

Moving Away from Smart Meters toward Smart Grid Technology Deployment to Increase Reliability, Improve Power Delivery and Achieve Environmental, Operational, and Financial Benefits

Smart Grid

MAXIMIZING RESULTS FROM NEXT GENERATION TECHNOLOGY

Our Faculty

Get practical advice and strategies from experts

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)

AUSTIN ENERGY

CENTER POINT ENERGY

THE STRUCTURE GROUP

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CENTER FOR COMMERCIALIZATION OF ELECTRIC TECHNOLOGY

PJM INTERCONNECTION

PLUS! In-depth workshops!

Incorporating Smart Grid Technology

- ✓ *Strategies to Develop a Business Plan and Application Evaluation*
- ✓ *Methodologies for Effective Communication and Network Enhancements*

May 11 and 12, 2010

**Optional Workshops: May 13, 2010
DENVER, COLORADO**

Hear the Latest on Smart Meters Technology and Lessons Learned from Utility Companies

- ✓ **Get updates on new developments affecting Smart Grid technology standards**
- ✓ **Understand the link between cyber security and the smart grid**
- ✓ **Learn how you can receive funding if you didn't get DOE funding**
- ✓ **Get effective methodologies to establish real-time two-way communication**
- ✓ **Understand how to better manage intermittent sources of power**
- ✓ **Learn how to upgrade and integrate infrastructure to accommodate smart grid initiatives**
- ✓ **Hear about the next generation of Smart Grid technology: Where is it going and how do you get there?**

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SMART GRID 2010

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MAY 11 AND 12, 2010 • WORKSHOPS: MAY 13, 2010 • DENVER, COLORADO

DAY ONE PROGRAM AGENDA: TUESDAY, MAY 11, 2010

8:00 – 9:00 Registration and Continental Breakfast

9:00 – 9:15

Welcome and Opening Remarks from the Chair

Steve Pullins, President, Horizon Energy Group

9:15 – 10:15

NIST, Smart Grid, and Cyber Security



Annabelle Lee, Senior Cyber Security Strategist, National Institute of Standards and Technology (NIST)

- NIST's role in the Smart Grid
- Standards coordination
- Cyber Security Coordination Task Group (CSCTG)
- NIST Interagency Report (NISTIR) on the Smart Grid Cyber Security Strategy and Requirements

Annabelle Lee's experience comprises over 30 years of technical experience in IT system design and implementation and 20 years of IT security specification development and testing. Over her career she has authored or co-authored many documents on IT security, cryptography, and testing. She leads the Smart Grid Interoperability Panel-Cyber Security Working Group.

10:15 – 10:30

Networking Break



10:30 – 11:30

Smart Grid Funding: Techniques to Secure Dollars



Tobias Whitney, Senior Manager, Compliance and Smart Grid, The Structure Group

- Developing an effective business plan
- Demonstrating cost recovery
- Addressing cost allocation process
- Educating non-supportive individuals on Smart Grid technology
- Communicating long-term ROI
- Justifying rate-based capital costs
- Receiving investment for marketing and education programs for consumers

11:30 – 12:30

Efficient Planning for Smart Grid Projects to Ensure Reliable and Secure Networks



Steven W. Pullins, President, Horizon Energy Group

- Resource planning and efficient deployment strategies
- Integrating renewable energy sources
- Optimizing power system
- Assuring interoperability
- Moving forward to advance power systems
- Preparing for the unforeseen

Steve Pullins has more than 30 years of utility industry experience in operations, maintenance, engineering, and renewables project development. He previously led the nation's Smart Grid Implementation Strategy for DOE's National Energy Technology Laboratory. Mr. Pullins is leading two renewables startups, one in biopower and one in solar system applications.

12:30 – 1:45

Luncheon

1:45 – 2:45

Effective Deployment Strategies for Strengthening the Reliability of Your Grid



Bob Frazier, Director Technology, Center Point Energy

- Developing and selling a high-level strategy for AMI and Smart Grid
- Choosing appropriate solution providers and technology for project needs
- Developing deployment strategies
- Lessons learned from CNP's Advanced Meter pilot and initial mass deployment
- Installing infrastructure to achieve desired functionality and improved reliability
- Detecting and minimizing the impact of grid system disturbances
- Incorporating self-healing properties into the grid

Robert B. Frazier has 34 years of IT management experience in operations, PC and LAN deployment, security, application development, audit and executive consulting.

2:45 – 3:00

Networking Break



3:00 – 4:00

Realizing the Benefits of Next Generation: Smart Grid 2.0 Technology

John Baker, Chief Strategy Officer, Austin Energy

- Introduction to Austin Energy
- Utility strategic challenges
- Austin Energy's objectives
- Utility of the future
- Smart Grid 1.0 and 2.0
- Austin Energy's Smart Grid efforts
- Pecan Street Project
- Smart Grid 2.0: looking forward

4:00 – 5:00

Consumer Applications in a Smart Grid World

Scott Stewart, Director, Business and Product Development, Direct Energy

- Review specific findings from private, public and collaborative research on Smart Grid
- Discuss important linkage between smart grid investment and consumer products
- Importance of consumer choice and what it means to your organization
- New technology innovations in energy services and what's next?

