

In-House Training Catalog 2021–22

Virtual and in-person options!

In-House Training

If it's difficult for your staff and governing board to attend events outside of the office, let us come to you! The APPA Academy can deliver the training you need, when and where you need it—an ideal option for groups of five or more.

We provide training for all skill levels—basic, intermediate, and advanced—in key utility operational areas. We can bring any existing course to your facility (or virtually) or customize an agenda based on your needs.

Fees

- **Base fee:** one fee for group attendance (virtual or in-person)
Starts at \$5,000 (covers course development, instruction, and materials); course recordings are included for virtual trainings.
- **Travel expenses** (in-person)
Costs can include: airfare, lodging, meals, incidentals, ground transportation.
- **On-site expenses** (in-person)
The host organization is responsible for providing a training room and covering any on-site expenses (e.g., AV equipment, refreshments, etc.).

Benefits of In-house Training

Cost and time savings

Save time and money by bringing a group of staff together (in-person or virtually) to deliver training when and where it's most convenient.

Customized training

Choose from our catalog of courses, mix and match agenda items, or tailor course content to meet your specific goals.

Expert instructors

Learn from seasoned trainers who have decades of experience with public power utilities.

Continuing education credits

All live courses—virtual or in-person—are eligible for IACET continuing education units (CEUs), professional development hours (PDHs), continuing professional education credits (CPEs), and earn points towards the Reliable Public Power Provider (RP3) designation.

More Information

Course descriptions, sample agendas, and speaker bios are available upon request. Content can be modified to fit your needs and schedule.

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

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Accounting

Public Utility Accounting

Advanced Public Utility Accounting

Work Order and
Asset Management Accounting

Public Utility Accounting

Format

- In-person: 2 days
- Virtual: 10 hours (4 sessions)

Course Level: Basic

Course Overview

This foundational course is designed around the Federal Energy Regulatory Commission Uniform System of Accounts, covering every relevant FERC account. Learn about the role of accounting in public utilities, FERC accounting procedures, the uniform systems of accounts, and utility accounting subsystems. Review the proper usage of each account, preparing FERC-based income statements and balance sheets, the supporting charts of accounts, and proper coding for all FERC account activities.

Attendees will receive a copy of APPA's Public Utility Accounting publication.

Course Topics

- Accounting for operating revenues and expenses
- Introduction to utility property and plant accounting
- Introduction to FERC uniform system of accounts
- Applicability of generally accepted accounting principles to public utilities
- Financial statement structure and presentation
- Capital vs. expense determination
- Allocation of indirect or common costs
- Accounting for unbundled services

Recommended for

Those who are new to public utility accounting practices or unfamiliar with the FERC accounting structure. Management, technical personnel and policymakers looking to understand how accounting processes impact employees and operations will also benefit.

Instructor

Jerry McKenzie, Senior Manager, MGT Consulting Group

Advanced Public Utility Accounting

Format

- In-person: 2 days
- Virtual: 12 hours (4 sessions)

Course Level: Intermediate/Advanced

Course Overview

This practical course examines the more complicated aspects of accounting theory and practice to inform planning and decision-making and help execute your day-to-day work more efficiently and effectively. Discuss how accounting principles and practices impact financial reporting to internal and external stakeholders. Learn about industry trends, new accounting standards, and strategies for ensuring future financial success.

Course Topics

- Presentation and analysis of financial statements
- Strategies to maintain or improve your utility's bond rating
- The utility of tomorrow: trends and the knowledge needed to be an effective financial professional
- Using regulatory accounting to mitigate ratepayer and financial reporting impacts
- Capital structure and financing utility infrastructure projects
- Establishing strong internal controls to efficiently allocate resources and deter fraud
- Governmental accounting pronouncements (GASB) update
- Accounting for contingencies, pensions, impairment of capital assets, and others
- Utility metrics and impacts on your business strategy

Recommended for

Accounting and finance personnel with a basic knowledge of utility accounting theory and practice.

Instructors

Russ Hissom, CPA, and **Bethany Ryers, CPA, MAS**,
Firm Director—Baker Tilly

Work Order and Asset Management Accounting

Format

- In-person: 1 day
- Virtual: 6 hours (2 sessions)

Course Level: Basic

Course Overview

Utility construction is one of the major activities at your utility and has a significant impact on developing equitable rates for your customers. This course covers utility work asset management accounting concepts and applications. Learn how to coordinate operations and finance processes to accurately account for projects. Work through the necessary steps to report utility construction costs and differentiate between capital construction and maintenance costs.

Course Topics

- Work order and asset management processes and the importance of accurate plant accounting and reporting
- Accounting for utility construction and impacts on rates
- Accounting standards that apply to work order accounting
- Using construction standards and compatible units
- Evaluating construction accounting business processes
- Methods of allocating overhead costs
- Unitizing construction costs and closing work orders
- Developing capital budgets and capital retirement accounting
- Software selection and implementation considerations
- Process improvement and personnel training
- Developing informative reporting
- Overcoming organizational barriers

Recommended for

Utility accounting, finance and operations personnel who are part of the work order process.

Instructor

Russ Hissom, CPA, Energy and Utilities Group, Baker Tilly

Cost of Service, Rate Design & Financial Planning

Basic Cost of Service
and Key Financial Concepts

Cost of Service Workshop:
Implementation and Applications

Rate Design Fundamentals and Trends

Implementing Advanced Rate Designs
and Dynamic Pricing

Performing a Utility Financial Check-Up

Basic Cost of Service and Key Financial Concepts

Format

- In-person: 1 day
- Virtual: 5 hours

Course Level: Basic

Course Overview

Learn all about cost of service, from basic concepts to leveraging data for decision making. Find out how to determine revenue requirements and key financial targets and relate them to cost of service. Learn how to develop a long-term rate plan and use financial targets to determine customer rates, borrowing needs, and capital improvements. Review case studies, discuss best practices, and hear about national trends.

Course Topics

- Basic cost of service concepts, terminology, and processes
- Collect and use of cost of service data
- Determine revenue requirements using cash and utility-based approaches
- Set key financial targets related to cost of service
 - Cash requirements, rate of return, debt coverage ratio, age of system, capital re-investment, debt policies, transfers to the city, accounting and budgeting practices
- Determine rate policies, long-term rate plans, and transition strategies
- Communicate rate changes to policymakers and customers

Recommended for

Executive managers, finance and accounting personnel, rate analysts, financial planners and policymakers.

Instructor

Dawn Lund, Vice President, Utility Financial Solutions

Cost of Service Workshop: Implementation and Applications

Format

- In-person: 2 days

Course Level: Intermediate

Course Overview

Explore the ins and outs of cost of service—from key concepts to the nuts and bolts of working through a cost of service model. Get hands-on experience working with an Excel model to apply cost of service and rate design principles and processes. Complete the step-by-step process of putting a cost of service study together and review how to develop a fully functional and unbundled cost of service study.

