

AMERICAN PUBLIC POWER ASSOCIATION

March 31 - April 03

THE ACADEMY Engineering

S1 - April 03

2019 Conference

Colorado Springs, Colorado

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AMERICAN PUBLIC POWER ASSOCIATION

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.

2019 E&O CONFERENCE Breakout Sessions at a Glance

Monday, April 1	8:30 - 10 a.m.	10:30 a.m. – Noon
Monday, April 2		20,30 a.m. 1100.11
	Opening General Session:	
All Tracks	Association Board Chair Address	
■ Environmental	Transforming Millennial Myths into Workplace Breakthroughs	Environmental Regulatory Overview
Generation & Fuels	workplace breaktinoughs	Environmental Regulatory Overview
	-	
Safety		Self-Care for Disaster Responders
Communications		How to Be a Key Connector in the IoT World
& Control		
Transmission & Distribution		Bitcoin and Blockchain Mania:
System Planning		Managing Load and Costs
Supply Management		Supply Management Opening Roundtable
Cuppi) Management		
Tuesday, April 2	8:30 - 9:45 a.m.	10:45 a.m. – Noon
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All Tracks		
Environmental	Energy Storage 101: The Life Cycle of Batteries	Flip or Flop: Generation Edition
Generation & Fuels	and their Environmental Impacts	
	(joint session with T&D/SP)	
Safety	The Train Reaction: How to Keep Your Employees	Mutual Aid and Preparedness Best Practices:
		Plan Your Work and Work Your Plan
Communications	Connecting in a Crisis	Cybersecurity: Fix the Weakest Link First
& Control		Cysologodanty. The the Wednest Ellik Tills
Transmission &	Faces Character Till 115 Co. 1 Co. 1	I have a life as late as at a late of the
Distribution	Energy Storage 101: The Life Cycle of Batteries and their Environmental Impacts	Unpacking Integration at the Grid Edge
System Planning	(joint session with ENV/GEN&FUELS)	
Supply Management	New Technologies for a Well-Run Warehouse	Improving Your Bottom Line
Wednesday, April 3	8:30 – 10 a.m.	10:30 a.m Noon
	Environmental Issues Roundtable	Closing General Session:
	Safety Roundtable	Powering Your Leadership Brand: Strengthen
	Communications & Control Roundtable	Your Communication Skills and Professional
	T&D/System Planning Roundtable	Presence
	Supply Management Roundtable	

1:30 – 3 p.m.	3:15 – 4:30 p.m.	4:30 – 6:30 p.m.
	Joint Action Agency and State/ Regional Association Roundtable	Expo Opening Reception
The Future of Fossil Fuels	Balancing the Growing Renewables Portfolio	
Up Your Safety Game with the New eSafety Tracker	Deadline or Dead? Efficiency WITH Safety	
Leverage Your AMI Data to Provide Value	The Connected Utility: Integrating Software and Data (joint session)	
Shore Up with New Lessons in Disaster Response (joint session)		
	Power of the P-Card: Beware of Fraud	
1:30 – 2:45 p.m.	3 – 4:15 p.m.	4:30 – 5:30 p.m.
		Operations and Reliability Power Hour
Virtual Power Plants: Lessons Learned on Integrating Distributed Energy Resources	State of the Waste: A Solid Waste and Coal Ash Regulatory Review	
Underground Lock to Lock: Ignore at Your Peril!	Arc Flash and Protective Equipment: What's New	
Your Peril! Breakthroughs in Mobile Workforce	What's New	

Sunday March 31

8 a.m. – 6:30 p.m. Conference & Preconference Seminar Registration BROADMOOR HALL A

9 a.m. - 4:30 p.m. RP3 Review Panel Meeting BROADMOOR HALL E

5 – 6:30 p.m. Welcome Reception **INTERNATIONAL CENTER SOUTH**

PRECONFERENCE SEMINARS

Preconference seminars offer longer class times, smaller class sizes, interactive formats, and experienced instructors. *Each seminar requires separate registration.*

8:30 a.m. - Noon

Creating a Culture of Safety: Foundations of Communications Workshop

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

If you're looking to establish or enhance a safety culture at your utility, you need to start by empowering your team. Do they feel comfortable speaking up when they see unsafe work practices? Do they feel like someone is listening and trusts them? Do you have a system to provide constructive criticism as well as positive recognition, as merited? Learn how you can put processes in place to facilitate these basics. Discuss employee accountability and strong follow-up communications in the wake of safety incidents or threats. Learn the six steps to achieve safety excellence.

Kevin Ellison, MBA, SSBB, Senior Associate, Caterpillar, Inc., Peoria, Illinois

8:30 a.m. - Noon

Improve the Reliability of Your Distribution System

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

Many public power utilities excel in reliability. What is the secret to their outstanding track record in preventing service interruptions and responding quickly when interruptions do occur? Learn how to set reliability performance targets, implement performance improvement initiatives, and establish indices to measure reliability. Experts will guide you on how to build an organizational culture that supports a reliable infrastructure and operations to help you meet the reliability expectations of regulators, customers, and stakeholders. Discover best practices used by RP3 (Reliable Public Power Provider) utilities, designated by the American Public Power Association.

Tom Black, P.E., Management Consultant, Collaborative Learning, Inc., Colorado Springs, Colorado; and John Miner, P.E., President, Collaborative Learning, Inc., Austin, Texas 1:30 - 5 p.m.

Efficient Electrification: Electric Vehicles and the Evolving Grid

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

Increasing electrification—especially in transportation—offers potential for significant load growth but also poses new distribution system challenges. Distributed energy resources and changing customer preferences continue to impact the grid in new ways. Are you ready to meet the increasing demand and handle the new load patterns? Learn how to modify system planning, provide for infrastructure changes, and adapt your business model to accommodate electric vehicles and DERs. Discover how you can combine the benefits of electric transportation and energy storage and opportunities for electric heavy-duty transport. Explore emerging technologies and understand how you can make the most of electrification.

