

MARCH-APRIL 2025 • VOL. 83 / NO. 2

# PUBLIC POWER MAGAZINE

AMERICAN PUBLIC POWER ASSOCIATION

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# PUBLIC POWER MAGAZINE

MARCH-APRIL 2025

## OPERATIONAL EXCELLENCE

### 4 Public Power's Excellence

Scott Corwin on how the "nuts and bolts" of what makes a utility's operations succeed goes beyond hardware and field work — and how public power excels in many operational areas.

### 6 Creating Public Power Leaders

How public power leaders are preparing themselves and their workforce for handling industry changes.

### 12 Evolving with Energy Technology

How public power utilities are getting involved with advancing energy technology and using the latest advancements to better understand and operate their systems.

### Sponsored

### 22 Building the Future Grid

How engaging a strategic supply chain solutions partner can support utilities in accommodating growing demand and navigating the complexities of a transforming grid.

### 24 Improving Emergency Management

How public power utilities leverage a variety of resources to enhance their emergency management efforts, from risk mitigation to preparedness, response, and recovery.

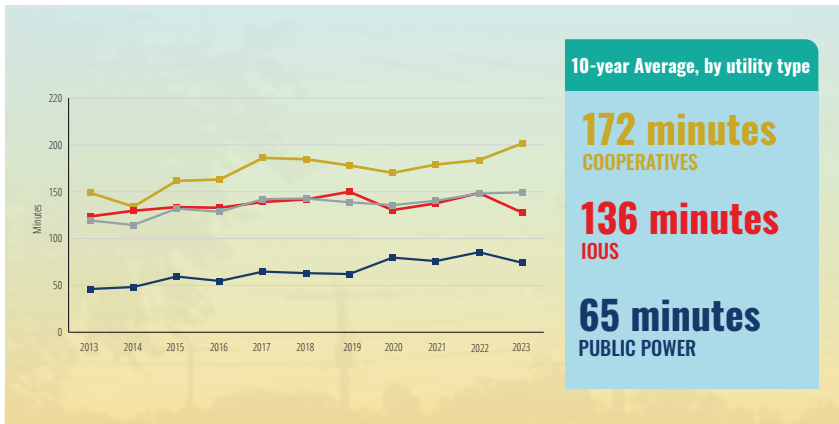
### 32 Public Power Leaders: Steve Wright

The former leader of Chelan PUD and administrator for the Bonneville Power Administration on the importance of reestablishing trust in public sector organizations.

### 34 Public Power Communities: Yellow Springs, Ohio

How the small village in central Ohio has made strides to improve its electric system in recent years and why utility leaders prioritize its employees.





## 20 Public Power's Reliable Advantage

View how trends in utility reliability indices over the last decade show a clear advantage for public power customers in terms of less outage time and fewer overall outages.

## 36 Public Power and the NESC

How and why public power utilities are involved in the five-year cycle to keep the National Electrical Safety Code up to date.

## 38 Making the Case for Energy Storage

What goes into making a business case for a potential energy storage project and how utilities and community decision-makers alike can benefit from the information laid out in the case.

## 40 11 Steps to Operational Excellence

A rundown of the key action areas that support operational excellence, as detailed in a new guide from APPA.

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# PUBLIC POWER'S OPERATIONAL EXCELLENCE

BY SCOTT CORWIN, PRESIDENT AND CEO,  
AMERICAN PUBLIC POWER ASSOCIATION

Photo courtesy Grant County PUD, Washington

**H**aving stellar operations is the backbone to many things in addition to the foundation of keeping the lights on. It means trust from customers, effective governance, financial health, and a safe working environment.

The “nuts and bolts” of what makes a utility run well goes beyond hardware and field work to a wide swath of functions: distribution, emergency management, outage mitigation, power supply management, human resources, customer service, and communication, just to name a few. Because of the size and nature of public power utilities, they often rely on a small team, or even individual people, to perform several of these critical functions.

Given the difficult task to balance many priorities, public power workers do a phenomenal job. The results of these efforts underscore APPA's vision for affordable and reliable power for all. As our longtime colleague, Steve Wright, shares in his Q&A, that vision is not possible without a motivated, inspired workforce (see page 32). It's the people who work in public power that make its operations stand out — your dedication to providing service to your communities, of continually finding new and improved ways to keep the utility running, and advancing your skills to bring your best to work each day. We recognize this commitment through programs such as the Reliable

Public Power Provider, or RP3, designation, and in celebrating excellence together, such as at our Lineworkers Rodeo and in our various public power awards presented each year.

These efforts should be recognized and celebrated. While we sing the praises of all the advantages public power customers get, we want to make it easy for you to join in the choir as well. We create graphics, such as the one on page 20 showing public power's stellar reliability or the map on average bills in the enclosed Public Power Statistical Report, so you can easily share this edge with your customers.

This issue of *Public Power* magazine aligns with the release of a new resource, *Public Power Forward: A Guide to Utility Operational Excellence*. An impressive slate of public power leaders, including seven past board chairs of the American Public Power Association, contributed their perspectives to this resource to ensure it covers the array of strategies and steps necessary for keeping up with our rapidly evolving industry. Page 40 of this issue gives a high-level overview of the 11 strategic areas covered by the guide, and several features dive into what these strategies look like in action at utilities — from investing in your technology future (see page 12) to promoting human resource excellence (see page 6).

I hope you gain some insights from this issue that can help in your day-to-day work. Please reach out to let us know how APPA can continue to support your operations in being the best they can be in service to your communities. 🇺🇸





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# DEVELOPING UTILITY WORKFORCE SKILLS FROM THE FIELD TO THE BOARD ROOM

**BY SUSAN PARTAIN**, DIRECTOR,  
CONTENT STRATEGY,  
AMERICAN PUBLIC POWER ASSOCIATION



Photo courtesy Missouri Public Utility Alliance



Utilities are facing a lot of change at once — whether in the technology they’re dealing with in their operations, what their customers are expecting from the utility, or market conditions and economics fluctuating power supply and equipment costs. At the center of dealing with all of this change are the people working for the utility. Being able to manage change is a shared responsibility that requires utilities to prepare employees for what’s ahead — from recruiting and onboarding with an eye toward skills needed for the future to leaders that can effectively facilitate change management.

Fortunately, there are options for public power utilities to make efforts within their utility, across their region, and through tailored training, such as the offerings from the APPA Academy. For employees at any level, there are opportunities for building skills and continually learning.

## MAKING IT EASIER TO BEGIN

The Missouri Public Utility Alliance has been training lineworker apprentices throughout the state for years in an effort to bridge the gap between the need and interest in line work. The training involves learning how to use the various tools and equipment of the trade and build knowledge in the areas of expertise needed to do the job safely.

Brandon Renaud, MPUA’s director of services and development, noted that in addition to building a new training center in Columbia, MO, which incorporates a swath of updated technology and equipment for apprentices to learn on, MPUA has moved a lot of the testing and course components to have remote and online options.

“We want to make sure that becoming a lineworker and getting into public power is accessible regardless of someone’s background,” he said. “We know there are many people who want to work in this field and we are committed to making training opportunities available to them.”

That view is behind MPUA’s efforts to make sure training is as affordable and accessible as possible. Making training accessible relies on working with others who have shared goals.

“Partnerships are really important for ensuring that the industry is moving forward,” said Renaud. “For example, I have seen a lot of success when we collaborate with regional workforce groups and member utilities in a specific area, bringing in our trainers to develop programs that meet the needs of the utilities in that region.”

Renaud said MPUA has also been working to increase partnerships with training schools and technical centers across the state to increase awareness among students about the opportunities for working in public power. A grant from the Missouri Department of Economic Development helped MPUA launch a pre-apprentice training program for students coming out of high school and individuals seeking to enter the utility field.



**“ WE WANT TO MAKE SURE THAT BECOMING A LINEMAN AND GETTING INTO PUBLIC POWER IS ACCESSIBLE REGARDLESS OF SOMEONE’S BACKGROUND.”**

**BRANDON RENAUD, DIRECTOR OF SERVICES AND DEVELOPMENT, MISSOURI PUBLIC UTILITY ALLIANCE**

Renaud said the two-week program teaches participants how to climb poles, the basics of electric distribution, safety, substation safety and general maintenance on those systems.

“We tell them all they need to show up with is a pair of boots and a positive attitude,” he said.

The program just started in 2024, but Renaud is already seeing signs of participants moving from the pre-apprentice program into the apprentice training.

As the industry evolves, continuing education is also important to keep workers up to pace. Renaud said MPUA installed a small solar system in its training field to help educate linemen step by step on the system components, risks, and how to interact with them in a safe way.

“The industry is changing very fast, with the growth and changes in energy generation,” he said. Which means field crews need a holistic understanding of not just distribution systems, but impacts of alternative energy sources and how they impact the grid and the risks of working with such systems on a day-to-day basis.

## UNDERSTANDING THE ROLE

For the nearly 22 years that Julio Torrado has been with Keys Energy Services in Florida, the public power utility has offered a job shadowing program. However, he said the program has become more formalized in written policies over the last decade as it has become an increasingly popular component of some of KEYS' professional development efforts.

Torrado, who is Keys Energy's director of human resources and communications, said that the shadowing consists of having an employee spend 4-8 hours with another employee who holds a position that either

the shadowing employee is potentially interested in applying for in the future or that has interaction or dependency with their current position. In addition to simply observing, employees who job shadow fill out a form sharing what they observed and learned about the position during the process.