Course Topics

- Cost of service and pricing concepts
- Collecting and using data and organizing costs
- Allocating facilities and expenses
- Classifying generation, transmission, and distribution expenses
- Categorizing generation types and cost components
- Collecting and applying load research data
- Developing and applying cost allocation factors
- Gauging customer voltage levels
- Determining monthly customer facilities and billing costs
- Applying cost of service components to rate designs

Recommended for

Rate analysts and utility staff who are responsible for implementing cost of service studies or want to learn how the process is completed and applied.

Instructors

Phil Euler, Consultant; and **Dan Kasbohm**, Rates Manager, Utility Financial Solutions

Rate Design Fundamentals and Trends

Format

- In-person: Half day
- Virtual: 3.5 hours

Course Level: Basic

Course Overview

Learn the basics of rate design—from the different types of rate structures to how various rate design strategies can affect utility objectives. Get an overview of how utilities are tailoring rate options to ensure rate equity, spur economic development, or incent electrification.

Review how utilities across the nation are restructuring rates and discuss the potential pros and cons of adopting certain trends and strategies in your organization—including how to communicate changes to customers and your governing board.

Course Topics

- Rate design basics, structures, and trends
- Pros and cons of alternative rate structures
- Revenue recovery and supporting stable utility revenue
- Customer charges
- Rate options for key accounts and strategies for small, medium and large general service customers
- Special rates including commercial electric vehicle rate structures and economic development rates
- Power cost adjustment strategies
- Communicating rate changes to policymakers and customers

Recommended for

Staff involved in setting utility rates including utility executives, managers, finance and accounting personnel, rate analysts, financial planners and policymakers.

Instructor

Mark Beauchamp, CPA, CMA, MBA, President, Utility Financial Solutions

Implementing Advanced Rate Design and Dynamic Pricing

Format

- In-person: Half day
- Virtual: 3.5 hours

Course Level: Intermediate/Advanced

Course Overview

From how and where electricity is generated to when and how customers use it—utilities are in the midst of a fundamental transformation. As your operations and services shift, so must your rate structures and policies. Learn why and how utilities are shifting to dynamic pricing and what experiences have revealed about customer preferences and expectations. Discuss different strategies for rate implementation, transition, and communication and gaining buy-in from management and governing bodies for rate changes.

Course Topics

- Making the case for new rate structures
- Rate design options and implementation strategies (time-based rates, demand charges, marginal power supply costs)
- Tying rates to utility costs
- Residential dynamic pricing structures
- Electric vehicle charging station rates
- Dynamic pricing and economic development
- Customer responses to dynamic pricing and price elasticity
- Transition and communication strategies

Recommended for

Staff involved in setting utility rates including utility executives, managers, finance and accounting personnel, rate analysts, financial planners and policymakers.

Instructor

Mark Beauchamp, CPA, CMA, MBA, President, Utility Financial Solutions

Performing a Utility Financial Check-Up

Format

- In-person: 1 day
- Virtual: 4 hours

Course Level: Basic

Course Overview

Assess your utility's financial health and find out how to set and achieve key financial targets—cash requirements, rate of return, debt coverage ratio, age of system, capital re-investment, debt policies, transfers to the city, rate structures for revenue stability, accounting and budgeting practices. Review best practices for capital planning and debt issuance. Understand the short and long-term implications of financial decisions. Learn how to communicate utility financial performance and rate changes to governing bodies and customers.

Course Topics

- Monitoring a utility's financial health
- Setting proper revenue requirements
- What should be reported to management and governing bodies
- Key financial targets and indicators to guide decision making
- Identifying rate structure risk and methods to minimize and control risk
- Social, environmental, and political risks to consider when establishing financial policies
- Determining cost drivers and allocations
- Proper capital planning
- Monitoring, exposure, and methods to control the utility's revenue stability
- Timing of rate structure reviews
- Communicating utility financial performance and rate changes

Recommended for

General managers, finance and accounting personnel, rate analysts, financial planners and policymakers.

Instructor

Dawn Lund, Vice President, Utility Financial Solutions

Customer Service & Communications

Strategies for Successful Customer Service Operations

Modern Media Management: Communicating in a Crisis

One-on-One Media and Public Presentation Workshop

Strategies for Successful Customer Service Operations

Format

- In-person: Half day
- Virtual: 4 hours

Course Level: Basic

Course Overview

Course Overview

Tomorrow's utility customers will expect a level of customer service and responsiveness that could challenge many public power systems. This course defines good customer service, how to identify and meet the needs of different types of customers, and how to create a culture of commitment to excellence in customer service across all areas of utility management, operations and customer interactions—focusing on building customer service as a strategy, not simply an administrative function. Attendees will receive a copy of APPA's Customer Service: Building a Strong Infrastructure for Your Utility publication

Course Topics

- Defining good customer service
- Segmenting customers into categories and identifying their specific requirements
- Identifying the utility's internal customers and other stakeholders and why they're important
- Managing your physical facilities to create a safe and welcoming environment
- Operating with the customers' needs in mind when determining service hours, locations, policies/options, web-based access to account info, etc.
- The role of utility governing officials, policymakers, and senior managers in creating a culture of customer service excellence

Recommended for

All public power utility employees and governing officials who play a role in shaping their organization's customer service and culture priorities.

Instructor

Steve VanderMeer, Executive Consultant, Hometown Connections

Modern Media Management: Communicating in a Crisis (or to Avoid One)

Format

- In-person: Half day
- Virtual: 4 hours

Course Level: Basic

Course Overview

This interactive course walks you through the fundamentals of what to do when, not if, your organization gets pulled into the media spotlight, and how to be prepared to talk about a crisis via conventional and social media. Plan out how to craft messages and create opportunities to tell your story fast, tell it first, and tell it to the people who matter most.

Learn the "control tools" to help anticipate questions and prepare answers to press questions, respond to negativity on social media, and foster effective public speaking experiences. Receive practical tips, tools, and coaching that can be applied immediately.

Course Topics

- Using the Crisis Communications Playbook
- Pitfalls to avoid
- Establishing and maintaining "control" of the message
- Developing memorable, quotable key messages
- Anticipating the toughest questions and preparing effective answers
- Pivoting back to key messages
- Using social media effectively
- Applying media interview preparation to other communications
- Characteristics of successful leaders and spokespersons

Recommended for

Utility managers, policymakers, staff who interact with customers and the media, as well as key business leaders and public safety partners.

Instructor

Bruce Hennes, CEO, Hennes Communications

One-on-One Media and Public Presentation Workshop

Format

- In-person: Half day
- Virtual: 3 hours

Course Level: Intermediate

Course Overview

This highly-interactive workshop will lead you through scenario-based role playing and mock interviews that are tailored to address public power issues and crisis situations. You'll learn the "control tools" to help prepare for any media interview or public speaking experience, anticipate questions and answers to press questions, and gain practical experience to help prepare for any media interview or public speaking experience.

