

MAY-JUNE 2024 • VOL. 82 / NO. 3

# PUBLIC POWER MAGAZINE

AMERICAN PUBLIC POWER ASSOCIATION



## NAVIGATING THE TRANSITION

# OKO GUARD<sup>®</sup>

## DEPENDABILITY...IT'S IN OUR DNA!

*Okoguard is not only the wise choice when you require an all EPR insulation system, it's also the most reliable and dependable cable on the market today, and always comes with our superior customer service.*

Okoguard cables deliver the most power and reliability in the industry, ensuring Utility Managers unmatched cable characteristics, quality and durability for their power systems.

Every foot of Okoguard cable bears the imprint of its 146 year old company and its Owners/Employees. These employees are proud of its unwavering quality and trusted reliability and know that every cable has been and always will be...**Made In The USA.**

Okoguard's design, service history and the uncompromising standards of Okoguard Cables also ensure confidence in the lifetime performance of the power cable.

### Okoguard Design Features:

- ✓ Superior Performance
- ✓ Outstanding Reliability
- ✓ More Flexibility
- ✓ All EPR Insulation System
- ✓ No Treeing
- ✓ Triple Tandem Extrusion



*We're Here For You!*



**THE  
OKONITE  
COMPANY**

*Okonite Cables...A higher Standard!*

102 Hilltop Road, Ramsey, NJ 07446 201.825.0300 [www.okonite.com](http://www.okonite.com)



# Join Friends and Colleagues

With face-to-face and virtual events, the APPA Academy offers professional development opportunities for all your networking and learning needs.

## Virtual Events

### Leadership Skills for New Managers and Supervisors

3 sessions | 4 hours each

- Values in Leadership + DiSC Assessment (July 30)
- Communication Skills of a Leader (Aug. 13 & 14)
- Emotional Intelligence Skills of a Leader (Sept. 17 & 18)

### Overhead Distribution Systems Principles & Applications

Sept. 4, 5, 10, 11, 12 | 4 hours each

## On-Demand

Check out our new on-demand training, including self-paced training classes as well as recordings of some of our most popular virtual classes.

- Advanced Key Accounts Certificate Program **NEW!**
- Governance Essentials
- Public Power 101 **FREE!**
- Public Power Forward Fundamentals **NEW!**

## In-Person

### Business & Financial Conference

September 8 - 11 | Cleveland, Ohio

### Cybersecurity & Technology Summit

September 8 - 11 | Cleveland, Ohio

### Fall Education Institute

September 30 - October 4 | Seattle, Washington

### Legal & Regulatory Conference

October 20 - 23 | Nashville, Tennessee

### Customer Connections Conference

October 27 - 30 | Louisville, Kentucky

Learn more at

[www.PublicPower.org/APPAAcademy](http://www.PublicPower.org/APPAAcademy)



MAY-JUNE 2024

## NAVIGATING THE TRANSITION

### 4 Strategic Industry Evolution

How the utility industry is constantly evolving and how we can learn from each other along various journeys and vantage points.

### 6 Reaching Clean Energy Goals

Lessons from different public power communities that planned for and reached clean energy goals, and what's next for their power supply planning.

### 12 Key Areas for the Transition

Three public power journeys in the energy transition — including implementing energy storage solutions, finding new approaches to load management, and exploring new forms of generation.

### 22 Public Power Leaders: Jolene Thompson

The leader of AMP on the importance of engagement — with colleagues, community members, and policymakers.

### 24 Nuclear Renaissance

Why advanced nuclear is becoming an increasingly valued option in the future generating mix, and lessons from public power projects leading the way.

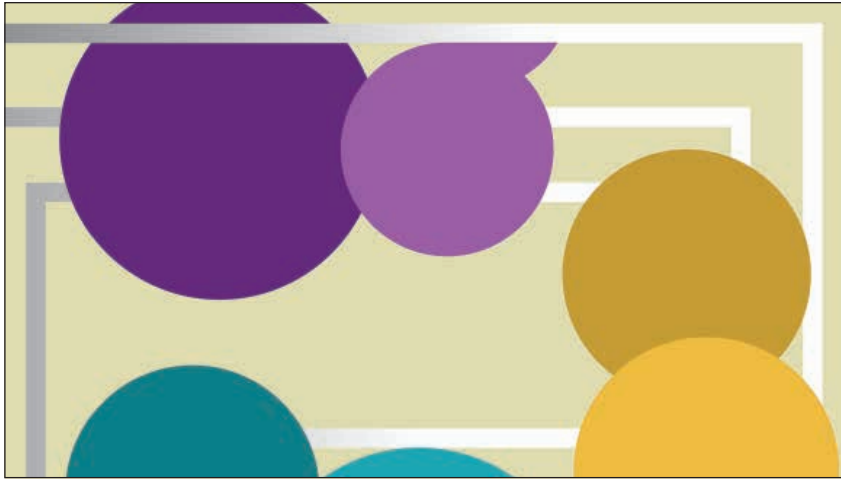
### 30 Electrification Alliances

Read how public power utilities are working with other community organizations and city departments to reduce emissions across the transportation, building, and industrial sectors.



COVER ILLUSTRATION BY ADRIA VOLTA





## 20 Energy Storage's Future

A quick look at projections for energy storage development, including costs and types of long-duration technologies in demonstration.

## 36 Leading the Way

Why the Long Island Power Authority is backing offshore wind, and how a new wind farm is a helpful start toward meeting ambitious clean energy goals.

## 38 Making the Transition Possible

How research and development efforts have helped and can continue to help public power determine viable paths to an affordable, reliable grid of the future.

## 40 A Changing Workforce

A few key stats from the Center for Energy Workforce Development's Energy Workforce Survey.

### OUR TEAM

#### Editor

Susan Partain

#### Design

Julio Guerrero  
Sharon Winfield

#### Contributing Writers

Jackson Bedbury  
Scott Corwin  
John Egan  
Betsy Loeff  
Paul Zummo

### INQUIRIES

#### Editorial

News@PublicPower.org

202-467-2900

#### Subscriptions

Subscriptions@PublicPower.org

202-467-2900

#### Advertising

Justin Wolfe, Justin.Wolfe@theygsgroup.com

Advertising is managed by The YGS Group.



Powering Strong Communities

### ABOUT THE AMERICAN PUBLIC POWER ASSOCIATION

The American Public Power Association is the voice of not-for-profit, community-owned utilities that power 2,000 towns and cities nationwide. We advocate before the federal government to protect the interests of the more than 54 million customers that public power utilities serve, and the 96,000 people they employ. Our association offers expertise on electricity policy, technology, trends, training, and operations. We empower members to strengthen their communities by providing superior service, engaging citizens, and instilling pride in community-owned power.