An overview of the program states, “employees who elect to job shadow a position they are interested in pursuing will have the opportunity to observe how the person interacts with their co-workers, to participate in the activities that they face every day, and to see what it takes to “be that person.” The employee will gain insight into whether that position is something they want to pursue.”

Employees who participate “gain an understanding of the pressures, time constraints, and needs of the position” shadowed, in addition to building rapport and appreciation for what those colleagues do.

While any non-probationary employee can participate in at least one job shadow a year, Torrado said that most shadowing activity come from participants in its broader development program called Gear Up. That program gives employees a sense of the work completed across the utility, through a months-long program featuring in-depth classes from the directors of each department and a requirement to complete four job shadows.

The shadowing also comes in handy as part of KEYS' succession planning efforts. The utility identified individuals who are likely to be retiring within the coming years, and then worked with the incumbent and their supervisor to identify the various components of the job that would make for a successful candidate.

“There's a listing of attributes and skills that any potential candidate should either possess or be doing some work to possess. There is an opportunity for those individuals to then do some job shadowing in that position with the individual who has identified that they will be retiring from us in the next few years.”

The shadowing helps people get a realistic picture of what depth of knowledge and skills are required, and where they need to work on building those skills.

Beyond helping individuals grow professionally, Torrado sees the effort as building better rapport across the organization. “It helps to create a good dialogue. Inevitably, people come in with preconceived notions of what a job is and what a person does. And sure enough, at the end of the job shadowing session, they're aware that they do in fact have many things that are competing for their time. It's very informative and building a good base for employees to understand what their fellow coworkers are doing.”

“It's not just a day away from their work, it's really to get them to interact, grow personally, and see if there are ways to improve processes globally,” he added. Employees that participate in job shadowing often follow up the experience with further education, as the experience might





David Ritz leading a training. Photo courtesy LDR Leadership.

have helped them see the benefit of getting a college degree or pursuing certification of a skill.

Of the 130 employees who work for Keys Energy, Torrado said about 20 to 30 people have participated in recent years, largely thanks to the Gear Up and succession planning efforts.

“It’s a matter of the employee having the initiative to request to job shadow, or the supervisor recognizing when they have an individual in their section who shows promising attributes that will equate to future success.”

## MODELING LEADERSHIP

Being technically competent is a key aspect of running a utility, but leading a public power utility in today’s environment requires a broad set of ‘soft’ skills that include strong communication, critical and strategic thinking, and emotional intelligence. As such, the APPA Academy has focused on developing a robust series of classes and certificate programs that focus on these leadership and management skills.

“Oftentimes, as leaders, we haven’t spent a lot of time understanding ourselves,” said Dave Taylor, CEO of LDR Leadership, whose instructors teach APPA’s Leadership Essentials Certificate Program. “Some people will view it as mushy, and as a former Army Ranger, I’m saying this is important stuff. You must know what is and isn’t your strength and know who you can go to. The key is then being comfortable and confident enough to utilize the diverse strengths of your team that complement your own to achieve a high level of team and organizational effectiveness. The better we can lead ourselves, the better we can lead others.”



**“IT’S NOT JUST A DAY AWAY FROM THEIR WORK, IT’S REALLY TO GET THEM TO INTERACT, GROW PERSONALLY, AND SEE IF THERE ARE WAYS TO IMPROVE PROCESSES GLOBALLY.”**

**JULIO TORRADO**, DIRECTOR OF HUMAN RESOURCES AND COMMUNICATIONS, **KEYS ENERGY SERVICES**, FLORIDA

Shawn Tenace, an instructor with LDR Leadership, pointed out the diverse array of challenges and information utility leaders grapple with, from customer-facing issues on outages and billing to more employee-focused situations, such as working with employee unions.

“Public employees are much more exposed than other utility leaders,” shared David Ritz, senior instructor at LDR Leadership. “We all want customer engagement, but because of their structure, and perhaps the structure of their board, there is a different pressure on them. Customer engagement through communication is so important for public power leaders.”

“There’s a diverse amount of information coming in. Critical thinking and being able to gather the team to make a decision is crucial,” said Tenace. “When there’s change and conflict, communication becomes even more important,” he added. The biggest piece of communication, he said, is listening.

“Communication is the foundation of everything. Wars often begin because of miscommunication — or the complete lack of communication — and they end through communication. The same is true for relationships; they succeed or fail based on how well people communicate,” said Taylor.

That’s why LDR instructors spend a lot of time on helping leaders think about how they communicate, from practicing role playing scenarios to working through problem solving situations they face. Utility leaders who take their training also often complete assessments, such as the DISC, ahead of time to help leaders understand the dynamics of how they interact with their team. This understanding helps set the foundation for how a leader might become better at setting standards or holding

## DEVELOPING UTILITY WORKFORCE SKILLS FROM THE FIELD TO THE BOARD ROOM



**“OFTENTIMES, AS LEADERS, WE HAVEN’T SPENT A LOT OF TIME UNDERSTANDING OURSELVES. THE BETTER WE CAN LEAD OURSELVES, THE BETTER WE CAN LEAD OTHERS.”**

**DAVE TAYLOR, CEO, LDR LEADERSHIP**


Photo courtesy LDR Leadership

employees accountable, in handling conflict resolution, or offering positive reinforcement and recognition.

While these trainings give leaders a foundation to build from, and the LDR instructors noted how they focus on having participants apply the skills within their sessions, they acknowledged that building the skills needed to be an effective leader ultimately takes practice to become habit.

“Leadership is a lifelong event. We teach it, but we still learn,” said Taylor. “You can get a class on emotional intelligence or communication, but those things take time. If it didn’t, we’d be living on a planet with perfect individuals. All of these things take conscious effort to try and be better.”

Embracing the mentality of lifelong learning isn’t just for self-improvement, but to pass along and model positive leadership for the organization.

“Leadership is about developing other leaders,” added Tenace. “I’m lucky enough to be where I am because someone was a selfless leader who wanted to develop me.” 

**APPA’S NEXT LEADERSHIP ESSENTIALS CERTIFICATE PROGRAM WILL BE HELD MAY 5-8 IN ORLANDO, FLORIDA.**

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# How Public Power Is Evolving with Energy Technology

BY JESSICA PORTER, CONTRIBUTING WRITER

Photo courtesy New York Power Authority

**T**echnology evolves quickly, challenging utilities to keep up. They must balance embracing the right technology that can improve customer relations, make operations more efficient, and keep systems reliable while keeping power affordable. Being part of the cutting edge of energy technology is a careful balance between exploring the possibilities and recognizing what's not yet ready for wider application or deployment.

To help public power organizations in conducting research and development, the American Public Power Association manages the Demonstration of Energy and Efficiency

Developments, or DEED, program. Over the past 40 years, public power utilities have collectively received more than \$20 million from DEED to help redefine what is feasible when deploying energy technologies, better understand their systems, and discover new approaches to operations. A few organizations that recently completed DEED-funded efforts shared what they learned from their projects and what other utilities can take away from the results. These projects can serve as a roadmap for other utilities aiming to improve operations and mitigate the pressure of increasing customer demand on the grid.

## AI to Support Hydro

The New York Power Authority is working to better understand the impact of ice on its hydropower facilities. For years, anchor ice that forms in the Niagara River below Lake Erie has been an issue for NYPA's Robert Moses Niagara Power Plant in Lewiston, New York. Managing the impact of ice on the plant is critical in ensuring the required water flow and power generation, as well as avoiding costly damages to the facility.

"Ice changes the flow of the water," said Gregory Pedrick, senior research and technology development engineer at NYPA. "When water flows at full capacity, it's at full volume through the tunnels to power station. When ice starts to form, it displaces the water and changes the flow by up to 20%. So, if we think we have 8,000 cubic feet per second, we might only have 6,000."

Because the power plant is just a few miles upriver from the famous Niagara Falls, it's not a typical, run-of-the-river hydro facility. An international treaty with Ontario Power Generation's Sir Adam Beck I Generating Station in Canada requires the facilities to manage the flow of water to provide power generation to both plants as well as the discharge necessary for tourism at Niagara Falls. The discharge flows required for the falls are 100,000 cubic meters per second during the summer tourism season and 50,000 cms during the winter. In essence, the facilities can only use the leftover water for power generation, per the treaty.

Managing ice to allow for full water volume to meet those demands is critical. NYPA was eager to develop a tool to forecast the influence of anchor ice on flow and flow restriction to provide operators with more data to anticipate ice events, predicting when events will start, when they will end, and their severity.

"Operators for years have been accumulating field knowledge and intelligence without scientific or physical dimensional analysis tools," Pedrick said. "In 2021, we had the idea to try to make a forecasting model."

To create the model, NYPA leveraged the expertise of a graduate student studying machine learning at Stony Brook University. The team then accumulated historical weather data from the National Oceanic Atmospheric Administration and SUNY Albany's MESONET program. The main variables of focus for the analysis were air temperature, which can create anchor ice, and wind speed, which changes the flow of ice.

From 2021 to 2022, the graduate student built the shell of the model. The NYPA team first tested the model during the cold, early months of 2023 and 2024. The team plans to add variables that will include water temperature, cloud cover, and wind direction in future versions of the model. For now, utilizing the air temperature and wind speed is proving adequate to develop a decent anchor ice forecast.





The team measured levels at various points along the river and equated those levels to flow. They built routines and did auxiliary work to add accurate weather data to the system. They added results from various conditions, like a long cold spell versus a short cold spell, to gain more holistic data. They also added information gathered from other industry stakeholders, like a research paper on river ice levels and other studies conducted by hydro facilities operating in cold climates.