Receive tools and coaching that can be applied immediately. These tactics will also be applicable for delivering presentations and speaking in group or one-on-one encounters with staff, community leaders, business associates and others.

Course Topics

- Scenario-based role playing and mock interviews, followed by one-on-one coaching
- Using "control techniques" to stay in charge of the interview
- Developing memorable, quotable key messages
- Anticipating the toughest questions
- Preparing effective answers
- Learning techniques for dealing with hostile reporters or surprise "ambush" interviews
- Using "bridging phrases" to pivot back to key messages

Recommended for

Utility staff and policymakers that serve as a spokesperson and are looking for one-on-one media training and coaching. Due to the highly interactive format, attendance is capped at 5 people per session.

Instructors

Howard Fencil, APR, Vice President, and **Thomas Fladung**, Managing Partner—Hennes Communications

Cybersecurity

Cybersecurity 101 (all staff)

Cybersecurity Training
for Management and Boards

Cybersecurity 201 (IT/OT staff)

Cybersecurity Risk Management and
Third-Party Management Fundamentals

Intermediate Cyber Training
for IT/OT Employees

Cybersecurity 101: Putting Good Cyber Hygiene into Practice

Format

- Virtual: 2 hours

Course Level: Basic

Course Overview

As attempted attacks on utility infrastructure increase, it is important for everyone involved to understand the landscape and terminology of cybersecurity. Get an introduction to cybersecurity, learn about threats and breaches that have impacted utilities, and gain tips and tools to secure against these threats.

This class is focused on informing and raising awareness of general security concepts and industry best practices regarding safeguarding IT assets. Learn techniques to better protect yourself and your organization from social engineering and other threats.

Course Topics

- Recent incidents and trends in the utility sector
- Cyber and physical security concepts for safeguarding IT/OT assets for utilities
- Risk management basics with an emphasis on cybersecurity risk
- Practical cyber hygiene
- Tips to implement good password management
- Safe and secure email practices
- How to recognize and react to attacks, such as ransomware
- Discuss techniques to mitigate common threats

Recommended for

This foundational course is designed to be accessible to all levels of utility staff and policymakers.

Instructor

Doug Westland, MBA, P.Eng., Senior Vice President, AESI

Cybersecurity Training for Management and Boards

Format

- In-person: Half day
- Virtual: 4 hours

Course Level: Basic

Course Overview

This course provides the foundational knowledge necessary to help utilities develop a holistic cyber and physical security program. Learn the fundamental concepts of cybersecurity, threat vectors, and risks to your utility. Discuss the key elements that are integral to adopting and implementing a sound cybersecurity framework and applicable practices and standards. Learn from real-world examples by working through a utility case study to build awareness and apply concepts learned in class.

Course Topics

- Crucial concepts of a holistic cybersecurity program
- Specific cyber risks, threat vectors, trends and recent incidents in the utility industry
- Overview of the necessary philosophy, culture of security and involvement of teams, including roles and responsibilities
- Governance perspectives for utility board and executive teams
- Best practices for using a security blueprint for effective cyber risk management
- High-level roadmap for a cybersecurity program and mitigation plan
- Guidance for developing a "next steps" plan with headcount and budgeting

Recommended for

Executive management, supervisors, policymakers, operations and communications executives, security officers, IT/OT managers, and others interested in learning more about cybersecurity.

Instructor

Doug Westlund, MBA, P.Eng., Senior Vice President, AESI

Cybersecurity 201 for Industrial Control Systems: Architecture, Asset Inventory, Network Security Monitoring & Event Detection

Format

- In-person: 1 day
- Virtual: 8 hours (2 sessions)

Course Level: Intermediate

Course Overview

This course takes on a more technical focus to outlining a cybersecurity program in the industrial control system (ICS) environment. Review the principles of a defensible architecture, learn how to conduct a thorough cyber asset inventory, and discover the necessary event detection techniques and network security monitoring tools to identify an attack in the ICS. Explore how network security monitoring provides visibility into the operational technology network, including determining a baseline for normal operations and alerting you to unexpected events.

Course Topics

- Foundational concepts and secure OT network architecture
- Standards and best practices; remote access; hardening; encryption and migration
- Asset identification and inventory
- Network security monitoring
- Data sources and types; physical implementation; common ICS protocols; collection management framework, security monitoring and response programs
- Host event detection, host logs and hunting

Recommended for

Utility IT/OT or ICS technical personnel who are responsible for, or interested in, applying cybersecurity standards and best practices to the industrial environment.

Instructor

Gus Serino, Principal, ICS Security Analyst, Dragos Threat Operations Center

Cybersecurity Risk Management and Third-Party Management Fundamentals

Format

- In-person: 1 day
- Virtual: 6 hours (2 sessions)

Course Level: Intermediate

Course Overview

Recent cyber incidents have highlighted the need to understand the security practices of third-party suppliers and how these controls (or lack thereof) impact your operations. Learn about risk management concepts as they apply to operational technology (OT) cybersecurity and how to apply, demonstrate and create cybersecurity policies and governance structures to manage risks. Review the fundamental concepts of supply chain/third party cybersecurity management and learn how to reduce the risks to your utility. Examine the key elements, best practices and standards that are integral to adopting and implementing a strong cybersecurity risk management framework.

Course Topics

- Overview of the new cyber threat landscape and system security management
- Cybersecurity risk management: how to identify, categorize, mitigate and report on cyber risk
- Integrating cybersecurity risk management with enterprise risk management processes
- Supply chain/third party cybersecurity management

Recommended for

Utility IT/OT managers and staff who are accountable for system and cyber risk; policymakers and operations staff; third party vendors; and others interested in learning more about cybersecurity

Instructor

Kim Grosskurth, MBA, Senior Cybersecurity Program and Compliance Consultant

Intermediate Cyber Training for IT/OT Employees

Format

- In-person or virtual: 3-hour modules

Course Level: Intermediate

Course Overview

Taken separately or collectively, these modules will cover both IT and OT fundamental concepts and best practices, including utility-specific examples for enacting cybersecurity measures, to provide the technical foundation for developing a comprehensive utility cybersecurity program. Learn about cyber and physical security risk-based mitigation strategies and develop a foundation for implementing a basic security operations maintenance plan.

Course Topics

- Choose from 3-hour modules on the following topics:
 - Fundamentals of IT/OT Cybersecurity Risk Management
 - Best Practices for Planning and Maintaining Security Operations
 - Access Management Concepts
 - Securing Individual Hosts and Endpoints
 - Risk Mitigation Strategies for Networks

Recommended for

Operations administrators and IT/OT managers and staff from small, medium and large public power utilities and Joint Action Agencies responsible for operating and maintaining Critical Infrastructure assets.