Postmaster, send all address changes to:

American Public Power Association  
2451 Crystal Drive, Suite 1000  
Arlington, VA 22202

Public Power Magazine (ISSN 0033-3654) is published six times a year by the American Public Power Association, 2451 Crystal Drive, Suite 1000, Arlington, VA 22202-4804. © 2024, American Public Power Association. Opinions expressed in articles are not policies of the Association. Periodical postage paid in Arlington, Va., and additional mailing offices.

For permission to reprint articles, contact News@PublicPower.org.

### AMERICAN PUBLIC POWER ASSOCIATION BOARD OF DIRECTORS

#### OFFICERS 2023-2024

**CHAIR: DAVID OSBURN**, Oklahoma Municipal Power Authority, OK

**CHAIR-ELECT: NICOLAS LAWLER**, Littleton Electric Light and Water Departments, MA

**VICE CHAIR: JOHN HAARLOW**, Snohomish County PUD, WA

**TREASURER: LAYNE BURNINGHAM**, Utah Municipal Power Agency, UT

**IMMEDIATE PAST CHAIR: ANTHONY CANNON**, Greenville Utilities Commission, NC

#### DIRECTORS

**DANIEL BEANS**, Roseville Electric Utility, CA • **CHUCK BRYANT**, Carthage Water and Electric Plant, MO • **BRET CARROLL**, Conway Corp., AR • **DAVID CARROLL**, Paducah Power System, KY • **THOMAS FALCONE**, Long Island Power Authority, NY • **JAMES FULLER**, MEAG Power, GA • **EDWARD GERAK**, Irrigation and Electrical Districts Association of Arizona, AZ • **DAVID GESCHWIND**, Southern Minnesota Municipal Power Agency, MN • **JASON GREY**, Danville Utilities Department, VA • **JONATHAN HAND**, Electric Cities of Alabama, AL • **ROSEMARY HENRY**, Wyoming Municipal Power Agency, WY • **ROY JONES**, Electric Cities of North Carolina, NC • **THOMAS KENT**, Nebraska Public Power District, NE • **EDWARD KRIEGER**, Piqua Power System, OH • **PAUL LAU**, SMUD, CA • **DAVID LEATHERS**, Jamestown Board of Public Utilities, NY • **BEATRICE LIMITIACO**, Guam Power Authority, Guam • **PAUL MAHLBERG**, Kansas Municipal Energy Agency, KS • **JASON MCPHERSON**, City of Marlow, OK • **GARY MILLER**, Bryan Texas Utilities, TX • **STEPHEN MORRISON**, Borough of Ephrata Electric Division, PA • **RUSSELL OLSON**, Heartland Energy, SD • **MICHAEL PETERS**, WPPi Energy, WI • **ANTHONY POCHARD**, Anderson Municipal Light and Power, IN • **BEAR PRAIRIE**, Idaho Falls Power, ID • **BRIAN SOLSBEE**, Tennessee Municipal Electric Power Association, TN • **LYNNE TEJEDA**, Keys Energy Services, FL • **DAVID WALTERS**, Grand Haven Board of Light and Power, MI • **AMY ZUBALY**, Florida Municipal Electric Association, FL

#### EX OFFICIO

**NICKI FULLER**, Chair, Advisory Committee, Southwestern Power Resources Association, OK

**JEFF HALL**, Chair, Policy Makers Council, Benton PUD, WA

# Learning from Each Other

## Strategic Industry Evolution

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



**F**rom small towns across this country to some of our largest cities, one of the greatest strengths in public power is the broad array of size and geography we represent when we speak as one. Our industry has been in continuous transition since members formed the original APPA in 1940 while recovering from the Great Depression and on the cusp of war. Our advocacy, communications, and technical support over time reflects the industry's evolution with a strong and balanced voice to help public power utilities by showing strength in numbers and sharing best practices as they move forward.

Changes in technology, customer engagement, load profiles, workforce dynamics, regulations, generation sources, and many other factors impact how we are planning for the future. There are proving to be as many paths forward as there are utilities. Last year, about 60% of power in the U.S. came from gas, coal, and oil sourced generation, 21.4% from renewable sources (including hydro), and 18.6% from nuclear. While clearly showing

leadership in planning and implementing new generation strategies for the future, public power communities nationally rely on all of the above to pursue local goals and ensure reliability and affordability for customers.

So, what comes next? This issue of *Public Power Magazine* offers a variety of perspectives and stories of utilities along different parts in the journey so you can continue to learn from your public power colleagues, big and small, on what it means to navigate today's energy evolution from their vantage point. This same sharing and conversation continues at our conferences and in our classes, and we hope you will continue to connect with each other all year round on all aspects of your shared challenges and interests at those events and on our new online community platform, APPA Engage.

When we gather at the APPA National Conference in June, the many ways in which public power is stepping up to meet the challenges of a quickly changing industry will be on full display. On the thousands of different roads our members will take, there are many common strategies to meeting customer expectations, maintaining system performance, dynamically managing loads, and ensuring resource adequacy. In meeting your colleagues in San Diego, you can learn from expert panels, engage in casual conversations with leaders facing issues similar to yours, and bring an inspiring wealth of ideas back to your community. See you there!





# Milsoft OMS: Empowering Utilities to Weather Any Storm



**OMS**

*Our Outage Management System ensures your staff and customers have essential tools during emergencies.*



**WEATHER**

*See live weather layers on your system map and provide customers with outage locations and restoration details.*



**COMMS**

*Automated customer communications and services, two-way texting, and web outage viewer for customers!*