“We’re hoping to create momentum within the operations of hydro facilities,” Pedrick said. “If operations start to gain reliability in a forecasting device, they will turn to it more often. Ideally, this will be in their shortlist toolbox.”



Released anchor ice rising to the surface. Photo courtesy New York Power Authority.

**“If operations start to gain reliability in a forecasting device, they will turn to it more often. Ideally, this will be in their shortlist toolbox.”**

**GREGORY PEDRICK**, SENIOR RESEARCH AND TECHNOLOGY DEVELOPMENT ENGINEER,  
**NEW YORK POWER AUTHORITY**

The team continues to test the tool. Testing during ice events in early 2025 showed promise of the tool being an accessible way to predict and mitigate ice events for hydropower facilities once development is complete.

## Capturing More Solar

To study ways to make more use of intermittent power generation to meet increasing peak power demand, Burbank Water and Power in California created a Long-Duration Energy Storage Demonstration Project that included the installation of an Energy Warehouse unit paired with a solar photovoltaic generating system.

“As more of these units come online, it will be beneficial to begin aggregating resources to support system conditions,” said Michael Wang, principal electrical engineer at BWP. “It is important to understand the long-term plan for these types of technologies and how they will integrate with existing systems from a technology and strategic perspective.”

BWP kicked off the project in 2022. It worked with ESS Tech, Inc., a manufacturer of long-duration iron flow energy storage solutions, which provided and installed the iron flow battery and commissioned the unit. BWP acted as the project manager, managing site improvements, permitting, interconnection design, and connecting the battery to the utility’s existing system.

The unit has a rated power of 75 kW and stores 500kWh of energy interconnected at 480v AC in a containerized, fully integrated system that includes the battery, inverters, a battery management system, and a communications interface. The unit is integrated with BWP’s existing 265 kW on-campus solar photovoltaic generation system. The system will

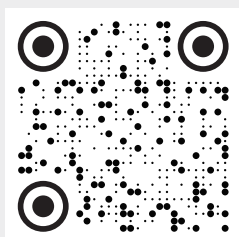


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**“It provides an opportunity for our system operators to get real-world experience in shifting the energy from solar generation to the hours in which it is most needed.”**

**MICHAEL WANG**, PRINCIPAL ELECTRICAL ENGINEER,  
**BURBANK WATER AND POWER**, CALIFORNIA

provide total peak power of up to 75 kW with a duration of 5.3 hours at rated discharge.

“Pairing the existing PV system allows the utility to charge the Energy Warehouse with solar generation,” Wang said. “It provides an opportunity for our system operators to get real-world experience in shifting the energy from solar generation to the hours in which it is most needed.”

The team opted for the iron flow battery because it has a higher storage capacity compared to similar technologies, providing the flexibility to align the power and amount of electricity stored to a project’s requirements while allowing for the possibility of future growth. The Energy Warehouse leverages electrochemistry and ESS Tech’s patented electrode design and control system to operate and remain stable over an unlimited number of deep charge and discharge cycles with no degradation or capacity fade. The iron flow battery container has a 320-square-foot footprint and is 9.5 feet high.

“ESS offered an energy technology with an impressive list of favorable attributes such as a greater number of cycles over a longer lifetime, sustainable material components, domestic manufacturing, and superior environmental and safety attributes,” Wang said. “There is a large appetite in the community to implement technology that is domestically manufactured and features superior environmental and safety attributes.”



A view of the energy storage unit. Photo courtesy Burbank Water and Power, California

The team began battery commissioning in the summer of 2024 and the demonstration period is scheduled to last 14 months. During that time, BWP has been collecting and analyzing data to assess the performance of the iron flow battery coupled with the solar system. Though it's too early to share final outcomes, BWP expects positive results based on the site acceptance testing.

## Improved Technology Forecasts

With so many new energy-related technologies entering the scene, utilities need a comprehensive view of current and potential offerings to support strategic planning, finances, and optimal load growth across customer types.

When Taunton Municipal Light Plant in Massachusetts began searching for a way to better predict and plan for distributed energy resource deployments, it quickly learned that existing solutions were not the right fit. Instead, the public power utility took matters into its own hands and created a tool to improve integrated resource planning by

predicting future outcomes for multi-year DER deployments.

“We needed a developing and planning tool,” said Ben Thivierge, TMLP’s sustainability and commercial development specialist. “We wanted to gather information in one place to give us a forward-thinking view to make informed decisions.”

After many iterations and a year and a half of development with partner Beacon Climate Innovations, the utility launched the Community Energy & Efficiency Resource Unified Mapping Multi-Portal Information System, or CEERUM. The tool can help public power utilities with energy services, planning and programs, power supply and purchasing, and engineering operations, said Thivierge. CEERUM provides utilities with data-driven planning processes, a rapid scenario tool for roadmap development, a low-cost carbon inventory assessment, a dynamic climate action plan, information and research to support grant and finance applications, and a resource to assist decision-making and influencer assessment processes.

CEERUM can assess DER measures like weatherization, PV, battery energy storage systems, electrification, and demand response management

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**“Seeing those outcomes visually backed by data makes us able to plan better.”**

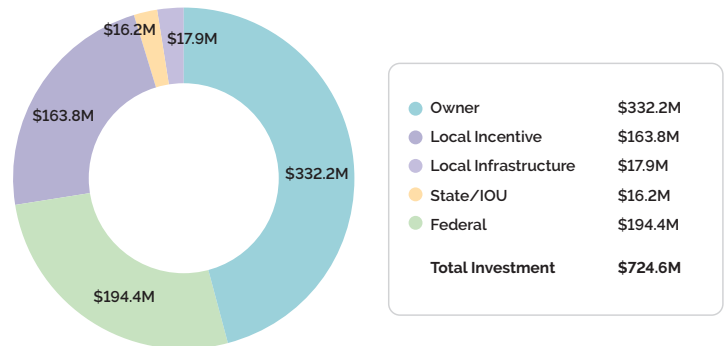
**BEN THIVIERGE**, SUSTAINABILITY AND COMMERCIAL DEVELOPMENT SPECIALIST,  
**TAUNTON MUNICIPAL LIGHT PLANT**, MASSACHUSETTS

to determine their impact on community-wide carbon emissions, energy consumption, and peak demand, as well as the utility’s investment costs and financial returns.

The system is designed to help find the right balance between offering incentives to customers and keeping rates affordable. For example, before a utility deploys an incentive program, CEERUM can demonstrate outcomes of various incentive levels to help utilities determine the most effective deployment strategies. If TMLP wants to encourage 50% of

**Required Investment**

**\$182M** Local Investment     **\$725M** Total Investment



Example chart from the CEERUM tool, courtesy Taunton Municipal Light Plant, Massachusetts.

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John Haarlow, 2024–2025 NWPPA President,  
Snohomish PUD General Manager



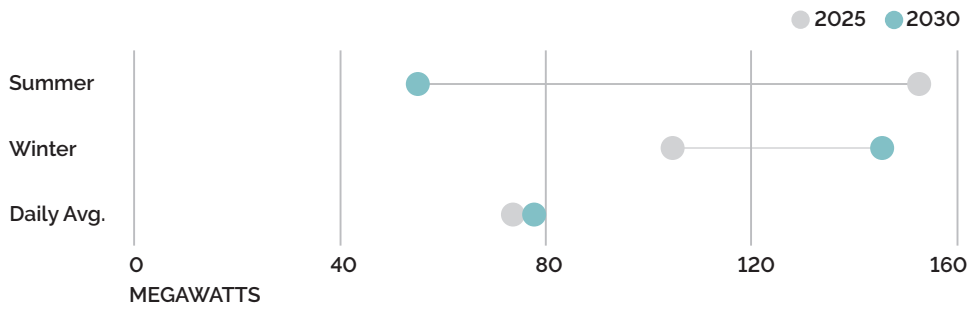
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# HOW PUBLIC POWER IS EVOLVING WITH ENERGY TECHNOLOGY

## Impact on Load

↓ **64%** Summer Peak      ↑ **39%** Winter Peak



Note: Accounts for Solar and Energy Storage Systems front-of-the-meter resources. Daily averages typically increase as a result of spreading the peak demand.

Example chart from the CEERUM tool showing how a technology or program could impact peak load. Courtesy Taunton Municipal Light Plant, Massachusetts.


customers to own electric vehicles, it can use CEERUM to show how an incentive program would affect the load and determine ways to make it a viable option in the long run.

“If the system shows the EV program will be a load growth that could be uncontrolled, we could implement a demand response program that could curtail the uncontrolled growth by limiting when those customers discharge, impacting peaks and when they occur,” Thivierge said. “Seeing those outcomes visually backed by data makes us able to plan better.”

CEERUM also helps utilities troubleshoot their current plans for future growth. For example, if TMLP plans to build a new substation in 10 years, it can determine whether that timeline may need to be shortened to accommodate growth, or whether incentive programs need to be adjusted to ensure existing infrastructure can handle the load.

Tools like CEERUM benefit utilities of all sizes, but especially smaller utilities that may not have the staff or resources in-house for robust IRP. Utilities that want to use CEERUM can work with Beacon Climate Innovations to set up a personalized system. Beacon Climate Innovations will conduct a majority of the data collection from publicly available sources to input each utility’s rates, customer base and demographic information. CEERUM can provide a big-picture view based on estimated numbers, or users can input detailed data for more accurate results.

“We wanted a tool that could review programs and present possible outcomes to management,” Thivierge said. “Teams can review the impacts of one potential program, or they can dive into all of the programs offered to see the possibilities. They can generate high-level estimated numbers or get down in the details with actual numbers.”