Instructors

AESI

Distributed Energy Resources

Distributed Energy Resources Fundamentals

Innovations in Energy Efficiency and Distributed Energy Resources

Preparing for Energy Storage

Electric Vehicles 101

The Long-Awaited Hydrogen Economy

Strategic Rate Design and Transition Planning

Custom topics available on request

Distributed Energy Resources Fundamentals

Format

- In-person: Half day
- Virtual: 3.5 hours

Course Level: Basic

Course Overview

Get a comprehensive overview of the DER landscape, use cases, potential grid services, market players, and costs of DERs and discuss how to incorporate them into your strategic planning. Learn how new DERs are proliferating and impacting energy production, storage, management, and transactions. Discuss new technologies, new types of customers, changing customer expectations, new market participants, and evolving business models. Get insights on dealing with the challenges and complexities while taking advantage of opportunities to diversify your business, upgrade your systems and operations, and respond to your customers.

Course Topics

- Why DERs are proliferating
- What are DERs and what do they do?
- Physical DERs (energy sources, storage, consumption, management)
- Virtual DERs (energy efficiency, management, and transactive energy)
- Challenges and opportunities for public power
- Proactive approaches to DERs
- Applications and case studies
- Vendors and products
- Planning, interconnection and operations policies

Recommended for

This foundational course is designed for utility staff and policymakers looking for a comprehensive overview of distributed energy resources.

Instructor

Steve Collier, Vice President of Business Development, Conexon, LLC

Innovations in Energy Efficiency and Distributed Energy Resources

Format

- In-person: Half day
- Virtual: 3.5 hours

Course Level: Basic

Course Overview

How are utility efficiency programs responding to a rapidly changing world? As Internet/Communications Technologies (ICT) become more important to utility operations, and more distributed energy resources come online, efficiency programs and services are adapting and becoming more integrated. Learn about current industry trends in energy efficiency, including the rise of artificial intelligence and connected devices. Learn the benefits of DERs and key opportunities for municipal utilities to improve customer service, increase reliability, and reduce costs through a range of DER activities.

Course Topics

- Drivers of changes to the utility industry: the physics of DERs, the internet of everything, and customer needs
- Emerging technologies and savings opportunities: connected devices and behavior-based savings
- Latest trends in real-time EM&V, measuring savings at the meter, and program designs to maximize successful outcomes
- Demand reduction and load management opportunities through energy efficiency, demand response, energy storage, and electric vehicles
- Integrating DERs into utility and power system planning

Recommended for

This foundational course is designed for utility staff and policymakers that are interested in learning about energy efficiency trends and best practices.

Instructor

Vermont Energy Investment Corporation (VEIC)

Preparing for Energy Storage: Trends and Practical Applications

Format

- In-person: 1 day
- Virtual: 6 hours (2 sessions)

Course Level: Basic

Course Overview

Energy storage technologies are poised to have a major effect on electric utilities. Take a deeper dive into the costs, benefits, and limitations of each type of energy storage technology. Discuss the challenges and short- and long-duration applications of these technologies and how your utility might weigh these insights when deciding how to invest in storage. Learn how regulatory trends might affect utility plans and storage goals. Review best practices and platforms for implementing battery storage in utility portfolio planning, in supporting intermittent renewable resources, and in providing other grid services.

Course Topics

- Overview of the energy storage market: trends and challenges
- Storage processes, technologies, and applications across the energy industry
- Battery storage technologies: cost and performance
- Lithium ion supply chain dynamics
- Market dynamics and competitive positioning
- Benefits of energy storage and the concept of value stacking multiple revenue streams
- Valuing storage as a resource in utility portfolio planning
- Regulatory frameworks and use cases
- Battery storage and the evolving grid
- End-of-life disposition
- Future outlook for storage

Recommended for

Utility staff and policymakers looking for an in-depth look at energy storage.

Instructor

Peter Kelly-Detwiler, Co-founder of NorthBridge Energy Partners

Electric Vehicles 101: Getting Ready for Transportation Electrification

Format

- In-person: Half day
- Virtual: 4 hours

Course Level: Basic

Course Overview

Mobility belonged to the steam engine in the 19th century, the internal combustion engine in the 20th, and electricity will fuel the 21st century. To get there, we first need to overcome a lack of understanding about how electric vehicle charging works, find ways to improve the charging experience, and establish best practices for managing load from EV charging.

This practical primer will get you up to date on EV market trends, charging technology, and policies impacting adoption. Learn what other public power utilities across the country are doing, including collaborating with charging industry partners and incorporating EVs into smart city concepts.

Course Topics

- Electric vehicle market overview and trends
- EV charging technology and use cases
- Policy considerations and smart cities
- Utility roles and opportunities
- Potential grid impacts
- Demand side management and rate design considerations
- EV charging infrastructure incentive programs
- Utility workplace and fleet charging
- Public power case studies

Recommended for

Utility staff and policymakers looking for an in-depth look at electric vehicles.

Instructors

APPA staff, public power case studies, and VEIC

The Hope and the Hype: Making Sense of the Long-Awaited Hydrogen Economy

Format

- In-person: Half day
- Virtual: 4 hours

Course Level: Basic

Course Overview

2020 witnessed a rapidly growing level of interest in hydrogen, with many new green hydrogen projects being announced. As these volumes increase, costs of producing green hydrogen continue to fall. In some markets—where carbon is priced into the equation—green hydrogen could be cost-competitive with fossil fuels as early as 2035.

What does this mean for our future energy economy? What are the critical technological challenges, cost curves, and applications? And are we finally, getting past the hype and navigating towards a long-awaited hydrogen economy?

This course will address those questions and provide a comprehensive overview of the key issues related to production and applications of hydrogen in the global energy economy.

Course Topics

- Why Now? The Case for Hydrogen: It's All About Carbon
- The Chemistry: The Promise and the Challenge
- The Value of Hydrogen in the Electric Power Grid
- Necessary Price Points and Comparisons: Technology, Costs and Current Applications
- Green Hydrogen: From Creation to Consumption
- Government Programs Driving Scale
- Grid Applications and Proposed Projects
- Meaningful Hydrogen Production Projects Announced To Date
- What to Watch for in 2022 and beyond

Recommended for

Utility staff and policymakers looking for an in-depth look at the hydrogen energy landscape.

Instructor

Peter Kelly-Detwiler, Co-founder of NorthBridge Energy Partners

Distributed Energy Resources: Strategic Rate Design and Transition Planning

Format

- In-person: Half day
- Virtual: 4 hours

Course Level: Basic

Course Overview

The future financial health of utilities requires a balance between fairness in customer rates, integration of energy efficiency and distributed energy resources. These objectives are dependent on the price signals and policies established by the utility including: utility financial policies that ensure financial stability, rate strategies that offer customers appropriate pricing and incentives, technology to achieve these rate strategies, and rate transition plans to accommodate these changes. These programs and strategies are critical to achieving community objectives, reliability and customer satisfaction. Review industry rate trends, develop a strategic rate strategy and technology plan, and learn how to educate and communicate on these issues.