Rob Chapman, Vice President, Energy & Environment, Electric Power Research Institute, Palo Alto, California; John Halliwell, Senior Project Manager, Electric Transportation; Jason Taylor, Principal Project Manager, EPRI, Knoxville, Tennessee; and Thomas Wilson, Principal Technical Executive, EPRI, Palo Alto, California

1:30 - 5 p.m.

Maintenance of High Voltage Electrical Distribution Systems

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

The key to safe, reliable operations is a well-managed maintenance program—so join us to review best practices. Learn from the experts about corrective, preventive, and predictive maintenance programs for overhead and underground lines. Go over the essentials of inspection and testing of distribution lines and equipment. Review NESC maintenance requirements, risk management, and cost accounting with the experts. Get tips on how to evaluate your maintenance programs using productivity and service level measures and benchmarks. Understand regulatory requirements in distribution system maintenance.

Tom Black, P.E., Management Consultant, Collaborative Learning, Inc., Colorado Springs, Colorado; and John Miner, P.E., President, Collaborative Learning, Inc., Austin, Texas 1:30 - 5 p.m.

Talent Wars: Are You Ready to Enlist the Millennials?

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

Can public power engineering and operations leaders attract, motivate, train, and retain the millennial workforce that has the digital talent to power our smart world? See how others are building the engineering and operations workplace of the future and closing the gaps in diversity and inclusion. Understand and learn to work with generational differences in career expectations and workplace behaviors. Prepare for the impact of Baby Boomer retirement, manage the forgotten Gen Xers, and engage the millennials. Explore the real cost of attrition and retention and ways our industry can modernize its message and work environments. Learn from case studies and examples and build an action plan to take on the competition for new talent.

Janet Kieffer, Principal, INFLUENCE, Austin, Texas

5 - 6:30 p.m.

Welcome Reception

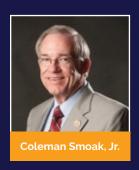
INTERNATIONAL CENTER SOUTH

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 1

7 a.m. – 6 p.m. Conference Registration

BROADMOOR HALL A REGISTRATION DESK





Opening Breakfast

7:30 - 8:30 a.m. INTERNATIONAL CENTER SOUTH

Welcome

Mike Hyland, Senior Vice President, Engineering Services, American Public Power Association

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
- 2019 DEED Award of Continued Excellence Austin Energy

Liz Jambor, Ed.D., DEED Board Chair and Manager, Data Analytics & Business Intelligence, Austin Energy, Texas

Opening General Session

8:30 - 10 a.m. INTERNATIONAL CENTER NORTH

Recommended CEUs .2 / PDHs 1.5 / CPEs 1.8

Presiding

Monte Cooper, Chair, APPA Engineering & Operations Section, and Senior Vice President, Electric Division, Jackson Energy Authority, Tennessee

Public Power Matters

Public power has unique strengths and advantages but do we fully leverage them? Are we still committed to ensuring reasonable rates? Are we staying on top of new trends and technologies? Are we prepared for changing customer and workforce demographics? Are we advocating and telling our story? A veteran public power leader shares a lifetime journey with humorous perspective and helps you focus on what really matters. Get a refresher on public power's inspiring history and commit to building a bright future.

Coleman Smoak, Jr., Chair, American Public Power Association, and General Manager, Piedmont Municipal Power Agency, Greer, South Carolina

Transforming Millennial Myths into Workplace Breakthroughs

A two-time TEDx speaker and author of The Millennial Myth, will help you adapt your leadership and relationship management skills to the talent of the future. Break down the five biggest myths about millennials and abandon the stereotypes. Learn how to navigate the behaviors and expectations of a generation that has grown up in a digital world. Understand the new dimensions in human behavior engendered by millennial lifestyles. Reimagine the workplace and discover how to drive employee productivity and engagement.

Crystal Kadakia, Founder & Principal Consultant, Invati Consulting, Atlanta, Georgia

Break

10 - 10:30 a.m. INTERNATIONAL CENTER FOYER

RP3 and Safety Award honorees will have an opportunity to have their pictures taken at this time.

BREAKOUT SESSIONS

10:30 a.m. - Noon Recommended CEUs .2 / PDHs 1.5 / CPEs 1.8

KEY TO SESSIONS



& Control









Safety



Management





System Planning



& Distribution



How to be a Key Connector in the IoT World

COLORADO HALL C

The increasingly connected nature of our world has immense implications for electric utilities. Discover your role in the nexus of energy and the Internet of Things that drives smart homes, electric vehicles, smart inverters, and other technologies. Consider implications for demand response, data aggregation, and cybersecurity. Discover what new apps, devices, and business models you must align with.

Pablo Bauleo, Ph.D, Senior Energy Services Engineer, City of Fort Collins Utilities, Colorado; and Joel Danforth, Distributed Energy Resources Manager, Platte River Power Authority, Fort Collins, Colorado



Self-Care for Disaster Responders

COLORADO HALL AB

Disaster response takes its toll on all electricity workers. The pressure increases when crews travel to provide mutual aid in areas with unfamiliar weather and terrain. How can those helping in emergencies care for themselves, stay healthy, stay safe, and give their best? Learn from the veterans and prepare to coach your disaster response team in self-care.

Craig Batchelor, Safety & Training Specialist, ElectriCities of North Carolina, Inc., Raleigh, North Carolina; Jon Beasley, Director, Training & Safety, Electric Cities of Georgia, Atlanta, Georgia; Mike Willetts, Director of Training & Safety, Minnesota Municipal Utilities Association, Plymouth, Minnesota; and Brandon Wylie, Assistant Director of Training & Safety, Electric Cities of Georgia, Atlanta, Georgia



Supply Management Opening Roundtable

COLORADO HALL F

Network with colleagues, discuss supply management topics of mutual interest, and hear about current projects and challenges.