**MOBILE**

*Access system status, work outages, and perform Field Damage Assessments.*

**JOIN US FOR THE 2024**  **MILSOFT USERS CONFERENCE**

**DISCOVER MILSOFT'S SOLUTIONS AT OUR USER CONFERENCE!**

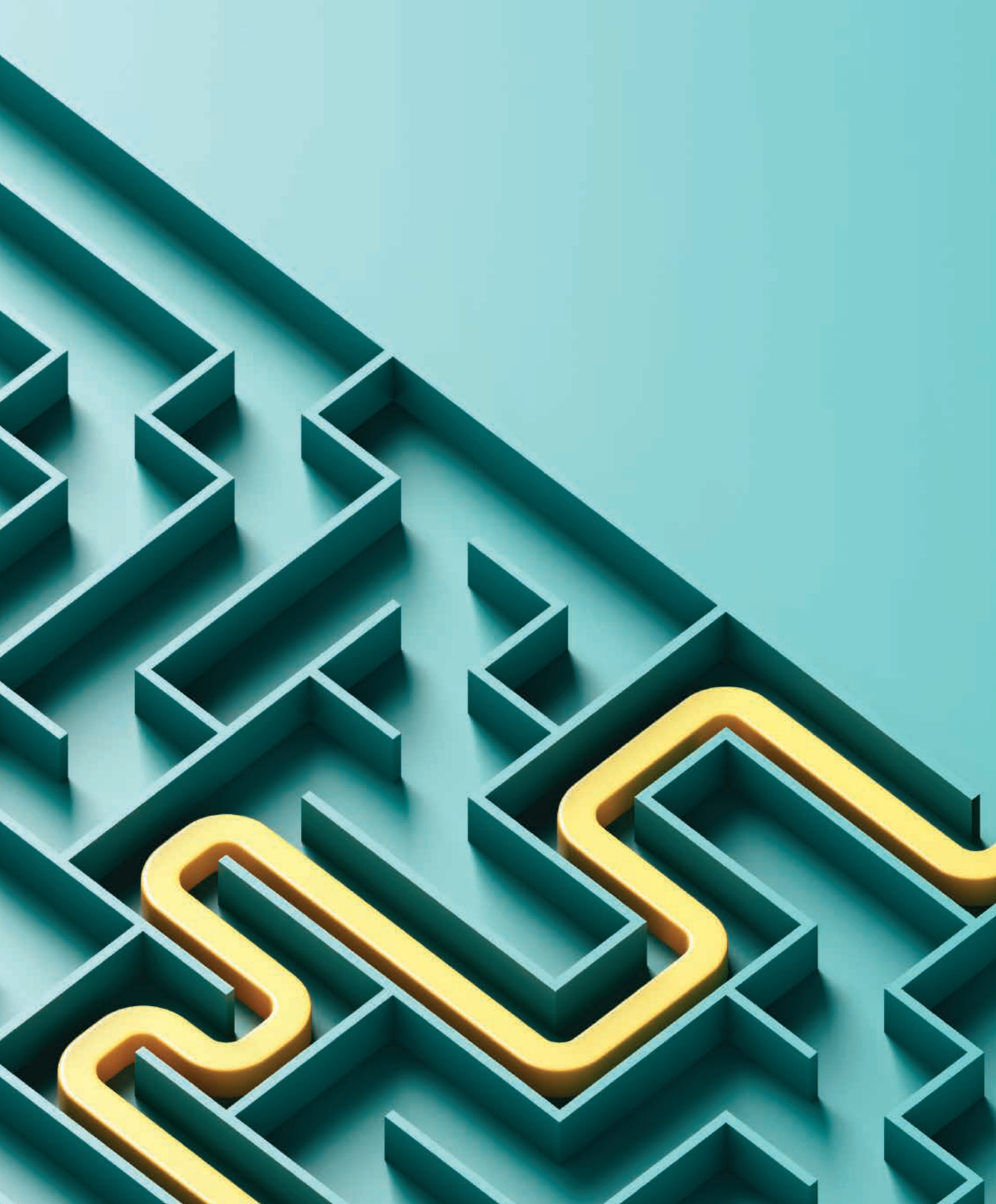
New to Milsoft? Explore our utility solutions at the User Conference. Meet key personnel and see why 800+ utilities choose us for efficient, reliable operations.

Contact [sales@milsoft.com](mailto:sales@milsoft.com) to make arrangements.

**NASHVILLE, TN • JUNE 4 - 6, 2024**








# HOW WE REACHED OUR GOAL

## Finding a Path to Affordable Clean Energy

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



**A**s utilities and communities grapple with how to plan for meeting sustainability and clean energy goals, it is helpful to remember that reaching such goals is not uncharted territory.

According to the Public Power Clean Energy Commitments tracker, at least 14 public power entities have already reached significant clean energy milestones. These include utilities that have reached a high proportion of renewables or non-carbon emitting sources within their supply, lowered emissions significantly, or made strides toward net zero or carbon neutral systems.

## FINDING A PATH TO AFFORDABLE CLEAN ENERGY

Reaching these goals is not something that happened quickly, but is likely the culmination of years or decades of planning and development. Reaching one milestone is also not often seen as an endpoint, rather a helpful recognition along a continued journey. And utilities continue to adapt as markets change the economics for the variety of resource options.

### A Fall-Back Option

In 2017, the city council of Denton, Texas approved a plan that had a goal of reaching a 100% renewable power supply by 2021. Denton Municipal Electric, the public power utility serving the fast-growing city of more than 150,000 people to the northwest of Dallas, got to work to ensure the power supply options were in place once the plan was approved.

Terry Naulty, DME's assistant general manager, characterized the community, which is home to two large universities, as very progressive, and that the city council members hold views that match this mindset. The 100% goal built on a previous goal, set in 2012, to get to a 40% renewable supply by 2014.

Denton's load is primarily served by two wind facilities and three solar facilities.

"We are among the top 10 fastest growing communities in the nation," stressed Naulty. "That load growth requires us to add more renewable resources to the mix and additional back-up energy to account for the intermittency. The intermittency risk has to be dealt with in order to maintain the mandate but properly prioritize reliability for all customers."

**"The intermittency risk has to be dealt with in order to maintain the mandate but properly realize reliability for all customers."**

**TERRY NAULTY,**  
ASSISTANT GENERAL MANAGER,  
DENTON MUNICIPAL ELECTRIC, TEXAS

Continuing to manage a system that meets the 100% goal has not been without challenges. These challenges include everything from overcoming intermittency to transmission congestion and ensuring a relatively stable price. For the former, a key piece of DME's plan was to build the Denton Energy Center, which is a natural gas fired facility that can come online within 10 minutes when needed. Since Denton is within the Electric Reliability Council of Texas market, it can also offer supply from the facility to the market, helping overall system costs.

Per DME's website, "The Denton Energy Center acts as an insurance policy to ensure that electric supplies are available when intermittent renewable resources are not available. More importantly, it insulates DME customers from wholesale market price spikes that would otherwise have to be passed on to customers."

Naulty noted that many community members had voiced opposition to having any combustion of fossil fuels, including an advocacy group that opposed the initial plan that included the energy center for backup.

Events since the plan was adopted have supported DME's strategy to include the energy center, notably, when Winter Storm Uri hit Texas in early 2021.

"Winter Storm Uri laid bare the risks of reliance on 100% renewable," said Naulty. "The takeaway was that not only do you need dispatchable generation, but fuel security for natural gas is an absolutely critical thing that generators in Texas had not put a huge priority on."

Part of the difficulty with renewables in the ERCOT market, said Naulty, is that being focused on renewable capacity over energy doesn't incentivize reliability as much as other markets. It also means wholesale prices can have wide swings based on a mismatch between output and demand. And, although Texas has an abundant supply of generating resources, including solar and wind resources, the majority of renewable generation happens in remote parts of West Texas, far from its population centers. Building transmission and market mechanisms that allowed utilities to better hedge congestion were necessary first steps in being able to meet the mandate, shared Naulty.