Course Topics

- Industry rate trends and future rate structures
- Identifying gaps between current and future rate structures
- Determining proper pricing
- Developing strategic rate strategies consistent with customer, utility, and community objectives
- Assessing technology needs to achieve new goals
- Evaluating existing billing software capabilities
- Educating staff, policymakers, and customers
- Developing and implementing rate transition strategies

Recommended for

General managers, finance, and accounting personnel, rate analysts, financial planners and policymakers.

Instructor

Mark Beauchamp, CPA, CMA, MBA, President,
Utility Financial Solutions

Electric Utility 101

Electric Utility Basics

Public Power 101

Strategic Challenges and Trends for Public Power

Electric Utility Basics

Format

- In-person: Half day
- Virtual: 3.5 hours

Course Level: Basic

Course Overview

New to the industry and need to get familiar with the terminology, key topics, and trends utilities face? This course offers a non-technical overview of how a typical public power utility operates and the critical role electricity plays to keep our communities running. Also learn about how electric utilities are undergoing a dramatic transformation in response to significant shifts and advances in technology, energy sources, and demand for electricity. Get a briefing on how regulatory and policy trends are affecting the public power utility model and leading to new industry players. Attendees receive a copy of APPA's Electric Utility Basics handbook.

Course Topics

- Basic electrical concepts and terminology
- Generation and delivery systems
- Customer requirements and expectations
- Electric grid operations and reliability
- Regulation, deregulation and electricity markets
- Outlook for the electric industry

Recommended for

Utility staff and policymakers looking for a comprehensive overview and reference guide of the electric utility industry. This course is a companion to APPA's Electric Utility Basics publication.

Instructor

Brent McKinney, P.E., Principal, TFB Engineering

Public Power 101

Format

- In-person: Half day
- Virtual: 3 hours

Course Level: Basic

Course Overview

Gain a deeper understanding of the unique benefits and challenges facing the public power business model, and hear about strategies for the future. Learn what gives communities served by public power utilities an edge—from economic development to customer care and diverse power supply portfolios.

Get an overview of the different types of electric utilities in the United States. Hear how the five key elements of the public power business model are beneficial to the communities they serve. Learn how governance structures can vary within the public power model. Hear how public power utilities are navigating the changing electric industry and strategies to position your utility for success.

Course Topics

- Types of utility ownership
- What is public power and what makes us different?
- Governance structures
- Key benefits of public power
- Quantifying the value of public power
- Industry trends and strategies for the future

Recommended for

Public power staff looking for a basic understanding of the benefits of public power and the challenges and opportunities facing the industry. Policymakers, managers, or staff that are new to public power will gain the most attending, though experienced staff may benefit from a refresh in this comprehensive overview.

Instructor

Tim Blodgett, President, Hometown Connections

Strategic Challenges and Trends for Public Power

Format

- In-person: Half day
- Virtual: 3.5 hours

Course Level: Basic

Course Overview

Learn about the strategic issues and industry trends that are impacting public power utilities and challenging the traditional business model including changing customer expectations, electrification opportunities, distributed energy resources (DERs), physical and cybersecurity, and workforce planning and development. Hear utility examples and share experiences on these and other strategic issues.

Course Topics

- Strategic issues and challenges for electric utilities
- The public power business model
- How changes in the industry are affecting local public power systems

Recommended for

Utility management, staff, and policymakers looking for a high-level overview of electric utility industry trends and challenges.

Instructor

R. John Miner, President, Collaborative Learning, Inc.

Governance

Governance Workshop:
Sustaining Public Power's Value
through Effective Governance

Custom topics available on request

Governance Workshop: Sustaining Public Power's Value through Effective Governance

Format

- In-person: Half or full day
- Virtual: 3.5 hours (shorter sessions available)

Course Level: Basic

Course Overview

Protecting the many benefits of living and working in a public power community requires excellence in utility governance. Yet, most citizens serving in governance roles come to the board, commission, or city council without utility or governance experience. This workshop provides detailed training on understanding and communicating the value of public power, strategies for successful board operations, the duties and legal obligations of governing officials, and techniques for providing effective oversight, direction, and support to utility management.

Course Topics

Communicate the Public Power Advantage

- Understanding the public power business model
- Strategic roadmap for success
- Capturing and communicating your utility's value

Understand Board Roles and Responsibilities

- Characteristics of high performing governing boards
- Duties, roles, and responsibilities of utility boards
- Assuring effective communication and board-management relations
- Anatomy of a successful board meeting

Know Your Statutory and Fiduciary Duties

- Understanding board/management policy responsibilities
- Complying with statutory and fiduciary duties
- Ensure duty of care, establish duty of loyalty and maintain duty of obedience
- Representing the interests of, and communicating with, customers and other stakeholders

Measure and Improve Performance

- Managing the CEO: hiring, firing, and performance evaluation/management
- Evaluating governing board performance: what and how to measure
- Utility performance: identifying key performance areas, indicators, and metrics
- Methods for measuring utility performance and communicating performance to stakeholders

Recommended for

Newly elected or appointed policymakers, though experienced policy officials will also benefit. Utility managers are encouraged to attend with their commissioners, utility board or council members.

Instructors

Tim Blodgett, President & CEO, or **Steve VanderMeer**, Executive Consultant—Hometown Connections



Self-paced,
on-demand option
also available!



Key Accounts

Implementing a Customer-Focused
Key Accounts Program

Developing Your Key Accounts
Representative

The Effective Key Accounts Toolbox

Advanced Key Accounts Workshop

Implementing a Customer-Focused Key Accounts Program

Format

- In-person: 1 day
- On-demand: As part of the Key Accounts Certificate Online Program

Course Level: Basic

Course Overview

Learn how to build (and get ready to launch) an effective key accounts program that best serves your largest and most influential customers. Discover how to engage key accounts customers and build programs around their needs, while focusing on the strategic needs of the utility. Learn how to develop a clear and concise plan of action, assure adequate resources, get leadership and business community support, and procure commitment to maintaining and growing the program.

Course Topics

- Defining success for your key accounts program
- Choosing a program level
- Obtaining buy-in from management, colleagues, and the business community
- Identifying key accounts and understanding their value to the utility
- Developing measurable program goals
- Determining financial, budget and resource requirements
- Implementing the four phases of key accounts program development
- Preparing to launch (or revitalize) a key accounts program

Recommended for

Public power key account managers and representatives and other utility staff involved in key accounts

Instructor

Erick Rheam, President, Team Rheam Productions

Developing Your Key Accounts Representative

Format

- In-person: 1 day
- On-demand: As part of the Key Accounts Certificate Online Program

Course Level: Basic

Course Overview

Simply having a key accounts program does not ensure success. As customers become more sophisticated, trained account executives offer the utility a competitive advantage in managing and retaining key accounts. Learn essential account management and customer relationship skills.