Environmental Regulatory Overview

COLORADO HALL D



Discuss environmental and generation regulations around air, water, and waste issues. Get up to speed on key rulemakings that impact you.

Carrie Jenks, Executive Vice President, M.J. Bradley & Associates, Concord, Massachusetts; and Kerry L. McGrath, Partner, Hunton Andrews Kurth LLP, Washington, D.C.



Bitcoin and Blockchain Mania: **Managing Load and Costs**

COLORADO HALL E

Bitcoin mining strains the electric grid in unprecedented ways. Blockchain operations are becoming popular for finance and other transactions as well. Such operations can be established and disbanded quickly, require massive amounts of computer processing, and target communities with low-cost electricity. Learn how you can manage the increased load; be adequately compensated; and ensure affordable, reliable power for all your customers.

Prakash Santhana, Managing Director, Cyber Risk, Deloitte, New York, New York; and John Stoll, Managing Director of Customer Utilities, Chelan County PUD, Wenatchee, Washington

Noon – 1:30 p.m. LUNCH ON YOUR OWN

MONDAY, APRIL 1

BREAKOUT SESSIONS

1:30 - 3 p.m. Recommended CEUs .2 / PDHs 1.5 / CPEs 1.8

KEY TO SESSIONS







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Generation & Fuels



Safety



Supply Management



System Planning



Transmission & Distribution



Leverage Your AMI Data to Provide Value

COLORADO HALL C

The increasing deployment of smart meters and advanced metering infrastructure opens up new possibilities to collect and examine data on energy use. How do you store, track, analyze, and make sense of the vast amounts of data generated by multiple devices? Discover how two public power utilities found the value hidden within AMI data and used it to benefit customers and stakeholders.

Matt Heath, AMI Department Manager, BrightRidge, Johnson City, Tennessee; and Leslie Jones, AMI Manager, Jackson Energy Authority, Tennessee



Up Your Safety Game with the New eSafety Tracker

COLORADO HALL AB

Based on years of field experience and utility input, the American Public Power Association has developed the eSafety Tracker to help you monitor and benchmark your safety practices. Come and demo this new software and share your feedback to help your own and other public power utilities reach new levels of excellence in safety.

Alex Hofmann, Senior Director, Energy & Environmental Services, American Public Power Association; and stakeholders from ElectriCities of North Carolina, Electric Cities of Georgia, and Kissimmee Utility Authority, Florida



Shore Up with New Lessons in Disaster Response

COLORADO HALL E



From wildfires to tornadoes, from snowstorms to typhoons, 2018 saw its fair share of natural disasters. What new challenges did the public power veterans responding to these disasters face? And what did they learn? Hear firsthand about their experiences. And get some new tips and tricks for disaster planning, preparedness, resiliency, supplies and materials management, logistics, and vegetation management.

Charles Bauschard, Utility Director, City of New Bern, North Carolina; Bret Marchese, Director of Distribution Maintenance, Salt River Project, Phoenix, Arizona; and Cairo Vanegas, Manager of Member Services Development, Florida Municipal Power Agency, Orlando, Florida



The Future of Fossil Fuels

CLOSED TO PRESS. COLORADO HALL D



Understand how the outlook for coal, natural gas and other fossil fuels will impact your utility's costs and ability to keep the lights on. Hear from Morgan Stanley and The National Coal Council on the future of fossil fuels and their role in our economy and energy output.

Janet Gellici, CEO, National Coal Council, Washington, D.C.; and Jordan Grimes, Vice President, Fixed Income Division, Morgan Stanley, Chicago, Illinois

3 – 3:15 p.m. COLORADO HALL FOYER BREAK

BREAKOUT SESSIONS

3:15 - 4:30 p.m. Recommended CEUs .1 / PDHs 1.25 / CPEs 1.5



The Connected Utility: Integrating Software and Data



COLORADO HALL E



Big data means big analytics, and big challenges as well as big opportunities for your utility. The ongoing technology revolution places a host of new software applications and new data sources at your disposal. Learn how to leverage all these technologies, connect and integrate, and use the output to benefit your customers, streamline operational efficiencies, and move your utility into the digital future.

Ricardo da Silva, Vice President of Strategic Operations, New York Power Authority, White Plains, New York; and Liz Jambor, Ed.D., Manager, Data Analytics & Business Intelligence, Austin Energy, Texas



Deadline or Dead? Efficiency WITH Safety

COLORADO HALL AB

Deadlines are important but efficiency and productivity can't come at the cost of safety. Learn how to get critical tasks and maintenance work done quickly and efficiently, while ensuring the safety of your full team. Hear stories and case studies from the field that have been used to ensure safety.

Mike McCleary, Manager of Member Services Development, Florida Municipal Power Agency, Orlando, Florida; and Brandon Wylie, Assistant Director, Training & Safety, Electric Cities of Georgia, Atlanta, Georgia



Power of the P-Card: Beware of Fraud

COLORADO HALL F

Purchasing cards can simplify the purchasing and procurement process but can also open up potential for fraudulent activity. Join this session to learn tips and tricks from a P-Card expert on how to optimize use and oversight. Learn best ways to identify and avoid fraudulent charges. See what controls and compliance requirements you can put in place and how you can mitigate risk.

Tracy Gonzalez-Padron, PhD, Professor, Marketing & International Business, and Director, Daniels Fund Ethics Initiative, University of Colorado at Colorado Springs



Balancing the Growing Renewables Portfolio



COLORADO HALL D

As the share of renewables in generation portfolios grows, utilities need flexible and reliable power sources to balance the suite. For example, you need quick and easy peaking capacity. RICE technology has been gaining popularity as it offers the flexibility you need. Learn from utilities that have used reciprocating engines to help balance their renewable generation and ensure reliability.

Phil Rutkowski, Regional Director, North America, Wärtsilä, Littleton, Colorado













Joint Action Agency and State/Regional Association Roundtable

BROADMOOR HALL E

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

3:30 - 4:30 p.m.

