

ADMS & DERMS: *Successfully Assess, Procure, Implement and Operate These Critical Systems for the Utility of the Future*

April 27-28, 2017
The Westin Peachtree Plaza
Atlanta, GA

CASE STUDIES
INCLUDE

Georgia Power
Avangrid
Eversource
CenterPoint Energy
City of Chattanooga
Duke Energy

PRE-CONFERENCE WORKSHOP

**Advanced Distribution
Management Systems and
Distributed Energy Resource
Management Systems,
the Fundamentals, Past,
Present and Future**

WEDNESDAY, APRIL 26, 2017

SPONSORS



EUCI is authorized by IACET to offer 0.9 CEUs for this conference and 0.6 for the workshop

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 **OSI**

OVERVIEW

Distribution operators face a formidable challenge in the coming years. They need to keep the lights on, and increase reliability to suit a more demanding customer base. ADMS and DERMS offer technological solutions to integrate:

- Increasing penetration of distributed energy resources (DER), including distributed generation, distributed storage, demand response, and Microgrids
- New regulatory regimes
- Heightened physical and cyber security threats
- Aging utility infrastructure and workforce
- Potential and actual structural changes to the distribution business model

This conference is meant for utility distribution management practitioners who have identified the need for upgrading their distribution management systems, outage management systems, and manage the distributed resources coming their way.

The conference will provide useful and actionable information from a variety of utility case study presentations, a unique vendor panel, and presentations from the most advanced technology providers in the industry.

CASE STUDIES

Case studies are from these utilities implementing ADMS and DERMS technologies:

- Georgia Power
- Avangrid
- Eversource
- CenterPoint Energy
- City of Chattanooga
- Duke Energy

LEARNING OUTCOMES

- Address the fundamentals of Advanced Distribution Management Systems (ADMS), Distribution Management Systems (DMS) and provide a glossary of terminology specific to them
- Explain what a DMS and ADMS system is, how it functions, and their purpose within a utility
- Discover how one utility was able to create a business case, procure, implement and successfully operate an ADMS under extreme conditions of floods and substation malfunction
- Demonstrate how an ADMS is able to interact with multiple technologies within the Distribution Control Center achieving quantifiable costs savings, improving efficiency and providing better internal and external communications on system status
- Identify how a utility is responding to a new regulatory scheme by implementing an ADMS which will gain control over expected higher penetration of Distributed Energy Resources (DER) and be ready to be the utility of the future
- Assess how a municipal utility was able to save \$2 million per year by implementing Conservation Volt Reduction (Volt/VAR) while also improving system reliability
- Hear from five of the most qualified Vendors providing ADMS technology and guidance to assist a utility in making specific choices to procure, implement and make successful an ADMS
- Explore how a utility upgrading their DMS was able to improve emergency restoration both by reducing time to restore and by providing better estimated return to service which has demonstrably improved customer satisfaction and reduced cost via quicker restoration times
- Gain a background and better insight into DER interconnection and how DERMS technology will be developed, standardized and regulated for better control over higher penetration of DER
- Hear from a current utility who is going through a DERMS technology implementation

AGENDA

THURSDAY, APRIL 27, 2017

8:00 – 8:30 am **Registration and Continental Breakfast**

8:30 – 8:45 am **EUCI Safety and Agenda Overview**

8:45 – 9:00 am **Host Utility Welcome, Georgia Power**

9:00 – 9:30 am **Opening Remarks, Glossary of Terms and Intro to ADMS**

A presentation on industry trends including distributed energy resources, analytics, and grid edge devices and how they are driving ADMS and DERMS markets. This will highlight some of the freshest questions facing the industry today that are being addressed by the industry leading experts sharing their knowledge in this conference. And finally, it will define important terminology and concepts that will be used extensively during the conference.

Terry Nielsen, Senior Vice President, GridBright

Tom Servas, Senior Vice President, GridBright

9:30 – 10:30 am



CenterPoint Energy: An ADMS Procurement, Implementation and Trial by Flood and Fire Story

CenterPoint Energy procured an ADMS system and it was fully implemented in 2016 just as the flood of the century hit Houston last Spring. This case study will overview the entire process and provide up to the minute stats and the industry leading results of its use during an extreme stress periods, the flood plus the sudden loss of a 300 MW substation.