Course Topics

- Identify the characteristics of a successful key accounts representative
- Assemble an effective key accounts team
- Create strong relationships between key account staff and customers
- Establish account-specific goals and strategies
- Develop an action plan to meet with customers and solve operational issues
- Lead an effective on-site customer meeting
- Review communications and follow-up
- Get tips and techniques for focus and organization

Recommended for

Public power key account managers and representatives and other utility staff involved in key accounts

Instructor

Erick Rheam, President, Team Rheam Productions

The Effective Key Accounts Toolbox

Format

- In-person: 1-1.5 days
(with optional customer action plan workshop)
- On-demand: As part of the Key Accounts Certificate Online Program

Course Level: Basic

Course Overview

As public power utilities face increasing competition, it is important to leverage every resource to obtain a competitive advantage. Key account staff must understand the challenges business customers are facing and partner to develop solutions and strategies. Learn about resources and tools you can use to build relationships, provide customized services, and add value for your key accounts. Complete the post-course exam and work through a template to start building a customer action plan for a selected key account.

Course Topics

- Determine where you stand with the customer
- Use customer relationship management tools and surveys to measure and enhance relationships
- Facilitate a key accounts annual meeting
- Leverage the power of customer advocacy
- Evaluate the latest key accounts programs and tools
- Work with other utility departments and associations, power suppliers, and joint action agencies
- Develop and review your own customer action plan

Recommended for

Public power key account managers and representatives and other utility staff involved in key accounts

Instructor

Erick Rheam, President, Team Rheam Productions

Advanced Key Accounts Workshop

Format

- In-person: 1.5 - 2 days
- Virtual: 6 hours (3 sessions)

Course Level: Intermediate

Course Overview

Learn how to apply advanced key accounts strategies and tools to your work and take your program to the next level. Discuss best practices to enhance your key account services, provide focused support, refresh your business plan, and learn new team-building techniques. Discuss how to properly utilize the Customer Action Plan tool by deploying a weekly, quarterly, and annual review process. Attendees receive a copy of APPA's Advanced Key Accounts Field Manual: A Guide for Next Level Service. The two-day version includes customized programming for joint action agencies, state associations, economic development staff, or larger utilities.

Course Topics

- Review the five pillars of a successful key accounts program
- Take the key accounts program health assessment to determine strengths and weaknesses
- Receive tips, tools, and templates to fix, upgrade and enhance your existing key accounts program and develop a roadmap for the future
- Take a deep dive into the six sections of the Advanced Key Accounts Field Manual

Recommended for

Utility key accounts personnel looking to take an existing program to the next level. This is a logical follow-on for those who have participated in APPA's Key Accounts Certificate Program.

Instructor

Erick Rheam, President, Team Rheam Productions

Leadership

Understanding Your Leadership Style and Strengths

Strategic Leadership for Public Power

Financial Planning, Management and Cost of Service Studies: What Managers Need to Know

Additional topics coming soon!

Leadership in a Mirror: Understanding Your Leadership Style and Strengths

Format

- In-person: Half day
- Virtual: 4 hours

Course Overview

To thrive as a leader, it is important to understand and know how to leverage our strengths, expectations and interests. Take a look inward to reflect on how your leadership style might be helping or hindering your organization's success.

Complete the Birkman Method assessment online in advance of the class and receive a personalized report to provide insights about your strengths and understand the gap between how you think you come across versus how others experience you. Discuss results with a trained facilitator to discover motivators, behaviors and blind spots to increase your effectiveness in leading your teams and develop a personal action plan to put to work immediately.

Course Topics

- Defining leadership
- Differences between good and bad leaders, and between leaders and managers
- Leading during times of change
- An introduction to personality and the Birkman Method
- The internal and external components of personality
- Your interests and motivation
- How to foster a culture of leadership and excellence

Recommended for

Public power managers and policymakers, though staff at all levels of an organization can benefit.

Instructor

Patricia Cruz, Executive Consultant, nFront Consulting

Strategic Leadership for Public Power

Format

- In-person: 3.5 days

Course Level: Basic (some advance preparation required)

Course Overview

This course will provide participants with an in-depth perspective on public power leadership by focusing on the development of the individual leader and the leader's role in guiding and developing their organization and its workforce. Participants will use the DiSC Work of Leaders profile as a source of personal information that will be used during the course to increase awareness of their predominant leadership style and its impact on others. Each of the following dimensions of leadership will be presented in separate course modules: awareness, character, community, empowerment, service, sustainability.

Course Topics

Module One: Awareness

- Setting purpose
- Seeing and influencing organizational realities
- Recognizing and managing larger system influences

Module Two: Character

- Driving values
- Meeting expectations for ethical behavior
- Developing yourself

Module Three: Community

- Building relationships
- Moving beyond differences
- Communicating effectively

Module Four: Empowerment

- Sharing power
- Empowering people and teams
- Developing people for the future

Module Five: Service

- Serving customers
- Understanding stakeholders
- Driving performance and accountability

Module Six: Sustainability

- Setting a vision for the future
- Fostering innovation
- Leading change

Recommended for

Mid-level public power managers and supervisors interested in improving their management, communications, leadership knowledge and skills. New senior managers, and those with experience, who wish to refresh or enhance their knowledge and skills by participating in a highly interactive program that has been developed specifically for public power, will also benefit from this course.

Instructors

Betsy Aylin, Ph.D., Executive Consultant and **R. John Miner, P.E.**, President—Collaborative Learning

Financial Planning, Management and Cost of Service Studies: What Managers Need to Know

Format

- In-person: Half day
- Virtual: 4 hours

Course Level: Basic

Course Overview

A critical aspect allowing managers to complete projects and programs is the ability to fund the system with a limited impact on customers and elected officials. This program provides managers with insight and understanding on financial management, budgeting, cost of service studies and the various forms of electric rates. Attendees will also learn how to convey these methods to utility policymakers to aid in decision making.

Course Topics

- Determining revenue requirements
- Contributions to city governments
- Financial targets such as:
 - Debt Coverage Ratio
 - Cash reserves
 - Rate of Return
- Developing a long-term financial plan
- Cost of service studies and information
- Electric rate designs and significant factors affecting rates

Recommended for

Public power managers and supervisors looking for a high-level overview of financial planning concepts.

Instructor

Dawn Lund, Vice President, Utility Financial Solutions

Resilience & Disaster Planning

Fostering Utility Resilience and Preparedness

Incident Finance and FEMA Public Assistance for Public Power

Disaster Recovery & Resiliency 101: Funding Eligibility, Procurement, and Documentation

Fostering Utility Resilience and Preparedness

Format

- Virtual: 4 hours
- In-person: Half day

Course Level: Basic

Course Overview

In the face of compounded crises and challenges many utility leaders are reworking their emergency preparedness, business continuity, and crisis management programs to better reflect today's risks and with an eye on resilience. This course is focused on helping you create a holistic, agile, and practical preparedness program for your utility. From identifying the right team of decision makers to clarifying roles and responsibilities across the organization and establishing best practices for crisis management.

