



Discover Together

Engineering & Operations Technical Conference

April 29 - May 2, 2018

Raleigh Convention Center • Raleigh, North Carolina

**BEST PRACTICES, CASE STUDIES & TRENDS
PLUS PROFESSIONAL EDUCATION CREDITS**

- Communications & Control
- Environmental Issues
- Generation & Fuels
- Safety
- Supply Management
- System Planning
- Transmission & Distribution



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Real life. Real people. Real issues.

"Thank you APPA for telling it like it is."

Kevin Gaden, President & CEO,
Illinois Municipal Electric Agency

Find Your Community

Join more than 400 public power professionals at the American Public Power Association's Engineering & Operations Technical Conference. You'll have plenty of opportunities to compare notes, discover best practices, and learn from case studies.

Network with other utility professionals — both veterans and those new to the electric industry — and share experiences and strategies. Join us to discover new trends, technologies, and resources to improve your utility's performance in:

- Communications & Control
- Environmental Issues
- Generation & Fuels
- Safety
- Supply Management
- System Planning
- Transmission & Distribution



Discover Together

Visit www.PublicPower.org/EandO
for event updates and to register.

Conference Mentor Program

Need help navigating the conference as a first-timer? Want someone to exchange notes with because you're the only one from your organization attending? Eager to share your knowledge and experience as a long-time conference attendee?

The conference mentor program pairs up new attendees with seasoned conference-goers. You'll meet at the Welcome Reception and stay in touch throughout the conference.

Ask for a mentor or volunteer to serve as one — check the box when you register, email EducationInfo@PublicPower.org, or call 202-467-2976 by April 20 to participate.

Co-Host

*A special thank you to our conference
co-host, ElectriCities of North Carolina, Inc.*



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As of January 22, 2018

Thank you to our sponsors for the generous financial support to create the best experience for attendees.

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The American Public Power Association is the voice of not-for-profit, community-owned utilities that power 2,000 towns and cities nationwide. We represent public power before the federal government to protect the interests of the more than 49 million people that public power utilities serve, and the 93,000 people they employ. Our association advocates and advises on electricity policy, technology, trends, training, and operations. Our members strengthen their communities by providing superior service, engaging citizens, and instilling pride in community-owned power.















The Academy is public power's complete resource for professional education and certification, helping electric industry employees stay abreast of rapidly evolving technologies, regulation, and customer needs. Learn more about our conferences, webinars, special events, continuing education, and custom in-house trainings at www.PublicPower.org/Academy.

Gaining insights. Developing relationships.

"The Engineering & Operations Technical Conference allows us to build relationships with peers from public power utilities across the country — professionals we rely on for assistance during natural disasters. Our employees gain insights into new technologies and trends and network with other professionals for best practices. We get to develop relationships with industry partners."

Jim Ferrell, President/CEO, Jackson Energy Authority, Tennessee

Breakout Sessions at a Glance

Monday, April 30		8:45 - 10 a.m.	10:30 a.m. – Noon
<div></div> <div>All Tracks</div>	Opening General Session: Association Board Chair & CEO Address		
<div></div> <div>Communications & Control</div>		Security Holes: The Red Team Approach	
<div></div> <div>Safety</div>		Safety Training: Building a New Culture	
<div></div> <div>Supply Management</div>		Supply Management Opening Roundtable	
<div></div> <div>Environmental Generation & Fuels</div>		Legislative and Regulatory Overview	
<div></div> <div>System Planning Transmission & Distribution</div>		How “High” is Your Load?	
Tuesday, May 1		8:30 – 9:45 a.m.	10:45 a.m. – Noon
<div></div> <div>All Tracks</div>			
<div></div> <div>Communications & Control</div>	Assessing Your OT Governance	Field Work: Go Mobile to Go Forward	
<div></div> <div>Safety</div>	Arc Flash Studies: A Modern Approach	Cover Up! Proper Use of Protective Equipment	
<div></div> <div>Supply Management</div>	Contract with Care: Avoid Collusion and Fraud	I Need It Now! Extreme Procurement	
<div></div> <div>Environmental Generation & Fuels</div>	An Island in a Sea of Black: How Microgrids Build Resiliency	Fast and Furious: Electric Vehicles	
<div></div> <div>System Planning Transmission & Distribution</div>	Small Wireless Devices; Rules of Deployment	Substation Maintenance Best Practices	
Wednesday, May 2		8:30 – 10 a.m.	
	New Connections: Communications & Control Roundtable Customer Service vs. Employee Safety: Safety Roundtable Supply Management Closing Roundtable Knights of the Environmental Roundtable Shared Solutions: T&D/System Planning Roundtable		

Visit www.PublicPower.org/EandO for updates and to register.