Despite the challenges, DME has been able to maintain a way to continue to both meet its goal and achieve among the lowest rates in the state. In the latest Average Revenue Per Kilowatt-Hour Report from the American Public Power Association, which analyzed 2022 data from the Energy Information Administration, Denton reported an average of 10.6 cents per kilowatt-hour for residential customers, which is 13% lower than the residential average for all public power utilities in the state, 19% lower than cooperatives, 23% lower than investor-owned utilities, and 27% lower than average retail electric provider rates.

Because Denton has been able to show that meeting its goal is possible while maintaining reliability and affordability, Naulty said that DME's strategy has become a model of sorts for how the ERCOT market could better incentivize dispatchable generation that backs up intermittent resources.



# HDPE Insulators Are Built to Last

Made in the USA

Guaranteed for Life

Lighter and More Durable  
than Porcelain



Tie Top Pin Insulators (15kV-35kV)



Vise Top Insulators (15kV-35kV)



Trunnion Line Post Insulators (25kV-69kV)



Line Post Insulators (15kV-46kV)



Clamp-Top Line Post Insulators (25kV-46kV)



Station Post Insulators (15kV-69kV)

**Hendrix**<sup>®</sup>

53 Old Wilton Road • Milford, NH 03055-3119 • 603-673-2040 • [www.marmonutility.com](http://www.marmonutility.com)



## FINDING A PATH TO AFFORDABLE CLEAN ENERGY

Both factors are also a boon for economic development in Denton. “One of the reasons [businesses] come is because we are a 100% supply community,” noted Naulty.

Naulty said that the 100% mandate will endure until the council develops another plan, if it does.

“Going 100% renewable shows DME’s ability to adapt to the community’s wants and needs,” said Naulty. “When the city council set that goal, there was no hesitation from DME to aggressively pursue it. It shows how we partner with the community to reach our goals.”

### Anticipating What’s Next

In Vermont, all utilities, including community-owned utilities, are subject to the state’s renewable energy standard. That standard, set in 2107, set targets in different tiers that escalate each year, including ambitious goals for renewable generation, distributed energy resources, and electrification. The tier 1 target in the RES called for 55% renewable supply in 2017, going up 4% every three years until reaching 75% in 2032.

For Stowe Electric, a public power utility serving about 4,500 customers in a small town in northern Vermont, meeting the standard has meant staying ahead of it with careful planning. Stowe Electric’s portfolio is already ahead of the target, having exceeded 80% renewable supply in both 2022 and 2023, with an overall carbon neutral portfolio that includes purchasing renewable energy certificates to ensure compliance.

Jackie Pratt, Stowe Electric’s general manager, credits her predecessor, Ellen Burt, with planning ahead in helping the utility be well-positioned in continuing to meet the standard. A big piece of that planning was in developing a solar field that went online in 2016.

Michael Lazorchak, Stowe’s manager of regulatory affairs, said that part of the effort in staying ahead of the curve on the standard is anticipating what might come next and planning toward that option.

Looking ahead, Pratt and Lazorchak expressed some concern about the limitations in what resources will qualify for the standard in the future. This includes a nuclear facility that provided about 18% of its supply in 2023 and large hydroelectric facilities. About one-third of Stowe’s supply came from hydro resources in 2023.

“We plan to utilize nuclear and large hydro as long as we can until larger wind and solar projects can come online,” added Pratt.

The problem is getting local projects approved. Pratt said that new projects in the state have predominantly been solar facilities, but even those can be difficult to site, given the state’s tourism industry that focuses on its landscape and historic features.

That’s where Stowe is getting creative, including working on restoring an historic mill site for use as a hydro facility. The mill restoration project has received federal funding as well as a grant from APPA’s Demonstration of Energy and Efficiency Developments program. Stowe Electric is also adding small scale solar where it can, including onto municipal building rooftops.

“We’re trying to show that there are opportunities to showcase what a small utility can do,” said Pratt.

Recognizing the opportunities for projects, however small, is still only the first step.

“We can wait for the state to tell us what to do, or we can try to come up with creative ways to meet the standard and then pull more people in,” said Lazorchak.

“If you are a municipality that doesn’t have someone who’s going to step behind the project and push it through, you aren’t going to see it happen,” added Pratt.

Pratt and Lazorchak also noted that Stowe works closely with Energy New England on power supply planning, including in developing its latest integrated resource plan and helping to secure the RECs it will need.

Being a small state, both geographically and in population, means that the utility leaders have opportunities to interact more with state policymakers and weigh in on changes to legislation. Even in bigger states, Pratt stressed that it is important for utilities to be involved on discussions around standards before they get set in stone. “If you have a seat at the table in developing what that should look like, it’s much more achievable for the utility because you can say what’s possible and what’s plausible.”

“In the last 12 to 18 months, we’ve seen a recognition that climate change isn’t down the line, it is here,” said Pratt. “If we’re genuinely trying

## FINDING A PATH TO AFFORDABLE CLEAN ENERGY

to mitigate carbon emissions in the interest of reducing the effects of climate change, this is an AND — not an OR — situation.”

“We’re seeing regional competition for renewable energy credits, as different states are trying to meet their targets, whether it’s Massachusetts or Vermont or Connecticut. If we can’t find a way to fast track some of these larger projects and actually get them built, we’re going to miss our targets. Everybody’s got to be moving in the same direction, and we can’t be fighting these little fights for two or three years to get one solar project built,” she added.

### Local Control, Local Choices

In Ohio, the Oberlin City Council developed a Climate Action Plan in 2011 that set a goal of reducing greenhouse gas emissions 50% from 2007 levels by 2015, 75% by 2030, and below 100% by 2050. The plan included efforts across various sectors, including transforming the electric grid to be carbon neutral, which it achieved in 2020.

Oberlin Municipal Light and Power serves the small town of about 8,000 people that is home to Oberlin College. In its plan, the city credits having a community-owned system as being a critical part of being able to make and then act on decisions about its power supply.

“Obviously, when you own your own grid, you have more control of it,” noted Linda Arbogast, sustainability coordinator for the City of Oberlin.

As a small public power utility, the electric department’s power supply is primarily from purchase agreements and other contracts. A member of the joint action agency AMP, the utility worked to align its wholesale power purchases with the goal, including purchasing RECs to offset parts of the supply that were not carbon neutral. Arranging the contracts through AMP, said Arbogast, allows Oberlin to access certain resources along with other communities “in bulk”, which keeps the costs more economical, and, in turn, Oberlin’s rates within a median range.

Arbogast said that the community had to build toward being able to reach the goals, so that the goal could be reached without a need to dramatically raise rates.

“Customers aren’t having to pay for the fact that we have a green grid,” she said.