TMLP serves just under 40,000 electric customers in the city in southeastern Massachusetts. TMLP’s results provide an example of how municipalities around the country can access standardized, affordable DER appraisal. 



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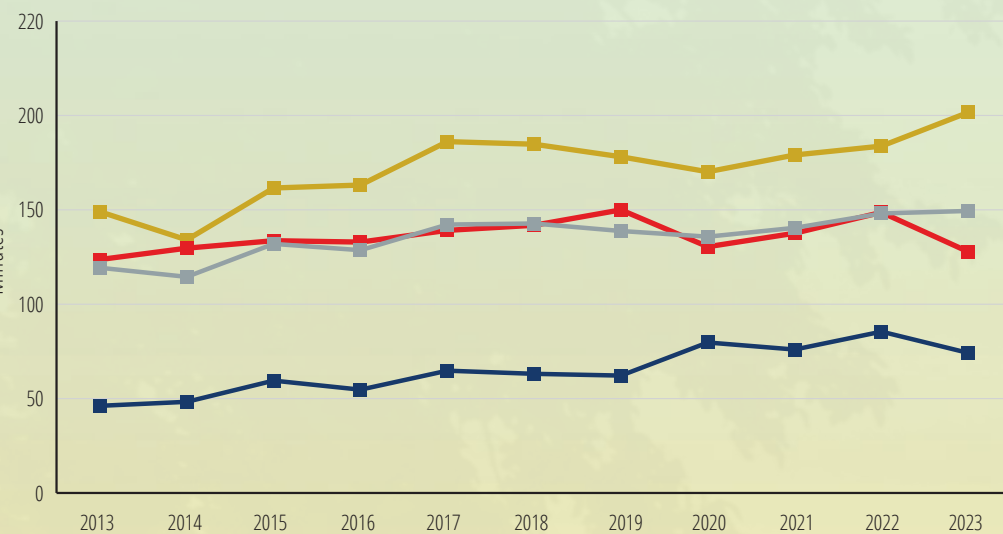


# Public Power Is Consistently Reliable

Based on the data submitted to the U.S. Energy Information Administration from 2013-2023, public power utilities consistently are more reliable than other types of electric utilities. Across the main reliability indices, customers of public power utilities experience the fewest minutes of outage time — during and outside of major events — and fewer outages than customers of investor-owned utilities or cooperatives.

## Average Outage Time for Non-major Event Days, 2013-2023

System Average Interruption Duration Index, IEEE standard



### 10-year Average, by utility type

**172 minutes**  
COOPERATIVES

**136 minutes**  
IOUS

**65 minutes**  
PUBLIC POWER

**71 minutes**

Over the past decade, public power customers experienced an average of 70.7 more minutes per year with power than customers of other utilities – or **nearly 12 more hours** with electricity.

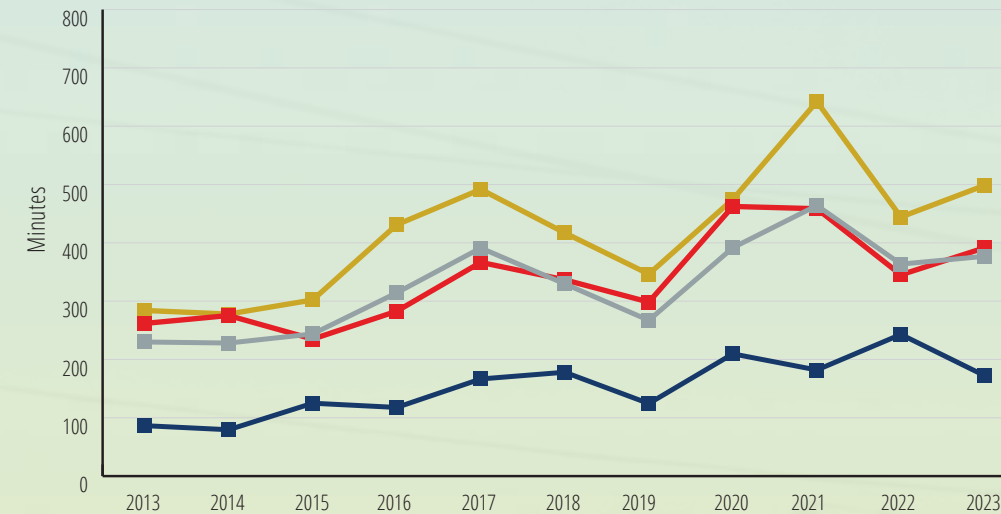
■ Total ■ Public Power ■ Cooperatives ■ IOUs

Learn more about public power's reliability advantage at [www.PublicPower.org/Reliability-Data](http://www.PublicPower.org/Reliability-Data), and benchmark and track your utility's performance with APPA's eReliability Tracker.

Source: Energy Information Administration, Form 851

## Average Outage Time for Major Event Days, 2013-2023

System Average Interruption Duration Index, IEEE standard



**2.9 hours**  
faster restoration than **total** average over 10 years

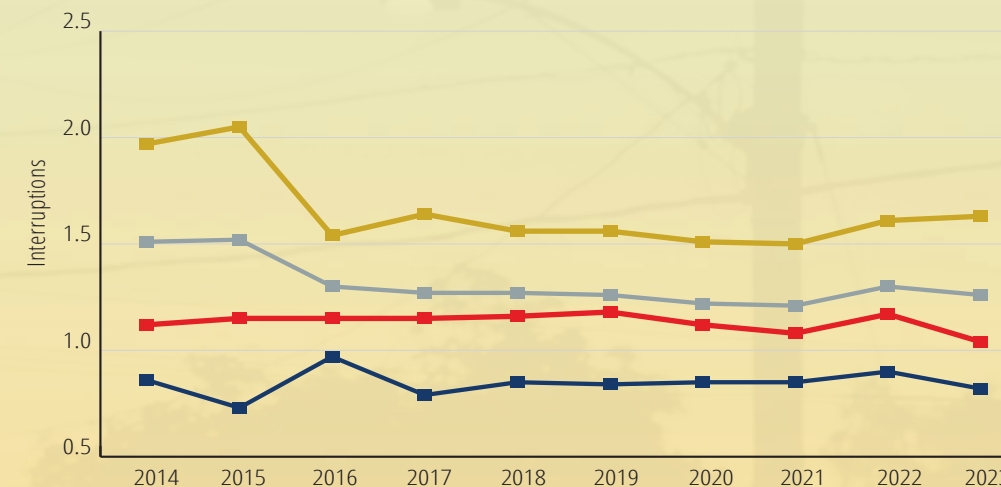
**4.4 hours**  
faster than **coop** average

**3 hours**  
faster than **IOU** average

**2.5 hours** average public power customer outage time during major events

## Average Number of Interruptions Per Customer, 2014-2023

System Average Interruption Frequency Index, non-major event days, IEEE standard



**0.845** Public power utilities are the only type to consistently average less than one interruption per customer

Over 10 years, that's **8 fewer interruptions** than customers of coops, and **3 fewer interruptions** than customers of IOUs

# Building Today for the Power Grid of the Future

**U**tilities are challenged to accommodate the growing demand for electricity, while at the same time navigating the complexities of transforming the grid to accommodate the integration of renewable energy resources. Both utilities and grid operators are looking for solutions to help them build the grid of the future.

A strategic supply chain solutions partner specializing in grid modernization is a valuable asset that can support utilities and provide a wide array of comprehensive services and solutions to augment capacity and bring new tools and skills to the table. This allows utilities to concentrate on their core business while outsourcing project management to an experienced team that can manage all elements in the commissioning of energy solutions, generation distribution, supply chain management and project execution.

A supply chain solutions partner acts as a single point of contact for utilities and provides a complete suite of proven products and specialized resources focused on deploying large-scale grid modernization projects.

- Augmenting labor capacity
- Cybersecurity and data protection
- Data and analytics
- Enterprise resource planning
- Equipment and technology sourcing
- Financial audit and assurance

- Real estate
- Transaction advisory
- Work order asset management

Selecting the right partner plays a key role in the long-term success of your project. The partner should have industry experience in large-scale capital projects that often span several years, use a customized approach to address specific challenges and improve outcomes, leverage in-house resources, provide real-time analytics and performance metrics, and execute complete oversight and coordination for your project.

## Project Management

Working in conjunction with the utility, a supply chain solutions partner can identify specific resources to fulfill project needs and achieve budget and scheduled commitments. The partner effectively becomes an extension of the utility's internal resources by providing the processes, knowledge, skills and experience to achieve project goals, manage resources, personnel, budget and technology.

Benefits include:

- Accelerate time to market
- Access to specialized expertise
- Collaborative approach
- End-to-end project resources
- Fill critical skill gaps
- Optimize cost management
- Supply chain optimization

## Warehouse Capacity Optimization and Product Standardization

When you deploy a grid modernization project, it's crucial to maximize warehouse efficiency. A supply chain solutions partner should implement procedures and technologies to improve overall performance and lower labor costs. They should have an effective warehouse strategy to achieve maximum efficiency and storage capacity. By analyzing past usage data, future usage projections, materials on order and delivery timelines, they make informed decisions for categorizing and placement of warehouse inventory. Experience in multi-location warehouses ensures you have the right resources available when and where your project requires.

## Inventory Management

As your project moves forward, construction depends on timely availability and delivery of products necessary for project scheduling and work progress.