1:30 – 3 p.m.		3:15 – 4:30 p.m.			
All Hands On Deck: Why You Should Participate in GridEx					
Which Way Are You Going? Mapping for Automation		To Cloud or Not to Cloud			
Best Practices in Emergency Communications		If You Can't Measure It, You Can't Improve It			
I Made My Power Plant Disappear!		Cry for Help BEFORE Disaster Strikes			
		What's Hot in Solar Technology			
Unlock Your Defenses: Physical Security Technologies		Make it Now, Use it Later			
1:30 – 2:45 p.m.		3 – 4:15 p.m.		4:30 – 5:30 p.m.	
		Joint Action Agency/State and Regional Association Roundtable		Association Operations and Reliability Power Hour	
Interconnecting Distributed Generation to the Grid		Using AMI Data to Engage Customers			
No Disasters in a Disaster: Keeping Mutual Aid Safe		Back Off from Backfeeding			
The High-Tech Warehouse: Track Your Success		Buried Alive! Stop Hoarding in Your Warehouse			
Portfolio Planning for the Utility of the Future		Winter is Coming: Climate Resiliency and Protecting Your Assets			
Flying High on Benefits with Drones					
10:30 - 11:45 a.m.					
Closing General Session: Dedication, Pride and Commitment: Leadership Lessons from Black Hawk Down					

CONFERENCE AGENDA

Sunday April 29

8 a.m. – 6:30 p.m.	Registration Open
8:30 a.m. – 5 p.m.	Preconference Seminars (four courses)
9 a.m. – 4:30 p.m.	RP3 Review Panel Meeting

PRECONFERENCE SEMINARS

Preconference seminars offer longer class times, smaller class sizes, interactive formats, and experienced instructors. Dive deep into these hot topics to maximize your conference experience.

Separate registration and fee required.

8:30 a.m. – Noon

How to Connect Distributed Energy Resources to Transmission and Distribution

Recommended CEUs .3 / PDHs 3.25 / CPEs 3.8, Specialized Knowledge

Examine challenges and best practices in integrating distributed energy resources with transmission and distribution systems. Review NERC regulatory guidelines and IEEE 1547 standards for utility practices and policies. Explore energy storage, electric vehicles, microgrids, and other technologies and how they can be used to increase resiliency. Discuss cyber, technical, financial, and other issues associated with connecting DER systems to the grid. Analyze, mitigate, and troubleshoot issues by working through a case study on a distribution interconnected solar project with transmission and distribution impact.

Humberto Branco, PE • Senior Transmission Planning Engineer;
Sridhar Chouhan, PE • Senior Power Systems Engineer, Transmission Planning; and **Cory Schaeffer** • Senior Consultant – Conventional and Emerging Technologies, Leidos

8:30 a.m. – Noon

Engage and Empower for Excellence in Safety

Recommended CEUs .3 / PDHs 3.25 / CPEs 3.8, Specialized Knowledge

If utility leaders want to develop a world-class safety system, you must empower employees to identify and develop solutions for the hazards they know best. How can you encourage your crews to communicate the realities experienced in the field, give them the authority to improve processes, and build accountability into their jobs so they can influence safety in a positive way? Learn how near-miss reporting and accident investigation can be effective tools for employees to build trust with managers and supervisors.

Kevin Ellison, MBA, SSBB • Senior Customer Safety Consultant, Caterpillar, Inc.

1:30 – 5 p.m.

AMI: What to Know Before You Shop

Recommended CEUs .3 / PDHs 3.25 / CPEs 3.8, Specialized Knowledge

How do you choose the best AMI vendor from a crowded marketplace? Examine case studies and best practices in AMI procurement and deployment, learn how to prepare your RFPs, and benefit from an unbiased perspective on vendor differences. Review the data throughput; network latency situation; common wireless AMI transport design must-haves; outage reporting and restoration; theft and water leak alerts; metering; and integration approaches with CIS, MDM, OMS, SCADA and other systems. Hear key use cases on remote disconnect/reconnect, meter interval reporting, network administration tools, web presentment, and more. Learn about emerging field area network backhaul applications of distribution automation, street light control, DER, home automation, load management, emerging trends for IoT, and other programs.

Rick Schmidt • Director of Grid Modernization, Black and Veatch

1:30 – 5 p.m.

Be Prepared: Complete Guide to Disaster Planning and Response

Recommended CEUs .3 / PDHs 3.25 / CPEs 3.8, Specialized Knowledge

2017 brought four major back-to-back hurricanes — Harvey, Irma, Maria, and Jose. Clearly, natural disasters are increasing in frequency and severity, while customer tolerance for outages is declining. No utility, regardless of its location, can afford to remain unprepared. Join the authors and experts for an in-depth look at the new public power storm restoration guide. Share lessons learned and identify best practices in power restoration. Explore the full range of issues involved in disaster response and recovery — emergency planning, mitigation and preparedness, maintenance and engineering, damage assessment, crew staging and deployment, and the scalability of outage management systems. Learn how to estimate when power can be restored and how to communicate with customers and other stakeholders in emergencies. Understand how best you can mobilize mutual aid to supplement your restoration efforts.