Maintaining the goal long-term requires monitoring how trends in the energy markets and demand will affect their purchases in the coming decades.

As an example, Drew Skolnicki, director of Oberlin Light & Power, pointed to the low cost of natural gas and how other industries use natural gas and landfill gas, and which industrial entities are finding electric alternatives. About half of Oberlin’s purchased supply comes from landfill gas. Skolnicki mentioned that he has seen plant that generated that power close, and instead process the gas for the natural gas pipeline, which is currently more economical.

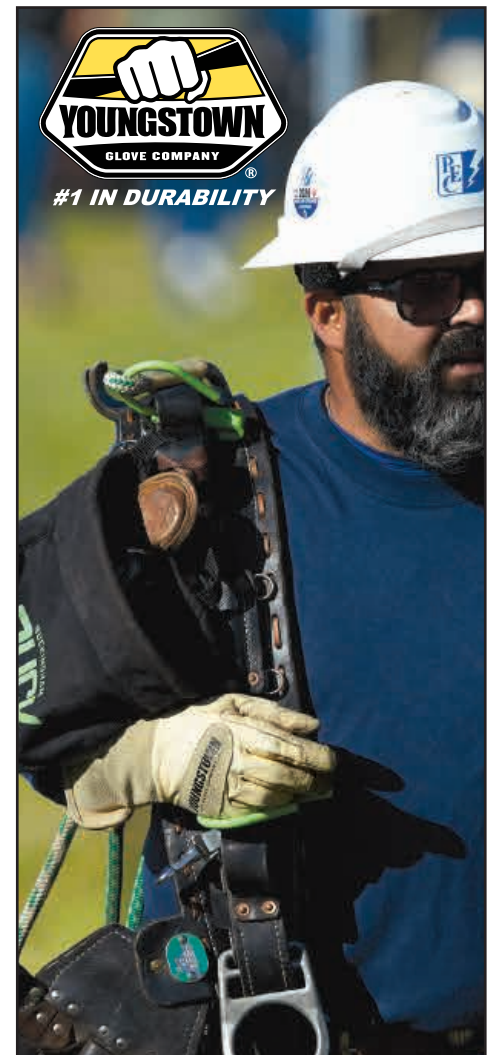
“We don’t want customers to have their energy be unaffordable,” said Skolnicki. “Part of that challenge is, as these contracts drop off, being sure we can replace them.”

Skolnicki said that it also helps with keeping costs within a reasonable range when a diversity of resources can qualify for the mandate.

For public power, making local decisions, ensuring a diverse mix or making choices that affect costs starts with community education.

“You have to start with a supportive council and a community that demands it,” said Arbogast. “We don’t just expect to be a sustainable community, we expect to treat all residents equally. If you have to make tough decisions about resource use, our council says to focus on low-income individuals first.”

That focus has included ensuring there is a priority for weatherization and other activities to reduce the energy burden for individuals with lower incomes.



SKU# 11-3255-60

**LEATHER  
UTILITY  
WIDE-CUFF  
HANDS ON  
PROTECTION**

[info@ytgloves.com](mailto:info@ytgloves.com)  
800.680.7177 | [ytgloves.com](http://ytgloves.com)







# EXPLORING KEY AREAS ON THE JOURNEY TO A LOWER CARBON FUTURE

BY JOHN EGAN,  
CONTRIBUTING WRITER

**A**cross the country, public power utilities are pursuing a diverse range of strategies and tactics to modernize their systems and reduce their environmental impact while keeping electricity affordable and reliable. These efforts are in response to policy decisions and changing economics, and in alignment with the wishes and expectations of their customer-owners and key stakeholder groups, and therefore they are unfolding in different ways and at different speeds across the country. While the lack of a uniform path allows public power utilities to investigate various approaches that leverage local conditions in pursuit of a lower-carbon future, several areas and technologies will be key for reaching these goals.



## EXPLORING KEY AREAS ON THE JOURNEY TO A LOWER-CARBON FUTURE



**“Many of our customers want to play a direct role in reducing emissions, and they want our help to do so. They want to play a direct role in our clean energy journey. Creating programs like the EV managed-charging program shows that we’re listening to them and doing our part to make the transition.”**

**MATT BABBITTS,**  
CLEAN ENERGY PROGRAM MANAGER,  
CLARK PUBLIC UTILITIES, WASHINGTON

The Public Power Energy Transition Community, an initiative funded through a cooperative agreement between the Department of Energy and the American Public Power Association, is developing a series of briefs in 2024 that provide high-level considerations and guidance on these key areas, including electric vehicle charging infrastructure, load management, energy storage, and emerging generating technologies.

As community-owned utility leaders decide which technologies and programs to pursue to help reach energy transition goals, lessons from others’ explorations can inform these choices. The following is a closer look at three public power journeys in the energy transition.

### Shaping New Behaviors

Clark Public Utilities, which provides electricity to over 225,000 customers in Washington state, has a smaller decarbonization challenge than many utilities, because around 60% of its power comes from carbon-free hydroelectric generators.

Still, utility leaders and customers feel strongly about using energy as wisely as possible, and the community has a high interest in electric vehicles. Rather than building new infrastructure to meet the demand created by a future with more EVs, Clark Public Utilities is experimenting with a demand response program for EVs.



## EXPLORING KEY AREAS ON THE JOURNEY TO A LOWER-CARBON FUTURE

“As a nonprofit, at-cost utility, offering a voluntary demand response program for EV charging will help us avoid passing additional costs on to our customers and demonstrates good stewardship of their resources,” commented Matt Babbitts, clean energy program manager with Clark Public Utilities.

“We started considering residential demand response programs over a year ago. Because today’s residential EV owners are ‘early adopters,’ we felt they were a great demographic of customers to begin with, primarily due to their advanced understanding of electric grid complexities.”

The community-owned utility signed a contract with a vendor in late 2023 and launched a pilot EV managed-charging program in February 2024. The utility hopes to build on the success of its Level 2 EV charger programs, and aims to enroll 800 EVs in the managed charging program, which will run through December.

Clark Public Utilities understands some customers may not want to install a Level 2 EV charger, which can entail expanding a home’s electrical panel to accommodate another 240-volt load. That’s why, with the help of

the vendor, Clark implemented an EV telematics-based managed charging program that can enable the utility to send signals to enrolled EVs, rather than through an internet-connected Level 2 charger. Participating EVs will not charge when plugged in during a handful of periods of high demand in the summer and fall.

Babbitts said demand response and load shifting programs “will be crucial to our utility’s success in decarbonizing the electric grid.” He also noted that Washington’s Clean Energy Transformation Act requires utilities to create demand response programs.

“Many of our customers want to play a direct role in reducing emissions, and they want our help to do so. They want to play a direct role in our clean energy journey. Creating programs like the EV managed-charging program shows that we’re listening to them and doing our part to make the transition.”