Getting Started

- The internal business case
- The RFF process and making procurement decisions
- Project startup

Implementation Phase

- Major tracks and phases of project
- Expected and unexpected challenges encountered
- Change management
- Risk Management
- Personnel and project management

Project Completion and Post Mortem

- Go-live
- Reaching a steady state
- The use of the new ADMS during the historic floods of 2016
- Present actual statistics from that flood, plus a loss of a 300 MW substation

Rick Morton, Operations Manager for Distribution Control, CenterPoint Energy

10:30 – 11:00 am

Networking Break



“EUCI does a great job bringing the experience of the industry to the classroom in a very interactive way. The presenters tell you the truth! You will be able to start and advance your project and inject benchmarks into your own utility to deliver great results”

SCADA/EMS Manager, Jamaica Public Service

AGENDA

THURSDAY, APRIL 27, 2017 (CONTINUED)

11:00 – 12:00 pm



Case Study: Georgia Power : Leveraging ADMS Technology to Manage the Distribution System

Georgia Power will present a case study of multiple technology initiatives that include ADMS functions in the distribution control center to more efficiently manage and respond to outages, improve reliability, improve operations efficiency and provide better information internal and external to the company. The case study will cover the objectives, implementation and results of the initiatives.

David Lyons, Distribution Support Manager, Georgia Power

12:00 – 1:00 pm

Group Luncheon

1:00 – 1:45 pm



Avangrid Responds to NY REV with a New Plan for ADMS

AVANGRID is developing an ADMS as part of its Distributed System Implementation Plan (DSIP) filed with the New York Public Utilities Commission in 2016 as part of the NY REV Program. The DSIPs contain each NY utility's roadmap for enabling vibrant distributed energy resource markets and for maximizing penetration of clean energy resources. A technology platform has been planned in order to achieve the planning, operating, and market enablement needs anticipated for the utility of the future. This presentation will review AVANGRID's ADMS within the context of their technology roadmap.

Brian Conroy, PE, Smart Grid, Avangrid

1:45 – 2:30 pm



Electric Power Board of Chattanooga: A DMS Use to Save Money

The presentation describes how EPB uses DMS applications to operate its electric system more effectively. Specific examples will include how Volt/VAR application helps EPB maintain a system Power factor at optimum level, how CVR saves EPB over \$2 million per year, and how fault locating is helping EPB to improve reliability for our customers. It will also describe some of the unique features of our interfaces to GIS, OMS and AMI that have enabled us to improve our operations. The session is meant to guide those upgrading or moving to a new system on how expansive a DMS can be not only in operations and reliability, but also the bottom line.

Jim Glass, Manager of Smart Grid Development, EPB Chattanooga

2:30 – 3:00 pm

Networking Break

3:00 – 5:00 pm

Vendor Presentations + Panel Discussion

Five of the most qualified companies will present on their ADMS and DERMS solutions and systems, each will have a 15 minute session including Q&A and then will sit on a Panel for questions from the attendees.

Moderator: Tom Servas, Senior Vice President, GridBright

Sally Jacquemin, ADMS Business Manager, Siemens

Tom Eyford, Principal Solution Architect, Operations Systems, Oracle

Hormoz Kazemzadeh, Vice President of Distribution and Smart Grid, OSI

Gary Ockwell, Chief Technical Officer, Advanced Control Systems

William Peterson, DMS Product Manager, ABB

5:00 – 6:00 pm

Networking Reception



"This conference was informative and highly useful for practicing ADMS professionals of all levels"

CEO, GridBright

AGENDA

FRIDAY, APRIL 28, 2017

8:00 – 8:30 am**Continental Breakfast****8:30 – 8:45 am****Welcome and Review of Previous Day****8:45 – 9:30 am****DMS Upgrades Improve Eversource Energy's Reliability & Restoration**

Eversource upgraded and enhanced their network management system (NMS) to integrate new damage assessment (DA) functionality to streamline restoration processes, improve reliability, and drive up customer satisfaction by providing more accurate and timely estimated restoration times based upon actual field conditions. This presentation will demonstrate how this new system works and how Eversource plans to expand in the future. Eversource will demonstrate how they are able to quickly and more accurately estimate the amount of damage, identify devices that need to be operated in a model, and get high level estimated times to repair. Any utility looking to upgrade or gain a new ADMS will need to know how the system will benefit not only reliability, but return to service.