Charlie Fisher • Senior Managing Director, Witt O'Brien's, Houston, Texas and Anthony Hurley • Director, Utility Practice, Witt O'Brien's

5 – 6:30 p.m.

Welcome Reception

Enjoy hors d'oeuvres and drinks while you reconnect with old friends and meet new people. Pick up your badge and conference materials at the registration desk.

Monday April 30

7 a.m. – 6 p.m. Registration Open

7:30 – 8:30 a.m.

Opening Breakfast

Join fellow participants for a networking and awards event, and to learn more about the Association's research and innovation program— Demonstration of Energy & Efficiency Developments (DEED).

Awards Presentation

Recipients of the following American Public Power Association awards and honors will be recognized

- Reliable Public Power Provider (RP3) designation
- Safety Awards of Excellence
- 2018 DEED Award of Continued Excellence

8:45 – 10 a.m.

Opening General Session

Recommended CEUs .1 / PDHs 1.25 / CPEs 1.5

Powering Strong Communities

As public power utilities adapt to changing business models and incorporate new technologies, it is important not to lose sight of our reason for being — the communities we serve. Public power utilities do not simply cater to ratepayers or manage load, we interact with people who want choices and outstanding service. From prioritizing customer education to bolstering strong operational, financial, and human resources — hear what part you play in ensuring the industry is community and customer focused. Learn how public power is applying the principles of community service in the Navajo Nation, to light up 18,000 homes that have never had electricity.

Wally Haase • Chair, American Public Power Association, and General Manager, Navajo Tribal Utility Authority, Fort Defiance, Arizona



Wally Haase

Countering Change with Change: The New Normal

We continue to see new ways of living and using electricity. Even as we grapple with flat and declining load growth, electricity consumption is going up with new uses such as transportation and heating. We're seeing a more decentralized approach to generation. Cybersecurity threats are looming large and no utility, large or small, is immune. The need for resiliency planning and creating a more efficient mutual aid network, in light of recent severe weather events, is greater than ever. Public power utilities are well-positioned to be nimble in the face of change but we need to capitalize on our strengths. We can no longer stay in our comfort zone on our side of the meter — we must diversify the menu, handle increased distributed generation, build resilience, adapt to changing loads, and serve as trusted energy advisors.

Sue Kelly • *President & CEO, American Public Power Association*



Sue Kelly

10 – 10:30 a.m.

Break

RP3 and Safety Award honoree photos

Key to Sessions



Communications
& Control



Environmental



Generation
& Fuels



Safety



Supply
Management



System
Planning



Transmission
& Distribution

10:30 a.m. – Noon

Breakout Sessions

Recommended CEUs .2 / PDHs 1.5 / CPEs 1.8



Security Holes: The Red Team Approach

A red team is an independent group that challenges an organization to improve its effectiveness by assuming an adversarial point of view. It helps to challenge fixed ways of approaching problems. Learn how a red team finds holes in cyber and physical security at a utility and how the utility benefits.

Jeremiah Talamantes • *President, CISSP, CCISO, CEH, CCENT, RedTeam Security Consulting, St. Paul, Minnesota and a public power utility case study*

All roundtable discussions are limited to employees of public power utilities, state and regional associations, and joint action agencies.

Have topics you'd like to discuss at any roundtable?
Email EandO@PublicPower.org before the conference.



Safety Training: Building a New Culture

Does your utility foster a culture of safety? Are staff at every level familiar with the continuous improvement process? Get proven formulas to prevent incidents through proactive, measurable tasks that integrate safety into every part of your utility's operations.

Kevin Ellison, MBA, SSBB • Senior Customer Safety Consultant, Caterpillar, Inc.



Supply Management Opening Roundtable

Join this roundtable to network with colleagues, hear about current projects and challenges, and discuss supply management topics of mutual interest.



Legislative and Regulatory Overview

Start the conference right by joining us for an in-depth discussion on the current regulatory climate. We will discuss key rulemakings and legislation that impacts utilities from an environmental and generation standpoint.



Kevin Culligan • Associate Division Director, Sector Policies and Programs, U.S. Environmental Protection Agency, Washington, D.C.




How “High” is Your Load?

Legal indoor cannabis growers are moving into buildings that historically used 1-10 watts per square foot and increasing loads to 60-80 watts per square foot. Learn how one utility is working with growers to manage the load growth while reducing demand from lighting, controls, air conditioning and humidity management.



Jim Parks • Director, Energy Research & Development, Sacramento Municipal Utility District, California



1:30 – 4 p.m.

Expo Preview Hours

Get a sneak peak at the Expo and start meeting the electric industry suppliers showcasing the products and services your utility needs year-round.

Noon – 1:30 p.m.

Lunch on Your Own

1:30 – 3 p.m.

Breakout Sessions

Recommended CEUs .2 / PDHs 1.5/ CPEs 1.8



Which Way Are You Going? Mapping for Automation

Is your GIS mapping able to support advanced programs? How do you determine if it is ready? Explore different levels of readiness and discuss the challenges one utility faced in gearing up for new technologies.