Learn the fundamentals of all-hazards business continuity and walk through how crises can affect your workplace. Discuss ways to craft plans that mitigate these effects, and evaluate your current preparedness program.

Course Topics

- All-hazards emergency planning and resilience management frameworks
- Strategic, operational, and tactical coordination
- Establishing governance (emergency response, business continuity, crisis management)
- Risk tolerance and capability-based planning, training, and exercise design
- Institutional knowledge transfer and change management
- Real-time incident action planning and mutual aid
- Public power preparedness resources

Recommended for

Public power managers, safety, operations, risk management professionals and utility staff who are involved in resilience and continuity planning.

Instructor

Kate Leese, Managing Partner, Kinetics Consulting

Incident Finance & FEMA Public Assistance for Public Power

Format

- Virtual: 4 hours
- In-person: Half day

Course Level: Basic

Course Overview

FEMA's Public Assistance Program and Policy Guide was recently expanded to help utilities meet FEMA's requirements for supplemental grant assistance. Review highlights of key public assistance program changes, including clarified guidance and operational coordination of incident finance activities, the appeal process, closeout policy and documentation requirements, and additional procurement and contracting requirements. Learn how to establish an incident finance organization during the disaster so the right information is collected up front and clear expectations are set and learn how to avoid mistakes related to what can be considered eligible work, and costs.

Learn how to establish an incident finance organization during the disaster so the right information is collected up front and clear expectations are set and learn how to avoid mistakes related to what can be considered eligible work, and costs.

Course Topics

- FEMA's Public Assistance Program and Policy Guide
- Establishing a finance section within your incident management team
- Real-time financial management coordination at the beginning of an incident
- Mutual aid eligibility
- Key considerations for adequately documenting work
- Examples of reasonable costs, eligible costs, and eligible work
- Procurement and contracting considerations
- Closeout and appeals

Recommended for

Public power managers, operations, finance, procurement, legal, and accounting staff, as well as others interested in learning more about FEMA eligibility, procurement requirements, processes and procedures.

Instructor

Gina Harrold, Consultant, Kinetics Consulting

Disaster Recovery & Resiliency 101: Funding Eligibility, Procurement, and Documentation

Format

- Virtual: 4 hours
- In-person: Half day

Course Level: Basic

Course Overview

Learn how your utility can access mitigation and recovery funding available before and after disasters. Review the different types of funding available, the requirements for work to be eligible under the various sources of funding, and key factors to maximize funding. Understand the role that proper procurement plays in reimbursement, and review the rules, regulations, and considerations applicable to procurement before, during and after disasters. Learn how to properly document expenditures to support costs and enable efficient reimbursement. Review new considerations in disaster recovery funding in light of the COVID-19 pandemic.

Course Topics

- What types of grant funding are available for utilities?
- What types of costs are eligible for reimbursement?
- Federal procurement regulations that apply to utilities
- Requirements for tracking disaster-related costs and expenditures
- New recovery funding considerations due to COVID-19

Recommended for

Public power managers, operations, finance, procurement, legal, and accounting staff, as well as others interested in learning more about FEMA eligibility, procurement requirements, processes and procedures.

Instructor

Bradley Nichols, Partner, Forensic & Integrity Services, Ernst & Young LLP

Technical Training

Understanding Utility Distribution Systems

Applied Electrical Distribution Theory and Calculations

Overhead Distribution Systems

Best Practices in Overhead Distribution Line Design

Underground Distribution Systems

Advanced Topics in Underground Distribution

Improving the Reliability of Your Distribution System

Maintenance of High Voltage Electrical Distribution Systems

Understanding Utility Distribution Systems

Format

- In-person: Half day
- Virtual: 4 hours

Course Level: Basic

Course Overview

Receive a comprehensive and practical overview of electric utility distribution systems, from transmission or generation source to the end-use customer. Get a high-level understanding of how different system characteristics and components—including distributed energy resources (DERs), overhead and underground structures, and various equipment—benefit and challenge utility operations.

Course Topics

- The electric utility distribution system: purpose, functions, and components
- Overhead vs. underground distribution
- Distribution system energy sources
- Distribution feeder circuits
- Conductors and cables
- Overhead and underground structures
- Voltage control equipment
- Overcurrent and overvoltage protection equipment

Recommended for

Those who work at all organization levels and in all areas of responsibility for the distribution system including: engineering managers, design engineers, operations managers, crew supervisors, senior lineworkers, and consulting engineers. Managers and employees from other functional areas of the utility will also benefit.

Instructors

John Miner, P.E., President, and **Tom Black, P.E.**, Consultant—Collaborative Learning, Inc.

Applied Electrical Theory and Calculations Workshop

Format

- In-person: 1.5 days
- Virtual: 8 hours (2 sessions)

Course Level: Basic

Course Overview

Learn the fundamentals of electric circuit theory and the relationships between voltage, current, resistance and reactance, real and reactive power in single-phase and three-phase alternating current (AC) circuits. Dive into how these theories apply to electric utility distribution systems through practical exercises and discussion.

Perform some commonly encountered AC circuit calculations to determine figures including conductor and equipment ampacity ratings, circuit voltage drop, power factor, energy losses, and customer load estimation.

Course Topics

- Direct and alternating current circuit elements (energy sources, conductors, loads, voltage, current, opposition to current flow)
- Alternating current principles in single and three-phase circuits (Kirchoff's voltage and current laws, Ohm's law, impedance, phase angle, voltage/current relationship, reactance and phase angle, real and reactive power)
- Circuit component ratings (voltage, current, power, thermal limits)
- Common circuit calculations (current flow, voltage drop, power, power factor, energy losses)

Recommended for

Engineering managers, design engineers, operations managers, crew supervisors, senior lineworkers, and consulting engineers. Managers and employees from other functional areas of the utility will also benefit.

Instructors

John Miner, P.E., President, and **Tom Black, P.E.**, Consultant—Collaborative Learning, Inc.

Overhead Distribution Principles and Applications

Format

- In-person: 3 days
- Virtual: 16 hours (4 sessions)

Course Level: Basic/Intermediate

Course Overview

Learn about the planning, design, installation, and maintenance principles and legal/regulatory requirements that drive today's overhead distribution practices. Learn how to review and improve your utility's overhead line design criteria and construction standards, make better design decisions, and enhance safety and service reliability. Build your knowledge of overhead distribution system components along with basic design principles and practices.

Course Topics

- Overview of overhead distribution
- Legal, regulatory and business environment for overhead distribution design, construction and operation
- Overhead line electric supply and communication joint use
- Overhead line conductors, cables, and structures
- Overhead line structure types and design
- NESC general requirements for overhead lines
- Overhead line clearances and structure loading
- Guying and anchoring for overhead line structures
- Insulation, insulation coordination and lightning protection
- Basic calculations related to overhead distribution systems
- Overhead line grounding

Recommended for

Engineers, designers, technicians and field personnel, as well as for all those involved in the management, construction, safety and operational aspects of transmission and distribution systems.