As EV adoption grows in Clark’s service area, the utility expects to use the lessons learned this year to develop best practices for future managed-charging and demand response programs.

## A True Enterprise Experience

**Streamline Your Business.  
Reduce Operational Costs. Increase Efficiency.  
All With One Enterprise System.**

NISC’s robust enterprise system features full integration across solutions that work across your organization.

Powerful Service, Financials, Operations and Marketing solutions can help you manage your meter data, analyze your customer data and offer payment and communication channels to increase customer satisfaction...

All with one trusted partner.



[www.nisc.coop](http://www.nisc.coop)

national information solutions cooperative



**“As a former power plant engineer, I would have been excited about the potential to build a new thermal power plant. But that’s not the way the market is moving. Pairing energy storage with an intermittent resource like wind or solar could give the same or better benefits as a gas peaker, at a lower cost. The economics have driven our moving away from coal and gas-fired generation.”**

**BRAD BICKETT**, GENERAL MANGER,  
HENDERSON MUNICIPAL LIGHT & POWER, KENTUCKY

“Decarbonizing the electric sector is complex work that requires complex solutions,” Babbitts acknowledged, “but piloting different programs with small subsets of customers, like we are doing with our EV managed-charging program, allows us to learn valuable lessons and do so with a customer group that is willing to be patient during the growing pains of creating new programs.”

“Those lessons will allow our utility to integrate more broad programs in the future while also improving customer satisfaction,” he said.

## The Future Is Not Like the Past

Henderson, Kentucky, has a long history with coal. For over a century, the city relied on the black rock to affordably and reliably produce electricity.

“Historically, coal sustained a lot of jobs in our community,” commented Brad Bickett, general manager of Henderson Municipal Power & Light, which provides electricity to about 12,000 customers. The utility has closed two coal-fired power plants over the last 15 years, as environmental regulations made them less and less economic to operate.

After completing its first integrated resource plan in 2018, the public power utility joined the Midcontinent Independent System Operator, began purchasing power from the wholesale market, entered energy and capacity contracts, and explored two other recommended options: building a natural gas-fired reciprocating engine peaker plant and pursuing a solar-plus-storage project. Ultimately, a bid was awarded for a 50-megawatt solar project. The bids for the 36-megawatt natural gas peaker plant came in about 50% higher than the utility expected, and the economics of a solar-plus-storage project weren’t particularly compelling either.

Following closure of its second coal plant in 2019, the economics for solar-plus-storage began to improve, and developers came out of the woodwork with renewable energy projects, Bickett said. The Inflation Reduction Act improved the economics of renewables and storage even further through hefty federal tax credits that allowed developers to lower their project prices.

HMP&L’s most recent solar-plus-storage request for proposals, in 2023, confirmed its strategic direction: On an all-in basis, solar-plus-storage penciled out to be about 15% less expensive than a natural gas reciprocating engine plant.

Besides the higher cost of building the gas-fired peaking generation, Bickett explained, gas-fired power offered a weaker hedge against future gas price volatility in the MISO market because natural gas was frequently to marginal generation in that wholesale market. When HMP&L joined MISO in 2019, it became eligible to participate in the ISO’s capacity and energy markets, where it could sell energy and ancillary services and receive capacity credit for the battery energy storage system, or BESS, facility.



## JOB LISTINGS

as of 5/1/2024



**4,100+**  
Searchable Resumes



**14,500+**  
Average Monthly Page Views



**1,200+**  
Average Views Per Job

# FIND AND FILL JOBS IN PUBLIC POWER

The go-to place for public power careers, APPA's job board connects employers and skilled professionals so each find the perfect fit. <https://jobs.PublicPower.org>

- Automatic email notifications when job seekers match your criteria
- Targeted advertising exposure
- Easy online job listing management
- Resume search included with job posting

<https://jobs.publicpower.org/employers/> • <https://jobs.publicpower.org/rates/>

**AMERICAN  
PUBLIC  
POWER  
ASSOCIATION**

Powering Strong Communities



## EXPLORING KEY AREAS ON THE JOURNEY TO A LOWER-CARBON FUTURE

Bickett observed, “The organized market helps make BESS economic because it offers multiple value streams and more liquidity than traditional bilateral power purchase contracts.”

Henderson also is home to a significant industrial load, and some of those companies are working to meet corporate sustainability goals. Solar-plus-storage helps those large customers meet those goals.

And gas-powered generation offers less resiliency benefits compared to solar-plus-storage, if there's a loss of fuel or transmission during extreme weather events, he added. A few years back, tornadoes damaged some nearby transmission lines and high temperatures followed that sent power costs skyrocketing — half of HMP&L's \$2 million-per-month purchased power budget was spent in one week.

“It doesn't take very many of those events to really impact power costs” Bickett said. “Our primary goal is to keep power costs as low as possible. Solar-plus-storage is the best way for us to do that. And if this project works the way we think it will, we may do another.”

“As a former power plant engineer, I would have been excited about the potential to build a new thermal power plant,” said Bickett, who has been with HMP&L for 13.5 years, the last two as general manager. “But that's not the way the market is moving. Pairing energy storage with an intermittent resource like wind or solar could give the same or better benefits as a gas peaker, at a lower cost. The economics have driven our moving away from coal and gas-fired generation.”

Bickett's main takeaways from the utility's energy transition journey is to have local community leaders and members of the community involved in the planning process and to recognize that change can be hard on people.

“Given our history, it is quite a shift for us to move away from burning hydrocarbons for energy,” he said. “We need to spend more time to understand the concerns of the community about moving to solar-plus-storage, and then invest time to help them understand all the ways that option would benefit them.”

### Broadening 'All of the Above'

It has become commonplace to hear utility executives talk about the need to pursue an “all of the above” energy strategy. Sometimes that is said to support development of traditional electric generation options like coal, nuclear, or gas.

The Tennessee Valley Authority is playing on a broader field with a longer time horizon. On the nuclear fission front, where energy is released by splitting atoms, it is investigating small modular reactors, which could be deployed in the next decade. But further out, TVA also sees a possible role for nuclear fusion, where energy is released when hydrogen atoms are fused together. Earlier this year, TVA signed an agreement with Oak

**“We're doing this for three reasons: To help entrepreneurial companies explore advanced technology; to fulfill our economic development mandate; and because it's a cool way to extract value from a shuttered coal-fired generator.”**

**JOE HOAGLAND,**

VICE PRESIDENT OF INNOVATION AND RESEARCH, TENNESSEE VALLEY AUTHORITY

Ridge National Laboratory and Type One Energy Group, a developer of next-generation clean nuclear energy, to build a stellarator fusion prototype machine at the site of TVA's shuttered Bull Run Fossil Plant in Clinton, Tennessee.

