



EUCI Presents a Conference on:

ADVANCED DISTRIBUTION AUTOMATION

ENSURING THE SMART GRID IS A RELIABLE GRID

October 28 - 29, 2009 • Hyatt Regency Chicago • Chicago, IL



EUCI is authorized by IACET to offer 0.8 CEUs for this program.

ADVANCED DISTRIBUTION AUTOMATION

ENSURING THE SMART GRID IS A RELIABLE GRID

October 28 - 29, 2009

OVERVIEW

For the last decade or more, the use of automatic switches and reclosers on the electricity distribution system in order to reduce outage times has been widespread. Although, this basic concept of Distribution Automation goes a long way to boosting reliability, what does the next generation of Distribution Automation look like?

As the electric power industry races towards a Smart Grid with a focus on Automatic Metering Infrastructure (AMI) and Demand Side Management (DSM), we need to remember the importance of reliability. AMI and DSM will not work if the line is dead.

This conference will discuss the importance of Distribution Automation (DA) as part of the greater Smart Grid, and how DA will be leveraged and complemented by other Smart Grid technologies. There are several benefits to be gained with the increased voltage control, robust communications networks and improved reliability that the leading edge Distribution Automation innovations can provide. In truth, Distribution Automation is the stealth Smart Grid.

LEARNING OUTCOMES

Attendees to this conference will be able to:

- Recognize the importance of Advanced Distribution Automation (ADA) in terms of driving value for the Smart Grid
- Define the key benefits for utilities that implement Volt/VAR control
- Identify Smart Grid implementation areas where Distribution Automation (DA) can be leveraged for greater efficiency
- Examine how Distributed Intelligence can impact the control and agility of the distribution system
- Evaluate the factors that must be considered when choosing a communications backbone for an Advanced Distribution Automation implementation

WHO SHOULD ATTEND

- Utility distribution directors, planners and engineers
- Utility reliability directors and engineers
- Utility personnel charged with technology innovations and smart grid implementations

IACET



EUCI has been approved as an Authorized Provider by the

International Association for Continuing Education and Training (IACET), 1760 Old Meadow Road, Suite 500, McLean, VA 22102. In obtaining this approval, EUCI has demonstrated that it complies with the ANSI/IACET Standards which are widely recognized as standards of good practice internationally.

As a result of their Authorized Provider membership status, EUCI is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standards.

EUCI is authorized by IACET to offer 0.8 CEUs for this program.

Requirements for Successful Completion of Program

Participants must sign in/out each day and be in attendance for the entirety of the conference to be eligible for continuing education credit.

Instructional Methods

Power Point presentations, panel discussions with question and answer sessions.

PROGRAM AGENDA

WEDNESDAY, OCTOBER 28, 2009

8:00 – 8:30 a.m. **Registration and Continental Breakfast**

8:30 – 9:15 a.m. **The Role of Advanced Distribution Automation in the Smart Grid**

When most people talk about the benefits of the Smart Grid, they often focus on customer choice and load management activities. However, there is also a great deal to be gained when you consider the operational benefits of Advanced Distribution Automation (ADA). This presentation will discuss EPRI's extensive Distribution Automation research and the important role that ADA plays in the greater Smart Grid.

– *Mark McGranaghan, Director, Electric Power Research Institute*

9:15 a.m. – 12:00 p.m. **Optimizing Volt/VAR Control**

Utilities continually face system losses from reactive load, or "VAR," created by large customer load devices such as washing machines, air conditioning units, etc. To address these losses, utilities are implementing methods to regulate and reduce the amount of VAR on their systems through "Volt/VAR control" -- an all-encompassing term for many different approaches to regulating voltage and VAR on distribution feeders. By optimizing voltage and VAR control through voltage reduction, power factor optimization and conservation voltage reduction, great efficiencies can be realized on the distribution system. This session will discuss Volt/VAR control at two utilities that are leading the way towards a Smart Grid.

Xcel Energy

Xcel Energy is very familiar with the typical Volt/VAR control approaches, but has been searching for ways to improve system performance and reliability. In addition to gains on distribution power factors, Xcel desires the ability to dispatch the line capacitors for transmission VAR support. Another interest is to evaluate the energy savings through conservation voltage reduction. As a result, Xcel Energy and CURRENT Group have teamed up to deploy a two-way centralized volt/VAR Control solution in Boulder as part of the SmartGridCity project. This presentation will discuss two-way centralized volt/VAR Control, as implemented in Boulder, and how it allows Xcel Energy to optimally regulate VARs while maintaining voltages.

– *Brian Deaver, VP, Product Management, CURRENT Group*

VOLT/VAR Control at Hydro Quebec

– *Georges Simard, Senior Engineer, Distribution Network Development, Hydro Quebec*

Simulating the Effectiveness of Voltage Control for Saving Energy and Reducing Demand

– *Mark McGranaghan, Director, Electric Power Research Institute*

12:00 – 1:00 p.m. **Group Luncheon**

1:00 – 2:00 p.m. **PulseClosing Applications for DA**

The ability to determine whether a fault is permanent or eventually goes away without reigniting high magnitude currents is proving beneficial in a number of applications that directly support Distribution Automation to enhance feeder reliability. This presentation will discuss PulseClosing and then focus on a number of these benefits, including:

1. Automatic recovery from mis-coordination
2. A more intelligent means to accomplish Fuse Savings
3. A more benign methodology for Loop Schemes

– *Dave Kearns, Application Director, Smart Grid Technologies, S&C Electric*

ADVANCED DISTRIBUTION AUTOMATION

ENSURING THE SMART GRID IS A RELIABLE GRID

October 28 - 29, 2009

PROGRAM AGENDA

WEDNESDAY, OCTOBER 28, 2009 (CONTINUED)

2:00 – 2:30 p.m. Networking Break

2:30 – 4:30 p.m. Panel Discussion: Communications Considerations for Distribution Automation

One of the key tenets of distribution automation is a reliable and secure communications framework. This panel will discuss what the different options are for your DA backbone, the methodology used to decide what option is best for you and finally how to ensure that everything is secure.