Scott Stewart is responsible for the identification and advancement of new product/service and business opportunities in the evolving residential energy management space in Canada. Working with Direct Energy operations and external partners (software, hardware, communications) Scott evaluates the operational and economic aspects of opportunities and supports Direct Energy leadership in the development of investment priorities in the areas of energy efficiency and conservation.

5:00

End of Day One

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DAY TWO PROGRAM AGENDA: WEDNESDAY, MAY 12, 2010

8:00 – 9:00 Continental Breakfast

9:00 – 9:15

Opening Remarks from the Chair

Steve Pullins, President, Horizon Energy Group

9:15 – 10:15

Meeting Future Energy Needs While Enhancing Service Delivery and Customer Satisfaction

Chantal Hendrzak, General Manager, Applied Solutions, PJM Interconnection

- Enabling real-time information about energy use
- Integrating electricity usage monitoring and adjusting
- Developing partnerships with customers to efficiently manage usage needs
- Improving overall services, system efficiencies, and energy conservation
- Minimizing system disruptions

10:15 – 10:30

Networking Break



10:30 – 11:30

Smart Grid Interoperability Panel: Mission, Structure, and Plans

Paul Boynton, Contracting Officer's Technical Representative, National Institute of Standards and Technology (NIST)



Stuart McCafferty, Vice-President and Project Manager, NIST Phase II, EnerNex

- Background
 - EISA and NIST's role in supporting Smart Grid interoperability standards
 - Why does the government care?
 - NIST's phased approach to supporting EISA requirements
 - NIST's partnership with the Smart Grid stakeholder community
- SGIP mission and history
 - How did we get here?
 - Who is the SGIP?
- SGIP structure
 - How is the SGIP organized?
 - Priority action plans (PAPs): What are they? How do they work? What are the current PAPs?
- SGIP plans
 - The "big picture": Smart Grid standards acceleration
 - Membership information:
 - SGIP membership metrics
 - What's in it for me?
 - How much does it cost?
 - Who should become members?

Stuart McCafferty is an IT professional with 20 years of experience, with specialized expertise in managing complex systems integration projects, system architecture design, software development and implementation, real-time data acquisition, business process change, software testing and verification, IT security, and secure online collaboration. He is known for innovative and out-of-the-box uses of current technology. He is a certified Project Management Professional (PMP®) from the Project Management Institute (PMI).

11:30 – 12:30

Leveraging Multiple Smart Grid Technologies to Improve Grid Reliability and Performance, Benefiting Electric Providers and Consumers Alike



Milton Holloway, President and COO, Center for Commercialization of Electric Technologies

- Transforming the existing metering system
- Building a sustainable network for real-time, high-speed, and two-way communication throughout the grid
- Converting current substations to accommodate smart technology
- Optimizing performance with remote monitoring
- Increasing usage of renewable energy sources
- Leveraging various sources for financing

Milton L. Holloway's primary function at CCET is to direct the operational aspects of the organization, including the development and oversight of electric technology projects. CCET is a Texas non-profit corporation devoted to the commercialization of electric technologies in the Texas electric market. CCET is a 20-member collaborative venture of Texas electric companies, high tech firms and universities.

12:30 – 1:45

Luncheon

1:45 – 2:45

Advancing Your Technology: Making Your Smart Meters Smarter

Doug Houseman, Vice-President of Technology and Innovation, EnerNex

- Deployment of smart switches
- Efficiently locating and isolating problems
- Reconfiguring power lines to route power and restore service
- Improving feeder voltage controls
- Modernizing monitoring methodologies and controls
- Upgrading telecommunication networks to support Smart Grid initiatives and accommodate increased data volume securely and rapidly

2:45 – 3:00

Networking Break



3:00 – 4:00

Streamlining Your Corporate Goals and Establishing Metrics to Monitor Cost Effectiveness of Smart Grid Projects

Donald Morrow, Vice-President Transmission, Quanta Technology

- Identify the corporate goals for your Smart Grid vision
- Determine a business case for becoming a Smart Grid utility
- Develop a roadmap to attain the Smart Grid vision
- Develop and implement Phase I programs to validate critical assumptions and streamline processes
- Finalize the Smart Grid roadmap based on the results of Phase I programs
- Establish metrics to measure cost effectiveness of implemented projects, and refine the Smart Grid roadmap where appropriate

4:00

End of Day Two

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OPTIONAL WORKSHOP AGENDAS: THURSDAY, MAY 13, 2010

WORKSHOP ONE: 9:00 – 12:00

Incorporating Smart Grid Technology into Your Company: Strategies to Develop an Effective Business Plan and Application Evaluation