Jim Weikert • Lead Utility Automation Engineer, Power Systems Engineering, Madison, Wisconsin



Best Practices in Emergency Communications

Why and how should utility employees communicate with local emergency responders? Discover how to help first responders and utility workers educate and communicate with each other during disasters. Learn what emergency responders need to know and how to encourage clear communication among involved groups.

Dan Llewellyn • Electric Services Coordinator, Iowa Association of Municipal Utilities, Ankeny, Iowa



I Made My Power Plant Disappear!



Aging coal power plants are shutting down. Legacy environmental contamination is a reality for many shuttered plants and environmental conditions often prevent sites from being sold or redeveloped. Hear lessons learned from applying the Liability Risk Transfer Model for the divestiture of a 1950s era 38MW coal-fired power plant. Additionally, you will get a chance to see how some utilities – who were able to redevelop – managed to repurpose the plants for their communities.

Eric Holder • Environmental Programs Supervisor, Independence Power & Light, Missouri; **Richard Jackson, PE** • Manager, Capital Projects, Santee Cooper, Moncks Corner, South Carolina; **Steve Mitchell** • Senior Vice President, Weston Solutions, Inc., Albuquerque, New Mexico; and **Mark Rothmier** • Utility Project Development Manager, Independence Power & Light, Missouri



Unlock Your Defenses: Physical Security Technologies



Physical threats to the grid are on the rise and your utility is not immune. You need to put a physical security program in place to protect your critical assets. Dive into a case study of one utility that installed technologies to monitor and report incidents. Get a refresher on security best practices and pitfalls to avoid.

Dale Harris • Regional Manager, Netwatch USA, Newton, Massachusetts; and **Anthony Hurley** • Associate Managing Director, Witt O'Brien's, Washington, D.C.



All Hands On Deck: Why You Should Participate in GridEx

GridEx is a biennial exercise designed to simulate a cyber/physical attack on electric and other critical infrastructures across North America. Learn what GridEx is all about and why utilities of all sizes should participate. Hear how one utility planned and executed the exercise, feedback they received, lessons learned, and areas for improvement.

Eric Ruskamp • Standards and Compliance Program Manager, Lincoln Electric System, Nebraska

3 – 3:15 p.m.

Break

3:15 – 4:30 p.m.

Breakout Sessions

Recommended CEUs .1 / PDHs 1.25 / CPEs 1.5



To Cloud or Not to Cloud

Hosted software solutions are becoming the norm. What options does your utility have? And what are the pros and cons of cloud-based software? Join a comprehensive discussion and get the utility as well as vendor perspectives.

Steve Collier • Director of Smart Grid Strategies, Milsoft Utility Solutions, Abilene, Texas



If You Can't Measure It, You Can't Improve It

Are you tracking safety incidents? The more you understand and analyze what occurs at your utility, the easier it will be to create a safer environment for your workers and customers. Learn how to better track your utility's safety related events and examine current safety trends through a sneak peek of the Association's new safety video series. Safety insights are brought to you in part by the Association's DEED research and development program and engineering team.

Alex Hofmann • Director, Energy and Environmental Services, American Public Power Association; and **Mike Willetts** • Director of Training & Safety, Minnesota Municipal Utilities Association, Plymouth, Minnesota



Cry for Help BEFORE Disaster Strikes

Disaster can strike with little or no notice. Are you prepared? Do you have a comprehensive plan? Hear best practices and lessons in disaster response and recovery from the record-breaking 2017 hurricane season. Understand how best you can mobilize mutual aid to supplement your crews and materials.

Brian Edwards • Executive Vice President/Chief of Law Enforcement and Lake Operations, Grand River Dam Authority, Langley, Oklahoma



What's Hot in Solar Technology

Over the past decade, the industry has changed drastically and technologies have come and gone. Unlike many others, solar technologies have made a new home in the electric utility industry. As customers continue to look towards these new technologies and utilities begin to embrace the challenge of renewable integration, the options in the market continue to increase. Join us to hear about new solar technologies and how your peers are using them..

JoDonna John • Renewable Engineer, Navajo Tribal Utility Authority, Fort Defiance, Arizona; and **James Whittemore** • Quality Manager, Mission Solar Energy, LLC, San Antonio, Texas





Make it Now, Use it Later

Battery storage is critical to our energy future. Have you considered your utility-scale storage options? Where do you start? What are the pros and cons? Explore the answers with other utilities that have walked the path and get the latest on lithium ion battery manufacturing and pricing.



***Joel Danforth** • Customer Service Program Manager, Platte River Power Authority, Fort Collins, Colorado; and **Jules Marchesseault** • Engineering and Operations Manager, Lodi Electric Utility, California*

4:30 – 6:30 p.m.

Expo Opening Reception

Enjoy some down time with colleagues. Unwind over drinks and network with public power colleagues. Connect with industry suppliers, vendors, and consultants and discover how their products and services can help your organization succeed.