An effective partner brings proven strategies, technologies and capabilities to unlock the full potential of your operations and deliver measurable outcomes,

optimize spending and improve processes, including:

- Accurate demand forecasting
- Efficient asset tracking and management
- Leverage data analytics for informed decision making
- Optimize inventory levels and resources
- Real-time visibility
- Robust inventory tracking systems to minimize losses

## Scale-down, Demobilization and Closeout

Once your project nears completion, you are ready for the scale-down, demobilization and closeout phase. This phase is a multifaceted process that includes a variety of both physical and administrative tasks. An industry-proven supply chain solutions partner brings innovative tools, best practices and efficiency measures to your closeout process and helps streamline and optimize this crucial phase of your project.

## A Global Leader in Grid Modernization Services

For decades, Wesco has been a trusted partner to the utility industry. While Wesco has built its reputation on having the products, services and solutions that utilities need to deliver a reliable, safe supply of power, Wesco is also dedicated to being a valuable resource to utilities throughout their entire project cycle to support them in shaping the power utilities of the future.

For more information on Wesco Utility Grid Services, please visit [www.wesco.com](http://www.wesco.com) or reach out to [gridservices@wescodist.com](mailto:gridservices@wescodist.com).





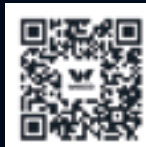


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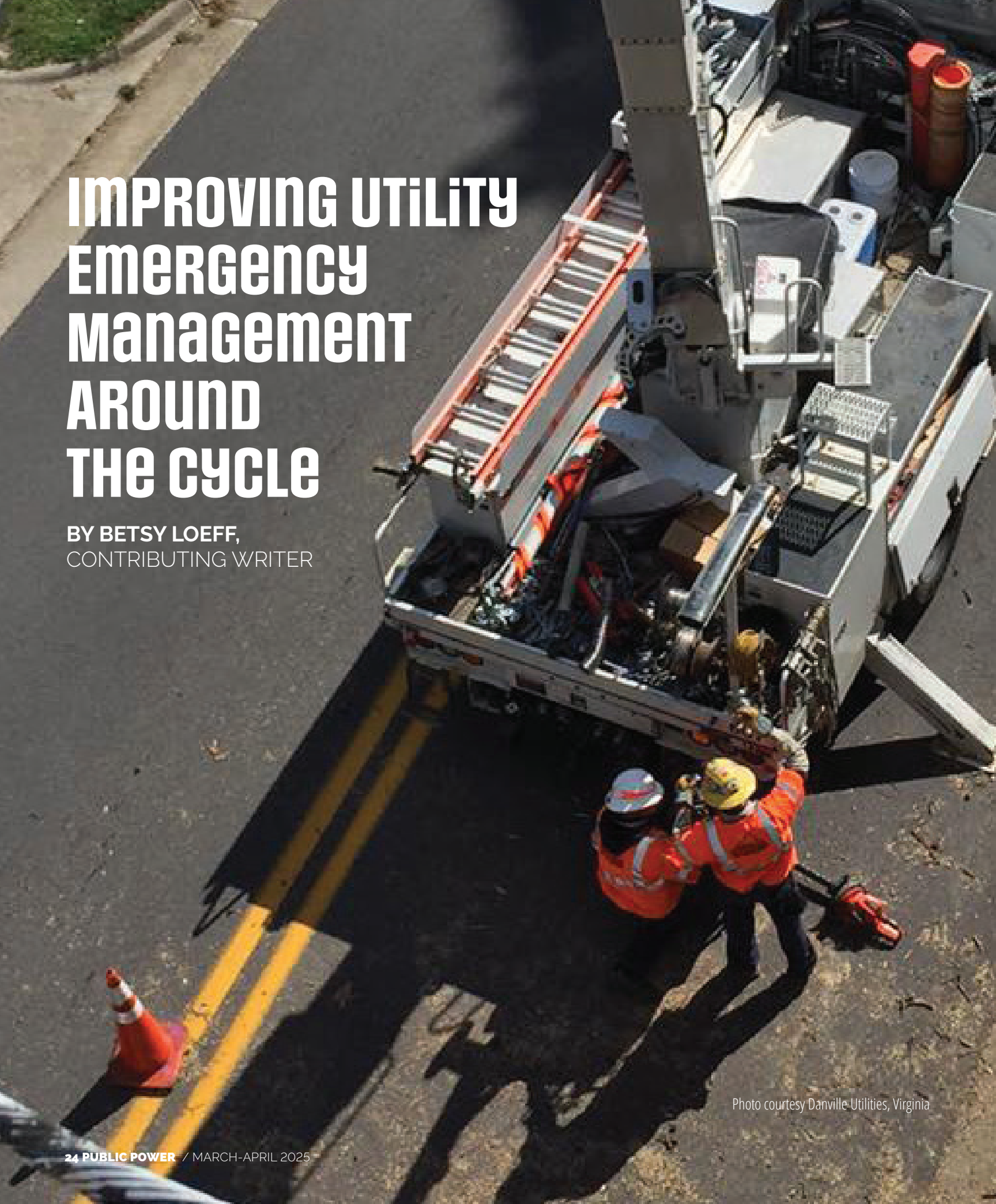
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# IMPROVING UTILITY EMERGENCY MANAGEMENT AROUND THE CYCLE

BY BETSY LOEFF,  
CONTRIBUTING WRITER

Photo courtesy Danville Utilities, Virginia





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**H**ope for the best and plan for the worst: That’s a foundational attitude behind how public power utilities execute well-orchestrated emergency management. Emergency management isn’t just a reaction to an event or moment in time but encompasses a suite of efforts that support each other in a singular cycle. The emergency management cycle consists of four main parts: mitigation, preparedness, response, and recovery.

Both the challenges utilities face and the technology and tools available to utilities has affected each part of the cycle. In addition to individual utility efforts, the American Public Power Association has developed and updated an array of resources supporting public power across the cycle. Here’s a look at how some public power utilities are employing these tools along with rethinking other processes to improve all aspects of emergency management in their organizations.



**“Planning is more critical than ever. Utilities will have to scale up with new technologies.”**

**KYLE GIBBS**, CORPORATE RISK SUPERVISOR, **COLORADO SPRINGS UTILITIES**, COLORADO

## A NEW RISK LANDSCAPE

Identifying risk is the first step toward mitigating it. In the risk management process, utility workers identify potential hazards and implement measures to avoid or reduce these risks, such as providing cybersecurity training for employees or hardening critical infrastructure that could be vulnerable to storm damage. Kyle Gibbs, corporate risk

supervisor for Colorado Springs Utilities, oversees the risk management process for all four services the utility offers the city’s 488,000 residents: water, wastewater, electric, and gas.

Gibbs is also chair of APPA’s Risk Management Working Group, which helped develop the documents and sample workshops comprising the Public Power Risk Management Toolkit. “The toolkit provides resources to guide organizations in assessing risks and gives people documents to support the process of capturing risks and organizing them in a risk matrix,” he said.

“This matrix allows us to see risks throughout the organization and score them,” he explained. “It helps us quantify risks and determine what we need to do to mitigate them.”

“Utilities have limited resources, and this risk management toolkit helps to really prioritize and allocate scarce resources to where they’re needed the most,” said Bryan Willnerd, who manages treasury and risk for Lincoln Electric System, a utility with more than 153,000 retail customers in Lincoln, Nebraska. What risk management does is focus on risk ahead of time and determine what controls can be put in place to prevent events from happening or result in outcomes that aren’t as severe. Because not all risk can be avoided, risk management means utility teams have written strategies to work through when something does happen so they can get back to normal operations more quickly.



Participants in the regional exercise and workshop in Oklahoma. Photo courtesy Municipal Electric Systems of Oklahoma.





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Participants at the regional exercise. Photo courtesy Municipal Electric Systems of Oklahoma.

**“It takes some time for this to happen, so get it done on a blue sky day. Don’t wait for the sky to fall.”**

**DAVID HEFNER**, SUPERINTENDENT, DISTRIBUTION POWER LINE MAINTENANCE, **GRAND RIVER DAM AUTHORITY**, OKLAHOMA

When it comes to being prepared for emergencies — or any risk — Gibbs said the key is planning. He pointed to risks old and new — everything from the age-old storm damage utilities have grappled with for more than a century to risks of bigger, hotter wildfires in our changing world. He also pointed to newer risks stemming from the unrelenting demand for data centers that many utilities must plan for now.

“Planning is more critical than ever. Utilities will have to scale up with new technologies,” he noted. They also need to look more seriously at potential risks they may not have considered before. “When you’re looking at, for example, Los Angeles and the fires that have taken place there, it’s hard to see how that could occur maybe 30 years ago, but as we look at the drying conditions, the severity of spiking heat and all other pieces that are coming into play, the probability of a wildfire occurring could be growing for a utility. How would the utility meet that risk? It all comes back to planning.”

## PRACTICING PLANS

Planning is also an important part of the preparedness phase of the emergency management cycle. Practicing the plan is critical, too. As Willnerd said, “Going through an incident for the first time without any documented controls or mitigation strategies is not recommended.”





**“Going through an incident for the first time without any documented controls or mitigation strategies is not recommended.”**

**BRYAN WILLNERD**, MANAGER, TREASURY AND RISK MANAGEMENT,  
**LINCOLN ELECTRIC SYSTEM**, NEBRASKA

Both Colorado Springs Utilities and LES use tabletop exercises regularly, which consists of gathering teams to practice how they would respond in a specific scenario. The scenarios usually are designed to test or identify certain stress points utilities might face, so they can then flesh out plans for worst cases.