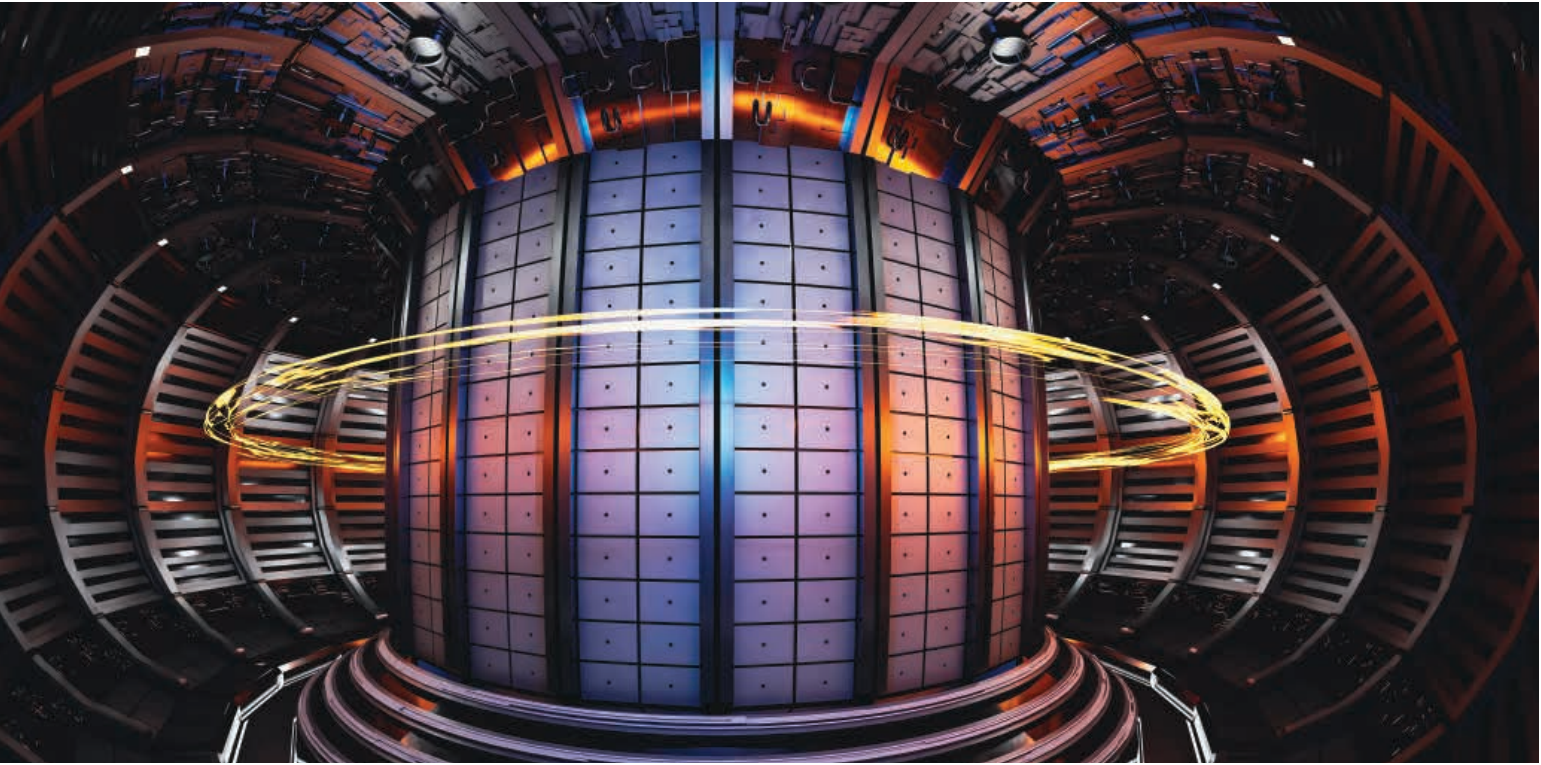
A stellarator seeks to use a series of high-powered magnets to contain the energy given off by thermonuclear fusion reaction when two atoms of hydrogen are fused together. The stellarator does not generate electricity.

Although not new, fusion technology still is in a nascent state, and it may not work out. But fusion is the ultimate clean energy, said Joe Hoagland, TVA's vice president of innovation and research, because nuclear fusion generates no radioactive waste. And there's no potential for a nuclear meltdown.

Hoagland chooses his words carefully when referring to the project. It is a potential prototype aimed at managing risks. “We're not building a power plant. This isn't a demonstration or a pilot project. We're developing a risk-reduction facility to test the stellarator's containment system,” he said.

The project, named Infinity One, will allow Type One Energy to verify important design features of its high-field stellarator fusion pilot plant, particularly those related to operating efficiency, reliability, maintainability, and affordability, the company said.

## EXPLORING KEY AREAS ON THE JOURNEY TO A LOWER-CARBON FUTURE



The project received funding from the Department of Energy.

It will take at least the rest of 2024 for Type One to calculate the costs of building a stellarator. It will be doing that while TVA proceeds with an environmental analysis for the decommissioned Bull Run coal-fired power plant. A construction decision may be forthcoming next year.

“We’re doing this for three reasons,” Hoagland said. “To help entrepreneurial companies explore advanced technology; to fulfill our economic development mandate; and because it’s a cool way to extract value from a shuttered coal-fired generator.”

In announcing the partnership with TVA, Type One Energy said it would establish its headquarters in East Tennessee and, over a five-year period, hire as many as 300 employees, including nuclear physicists and mathematicians.

“I’m really excited about the potential of this technology,” said Hoagland, who holds a Ph.D. in physical chemistry and has worked on fusion for much of his 32 years at TVA.

“The nation needs 24/7 carbon-free electricity,” he continued. “TVA operates seven nuclear fission reactors, and we’re exploring SMRs, so we’re uniquely positioned to explore fusion. We believe nuclear needs to be part of the energy transition.”

Nuclear options aren’t the only part of TVA’s “all of the above” approach. At a site near Paducah, Kentucky, it is turning a brownfield into

a first-of-its-kind green energy generator by placing solar cells that are fixed to a flexible substrate directly on top of a sealed and lined coal-ash pond.

A closed coal-ash pond has very few potential uses, Hoagland noted: A golf course could be built, but probably not a park because tree roots could someday pierce the coal ash pond lining. For the same reason, it would not be possible to construct a building on an ash pond.

TVA is performing appropriate environmental reviews and regulatory requirements at the Shawnee Fossil Plant site, where it plans to build a 100-MW solar generation facility. The project will use photovoltaic cells that are mounted on flexible substrate that can be attached to an engineered turf foundation. The substrate will be placed directly on the ground, rather than mounted in a rigid frame that must be anchored in the ground.