Photo Op

All award winners can have their pictures taken at this time.

Tuesday May 1

7 a.m. – 4:30 p.m. Registration Open

7 – 8:15 a.m.

Women in Public Power Panel and Networking Breakfast

Grab your continental breakfast and get to know some of your fellow attendees. Enjoy a lively discussion about the growing influence of women in public power and share successes and solutions.

7:30 – 8:30 a.m.

Networking Continental Breakfast

Power up with coffee and connections at this informal breakfast.

There are no speakers or moderators — just visit with your peers and chat with sponsors.

8:30 – 9:45 a.m.

Breakout Sessions

Recommended CEUs .1 / PDHs 1.25 / CPEs 1.5



Assessing Your OT Governance

As operational technology gets more complex, so does its governance. Hear from a public power utility that recently conducted an OT governance assessment. Discuss key findings, recommendations, and lessons learned.

Wayne Lynn • Director of T&D, Lansing Board of Water & Light, Michigan; and a representative from Acumen Engineered Solutions International, Inc. (AESI)



Arc Flash Studies: A Modern Approach

Modern methods of performing and presenting arc flash studies can improve data collection, efficiency, quality control, and presentation of study results. Review lessons learned from several distribution and generating facility arc flash projects that have used these modern methods. Each method will be presented along with specific takeaways for those planning their next arc flash study.

Jeffery Burgess • Project Engineer, and Tyler Patton • Project Manager, Leidos, Hendersonville, Tennessee



Contract with Care: Avoid Collusion and Fraud

Get an overview of the Antitrust Division's enforcement operations and the crimes that it prosecutes criminally. Learn how to identify bid rigging and market allocation schemes in government contracting. Understand how procurement official can detect, deter, and prevent, such collusion.

Heather Diefenbach • Trial Attorney, U.S. Department of Justice, Antitrust Division, Washington, D.C.



An Island in a Sea of Black: How Microgrids Build Resiliency



Microgrids are an important part of the conversation on grid resilience. Having the ability to disconnect from the grid and operate independently — especially in the event of emergencies — can benefit your utility and customers and keep essential services like hospitals powered. Explore how utilities are implementing microgrids in their communities.

Eric Walters • Administrative and Fuels Operations Director, Gainesville Regional Utilities, Florida



Small Wireless Devices: Rules of Deployment



Learn about proposed state laws on rules for the deployment of small wireless devices. Hear about potential health effects associated with these installations. Understand the requirements and plan for mandated public notification and signage.

David Barnes • Chief Legal & Ethics Officer, ElectriCities of North Carolina, Raleigh; and Gerry Spinelli • North America Instrument Sales Manager, Narda Safety Test Solutions, Hauppauge, New York

9:45 – 10:45 a.m.

Vendor Expo & Refreshment Break

Top industry event

“Whether networking, learning about new topics and products, or just sharing ideas, the E&O is always a top industry event.”

Paul Wienecke, Warehouse Manager, Clark Public Utilities

10:45 a.m. – Noon

Breakout Sessions

Recommended CEUs .1 / PDHs 1.25 / CPEs 1.5



Field Work: Go Mobile to Go Forward

Mobile technologies are enabling public power utilities and city officials to automate and optimize any field work activity. Learn how these technology breakthroughs are improving efficiencies, safety, reliability, and response times. Consider how your utility can go mobile.

Speakers: To be announced



Cover Up! Proper Use of Protective Equipment

Creating a culture of safety is one of the most valuable assets a utility can have, both to ensure that employees are safe and to promote reliable service. Come join this practical refresher course on rubber protective equipment and proper installation. Learn how to keep your crews up to speed with changes in the public power Safety Manual and strengthen your culture of safety.

Kim Culpepper • Technical Education Manager, Tennessee Valley Public Power Association, Inc., Chattanooga



I Need It Now! Extreme Procurement

Join us for everything you may or may not want to know about procurement. Have questions ready for this informal Q&A panel of procurement managers. Topics include best practices, terms and conditions, p-cards, contracts, bids, RFP vs. RFQ, automated procurement, and more.

Todd Dlouhy • Manager, Procurement & Stores, Lincoln Electric System, Nebraska; and Russ Pankey • Procurement Manager, City of Independence, Missouri



Fast and Furious: Electric Vehicles

The invasion of electric vehicles into the market is fast and furious. Is your utility ready to handle the new loads from transportation? Learn about the challenges and benefits other utilities have experienced while incorporating electric vehicle charging stations and infrastructure in their communities.



Troy Adams, PE • General Manager, Elk River Municipal Utilities, Minnesota; and Karl Popham • Manager, Electric Vehicles & Emerging Technologies, Austin Energy, Texas



Substation Maintenance Best Practices



Old and new oil-filled power transformers lack access to install online oil monitors. Learn how a replacement Transformer Radiator Docking System for Online Monitoring solves numerous problems with a safe, flexible design and enables an industry-first, continuous oil quality online approach to track moisture effects on oil and paper.