Expo Preview Hours

BROADMOOR HALL B

Get a sneak peek at the Expo and start meeting vendors offering deals on the products and services your utility needs year-round.

Monday April 1

4:30 - 6:30 p.m.

Expo Opening Reception

BROADMOOR HALL B

Enjoy some down time with colleagues. Unwind over drinks as you 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 April 2

7 a.m. – 4:30 p.m.Conference Registration
BROADMOOR HALL A



REGISTRATION DESK

Women in Public Power Networking Breakfast

7:15 - 8:30 a.m. BROADMOOR HALL F

Creating Influence by Stepping into Your Authentic Leadership Style

Spend any amount of time in an organization and you'll quickly realize that authority and influence are not the same thing. This is actually a great opportunity for the majority of us who need to influence a change in our departments, teams, or organizations. Creating influence—regardless of where you are in an organization—is a hallmark of successful leaders and something that can be learned and developed as you define your unique leadership style. Hear strategies and practical tips for building your authentic leadership style and influencing positive change no matter where you sit in your organization.

Kate Leese, Co-Founder, Ambitious Women Association, and Managing Partner, Kinetics Consulting, Detroit, Michigan

Networking Continental Breakfast in Expo Hall

7:30 - 8:30 a.m. BROADMOOR HALL B

Network with colleagues and meet vendors during this informal breakfast.

TUESDAY, APRIL 2

BREAKOUT SESSIONS

8:30 - 9:45 a.m. Recommended CEUs .1 / PDHs 1.25 / CPEs 1.5



Connecting in a Crisis

COLORADO HALL C

When you're hit by a natural disaster, staying in touch with your staff and being able to call on outside entities for help is critical. But what if your communications systems go down? Do you have a plan in place? Hear from a utility that uses a resilient communications channel called the Interoperable Response and Preparedness Platform to communicate across devices and via cell, satellite, and broadband networks.

J.T. Flick, Director of Emergency Management, New York Power Authority, White Plains, New York; and Rob Wright, VP, Local and State Sales, Mutualink, Wallingford, Connecticut



The Train Reaction: How to Keep Your Employees

COLORADO HALL AB

Public power utilities spend significant money and resources on employee training. But what if we train them and they leave? It hurts when employees depart prematurely and take their expensive training elsewhere. But what if we don't train them and they stay? Lack of training is a clear impediment to safety and productivity. Find your way out of this conundrum and learn how to train and retain your staff.

Troy Adams, P.E., General Manager, Elk River Municipal Utilities, Minnesota; Olin Clawson, General Manager and CEO, Lawrenceburg Municipal Utilities, Indiana; and Aaron Haderle, Manager of T&D Operations, Kissimmee Utility Authority, Florida



New Technologies for a Well-Run Warehouse

COLORADO HALL F

Smooth workflow in the warehouse is at the heart of a well-run utility. How efficient is your warehouse? Are you up to speed on new, cost-efficient technologies? Learn about a range of technologies from barcoding to vending machines that might make sense for you and see how others are using them to increase productivity and turnaround times, and manage inventory for optimum performance.

Tom Finn, Materials Manager, Norwich Public Utilities, Connecticut; and **Robert Segner,** Regional Sales Manager, Fastenal, Salt Lake City, Utah



Energy Storage 101: The Life Cycle of Batteries and their Environmental Impacts

CLOSED TO PRESS. COLORADO HALL E





Hear from other utilities that have adopted energy storage technologies and about the benefits and challenges. Learn all you wanted to know about batteries—assess the options in the market for strength, lifecycle, and cost; select the right batteries; and plan for proper operation, maintenance, and disposal. Understand the impact of storage on transmission, distribution, and the environment. Get tips on integrating battery storage into your system.

Daniel Crotzer, President, Fractal Energy Storage Consultants, Austin, Texas; and **Jeffrey Plew,** Director – Development, NextEra Energy Resources, Juno Beach, Florida

9:45 - 10:45 a.m.

Vendor Expo & Refreshment Break

BROADMOOR HALL B

Grab a drink, meet some new vendors, enter to win door prizes, and hear sponsor presentations (view descriptions in the mobile app) at this final vendor expo refreshment break.

SPONSOR PRESENTATIONS:

9:45 - 10:15 a.m. Bierer & Associates: Safety and Tool Training

10:15 - 10:45 a.m.

AriesPro: Predictive Outage Management and Cost Analysis Benefits for Improving E&O Efficiency

TUESDAY, APRIL 2

BREAKOUT SESSIONS

10:45 a.m. - Noon Recommended CEUs .1 / PDHs 1.25 / CPEs 1.5

KEY TO SESSIONS



& Control







& Fuels



Safety



Management







System Planning

Transmission & Distribution

Cybersecurity: Fix the Weakest Link First

COLORADO HALL C

Changing the leadership and staff culture to be more cyber aware can be harder than installing the right hardware and software. Yet without the culture change, no cyber plan can be effective. Hear from an organizational change expert as well as small and medium-sized public power utilities on how you can motivate and train your team to practice good cyber hygiene and secure your utility against threats.

Christopher Kelley, PMP, Vice President, Beam Reach Consulting Group, LLC, Baltimore, Maryland; and Carter Manucy, Cyber Security Manager, Florida Municipal Power Agency, Orlando, Florida



Mutual Aid and Preparedness Best Practices: Plan Your Work and Work Your Plan

COLORADO HALL AB

Take your disaster planning and preparation to the next level. Join the authors and experts for an overview of the American Public Power Association's new All-Hazards and Restoration Best Practices Guidebook. Learn how to plan and participate in effective restoration operations and communicate with customers and stakeholders in emergencies. Walk through the five-step preparedness cycle that helps in the development or continuous improvement of emergency preparedness programs and all-hazards planning efforts.

Korey Bush, Chief Electric System Operator, Lakeland Electric, Florida; and Kate Leese, Managing Partner, Kinetics Consulting, Detroit, Michigan



Improving Your Bottom Line

COLORADO HALL F

Review the financial aspects of supply management and inventory. Learn about the economics of procurement and supply management and how to apply data analytics to stock.