“Exercises are a great way for departments to practice what response plans they would have if various incidents were to occur. We do tabletop exercises frequently in different areas of our organization, cyber being one of them,” Willnerd said. “If we get a ransomware event and our system is shut down, how do we pay our employees and vendors? What do we need to do to make sure that there’s as little disruption as possible?”

Such community-level exercises can help hone more internal response processes and complement broader state, regional, and national exercises that test response and coordination across multiple utilities.

Utilities from Oklahoma and Kansas participated in an emergency response exercise and workshop last summer to test the response to a major winter storm using the Public Power Mutual Aid Playbook. The playbook, which APPA updated in 2024, outlines the process for utilities to support each other when a major event affects the electric grid. Through the Mutual Aid Network, utilities can volunteer crews and equipment to temporarily increase an impacted utility’s power restoration capacity following a major event.

In the APPA-facilitated exercise, attendees worked through responding to an ice storm that knocked out power in Oklahoma, necessitating assistance from Kansas line workers. The scenario then tested how the crew roles would flip as the fictional storm moved north into Kansas.

“We have people who are retiring and mid-level supervisors moving up, and there are always new people to train,” said Cheryl Adams, general manager at Municipal Electric Systems of Oklahoma, a co-host for the training.

Another co-host was Grand River Dam Authority, an agency supplying power and services to communities across Oklahoma. David Hefner is GRDA’s superintendent of distribution power line maintenance, and he said the value of exercises as a preparedness tool is that they bring out the ‘what-if’ questions. “What do we do if we are hit with a major storm? Do we have enough material on hand? If we have to call in extra help,

how will we house them? How will we feed them? Do we have enough people on staff who can lead them around our service area?” he asked, demonstrating some of the questions that come up throughout the exercise.

Some of the utilities that participated in this exercise said they didn’t have a formal storm response plan in place. “They went back and started implementing one,” Hefner added. “You need to have a plan. That way, you don’t have total chaos.”

## IMPROVED RESPONSE AND RECOVERY

Another tool utilities use to reduce risk and prepare for incidents is the APPA eSafety Tracker powered by ESAMS. Ryan Thornberry, training and safety manager at Danville Utilities in Virginia, uses that tool in his city of nearly 42,000 and surrounding areas to pull together job briefs, training modules, utility manuals, and incident reporting into one easy-to-use interface that line workers can use on a tablet and carry into the field.

“We have a significant territory with our electric grid — 500 square miles — and we were doing job briefings on paper,” Thornberry said. He said the new eSafety Tracker system enables his team to download more detailed, project-specific instructions so that line crews have better, more complete information when out on restoration calls.

For instance, the Danville team has customized the tracker to tell personnel where larger crews would be needed or what hospital is closest to a job if someone gets hurt. It also has better information to share with people outside the utility, like mutual aid workers or first responders. “Ice storms, thunderstorms, car wrecks — all those kinds of things — when they happen, our team works closely with emergency personnel,” Thornberry said. “When power goes down, the team does job briefings and talks about the hazards before anyone goes in to do their jobs.”

Because the tracker also enables incident reporting, Thornberry said he uses it as an analysis tool to help determine areas of training that may help mitigate risks when crews are fixing downed lines or other issues. “If there



# APPA'S RECENT EMERGENCY MANAGEMENT EFFORTS

The American Public Power Association has developed numerous resources and offered various supports in recent years that aim to help public power utilities improve efforts around the emergency management cycle. Groups including the Mutual Aid Committee, Risk Management Committee, and Safety Committee provide valuable member input into these efforts.

## MITIGATION

- **Public Power Risk Management Toolkit**
  - ◇ A three-part toolkit with supporting materials to help you identify, assess, and mitigate risks
- **Case Study: Grid Hardening**
  - ◇ A look at various coastal community resilience efforts
- **eSafety Tracker**
  - ◇ Online tool for identifying safety trends and training needs

## PREPAREDNESS

- **2024 regional mutual aid workshop**
  - ◇ To test the updated Mutual Aid Playbook
- **eSafety Tracker**
  - ◇ Assign and track training programs
  - ◇ Conduct crew inspections and job site briefings
- **Hurricane season hotwash**
  - ◇ To identify lessons from recent mutual aid deployments

## RECOVERY

- **Statement of Principles**
  - ◇ A document clarifying the mutual aid reimbursement and documentation process

## RESPONSE

- **Mutual Aid Playbook**
  - ◇ 2024 update included new tools, such as a Crew Coordination Checklist
- **Incident Command System Guide for Electric Utilities**

Learn more about our efforts at [www.PublicPower.org/Mutual-Aid-and-Emergency-Response](http://www.PublicPower.org/Mutual-Aid-and-Emergency-Response).



was an accident or a near-miss, we use the tracker as an in-house tool to help avoid issues in the future,” he said.

Another thing Hefner and Adams said utilities need for full emergency management recovery is a deeper understanding of FEMA requirements for reimbursement when mutual aid crews must be called in for incidents that receive a disaster declaration from the President. In those situations, public power utilities qualify for FEMA assistance to cover most of the response and recovery costs.

“There’s a lot of record keeping when working with the federal government,” Adams said. “They want receipts. They want documentation.”

Receipts cover more than many workshop attendees realized. “Receipts you’ll need include the housing visiting crews use, and their food and fuel expenses,” Hefner explained. He added that utilities should also document how many hours the crews work and the mileage traveled, as FEMA may want to know these details.

Hefner also noted that before and after photos of damaged equipment for FEMA are helpful. “If you don’t have pictures of equipment from before the storm, take pictures of the wreckage before you start to work on

it and then take pictures after you reassembled because FEMA wants to see this documentation,” he said.

As for the mutual aid process itself, getting signed up to be part of the network should be attended to before aid is needed or offered. “When you start responding out of state, you’ve got to have that mutual aid agreement in place, Hefner said. “It takes some time for this to happen, so get it done on a blue sky day. Don’t wait for the sky to fall.”

Adams said the exercise and workshop were so impactful that one of her organization’s member utilities used their learnings from the workshop and the Mutual Aid Playbook to perform their own exercise for utility staff and others engaged in emergency situations.

“They brought in all of their emergency management partners — street crews, community services, cemetery, library, police, fire, and their electric utility workers — then they did an exercise based on the one they did with us,” she said. “They learned a lot, which was good, and they shared it with their community.”

That’s even better because utilities aren’t the only ones who need to hope for the best and plan for the worst. 🇺🇸

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# Public Power Leaders: Steve Wright

**S**teve began his professional career in 1981 at the Bonneville Power Administration in the energy conservation division. He held a number of positions within BPA, including 12 years as Administrator/CEO. Steve then served as General Manager at Chelan Public Utility District in Washington from 2013-2021. Steve was appointed to the Southwest Power Pool Board in 2022 and is the chair of the Interim Markets+ Independent Panel, overseeing SPP's day-ahead market developments in the West.

Steve was a member of the boards of the American Public Power Association and the Alliance to Save Energy, on the steering committee for the Large Public Power Council, and past chair of the Public Generating Pool. He has been awarded the Presidential Rank Award for distinguished service as federal government executive, the Alex Radin Distinguished Service Award (APPA's highest honor), ASE Charles Percy award for public service (ASE's highest award), and Lifetime Achievement Awards from the Washington PUD Association, Oregon PUD Association, and Northwest Public Power Association. He earned a Masters in Public Administration from the University of Oregon.

Steve recently released a book, *Inspired Public Service*, which is available on Amazon and from [InspiredPublicService.com](http://InspiredPublicService.com).

*Excerpted from an interview on the Public Power Now podcast.*



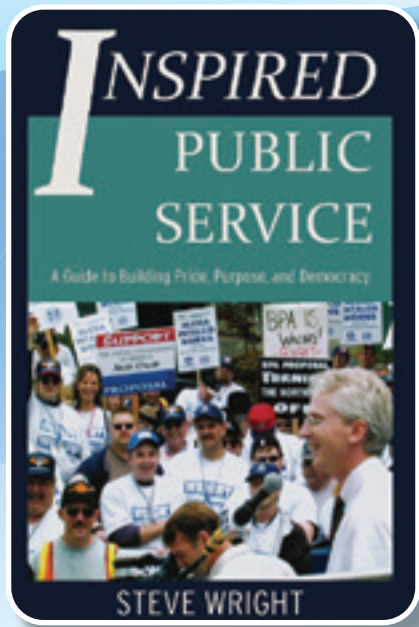
## HOW DID YOU COME TO WORK IN THE PUBLIC POWER COMMUNITY, AND HOW DID YOUR ROLES INFORM YOUR DECISION TO WRITE THE BOOK?

I decided in college that I really wanted to work in the public sector. I was fortunate enough to come out of school just as the Northwest Power Act had been enacted, creating a bunch of jobs at Bonneville Power Administration. I got started at BPA and ended up spending a long time there learning about a lot of different things.

As I look back on it now, I probably was not prepared to be a CEO when I was only 42 years old. A big part of writing the book was thinking about how I might be able to help other people who find themselves either thrust into leadership roles or thinking about going into leadership roles to avoid some of the mistakes that I've made and hopefully accelerate their learning process.

That's been the fun part of writing this, having to admit the things that I could have done better and thinking about ways that, if I had been more prepared, I might have been more able to get things done quicker and earlier in my tenure.