Panelists:

- *Brian Deaver, VP, Product Management, CURRENT Group*
- *Warren Westrup, Utility Industry Solutions Practice Manager, AT&T*
- *SilverSpring Networks Representative*

THURSDAY, OCTOBER 29, 2009

8:00 – 8:30 a.m. Continental Breakfast

8:30 a.m. – 12:00 p.m. Leveraging Distribution Automation as a Part of the Greater Smart Grid

When a utility considers their version of a smart grid, they need to take a holistic approach in order to gain the most benefits. Advanced distribution automation can be the key to take other Smart Grid implementations, such as AMI, to the next level and provide a greater value to the utility. These presentations will highlight how leading utilities are using distribution automation in conjunction with other key technologies to build a smarter grid.

Applications for Storage Technologies

American Electric Power is actively pursuing a number of initiatives in conjunction with the DOE to apply Storage Technology as an integral step in the evolution of a "Smart Grid". This paper will focus on two of these efforts, NaS battery applications and Community Energy Storage, and will discuss the current status of storage as a Smart Grid technology.

- *Tom Walker, Principal Engineer, AEP*
- *Dave Kearns, Application Director, Automation Systems, S&C Electric*

Smart Grid Partners: AMI and DA

PECO has developed a Smart Grid pilot to demonstrate the potential of integrating AMI, AMR and distribution automation solutions into the same communication network. This session will discuss PECO's Jenkintown Project, its successes and some lessons learned from this unique project.

- *Glenn Pritchard, Chief Engineer, PECO*

Case Study: Distribution Automation as a part of a Smart Grid Project

This presentation will discuss ADA implementation in a Smart Grid project at a large Midwestern utility.

- *Silver Spring Networks*

PROCEEDINGS

A copy of the conference proceedings will be distributed to attendees at the event. If you are unable to attend or would like to purchase additional copies, flash drives are available 2 weeks after the conference is complete. The cost per Flash Drive is US\$295 [add US\$50 for international shipments]. Flash Drives include visual presentations only. Upon receipt of order and payment the Flash Drive will be shipped to you.

NOTE : All presentation flash drive sales are final and are non-refundable.

CONFERENCE LOCATION

A room block has been reserved at the Hyatt Regency Chicago, 151 East Wacker Drive, Chicago, IL 60601 for the nights of October 27-28, 2009. Room rates are US \$199 single/double guest rooms. Call 312-565-1234 for reservations and mention the EUCI conference to get the group rate. Make your reservations prior to September 28, 2009. There are a limited number of rooms available at the conference rate. Please make your reservations early.

REGISTRATION INFORMATION

REMEMBER, EVERY 4TH REGISTRANT IS FREE

For instant registration, call (303) 770.8800 or fax the Registration Form to (303) 741.0849.

Register 3, Send 4th Free!!

Any organization wishing to send multiple attendees to this conference may send 1 FREE for every 3 delegates registered. Please note that all registrations must be made at the same time to qualify.

All cancellations received on or before September 25, 2009 will be subject to a US\$195 processing fee. Written cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other EUCI conference or publication. This credit will be good for six months. In case of conference cancellation, Electric Utility Consultants' liability is limited to refund of the conference registration fee only. For more information regarding administrative policies such as complaint and refunds, please contact our offices at (303) 770.8800.

EUCI reserves the right to alter this program without prior notice.

MAIL DIRECTLY TO:

Electric Utility Consultants, Inc. (EUCI)
5555 Preserve Drive
Greenwood Village, CO 80121

FAX TO: (303) 741.0849 **PHONE:** (303) 770.8800

PLEASE REGISTER THE FOLLOWING

- Advanced Distribution Automation:
Ensuring the Smart Grid is a Reliable Grid, October 28 - 29, 2009, US \$1395
Early Bird on or Before October 16, 2009: US \$1195
- I'm sorry I cannot attend, but please send me the conference proceedings at \$295. (Please add \$50 for international shipping)

How did you hear about this event? (Direct email, Colleague, Speaker(s), etc.)

ENERGIZE WEEKLY

When you sign up for "Energize Weekly" you will receive a new conference presentation each week via email on a relevant industry topic. The presentations are selected from a massive library of over 1000 current presentations that EUCI has gathered during its 22 years organizing conferences.

Sign me up for "Energize Weekly"

Name _____ Title _____

Name Preferred for Badge _____ E-Mail _____

Company _____ Telephone _____

Address _____ City _____ State _____ Zip _____

PAYMENT METHOD

Please charge my credit card: Visa MC AMEX Discover Security Code _____

Visa and MC cards have a 3 digit code on the signature panel on the back of the card, following the account number. American Express cards have a 4 digit code on the front of the card, above the card number.

Name on Card _____ Signature _____

Account Number _____ Exp. Date _____

Card Holder Phone Number: _____

Billing Address _____ Billing Zip Code _____

Or enclosed is a check for \$ _____ to cover _____ persons.

Check here if you have any dietary or accessibility needs. We will contact you for more details.

W752