Bethany Ryers, Senior Manager, Energy and Utilities Group, Baker Tilly, Madison, Wisconsin



Flip or Flop: Generation Edition

COLORADO HALL D



Many old generating plants are in historic downtown areas. They have both interesting architectural features and valuable real estate. Hear from experts about how utilities have repurposed old power plants to benefit customers and the community.

Trisha Elizondo, COO and Principal, Energy Renewal Partners, LLC., Austin, Texas; and Tom McKittrick, Principal, Forsite Development Inc., Charlotte, North Carolina



Unpacking Integration at the Grid Edge



COLORADO HALL E

EPRI is working on the concept of an integrated grid and notes that to serve all consumers at established standards of quality and reliability, distributed energy resources at the edge of the grid must be integrated into systems planning and operations. Join the experts to explore key aspects like distribution planning, customer-sited back up generation, microgrids, and other DERs operating as virtual power plants.

Greg Adams, Manager, Grid Planning & Performance, Salt River Project, Phoenix, Arizona; Pete Maltbaek, General Manager, North America, Smarter Grid Solutions, San Francisco, California; and Mark McGranaghan, Vice President, Integrated Grid, Electric Power Research Institute, Knoxville, Tennessee

Noon - 1:30 p.m. LUNCH ON YOUR OWN

BREAKOUT SESSIONS

1:30 - 2:45 p.m. Recommended CEUs .1 / PDHs 1.25 / CPEs 1.5



Breakthroughs in Mobile Workforce Technologies

COLORADO HALL C

Mobile apps and cloud-based integrated software platforms are helping public power utilities optimize and automate field work and communications while improving safety, reliability, and outage response time, as well as improving customer service satisfaction and employee productivity. What mobile technologies are other utilities like yours using and what can you learn from them? What are the costs and the pitfalls to avoid? Get answers and learn how to improve employee productivity and customer satisfaction.

Robert Dreskai, Director of Sales and EIP Alliance Manager, Clevest, Richmond, BC Canada; and Randy Trimble, Executive Director, Energy Delivery, Bryan Texas Utilities



Underground Lock to Lock: Ignore at Your Peril!

COLORADO HALL AB

Join an open discussion on the use of rubber gloves while working on underground residential distribution equipment from lock to lock. Examine case studies and lessons learned from real-life incidents. Reflect on your own situations and garner best practices from colleagues. Review OSHA compliance requirements and exceptions. Dive deep into issues like secondary service hookups, flame resistant requirements, and grounding before cutting cable.

Jeff Hedden, Line Superintendent, Huntsville Utilities, Alabama; Scott McKenzie, Director of Member Training and Safety, American Municipal Power, Inc., Columbus, Ohio; and Chris Taylor, Commercial Underground Line Supervisor, Huntsville Utilities, Alabama



Store Your Stuff

COLORADO HALL F

Space can often be hard to find in a warehouse. Luckily, there are storage and organization systems available which can help you optimize your space. Come to this warehouse-focused session where we will review the various material storage systems to maximize storage efficiency.

Speakers TBD



Virtual Power Plants: Lessons Learned on Integrating Distributed Energy Resources

COLORADO HALL D

Learn about the potential challenges in coordinating distributed energy resources. Review case studies on maximizing the value of DERs via utility-controlled dispatch and other smart devices. Hear about virtual power plants from their beginning to where they are now. Examine technological advances to reliability and predictability.

Josh Contreras, Power System Engineer Senior, Austin Energy, Texas; Dean W. Musser, P.E., President and CEO, Tangent Energy Solutions, Inc., Kennett Square, Pennsylvania; and Anna Popp, Power System Graduate Engineer, Smart Grid & System Operations, Austin Energy, Texas



Project Delivery Methods: What's Best for You

COLORADO HALL E

There are many project delivery methods for capital projects but which one will work for you? As public utilities seek to leverage limited internal resources to deliver increasing project workloads, the engineer-procure-construct (EPC) delivery model is increasingly being utilized for project execution. Learn fundamental EPC principles and execution strategies and examine some of the benefits and risks of EPC. Discuss the EPC execution process from both the contractor and utility point of view.

Andrew Jarvis, P.E., P. Eng., Vice President, EPC Projects, T&D Services, Burns & McDonnell, Kansas City, Missouri

2:45 – 3 p.m. COLORADO HALL FOYER BREAK

TUESDAY, APRIL 2

BREAKOUT SESSIONS

3 - 4:15 p.m. Recommended CEUs .1 / PDHs 1.25 / CPEs 1.5

KEY TO SESSIONS



& Control







& Fuels





Management





System Planning

& Distribution



GIS: Much More than Location Mapping

COLORADO HALL C

Geographic Information Systems can take you to location mapping and beyond. With GIS data analytics, you can identify system vulnerabilities as well as real-time data on weather, crews, demand, and outages. Learn how one public power utility is using GIS data in powerful new ways to keep the lights on and workers safe and learn about all of the work that ESRI is doing to support GIS efforts for electric utilities. See how you can use GIS to up your game in asset management, inspection and maintenance, and outage prevention and response.

Robin Britton, Director of Systems Control and Technology Systems, New Braunfels Utilities, Texas; and Bill Meehan, Director, Utility Solutions, ESRI, Redlands, California



Arc Flash and Protective Equipment: What's New

COLORADO HALL AB

The technology around all things arc-rated has matured and many basic assumptions have been debunked. Is your utility up to speed or are you still following old rules that may expose your operations, people, and the network to undue risks? Come and get a refresher on arc flash concepts, regulations, personal protective equipment, new standards, and equipment application. Learn how to select and use the correct arc-rated clothing and equipment.