## WHAT ARE THE KEY TAKEAWAYS FROM YOUR BOOK?

There are three things that I've tried to focus on. First, there are management structures that can be put in place that improve performance of public sector organizations. There certainly are disadvantages working in the public sector, but we have a lot of advantages too. The key one is that employees today are looking for meaning and purpose. They want something that makes a difference in people's lives to motivate them — and we bring that in the public sector, and particularly in public power. We frequently don't think about how to build it into our management systems so that we are constantly trying to encourage people to do their best on behalf of others, their friends, their neighbors, their relatives, to people that we serve.

If you focus on how to get public sector organizations to perform at the highest levels, it does something really important. You look at the trust in government scores over the last 40 to 50 years in this country, and they have fallen dramatically, where numbers today are below 20% in terms of the general public's trust in their government. That's a real problem for democracy. People have to trust in their government in a democracy. We can lament that as public sector employees, or we can seek to do something about it, particularly as public sector leaders. This is really a fundamental issue: How do we do something rather than be victims of a culture that that does not treasure public service?

When we build pride and meaning and purpose into work, we help to build organizational success, we build operational excellence. As we build that operational excellence, it leads us to being more successful and therefore building more trust in government.

Second, there is a lot of frustration out there about the lack of bipartisanship and a lot of blaming of elected officials that it doesn't occur. We can, I believe, make a difference at the grassroots level. Particularly for those of us who work in the public sector, we have the opportunity because we have so much knowledge inside our

organizations. We have the ability to build bipartisan solutions from the grassroots up, and building bipartisan solutions will also lead to greater trust.

The third and final theme of the book is about how individual potential leaders or existing leaders can develop their own skills. There are tools that we can use in a variety of different ways, communication being one of the most critical ones. We rely on our commitment to public service as a way to describe to people what's in our hearts. When we really connect with people, it builds confidence in them that we are trying to do the right things and not focused on self-interest.

## WHO IS THE INTENDED AUDIENCE FOR THE BOOK?


It's really for people in various stages of their public administration careers. For students at the public administration level, there is introductory material that can help to explain how it is that you can begin to think about structuring your career to be successful in the public sector.

For those who are early or mid-career, there's an opportunity to think about the types of tools that you can use and the ways that you can structure your own interactions with fellow employees in a way that helps to motivate people and bring out the best in them.

Even if you are later in your career, there are tools that we developed both at Bonneville and when I was at Chelan that are unique and could help further round out an official's set of opportunities that they have available to them that they could use to be more effective.

## HOW DOES THIS ALL RELATE TO YOUR ROLE IN THE SPP MARKETS PLUS EFFORT?

It's often not well understood how radically different the SPP governance structure is [compared to other markets]. It helps to exemplify the strong theme of if democracy is well-implemented, it can actually bring out the best in people. The SPP stakeholder engagement structure really focuses on a bottom-up, grassroots-level approach. It relies on voting by individuals coming together collectively, trying to resolve issues rather than presenting material to a decision maker, having the decision maker attempt to create the balance between various stakeholders. That stakeholder process is one that is at the core of what has become the markets plus approach to the day head markets.

When things are based on the decisions of a vote, you know that you need to not just try to get the ultimate decision maker to come around to your point of view, but you're trying to share that point of view or find an in-between with your colleagues, the other stakeholders in the process. That has been really fun to be a part in that process and to see the potential value that it can bring to market development. 

# PUBLIC POWER COMMUNITIES

## VILLAGE OF YELLOW SPRINGS, OHIO

POPULATION: **3,718**

ELECTRIC CUSTOMERS: **2,200**

UTILITY FORMED: **1929**

UTILITY EMPLOYEES: **4**

**F**or nearly 100 years, the residents of the Village of Yellow Springs, Ohio, a small community skirting the Dayton metropolitan area to its west and surrounded by national forest on its east, have owned their electric utility. The village took over operations of the electric system from Antioch College, which ran the system for 15 years after acquiring it from investor-owned utility Dayton Power and Light.

Johnnie Burns, village manager, said that the system has come a long way since those early days. Especially in the past decade, Burns and Ben Sparks, the village's electric and water superintendent, have been making strides to improve and modernize the electric distribution system.

"We came wanting to make things better," said Sparks. "We were already hitting a lot of marks, but there's always room for improvement."

One of the first efforts Burns and Sparks undertook when they took on their roles in 2014 was to get all utility poles throughout the village inspected. About 250 poles — about 10% of the village's system — were flagged as needing immediate replacement. The team worked hard to try and replace all rejected poles, which were mostly in customers' back yards, in-house. The utility is now at a point where crews are able to replace poles within the year of being tested, should they get flagged for replacement.

The utility recently earned a Diamond-level Reliable Public Power Provider designation, which is bestowed on utilities that receive top scores for reliability, safety, workforce development, and system improvement. The utility scored 14 points higher than the previous time it had applied.

Sparks said the most notable improvements came in its safety areas, which reflects the utility's efforts to put new policies in place, insource certain functions, regularly test equipment, and extend training opportunities for the village's crew members. Sparks also gathers his crew and people from other departments across the city for monthly safety meetings. That meeting includes running through various scenarios individuals might encounter and discussing ways to improve processes. The village has had zero lost time incidents for seven years running now and is also a Diamond-level Safety Award winner.

The village also recently completed a two-year effort to upgrade all customers to advanced metering infrastructure. Next, Burns said the utility is working on integrating a SCADA system and getting new reclosers to continue to bring the system into the 21st Century.

Sparks said that he enjoys the camaraderie that comes from working with a small crew. "Because we are such a small community, we're working with the same 2-3 guys each day. We're more than just coworkers. Especially in the line side, you have to put total trust in each other."

Crew members also experience closeness with the villagers not found in working for an IOU.

"It's more personal when you are out in the field," noted Sparks. "If you have to do a disconnect, you may see the person in the grocery store the next day. Or you may be in a customer's backyard in the middle of the night."

"We have a better relationship with the electric customers than if you had a for-profit company," added Burns. After all, with local governance, any member of the community could be their next boss.





They described the community as a friendly place where “nobody judges you for who you are or what you stand for.” The village downtown doesn’t have any major chain retail or big box stores and includes an array of local restaurants and shops that include items made by the vibrant local artist community. Beyond day-to-day work for the utility, employees live in the village or spend a lot of time attending local functions and supporting local businesses. Such events include two annual street fairs, a village safety event, a Christmas tree lighting, and a touch-a-truck experience.

Burns expressed that the public power utility remains an asset to the village. “It’s more about a working relationship with our villagers,” he said. “We can control where we buy our power from. We are 100%

renewable power, therefore, we can make sure that we’re reducing our carbon footprint and we’re able to control the outages as far as letting the customers know and how long it will be out.”

Burns and Sparks expressed appreciation for utility employees in making the utility’s value – and quality of life in the village – what it is today. In continually showing support for the community, they are also seeing how they’re preparing the next generation of crew members in carrying on this legacy. In completing the RP3 application the first time, the utility got the idea to not only review its wage scales, but also to start an apprenticeship program. These efforts are helping locals who grew up in the village develop their careers while helping their hometown. 🇺🇸



Johnnie Burns (left) and Ben Sparks. Photo courtesy Village of Yellow Springs, Ohio.



# Why Public Power Is Involved in the NESC Update

BY GREGORY OBENCHAIN, PE, SENIOR MANAGER,  
ELECTRIC OPERATIONS & ENGINEERING,  
AMERICAN PUBLIC POWER ASSOCIATION

Photo courtesy Marietta Power, Georgia



**S**afety is job one for public power utilities, who take strides every day to keep their employees and their customers safe. While the trainings, policies, tracking, and debriefs all play an important role in maintaining safety, these items stem from a source: the National Electrical Safety Code, or NESC. The NESC guidelines inform our Safety Manual, align with aspects of our eSafety Tracker, and more.

The NESC is a set of guidelines that inform how everyone who is involved with the installation, operation, and maintenance of electric supply, communication lines, and associated equipment can do so in a way that safeguards utility workers and the public. It's the foundation for electric utility construction standards and engineering guidelines, regardless of the size the NESC impacts the cost to design, build, maintain and operate electric utility infrastructure across the U.S.

The Institute of Electrical and Electronics Engineers (IEEE) is responsible for overseeing, maintaining, and publishing the NESC. The NESC is an accredited American National Standards Institute (ANSI) consensus-based national standard. Participants representing electric utilities, communication companies, and other stakeholders make up the committees that develop the requirements in the NESC. Since the NESC affects every aspect of an electric utility system, input from public power systems of all sizes is necessary to ensure that the requirements adhere to public power safety standards and are economically feasible. The American Public Power Association is proud to serve as the conduit for our members to participate in and provide input into the revision process.

The NESC gets officially updated every five years, but the activities for the revisions begin almost as soon as the previous guidelines get released. That means while the next version of the code will be released in 2028, we are already about halfway through the official revision cycle.

Members involved in the update process so far have served on our central Public Power Standards Representatives Task Force in addition to being involved with various NESC subcommittees focused on areas such as electric supply stations, clearances, and work rules. Task force members have weighed in on member change proposals in a series of meetings

and discussions throughout 2024. Members can view the materials from these meetings on our National Electrical Safety Code and Public Power webpage.

In July 2025, IEEE will release the pre-print, which will be open for comment through March 2026. Just as with the change proposals, members of the PPSRT will help collect and cull through comments from the public power community to help work through how and where comments might best be directed to IEEE.

Electric utilities representatives consisting of investor-owned, electric cooperatives, and public power utilities historically have been the majority stakeholders weighing in on the revisions. However, only by actively participating will that continue to be the case. Given the vast differences amongst the types of electric utilities, it is extremely important that public power utilities not only maintain, but increase, their participation to strengthen their voice to ensure that the NESC's requirements do not adversely affect public power utility customers.