Tobias Whitney, Senior Manager, Compliance and Smart Grid, The Structure Group

Business Case

While many utilities obtained government funding to help jump-start their Smart Grid projects, others did not. The Structure Group will host a session to help utilities understand ways to improve the business case for moving forward with smart grid solutions. The business case will be discussed in connection with the following concepts:

- Two-way meter reading and communications framework
- Remote connect/disconnect
- Voltage and VAR management
- Distribution automation and management system
- Integrated outage management and GIS
- Condition-based monitoring and management and asset management integration
- Demand response and real-time pricing
- Direct load control
- Distributed generation control and automated generation control
- Market and commercial optimization

Enterprise Service Bus

An enterprise service bus (ESB) is a mechanism that transforms raw data into useable, actionable data that support the business case for Smart Grid solutions. ESBs and other application frameworks will be evaluated. Applications that can be leveraged to create the most value will be prioritized during the assessment, and applications that are considered as “one off” will be considered as well, to determine an integration path that will take into account costs, risks, and internal capabilities over the lifetime of the smart grid applications.

WORKSHOP TWO: 1:00 – 4:00

Incorporating Smart Grid Technology into Your Company: Methodologies for Effective Communication and Network Enhancements

Tobias Whitney, Senior Manager, Compliance and Smart Grid, The Structure Group

Integrated Grid Communications Architecture

In order for any of the Smart Grid functional capabilities to be achieved from the very first phase, a practical approach must be taken to evaluating the network strategy needed provide high-bandwidth means of communication to meters, circuits, substations, and backhaul. This session will evaluate numerous methods of communication used to enable the smart grid.

- Customer and feeder level data transport
 - BPL
 - Wireless mesh
 - WiMax
 - Public broadband
- Substation communications
 - Substation LAN
 - Power line carrier communications
 - Protocols (modbus, DNP 3.0, IEC61850)
- Backhaul strategies
- NERC CIP and cyber security considerations

Smart Grid

AMI and Smart Grid infrastructure have created numerous means and methods for utilities to make new decisions, based on far more points of data. This data, or “payload” of grid information, can consist of utility financial data, operational data, and customer information. All three types, if left unprotected, can lead to reliability issues, privacy risks, and financial exposures that can have an impact on the utility and the community. This session will discuss risks and the mitigation strategies needed to help safeguard a Smart Grid.

Join Your Peers WHO SHOULD ATTEND THIS EVENT

- **CIOs**
 - Technology innovation
- **Engineers**
 - Systems Integration
- **Vice-Presidents, Directors, and Managers of**
 - Information Technology
 - Systems Architecture
 - Strategic Technology
 - Information Security
 - Smart Energy
 - Advanced Technology
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 - Operations and Maintenance
 - Energy Services

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If you would like to increase your visibility with electricity and utilities professionals, you need to be at *Smart Grid 2010: Maximizing Results from Next-Generation Technology*. A limited number of sponsorship options are available, including:

- Exhibit Space
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For more information or to check availability, contact our sponsorship department by telephone at 1.800.474.4829, ext. 244, or by email at sponsorship@infonex.ca.

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FOUR KEY BENEFITS OF ATTENDING THIS EVENT

- 1) Increase your take-home knowledge by learning about successful completed Smart Grid projects
- 2) Understand technology standards and how they apply to you
- 3) Learn how to incorporate new technologies to strengthen your grid reliability, maintain integrity, and improve your power delivery
- 4) Discover how you can achieve environmental, financial, and operational benefits

LOCATION: *Smart Grid 2010* will be held at a convenient location in Denver, CO. Detailed venue information will be provided with your registration confirmation.

YOUR REGISTRATION INCLUDES: Registration fees include all course materials, continental breakfast, lunch, and refreshments. **Parking and accommodation are not included.**

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2 SELECT YOUR OPTION(S) AND PREFERRED METHOD OF PAYMENT

All prices in U.S. Dollars	Register by MARCH 12	Register by APRIL 9	FULL PRICE
Conference: Groups of 3 or More	\$1,199 each	\$1,399 each	\$1,699 each
Conference: Groups of 2	\$1,299 each	\$1,499 each	\$1,799 each
Conference: One Registrant	\$1,399	\$1,599	\$1,899
Optional Workshops	\$400 each	\$500 each	\$600 each

*Groups must register together at the same time to be eligible for group rates.

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CANCELLATION POLICY:

Substitutions may be made at any time. If you are unable to attend, please make cancellations in writing and fax to 1-800-558-6520 **no later than April 27, 2010.** A credit voucher will be issued to you for the full amount, redeemable against any other INFONEX course and which is valid for twelve months (one year) from the date of issue. If you prefer, you may request a refund of fees paid, less a 15% administration fee.

Registrants who cancel after **April 27, 2010**, will not be eligible to receive any credits or refunds and are liable for the entire registration fee.

Confirmed registrants who do not cancel **by April 27, 2010** and fail to attend will be liable for the entire registration fee.