about how they collectively engaged various types of residential consumers. The focus will be on: experience driving customers to and usage of information technology (e.g., web portals, IHDs, etc.); activities intended to maintain customer participation and involvement in a program, technology offering, pricing opportunity, pilot and/or study. Panelists will be asked to relate how their experiences have or are likely to inform the utility’s decisions on a going-forward basis. This will cover the first 30 minutes of the session, leaving the remaining time for Q&A from the audience.

Morning Break: 10:15 – 10:45 AM
10:45 – 12:00 PM

Closing Panel Sessions: Reaching Beyond the Smart Grid

Panel Session Moderators: Matt Wakefield EPRI / Hank Kenchington DOE

Panelists:

Ed Hedges – Kansas City Power & Light
Jim Parks – Sacramento Municipal Utility District
Melanie Miller – Duke Energy (invited)
Craig Miller – NRECA (invited)
Dave Herlong – Florida Power & Light
Karen Lefkowitz - Pepco

Topics:

Applying Results
  Summary of common themes in application of technologies
  Panel Session with conference speaker/panelists

Reaching Beyond
  Common next steps, challenges, roles, and enablers
  Panel Session with conference speaker/panelists

Closing Remarks

I-Pad Mini Giveaway (Must be present to win)

Conference Closes at Noon
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