Instructors

John Miner, P.E., President, and **Erich Schoennagel, P.E.**—Collaborative Learning, Inc.; and **Ted Dimberio, P.E.**, President and CFO, Utility Line Design

Best Practices in Overhead Distribution Line Design

Format

- In-person: 2 days
- Virtual: 24 hours (6 sessions)

Course Level: Intermediate/Advanced

Course Overview

Consistent and proper application of engineering principles and ethics leads to higher quality designs that make for a safer, more reliable system. In addition, proper design for clearances and structural strength can reduce liability exposure and support cost-effective operation and maintenance.

Learn how to enhance your line design processes and prepare designs that are safe, reliable, and in compliance with National Electrical Safety Code (NESC) requirements. Review industry best practices, engage with your peers, and complete over 25 practical hands-on design exercises using line design software.

Course Topics

- The line design process and how to improve it
- Federal and state public utilities laws and regulations that apply to overhead lines (including NESC and OSHA)
- Conductor/cable sag, tension and clearance
- NESC clearance requirements
- Overhead line structure loading and strength
- Joint use overhead line design considerations
- Line design software applications, scenarios, and exercises
- Line designer training and continuing education

Recommended for

Engineers, designers, technicians and field personnel, as well as for all those involved in the management, construction, safety and operational aspects of transmission and distribution systems.

Instructors

John Miner, Erich Schoennagel, and Ted Dimberio— Collaborative Learning, Inc.

Constructing, Operating and Maintaining Underground Distribution Systems

Format

- In-person: 3 days
- Virtual: 20 hours (5 sessions)

Course Level: Basic/Intermediate

Course Overview

Learn all about the effective design, construction, operation and maintenance of underground electric distribution systems. Review critical factors involved in the conversion of overhead systems to underground. Discuss real-life examples and work through practical design problems.

Course Topics

- Policy and service guidelines
- Underground distribution planning, design and layout
- Maintenance practices
- Operations, safety and regulatory requirements
- Cable design and application
- Terminating underground cable
- Fusing, fuse coordination, fault location and surge protection techniques
- Review of the NESC that pertains to underground systems (Part 3) and work practices (Part 4)

Recommended for

Public power professionals and skilled personnel including engineers, designers, technicians and field personnel, as well as for all those involved in the management, construction, safety and operational aspects of transmission and distribution systems.

Instructors

Larry Koshire, P.E., President, Koshire Consulting, LLC; and **Mark Swan, P.E.**, Principal, MDS Engineering Consulting, LLC

Advanced Topics in Underground Distribution Systems

Format

- In-person: 1 day
- Virtual: 4 hours

Course Level: Intermediate/Advanced

Course Overview

Although the initial installation cost of underground distribution is almost always greater than equivalent overhead distribution, it offers a wide range of advantages, including greater operating reliability, lower operating and maintenance costs, better public safety and, of course, reduced visibility and greater public acceptance. Learn about current and emerging topics in underground distribution.

Course Topics

- Making the decision between overhead and underground distribution alternatives
- How to ensure long-life cable installations
- State-of-the-art cable specification, purchasing, handling and installation (including cable pulling calculations)
- Extending the life of in-service cable through improved lightning protection and thermal loading
- Underground distribution service considerations for commercial customers
- Customer load estimation
- Transformer sizing, loading, and specifications
- Steady-state and transient voltage considerations
- Methods for prioritizing capital and operating expenditures
- Implications of smart grid and other new technologies

Recommended for

Engineers, designers, technicians and field personnel, as well as for all those involved in the management, construction, safety and operational aspects of transmission and distribution systems.

Instructor

John Miner, President, Collaborative Learning, Inc.

Improving the Reliability of Your Distribution System

Format

- In-person: Half day
- Virtual: 8 hours (2 sessions)

Course Level: Basic

Course Overview

Learn how to set reliability performance targets, implement performance improvement initiatives, and establish indices to measure reliability. Discuss 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.

Course Topics

- The meanings of service reliability and reliability improvement from the perspective of regulators, customers, and utility employees
- Indices and other benchmarks that are used to measure reliability, as well as the factors to consider when setting performance targets and comparing performance with others
- How to build and sustain an organizational culture with practices that support a reliable distribution system infrastructure, operation, and customer service
- Specific opportunities for distribution system reliability improvement initiatives
- Basic elements and outcomes of APPA's RP3 program

Recommended for

Engineering managers and design engineers, business and customer service managers, operations managers, crew supervisors and senior line workers, and consulting engineers

Instructors

John Miner, P.E., President, and **Tom Black, P.E.**, Consultant—Collaborative Learning, Inc.

Maintenance of High Voltage Electrical Distribution Systems

Format

- In-person: Half day
- Virtual: 8 hours (2 sessions)

Course Level: Basic

Course Overview

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.

Course Topics

- Engineering and accounting definitions of maintenance and the purpose of maintenance
- Differences between corrective, preventive and predictive maintenance, and their typical applications on the distribution system
- Legal and regulatory requirements for distribution maintenance, including NESC requirements for inspection and correction of hazardous conditions and defects
- How to create and implement an effective distribution system maintenance program
- Overhead and underground distribution maintenance practices
- Distribution equipment maintenance practices

Recommended for

Engineering managers and design engineers, business and customer service managers, operations managers, crew supervisors and senior line workers, and consulting engineers.

Instructors

John Miner, P.E., President, and **Tom Black, P.E.**, Consultant—Collaborative Learning, Inc.

On-Demand Training

Learn on your own schedule

Key Accounts Certificate Program

Recorded webinars, events, and courses

Key Accounts Certificate Program

Format

- On-Demand: 20 video modules, online workbooks and testing, and bonus materials
- Hybrid: Add an in-person or live virtual workshop to apply these concepts to your organization

Program Overview

Whether you plan to start a utility key accounts program or want to take your current program to the next level, this comprehensive curriculum provides the skills, knowledge, and tools for success. Learn from real-world examples and receive tools and templates to apply on the job. Complete the curriculum online or in-person (descriptions on pgs. 20-21), complete an online exam, and submit a Customer Action Plan to earn your certificate.

Curriculum (20 modules)

- Implementing a Customer-Focused Key Accounts Program
- Developing Your Key Accounts Representative
- The Effective Key Accounts Toolbox

Recommended for

Public power key account managers and representatives and other utility staff involved in key accounts

Instructor

Erick Rheam, President, Team Rheam Productions

Recorded webinars, events, and courses

Access our library of recordings—more than 50 events!

- **Webinars**
Purchase individual recordings or get group access to our most popular webinars.
- **Events and Courses**
Get access to past conference sessions, workshops, summits, and in-depth education courses.

More Information

Visit www.PublicPower.org under On-Demand Learning Resources.

THE ACADEMY

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