Ken Brajczewski, IT Business Solutions Analyst, Eversource Energy

9:30 – 10:15 am**Impact of DER on Utility Distribution Systems, a DERMS Background**

Decades ago, interconnection rules for distributed energy resources (DER) on utility distribution systems were designed based on a vertically integrated utility with central generation providing power on radial distribution systems with very little expectation of large numbers of DER being deployed. Today with regulatory renewable energy goals, more economical solar PV DER, and rising utility rates, there has been a rapid growth in PV deployment causing various technical and financial challenges for utilities. Although smart inverters are being developed to address some of the issues, they present new challenges for utilities. This presentation will discuss the challenges with higher penetration PV, inverter standards trends, why ADMS and DERMS are being considered, and potential new utility business models around transactive energy.

John Barnick, Industry Solutions Executive, ABB

10:15 – 10:30 am**Morning Break****10:30 – 11:15 am****Duke Energy Carolinas: DERMS Technology R&D and Implementation**

Duke Energy Carolinas is leading the way on low voltage DER integration and has begun a DERMS system development and implementation. Learn how to evaluate distributed energy resources to expose the key data points needed to transform them from problematic uncertainties into tools for grid stabilization via integration into DERMS.

Sacha Fontaine, Smart Grid Manager, Duke Energy, Director, Siemens Utilities

11:15 am – 12:00 pm**Utility Panel Discussion and Q&A**

The assembled Utility Presenters will wrap up the conference via a review of the content of the conference plus specific questions offered and an audience Q&A to answer final questions.

Moderator: Terry Nielsen, Senior Vice President, GridBright

Ken Brajczewski, IT Business Solutions Analyst, Eversource Energy

David Lyons, Distribution Support Manager, Georgia Power

Brian Conroy, PE, Smart Grid, Avangrid

Jim Glass, Manager of Smart Grid Development, EPB Chattanooga

12:00 pm**Conference Wrap-up and Adjournment**

PRE-CONFERENCE WORKSHOP

ADMS and DERMS, the Fundamentals, Past, Present and Future

WEDNESDAY, APRIL 26, 2017

LEARNING OUTCOMES

- Discuss industry trends driving ADMS and DERMS
- Identify key questions being answered by industry leaders today
- Explain key terminology used throughout the industry

AGENDA

8:00 – 8:30 am

Registration and Continental Breakfast

8:30 am – 12:00 pm

ADMS Fundamentals

1. ADMS Fundamentals
2. ADMS Modular Architecture
3. DMS Functions
 - a. Switching Management
 - b. Permits, Clearances, and Tags
 - c. Suggested Switching
 - d. Operator's Power Flow
 - e. Load Modeling
 - f. Distribution State Estimation
 - g. Volt-VAR Optimization
 - h. Conservation Voltage Reduction
 - i. Demand Management
 - j. Fault Locating and Restoration (FLISR)
 - k. Impacts of Distributed Resources and Renewables

12:00 – 1:00 pm

Group Luncheon

WEDNESDAY, APRIL 26, 2017 (CONTINUED)

1:00 – 4:00 pm

DERMS Fundamentals

1. DERMS Solution Categories
 - a. Centralized vs Decentralized
 - b. Network Aware
 - c. MW vs MW/MVAR
 - d. Steady State vs Dynamic
 - e. ADMS Embedded vs DMS Supplements
 - f. Hosted vs License Solutions
 - g. DERMS Commercial Product Offerings
 - h. Communication Protocols
 - i. Solution Fit for Various Utility Types

WORKSHOP INSTRUCTOR



Terry Nielsen

Senior Vice President, GridBright

Terry Nielsen is a world class consultant specializing in power industry network management systems (NMS). He has served over 50 electric utilities in 5 continents, improving their distribution network management and emergency response. He has served on the DistribuTECH Advisory Board since 2001.