Roger Fenton • Principal Engineer, Fenton Solutions, LLC, Upland, California

Noon – 1:30 p.m.

Lunch on your own

1:30 – 2:45 p.m.

Breakout Sessions

Recommended CEUs .1 / PDHs 1.25 / CPEs 1.5



Interconnecting Distributed Generation to the Grid

As generation becomes more decentralized, utilities must contend with how to connect distributed generation arrays back to the grid. A public power utility will discuss how it interconnected 45 MW of distributed generation to a substation and the challenges and solutions along the way.

Joe Adams • Planning and Engineering Director, Shakopee Public Utilities, Minnesota; and Kevin Favero • Senior Project Manager, Leidos, Bloomington, Minnesota



No Disasters in a Disaster: Keeping Mutual Aid Safe

Mutual aid — neighbors helping neighbors across the country — is vital to restoring power after a significant disaster. However, injuries and fatalities may occur when workers from outside are unfamiliar with the terrain or infrastructure and are not appropriately briefed. Learn how public power utilities perform job safety briefings for mutual aid crews. Review lessons learned from recent disasters.

Jon Beasley • Director, Training and Safety, Electric Cities of Georgia, Atlanta, Georgia; Neil James • Manager, Distribution Operations, Santee Cooper, Moncks Corner, S.C.; and Mike Willetts • Director of Training & Safety, Minnesota Municipal Utilities Association, Plymouth, Minnesota



The High-Tech Warehouse: Track Your Success

How do you manage the lifecycle of materials? Explore how one utility is using Cityworks Storeroom to track all activity from purchasing to retirement. The software can help you buy, receive, and issue materials to an employee or work order; manage multiple warehouses and vehicle inventories; use barcode scanners; audit adjustments; track suppliers; establish minimum and maximum limits; and set up costing options at the item level.

Emily Brazeal • Systems Program Coordinator, Independence Power & Light, Missouri; and Mark Rytilahti • Senior Consultant, POWER Engineers, Green Bay, Wisconsin



Portfolio Planning for the Utility of the Future

What will your energy resource portfolio look like two, five, or ten years from now? What factors should drive your strategic decisions?



Get insights from utilities like yours that have made changes to their portfolio due to market forces, pricing/hedging, customer demands, and other factors.

***Erika Bierschbach** • Interim Director, Energy & Market Operations, Austin Energy, Texas; and **Brad Decker** • Strategic Planning Manager, Platte River Power Authority, Fort Collins, Colorado*



Flying High on Benefits with Drones

Utilities are exploring the possible uses of drones on transmission and distribution systems. Hear from a utility that has purchased several drones for use in its transmission operations, with plans to buy more in the coming year. Review FAA regulations, platforms, capabilities, and adaptations of this emerging technology and the benefits of using drones at a public power utility.



***Speakers:** To be announced*

2:45 – 3 p.m.

Break

3 – 4:15 p.m.

Breakout Sessions

Recommended CEUs .1 / PDHs 1.25 / CPEs 1.5



Using AMI Data to Engage Customers

How do you take the data from your AMI system to the next level for enhanced customer service? Learn how Bolivar Energy Authority has deployed innovative customer engagement programs.

Steve Herriman** • Purchasing & IT Manager, Bolivar Energy Authority, Tennessee; and a representative from **Honeywell



Back Off from Backfeeding

The expansion of new energy sources, from large scale solar generation to small wind turbines, are introducing new safety challenges from backfeeding lines. Hear from safety experts on their experiences with new installations. Improve your awareness of the dangers of backfeeding, and learn how to respond.

***Jon Beasley** • Director, Training and Safety, Electric Cities of Georgia, Atlanta, Georgia; **Matt Hyatt** • Line Supervisor, Huntsville Utilities, Alabama; and **Bob Rumbaugh** • Manager of Technical Training, American Municipal Power, Inc., Columbus, Ohio*



Buried Alive! Stop Hoarding in Your Warehouse

Is your warehouse overstocked? Do you need to clean house? Review a checklist to assess your warehouse situation. Identify the types of inventory that are potentially surplus and the disposal tools available. Discuss best practices in warehouse operations such as asset tracking, safety and risk management, optimization, and improved inventory management.

Jeff Coleman • Manager of Purchasing and Material Management, New Braunfels Utilities, Texas; and Rebecca Murphy • National Manager, State Surplus Sales, GovDeals, Inc., Montgomery, Alabama



Winter is Coming: Climate Resiliency and Protecting Your Assets



Fires, storms, hurricanes, and other natural disasters are becoming all too frequent. Are your utility's systems built to withstand the pressures of natural disasters? Discover how other public power utilities are taking extreme weather events and environmental drivers into account when planning system upgrades and maintenance.