Ken Sellars, Partner and Electrical Safety Consultant, e-Hazard, Louisville, Kentucky



Ethics in Logistics: Get it Right the First Time

COLORADO HALL F

Examine the various dimensions of ethics in warehousing and procurement. The ground rules may seem simple—practice integrity, avoid conflicts of interest, treat suppliers equally and fairly, and comply with legal obligations. However, the challenge is to apply these principles practically and consistently. Discuss why ethics are important and how to "get it right the first time." Learn how to establish a code of ethics and get buy-in from staff as well as suppliers.

Regina Winters, MPA, Assistant Dean and Senior Instructor, School of Public Affairs, University of Colorado at Colorado Springs



State of the Waste: A Solid Waste and **Coal Ash Regulatory Review**



COLORADO HALL D

Dive into the latest regulations and concerns in disposal of solid waste from coal. Hear about the current state of EPA regulations. Examine a case study of coal ash impoundment and flooding and discuss potential implications for your utility.

Susan Jackson, Manager, CCP & Waste Management, Santee Cooper, Moncks Corner, South Carolina; and Jim Roewer, Executive Director, Utility Solid Waste Activities Group, Washington, D.C.



Challenges and Benefits to Increasing Renewables: Find the Sweet Spot



COLORADO HALL E

As a public power utility, you want to be responsive to your community's needs and be a renewable friendly provider. However, trying to expand renewables in your portfolio is easier said than done. How much is too much of a good thing? How do you fully integrate renewables into your transmission or distribution? How do you account for variability in production, while ensuring reliability? Examine all the issues and refresh your renewables planning.

Obadiah Bartholomy, Manager, Distributed Energy Strategy, Sacramento Municipal Utility District, California; and Sean Hamilton, General Manager, Sterling Municipal Light Department, Massachusetts













4:30 - 5:30 p.m.

Operations and Reliability Power Hour

COLORADO HALL D

Join the Association's Reliability Team for an open discussion and overview of public power reliability and operations benchmarking metrics. Discuss the latest benchmarking data, share reliability stories, and help define the path forward for public power to continue to excel. Network with your peers over a drink (cash bar) during this informal and informative session.

Featuring American Public Power Association staff and members

Professionals Happy Hour

GOLDEN BEE

(Located in the back of International Hall at Lake Avenue)

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.

Wednesday April 3

7:30 – 8:30 a.m. Networking Continental Breakfast INTERNATIONAL CENTER SOUTH

8:30 – 10 a.m. Breakout Sessions COLORADO HALL

10:30 a.m. - Noon Closing General Session INTERNATIONAL CENTER NORTH

BREAKOUT SESSIONS

8:30 - 10 a.m.

Recommended CEUs .2 / PDHs 1.5 / CPEs 1.8



Communications & Control Roundtable

COLORADO HALL C

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



Safety Roundtable

COLORADO HALL AB

Join your peers in an open forum to discuss important safety issues impacting your utility.



Supply Management Roundtable

COLORADO HALL F

Swap supply management tales and challenges with your colleagues and trade takeaways from your favorite conference sessions.



Environmental Issues Roundtable: The Future of CO2 Free Fuels



COLORADO HALL D

Join us for short presentations on the future of, and challenges related to, nuclear, biomass, integrated gasification combined cycle (IGCC), carbon capture and storage (CCS), etc.

Lauren Lathem, Senior Research Engineer, Southern Company, Birmingham, Alabama; and David McCulloch, Vice President, Communications, Bloom Energy, San Mateo, California



T&D/System Planning Roundtable

COLORADO HALL E



Discuss critical T&D and system planning issues impacting your utility. Get an update on the Light Up the Navajo Nation initiative to begin to power more than 15,000 homes in the Navajo Nation that don't have electricity.

Wally Haase, General Manager, Navajo Tribal Utility Authority, Fort Defiance, Arizona

10 – 10:30 a.m. INTERNATIONAL CENTER SOUTH BREAK

10:30 - Noon

Closing General Session

Recommended CEUs .2 / PDHs 1.5 / CPEs 1.8

INTERNATIONAL CENTER NORTH



Powering Your Leadership Brand: Strengthen Your Communication Skills and Professional Presence

In today's competitive, transparent world you as a public power leader are required to demonstrate your authentic leadership brand every day. You have to convey compelling messages, manage difficult

conversations, develop talent, drive shifts in culture and deliver strong performance, financial results, and outstanding customer service. Learn how you can enhance your confidence and communication skills and unleash your best self to leave a lasting impression on those around you.

Jeff Black, Founder & CEO, Black Sheep, Inc., South Carolina

Noon ADJOURN

ACCREDITATION & CERTIFICATION

Attendees of the 2019 Engineering and Operations Conference can earn continuing education units (CEUs), professional development hours (PDHs), and continuing professional education credits (CPEs) for attending conference sessions. Attendees must complete the Verification of Attendance form (provided on-site) to receive a certificate for educational credits earned.



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 16.5 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 are 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.



DEED

APPA's Demonstration of Energy & Efficiency Developments (DEED) program is the only research and

development program funded by and for public power utilities. DEED encourages activities that promote energy innovation, improve efficiencies, and lower costs of energy to public power customers. For more information, visit PublicPower.org/DEED.

KEY FACTS

Conference Evaluation

A link to an online survey about the conference will be emailed to attendees after the conference. We appreciate your valuable feedback.

Conference Presentations

Copies of the speakers' presentations are available on the American Public Power Association's website, www.PublicPower.org.

Guest Activities

Conference registrants may bring a guest to the evening social events. Guests are welcome to attend the Sunday evening Welcome Reception and the Monday evening Vendor Expo Opening Reception.

Restricted Sessions

The American Public Power Association reserves the right to designate any Association meeting or session open only to Association regular members (public power utilities, rural electric cooperatives, joint action agencies and state/regional associations). Please inquire at the registration desk if you have any questions.

American Public Power Association Antitrust Statement

The Association reminds all those attending the Engineering and Operations Conference that various state and federal laws prohibit the exchange of information among competitors regarding the matters pertaining to price, refusals to deal, markets division, tying relationships and other topics that might infringe upon antitrust laws and regulations. No such exchange or discussion will be tolerated during the meeting. A copy of the Association's Statement of Compliance with the Antitrust Laws is available upon request.