He is active in the IEEE reliability working group, IEC CIM standard, the NRECA MultiSpeak specific, and NERC Electricity Sector Information Sharing Task Force. As a Senior Vice President of GridBright, Terry has the overall responsibility for service deliver to the company's clients. Prior to GridBright he held senior management roles at UISOL (now a GE Grid Solutions Company), CES International, SPL Worldgroup, Oracle, and Alstom (now GE Grid Solutions).



“Great seminar, especially the Utility Presenters”

Director, ACS Power



“The Vendors were very knowledgeable in their trade, nice job! Excellent in answering questions”

Operations Manager, City of Burbank



“Hearing from the Vendors and the Peer presentations were extremely useful”

Manager, DTE

INSTRUCTIONAL METHODS

Case Studies, Panel Discussions and PowerPoint presentations

REQUIREMENTS FOR SUCCESSFUL COMPLETION

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

IACET CREDITS



EUCI has been accredited as an Authorized Provider by the International Association for Continuing Education and Training (IACET). In obtaining this accreditation, EUCI has demonstrated that it complies with the ANSI/IACET Standard which is recognized internationally as a standard of good practice. As a result of their Authorized Provider status, EUCI is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standard.

EUCI is authorized by IACET to offer 0.9 CEUs for this conference and 0.6 for the workshop.

REGISTER 3, SEND THE 4TH FREE

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

EVENT LOCATION

A room block has been reserved at the The Westin Peachtree Plaza, 210 Peachtree Street Northwest, Atlanta, GA 30303, for the nights of April 25-27, 2017. Room rates are \$179 plus applicable tax. Call **1-800-937-8461** for reservations and mention the EUCI event to get the group rate. The cutoff date to receive the group rate is March 24, 2017 but as there are a limited number of rooms available at this rate, the room block may close sooner. ***Please make your reservations early.***

REGISTRATION
to register [CLICK HERE](#) or

Call: 201 871 0474
fax: 253 663 7224
email: register@pmaconference.com
web: <http://pmaconference.com/>
Mail: POB 2303 Falls Church Va 22042

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web: <http://pmaconference.com/>
Mail: POB 2303 Falls Church Va 22042

Please make checks payable to: "PMA"

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PLEASE SELECT

- ADMS & DERMS CONFERENCE AND WORKSHOP:**
 APRIL 26-28, 2017: US \$2195
 EARLY BIRD on or before APRIL 7, 2017: US \$1995

- ADMS & DERMS CONFERENCE ONLY:**
 APRIL 27-28, 2017: US \$1395
 EARLY BIRD on or before APRIL 7, 2017: US \$1195

- PRE-CONFERENCE WORKSHOP ONLY:**
 WEDNESDAY, APRIL 26, 2017: US \$995
 EARLY BIRD on or before APRIL 7, 2017: US \$895

- I'M SORRY I CANNOT ATTEND, BUT PLEASE EMAIL ME A LINK TO THE CONFERENCE PROCEEDINGS FOR US \$395**

How did you hear about this event? (direct e-mail, colleague, speaker(s), etc.)

Print Name Job Title

Company

What name do you prefer on your name badge?

Address

City State/Province Zip/Postal Code Country

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List any dietary or accessibility needs here

CREDIT CARD INFORMATION

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Billing Address Billing City Billing State

Billing Zip Code/Postal Code Exp. Date Security Code (last 3 digits on the back of Visa and MC or 4 digits on front of amEx)

OR Enclosed is a check for \$ _____ to cover _____ registrations.

Substitutions & Cancellations

Your registration may be transferred to a member of your organization up to 24 hours in advance of the event. Cancellations must be received on or before March 24, 2017 in order to be refunded and will be subject to a US \$195.00 processing fee per registrant. No refunds will be made after this date. Cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other EUCI event. This credit will be good for six months from the cancellation date. In the event of non-attendance, all registration fees will be forfeited. In case of conference cancellation, EUCI's liability is limited to refund of the event registration fee only. For more information regarding administrative policies, such as complaints and refunds, please contact our offices at (201) 871-0474.