APPA is proud to support and enable our members to participate in the NESC. Contact Gregory Obenchain (GObenchain@PublicPower.org) to learn more about the NESC, the revision cycle, or opportunities on how to get directly or indirectly involved. 🇺🇸

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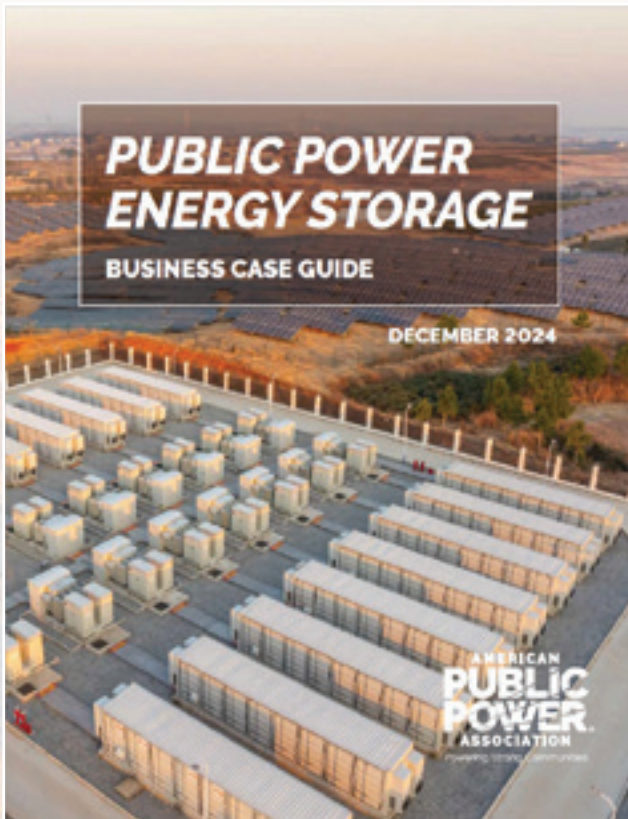


# Making a Case for Energy Storage

**E**nergy storage is booming. Nearly 28 gigawatts of utility-scale energy storage has been added to the U.S. electric grid since 2017, and more than two-thirds of these facilities came online just in the past two years. In terms of MW, in 2024, storage additions were nearly 3.5 times the total for MW of wind, which was the second-most added capacity across the country. The Energy Information Administration is showing that again in 2025, energy storage additions will continue to rise, with more than 18 GW expected to be added this year.

Driving much of this development is the continued decrease in upfront costs for energy storage, and increasing room in the electricity markets for the services energy storage can provide. As energy storage becomes more in reach, more utilities are weighing whether pursuing energy storage makes sense for their community. As more utilities explore these technologies, various utility decision makers – including utility leadership, board members, city council members, and regulators – require information and education on the options, costs, benefits, and limitations surrounding storage projects.





A business case isn't only helpful when formally proposing a project to your governing board. It may serve as a launching pad for utilities who are just beginning to explore the options for storage, or, for utilities who are further along in the process, a business case could be a tool to validate thought processes and challenge assumptions brought over from earlier planning stages that may no longer hold true. After all, the technology and costs are changing at a rapid pace, and it's important to continually do your due diligence to ensure any path offers the right benefits to your community.

As you roll out your storage projects, we'd love to hear from you on what challenges you face in making decisions around energy storage, how you used the guide, and if there are other ways APPA can support you in understanding and implementing this technology. 🇺🇸

**FOLLOW THE LATEST NEWS ABOUT  
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One way to compile information that helps answer these questions is in a formal business case. A business case presents a recommended course of action to gain approval or support from decision makers. An effective business case explains the need, options, costs, risks, and benefits and provides a rationale for the preferred solution.

In consultation with the members of the Energy Storage Working Group, APPA created the Public Power Energy Storage Business Case Guide to help public power utility leaders to build business cases for implementing energy storage solutions. The guide walks through how a utility might want to structure its business case and what types of content to include into 16 sections, including need, financials, risk analysis, and retirement planning. It includes sample language, guidance for completing each section, and considerations for a utility when developing responses.

While a lot of effort goes into running the various scenarios associated with a new project, the actual business case should be a concise document that highlights the topline information. The guide recommends that the final business case be no more than 15 pages. When developing a business case, it is important to only include the information that is most relevant to the individual project and most important to the decision makers to whom the case is being presented. Depending on factors such as the motivation for the energy storage project, the system selected, the stage of development of the project, and the audience for the business case, a utility might not include all sections outlined in the guide as part of their case. Just as every community has their own unique needs to detail, what exactly the business case will look like will differ from one utility to the next.

## **Georgia Transmission Corporation Seeking Emergency Service Contractors**

Georgia Transmission Corporation (GTC) and 41 Georgia electric cooperatives invite contractors to join the Georgia Electric Cooperative Emergency Service contractor list to provide Power Restoration, ROW Clearing/Debris Removal, Fiber Restoration and/or Basecamp Emergency services during a natural disaster. Small, Minority, and Women owned businesses are encouraged to register. Please respond by April 30, 2025, online at <https://suppliers.gatransmission.com/Pages/Registration.aspx> or send your contact information to Georgia Transmission Corporation, Attn: Contracts Administration Department – Emergency Services, 1799 Lakeside Parkway, Tucker, GA 30084.



**GeorgiaTransmission**

# 11 Steps to Operational Excellence

While public power utilities vary — in size, structure, resources, customer composition, community priorities, and more — several key areas determine their success. Utilities must evolve over time to meet changing needs, so it is important to reevaluate your operations and strategies regularly to ensure they align with your community's short- and long-term goals.

**Public Power Forward: A Guide to Utility Operational Excellence** identifies 11 strategic areas upon which utilities must focus efforts to ensure long-term success.

1



Raise awareness of the value of public power to your community

2



Focus on distribution performance and opportunity

3



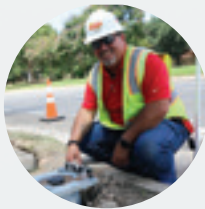
Deliver value through management of a diverse, affordable power supply

4



Maintain strong financial health

5



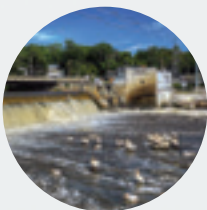
Optimize community infrastructure to maximize public investment

6



Invest in your technology future

7



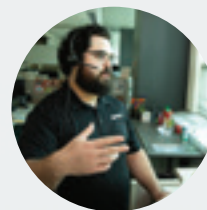
Lead in environmental stewardship

8



Promote human resource excellence to position your utility as an employer of choice

9



Provide superior customer service

10

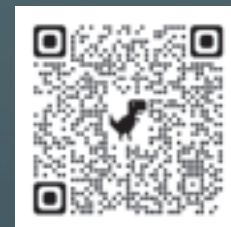


Build consensus through efficient democratic governance

11



Engage policymakers through legislative advocacy at the local, state, and national levels



Scan this code to access a digital version of the guide



# CONGRATULATIONS

to the 2025 Reliable Public Power Provider (RP3) program designees. We salute your commitment to operating at the highest levels of reliability, safety, workforce development, and system improvement as you build and support strong communities.

## DIAMOND

Bristol Tennessee Essential Services, Tennessee  
Brookings Municipal Utilities, South Dakota  
City of Georgetown Electric Utility, Texas  
City of New Bern Electric Utilities, North Carolina  
City of Troy Utilities, Alabama  
Fayetteville Public Works Commission, North Carolina  
Gainesville Regional Utilities, Florida  
Holland Board of Public Works, Michigan  
Huntsville Utilities, Alabama  
Marshfield Utilities, Wisconsin  
Middleborough Gas & Electric Department, Massachusetts  
Modesto Irrigation District, California  
New York Power Authority, New York  
Owatonna Public Utilities, Minnesota  
Stoughton Utilities, Wisconsin  
Vernon Public Utilities, California  
Village of Yellow Springs, Ohio  
Waupun Utilities, Wisconsin  
Zeeland Board of Public Works, Michigan

## PLATINUM

Austin Energy, Texas  
Austin Utilities, Minnesota  
Cedarburg Light & Water Utility, Wisconsin  
City of Concord Electric Systems, North Carolina  
City of Danville - Danville Utilities, Virginia  
City of Leesburg Electric, Florida  
City of Lexington, North Carolina  
City of Wadsworth Electric & Communication, Ohio  
Cleveland Public Power, Ohio  
Coffeyville Municipal Light & Power, Kansas  
Grand River Dam Authority, Oklahoma  
Hurricane City Power, Utah  
McMinnville Water & Light, Oregon  
Moorhead Public Service, Minnesota  
PES Energize, Tennessee  
Plymouth Utilities, Wisconsin  
Ripley Power & Light Company, Tennessee  
Saint Peter Municipal Utilities, Minnesota  
Snohomish County PUD, Washington  
Sterling Municipal Light Department, Massachusetts  
Town of Front Royal, Virginia

## GOLD

Bartow Electric Utility, Florida  
City of Colton Electric Utility, California  
City of Gardner, Kansas  
City of Winfield, Kansas  
Fort Valley Utility Commission, Georgia  
GEUS, Texas  
Los Angeles Department of Water and Power, California  
Richmond Power & Light, Indiana  
Rolla Municipal Utilities, Missouri  
San Francisco Public Utilities Commission, California  
Town of Clayton, North Carolina  
Washington City Power, Utah





# RESILIENT STRUCTURES

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