Recognition

APPA Safety Award of Excellence Winners

Overanization	CI.	Worker-Hours	Incidence	Diameter
Organization	State	of Exposure	Rate	Place
Group A (loce than 45 age weeker harm)				
Group A (less than 15,000 worker-hours) Bangor Municipal Utility	WI	11790	0	First
9 . ,	VVI IL	12480	0	First
City of Carlyle City of Lenox	IL IA	6820	0	First
,	WI	6820 8013	0	First
City of Soint Potor	MN		0	
City of Saint Peter		8616	0	First
Clintonville Utilities	WI NV	11061	0	First
Colorado River Commission		13832	-	First
Columbus Water & Light	WI OH	12879 9124	0	First
Jackson Center Municipal Electric			-	First
Lewes Board of Public Works	DE	5880	0	First
Medford Electric Utility	WI	10157	-	First
Perkasie Borough	PA CA	12528	0	First
Rancho Cucamonga Municipal Utility	CA	10108	0	First
Rice Lake Utilities	WI	14429	0	First
Salem City Municipal Power & Light	UT	10400	0	First
Sebewaing Light & Water	MI	14253	0	First
Shawano Municipal Utilities	WI	10308	0	First
Sioux Center Municipal Electric Utility	IA	14000	0	First
Sleepy Eye Public Utilities	MN	10400	0	First
St Clairsville Light & Power	OH	8762	0	First
Village of Montpelier	OH	11245	0	First
Village of Sherburne	NY	14364	0	First
Whitehall Electric Utility	WI	8515	0	First
New Martinsville Electric Utility	WV	14560	13.74	Second
Richland Center Electric Utility	WI	14363	13.92	Third
City of Shelby, Ohio	ОН	13695	14.60	Honorable Mention
Group B (15,000 to 29,999 worker-hours)				
Arcadia Electric Utility	WI	15757	0	First
Brodhead Water and Light	WI	15807	0	First
City of Fort Morgan Light and Power	CO	23504	0	First
City of Livingston	TX	21521	0	First
City of Milton-Freewater	OR	22000	0	First
City of Shelby	NC NC	29652	0	First
Coon Rapids Municipal Utilities	IA	22880	0	First
Evansville Water and Light	WI	17960	0	First
Independence Light & Power	IA	22042	0	First
Lowell Light & Power	MI	25999	0	First
New Holstein Utilities	WI	25999 16365	0	First
New Richmond Utilities	WI	29120	0	First
	KY KY	29120 28653	0	First
Princeton Electric Plant Board	K Y WI		0	
Reedsburg Utility Commission	VVI UT	18440 24960	0	First
South Utah Valley Electric Service District			0	First
Sterling Municipal Light Department	MA	16640	-	First
Two Rivers Water & Light	WI	28572	0	First
Village of Arcade	NY	19500	0	First
Washington City	UT	22880	0	First
Kirkwood Electric	MO	27881	7.17	Second
Payson City Municipal Power & Light	UT	27040	7.40	Third
New Prague Utilities Commission	MN	24960	8.01	Honorable Mention

APPA Safety Award of Excellence Winners

Organization	State	Worker-Hours of Exposure	Incidence Rate	Place
Organization	State	or exposure	Rate	Flace
Group C (30,000 to 59,999 worker-hours)				
Gaffney Board of Public Works	SC	45721	0	First
Bryan Municipal Utilities	OH	58063	0	First
City of Dover Electric Field Division	OH	33480	0	First
City of Gillette Electrical Services	WY	54000	0	First
Greenwood Commissioners of Public Works	SC	37758	0	First
Hannibal Board of Public Works	MO	52146	0	First
Higginsville Municipal Utilities	MO SC	33600 48014	0 0	First
Laurens Commission Of Public Works Lawrenceburg Municipal Utilities	IN	58240	0	First First
Lehi City Corporation	ÜT	55729	0	First
Madisonville Municipal Utilities	KY	38911	Ö	First
Mason County PUD No 1	WA	43895	0	First
Mayfield Electric & Water Systems	KY	49370	0	First
McMinnville Electric System	TN	56240	0	First
New River Light & Power	NC	45315	0	First
Ripley Power & Light	TN	56469	0	First
Scottsboro Electric Power Board Spanish Fork City Municipal Power & Light	AL UT	41600 37440	0 0	First First
Sturgeon Bay Utilities	WI	40392	0	First
Tell City Electric Department	IN	33384	0	First
Waverly Utilities	IA	59586	0	First
Springville City Municipal Power & Light	ÜT	56160	3.57	Second
City of Morganton	NC	47697	4.19	Third
Piqua Power System	OH	43006.28	4.65	Honorable Mention
Group D (60,000 to 109,999 worker-hours)				
Bolivar Energy Authority	TN	102100	0	First
City of Gastonia	NC	88045	Ō	First
Clatskanie People's Utility District	OR	65355	0	First
Coffeyville Municipal Light & Power	KS	74503	0	First
Harrisonburg Electric Commission	VA	79715	0	First
Heber Light and Power	UT	74323	0	First
Kaukauna Utilities	WI	79738 62632	0	First
Marshall Municipal Utiliites Merced Irrigation District	MN CA	76536	0 0	First First
Nebraska City Utilities	NE NE	60189	0	First
Owatonna Public Utilities	MN	63479	0	First
Peru Utilities	IN	60190	Ō	First
Vernon Public Utilities	CA	69735	0	First
Willmar Municipal Utilities	MN	85960	0	First
Elk River Municipal Utilities	MN	81359	2.46	Third
City of Statesville	NC	68640	2.91	Honorable Mention
Group E (110,000 to 249,999 worker-hours)				
Bristol Tennessee Essential Services	TN	131706	0	First
City of St. George	UT	135280	0	First
Kerrville Public Utility Board	TX	117774	0	First
Keys Energy Services Marquette Board of Power and Light	FL MI	210404 150000	0 0	First First
Paducah Power System	KY	139697	0	First
Jackson Energy Authority	TN	193569	1.03	Second
Morristown Power System	TN	170000	1.18	Third
McPherson Board of Public Utilities	KS	135200	1.48	Honorable Mention
Group F (250,000 to 999,999 worker-hours)				
American Municipal Power, Inc.	ОН	295670	0	First
Guam Power Authority	ĞU	892246	0.90	First
Lafayette Utilities System	LA	376488	1.06	Second
Cowlitz PUD	WA	287945	1.39	Third
Mason County PUD No. 3	WA	277710	1.44	Honorable Mention
Group G (1,000,000 to 3,999,999 worker-hours)				
Energy Northwest	WA	2123322	0.47	First
Santee Cooper	SC	3465223	0.58	First
Omaha Public Power District	NE	3403130	1.35	Second
Nebraska Public Power District	NE	3769768	1.43	Third
Huntsville Utilities	AL	1106795	1.45	Honorable Mention
Group H (more than 3,999,999 worker-hours)	. –			
Salt River Project	AZ	10718526	1.01	First
CPS Energy	TX FL	5840191	1.13	Second
JEA Sacramento Municipal Utility District	FL CA	4219665 4238034	1.52 4.01	Third Honorable Mention
Sastamonto Maniopai Guity District		7200004	7.01	I IOTICIADIO IVICITUOTI