Sager Farraj • Manager of Distribution Planning and Reliability, Los Angeles Department of Water and Power, California; and Therese P. McAllister • Community Resilience Group Leader & Program Manager, National Institute of Standards and Technology, Gaithersburg, Maryland



Joint Action Agency/State and Regional Association Roundtable

Meet with your peers to discuss engineering and operations hot topics for joint action agencies and state and regional associations.

Learn from other utilities

"Attending the E&O is a great opportunity to network and learn from other utilities facing similar challenges."

Michelle Palmer, Vice President of Technical Services
American Municipal Power, Inc.

4:30 – 5:30 p.m.


Association Operations and Reliability Power Hour

Learn about proven resources—in the areas of safety, cyber/physical security, and reliability—from the American Public Power Association that have made the jobs of hundreds of engineering and operations staff easier over nearly eight decades. Join the Association's Reliability Team for an open discussion and overview of public power reliability benchmarking metrics. Discuss the latest reliability benchmarking data, share reliability stories, and help further the public power reliability discussion. Network with your peers over a drink (cash bar) during this informal and informative session.

Featuring American Public Power Association staff and member utility case studies.

6 p.m.

Young Professionals Happy Hour

A group of young professionals, including men and women of diverse backgrounds, are seated around a wooden table in a modern, dimly lit setting. They are engaged in conversation, with some looking at their phones and others looking towards each other. There are plates of food and glasses on the table. The atmosphere appears relaxed and social.

Meet up with other young professionals from public power utilities, affiliates, and partner organizations at a relaxing, fun, pay-your-own-way happy hour. Share a drink and discuss how to take on the future.

TUESDAY, MAY 1

Wednesday May 2

7:30 – 8:30 a.m.

Networking Continental Breakfast

Network with your peers at this informal breakfast. There are no speakers or moderators.

8:30 – 10 a.m.

Breakout Sessions

Recommended CEUs .2 / PDHs 1.5/ CPEs 1.8

Roundtable discussions are open only to employees of public power utilities, state and regional associations, and joint action agencies.



New Connections: Communications & Control Roundtable

Discuss system integration, IT/OT contracting, and the impact of distributed energy resources and storage, and more.



Customer Service vs. Employee Safety: Safety Roundtable

Share stories on managing the delicate balance of customer service and employee safety.



Supply Management Closing Roundtable

Discuss supply management issues with colleagues — hear about current projects and challenges, and review takeaways from your favorite conference sessions.



Knights of the Environmental Roundtable

Join us for a short presentation on integrated resource planning and a lively roundtable discussion on the most pressing issues utilities are facing in the environmental and generation realms.



Scott Benson • Manager, Resource & Transmission Planning, Lincoln Electric System, Nebraska



Shared Solutions: T&D/System Planning Roundtable

Join your peers in an open forum to discuss critical T&D and system planning issues impacting your utility.



10 – 10:30 a.m.

Break

10:30 – 11:45 a.m.

Dedication, Pride and Commitment: Leadership Lessons from Black Hawk Down

Recommended CEUs .1 / PDHs 1.25 / CPEs 1.5

As an Army Ranger deployed to Somalia in 1993, First Sergeant Matt Eversmann experienced the horrors of war when he and his fellow soldiers were trapped in a hostile district of Mogadishu and marked for death by an angry mob. His inspiring story of survival was immortalized in the epic film, "Black Hawk Down," which recounts the harrowing experience. Eversmann will discuss the human qualities essential to survive the terrors of war. He will explain the three attributes that brought him home alive — leadership, courage, and selfless service.

*First Sergeant Matt Eversmann (Ret.),
Decorated War Hero and Military Leader*



First Sergeant
Matt Eversmann

11:45 a.m.

Conference adjourns

Accreditation & Certification



Continuing Education Units

The American Public Power Association is accredited by the International Association for Continuing Education and Training (IACET) and is authorized to issue the IACET CEU.

Professional Development Hours

The Association's educational practices are consistent with the criteria for awarding Professional Development Hours (PDHs) as established by the National Council of Examiners for Engineering and Surveying (NCEES). Course eligibility and number of PDHs may vary by state.



Continuing Professional Education Credits

The American Public Power Association is registered with the National Association of State Boards of Accountancy (NASBA) as a sponsor of continuing professional education on the National Registry of CPE Sponsors. State boards of accountancy have final authority on the acceptance of individual courses for CPE credit. Complaints regarding registered sponsors may be addressed to the National Registry of CPE Sponsors, 150 Fourth Ave. N., Suite 700, Nashville, TN 37219-2417. Website: www.nasbaregistry.org.

Earn up to 15.9 CPE credit hours for attending the conference (not including the preconference seminars). All sessions are intermediate-level, group-live offerings with no prerequisites and no advance preparation required. Areas of study will be listed on the Verification of Attendance form. For more information regarding administrative policies, such as clarification of requirements, complaints, and refunds, contact EducationInfo@PublicPower.org.



Reliable Public Power Provider Designation

Participating in the Academy's conferences and seminars is an easy way to earn points toward the American Public Power Association's Reliable Public Power Provider (RP3) designation, which recognizes and rewards public power utilities that demonstrate proficiency in four important disciplines: reliability, safety, workforce development, and system improvement. For more information, visit www.PublicPower.org/RP3.