2019 Reliable Public Power Provider Designated Utilities



The final list of designees will be available at www.PublicPower.org/RP3.

DIAMOND

Austin Energy, TX Austin Utilities, MN Blue Earth Light and Water, MN Bristol Tennessee Essential Services, TN Bryan Municipal Utilities, OH City of New Bern, NC City of Wadsworth Electric and Communications, OH Columbus Light & Water Dept., MS CPS Energy, TX Fayetteville Public Works Commission, NC Gainesville Regional Utilities, FL Georgetown Utility Systems, TX Holland Board of Public Works, MI Huntsville Utilities, AL JEA, FL Lawrenceburg Municipal Utilities, IN Marshfield Utilities, WI New York Power Authority, NY Owatonna Public Utilities, MN Ripley Power and Light Company, TN Rochester Public Utilities, MN Vernon Public Utilities, CA Zeeland Board of Public Works, MI

PLATINUM

Cedarburg Light and Water
Commission, WI
City of Lexington, NC
City of Troy, AL
Grand River Dam Authority, OK
Hudson Light and Power
Department, MA
Hurricane City Power, UT
Lebanon Utilities, IN
Modesto Irrigation District, CA
Moorhead Public Service, MN
Moreno Valley Electric Utility, CA
Mount Pleasant City Power, UT
Rolla Municipal Utilities, MO

GOLD

Anderson Municipal Light and Power, IN
City of Saint Peter, MN
City of Winfield, KS
Fort Valley Utility Commission, GA
GEUS, TX
Ipswich Electric Light Department, MA
Lenoir City Utility Board, TN
McMinnville Water and Light, OR
Plymouth Utilities, WI
Silicon Valley Power, CA
Town of Berlin, MD
Town of Front Royal, VA
Washington City, UT

2019 American Public Power Association Engineering and Operations Section

The American Public Power Association's Engineering and Operations Section sponsors this annual meeting. The section supports seven committees organized for professional development and networking: Communications and Control, Environmental, Generation & Fuels, Safety, Supply Management, System Planning, and Transmission & Distribution.

Thank you to all the E&O planning meeting attendees who helped develop the 2019 E&O program.

ENGINEERING & OPERATIONS SECTION



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Vice Chair Todd Dlouhy Manager, Procurement & Stores Lincoln Electric System, Nebraska

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Chair Keith Cutshall Safety Director CDE Lightband, Tennessee



Vice Chair Brandon Wylie Assistant Director of Training & Safety Electric Cities of Georgia

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Chair Susan Jackson Manager, CCP & Waste Management Santee Cooper, South Carolina

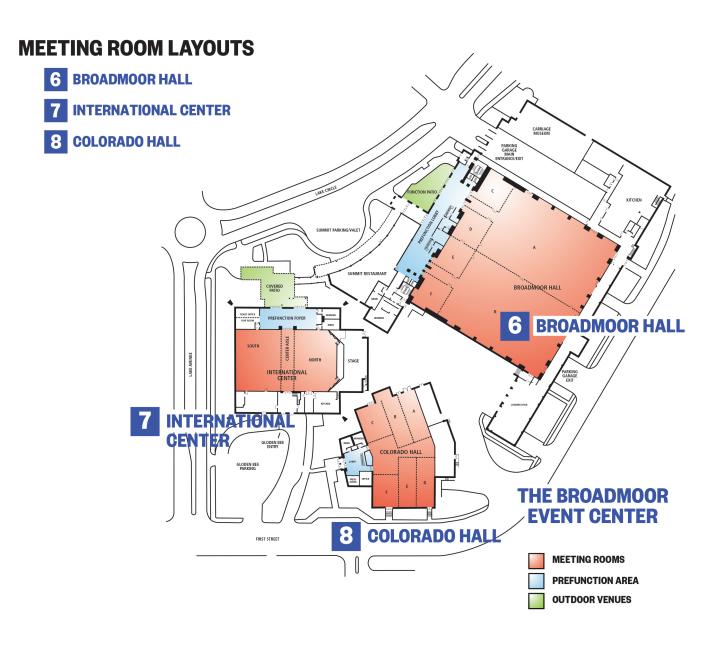


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Alabama Municipal Electric Authority

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THE ACADEMY

AMERICAN PUBLIC POWER ASSOCIATION

Public Power Lineworkers Rodeo April 17-18, 2020

Engineering & Operations Conference April 19 – 22, 2020 Kansas City, Missouri