POSTCONFERENCE SEMINAR

DOE's Cyber Strike Workshop Thursday, May 3

9 a.m. – 5 p.m. • **FREE OF CHARGE**

Attendance is limited to 60 people on a first come, first serve basis.

No utility, large or small, is immune from a cyber attack. Here's your opportunity to enhance your cybersecurity preparedness.

Experience a simulated demonstration of a cyber-attack, drawing from elements of the December 2015 and 2016 Ukraine cyber incidents. Understand the operational implications of these incidents and then work through a series of exercises and labs, in teams, for hands-on, expert-led training.

Hands-on Exercise/Lab Modules

- Open Source Intelligence
- Controlling the Human Machine Interface
- Firmware Analysis
- Denial of Service Attacks
- Man in the Middle Attack
- Bypassing the HMI
- Defender Mitigations

This workshop is hosted by the U.S. Department of Energy's Office of Electricity Delivery and Energy Reliability (and sponsored by its Infrastructure Security and Energy Restoration Division) in collaboration with the Electricity Information Sharing and Analysis Center and Idaho National Laboratory. DOE will not provide regulatory or compliance expertise.



Registration

Sign up at www.PublicPower.org/EandO.

Instructors

- Michael Assante
Under contract to DOE under Idaho National Laboratory
- Tim Conway
Under contract to DOE under Idaho National Laboratory

Who Should Attend

It's recommended that utilities send one cybersecurity staff member and one SCADA operator to the training, if possible.

The workshop is tailored to utility staff who work in:

- Operations
- Cybersecurity
- Control room OT
- Critical infrastructure protection
- Energy Management System support

Questions?

Contact EducationInfo@PublicPower.org or 202-467-2921.

Location & Hotel



Raleigh

Raleigh is a blossoming Southern metropolis. Be energized the instant you're warmly welcomed by this historic capital city's smart, savvy locals. Sample the many flavors of cutting-edge Southern cuisine, enhanced by artisan craft brews and spirits. Tap your toes to the sounds of emerging music and bands, as well as rollicking bluegrass festivals and more. Discover treasures from local boutiques, including eclectic handmade and custom designs.

Conference Location

All conference events will be held at the Raleigh Convention Center (500 S. Salisbury St.) just steps away from the conference hotel. Shuttle service from the Marriott City Center hotel will also be provided.

Hotel

The American Public Power Association's discounted room block is at the Raleigh Marriott City Center (500 Fayetteville Street, Raleigh, NC 27601).

It has been brought to our attention that some members are being contacted by a third party offering help with hotel reservations. The third party is not affiliated with the Association and does not represent us – please do NOT make hotel reservations through them or any others that may contact you by phone or email.

Only use the reservation links, phone numbers, and discount codes at www.PublicPower.org/E&O under the "Hotel" tab.

Room Rates

- **Group rate:** \$199 (Single/Double) per night (plus 12.5% tax)
- **Check in:** 4 p.m.; **Check out:** Noon
- **Main telephone:** 919-833-1120
- **Parking:** Valet parking fee: \$30/overnight; Day Guests: \$18/day
Off-site parking fee: \$3/hour; \$12/day

Reservations

- **Online:** Visit www.PublicPower.org/EandO under Hotel
- **Attendee group code:** American Public Power Association
- **Reservation telephone:** 888-236-2427
- **Reservation cut-off date:** April 4, 2018

Rooms may sell out before the cutoff date, so make your reservations early.

Transportation

The hotel is approximately 15 miles from the Raleigh-Durham International Airport (RDU). Visit the hotel website for directions and parking information.

Registration

www.PublicPower.org/EandO

Register online or download a registration form you can email or mail.

Registration Fees

American Public Power Association Member*		
	Through March 30	After March 30
Engineering & Operations		
Technical Conference	\$745	\$795
Preconference Seminar (each)	\$325	\$375
Postconference Seminar	FREE (Limited to 60 people)	

Not Yet a Member		
	Through March 30	After March 30
Engineering & Operations		
Technical Conference	\$1,490	\$1,540
Preconference Seminar (each)	\$650	\$700

**The Association member rate is extended to Electricities of N.C. members.*

Not yet a member? Join today and save \$745 on your conference registration. Call 202-467-2926 or email Membership@PublicPower.org to learn more.

Contact Us

Visit www.PublicPower.org/EandO for program updates and to register online.

Registration Questions

Registration@PublicPower.org
202-467-2941

Hotel Assistance

Meetings@PublicPower.org
202-467-2941

Program Questions

EandO@PublicPower.org
202-467-2921

Sponsor Questions

Pamela Cowen
PCowen@PublicPower.org
202-467-2903



Discover Together

Engineering & Operations Technical Conference

April 29 - May 2, 2018
Raleigh Convention Center
Raleigh, North Carolina



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