The project is one part of TVA’s plan to meet the needs of a growing region by investing in new generation, which includes building 10,000 MW of solar energy by 2035. It would also allow utilities that once burned coal to use otherwise unusable coal-ash ponds. Construction could begin next year.

“TVA has pursued an ‘all of the above’ energy strategy for a long time,” Hoagland said. “We can’t just rely on one option to get to a clean energy future.”

# WHAT'S NEXT FOR ENERGY STORAGE

Currently, there are **16 gigawatts** of battery storage in the U.S., and this capacity is expected to exceed 40 GW by the end of 2025.<sup>1</sup>

While battery capacity continues to grow (mostly from lithium-ion batteries), there is also focus on developing longer-term options that could provide stored energy over days or weeks, including:

-  **Flow batteries**
-  **Metal air batteries**
-  **Pumped storage hydro**
-  **Molten salts and other thermal storage**
-  **Compressed air**
-  **Gravity-based solutions**
-  **Hydrogen**

## Scaling Up

1 <https://www.eia.gov/todayinenergy/detail.php?id=61202>

2 Net-zero power: Long-duration energy storage for a renewable grid | McKinsey

3 <https://littoff.energy.gov/long-duration-energy-storage/>

4 U.S. Hydropower Market Report 2023 Edition (energy.gov)

5 <https://www.energy.gov/oced/long-duration-energy-storage-demonstrations-projects-selections-award-negotiations>



# ENERGY STORAGE

A report from McKinsey projects that there will be between **1.5-2.5 terawatts** (about 85-140 terawatt-hours) of long-duration energy storage capacity globally by 2040, which would mean that about 10% of electricity generated would have been stored at some point.

Reaching this capacity would require a total investment of **\$1.5-\$3 trillion**.<sup>2</sup>

In the U.S., a Department of Energy analysis projected a need for **225-460 GW** of long-duration energy storage capacity by 2050, for a projected cost of **\$330 billion**.<sup>3</sup>

## A Long Way to Go

There is already **22 GW (553 GWh)** of pumped storage hydro in the U.S., and, at the end of 2022, another 91 GW had been proposed, but only 10 projects have moved past the first stage.<sup>4</sup>

DOE awarded **\$325 million** into LDES demonstration programs,<sup>5</sup> including:

Two 10 MW, 100-MWh iron-air battery installations at retiring coal plants

Multiple projects exploring use cases for retired EV batteries

Small-scale vanadium redox flow batteries with up to 20 hours discharge for multiple rural communities

Investing in energy storage could support cost savings elsewhere — including reducing the cost of a fully decarbonized power system by **\$10-20 billion** annually by 2050.

# Public Power Leaders: Jolene Thompson



**J**olene Thompson has been with AMP since 1990, and was named its president and CEO in 2020. Before becoming president/CEO, she provided oversight of AMP's government relations, communications, training, environmental affairs, sustainability initiatives, risk, insurance, strategic planning, member programs, and safety, environmental and North American Electric Reliability Corporation compliance activities. She also serves as the General Manager of the Municipal Energy Services Agency.

She was Executive Director of the Ohio Municipal Electric Association in a dual role with her AMP position from 1997 to 2020. Throughout her career, Thompson has worked closely with AMP members and advocated with state and federal policymakers on behalf of AMP and public power.

Nationally, she is a member of the boards of The Energy Authority and Large Public Power Council, where she serves on the CEO Steering Committee and is the CEO co-chair of the Policy Task Force. She served on the American Public Power Association Board of Directors from 2015 to 2022, including serving as Board Chair from 2020 to 2021.

She also chaired the APPA Advisory Committee of State and Regional Associations and Legislative and Resolutions Committee. Having completed her terms on the APPA Board, she remains a member of the Board Nominating Committee. Thompson was previously a member of the Transmission Access Policy Study Group Board of Directors and sat on the Consumer Federation of America Board of Directors. Thompson's exceptional leadership and dedication to public power has been recognized through two APPA awards — the Alex Radin Distinguished Service Award, APPA's highest honor, in 2023, and the Harold Kramer-John Preston Personal Service Award in 2003.



## HOW DID YOU COME TO WORK IN PUBLIC POWER?

I grew up in a utility family. My father was a distribution engineer for the local investor-owned electric company, and my mother had been an operator for the local telephone company, so I was intrigued when I came across a job posting for a communications internship with AMP (then known as American Municipal Power-Ohio). I had recently graduated from Otterbein College (located in the public power community of Westerville, Ohio) with a degree in journalism and was seeking a position in corporate communications. At that time, in the late 1980s, it was rather difficult to break into that field, and I viewed a post-graduate internship as a strategic move to gain experience and help secure a full-time position down the road. I was hired by AMP and quickly became a passionate supporter of public power — which made for some interesting conversations with my father, who viewed the world from his 40 years of IOU work experience. My father ultimately grew to appreciate the attributes of public power, and it was gratifying to be able to talk shop with my parents.

## IS THERE AN ACHIEVEMENT AMP HAS MADE UNDER YOUR LEADERSHIP THAT TYPIFIES PUBLIC POWER?

Throughout my 35 years with AMP, I've been incredibly fortunate to work directly with our member community officials and witness their dedication to and focus on public service. I've always been proud to represent public power. One of the views that I share with new staff at AMP is how much job satisfaction can be derived from working for an organization with a worthy mission. My past roles at AMP helped prepare me for my current role by providing valuable learning experiences — about our members, about the industry, and about joint action.

We have a very talented and creative team at AMP with a wide range of skill sets and perspectives. The team has achieved numerous successes in recent years, with a focus on operational excellence, effective advocacy, and innovative solutions designed to help meet the needs of our members. An ongoing theme for me has been engagement — both with AMP members and with AMP employees. I'm proud of our team's efforts, with our continuing progress reflected in positive member satisfaction and employee culture survey results. Engagement will continue to be a theme for us, and I view it as one of public power's core attributes.

## WHAT CHALLENGES SHOULD PUBLIC POWER'S FUTURE LEADERS BE PREPARED TO FACE?

As we all know, our industry is experiencing a transition driven by technological advancements, customer preferences, and policy changes. In the past, our industry changed at a slower, more evolutionary pace — largely via policy changes that took years to realize. Today, the drivers and pace of the changes impacting our resource planning and business model considerations are more revolutionary. Moreover, our industry continues to operate against a backdrop of ever-changing state and federal legislative and regulatory policies.

Public power leaders have traditionally focused on the foundational tenets of affordability and reliability. The challenge that we face today — and which public power leaders will continue to face in the future — is how to be proactive and implement strategies to deliver on those tenets while meeting industry changes head on. At AMP, we have a staff Innovation Team and a member Focus Forward Advisory Council dedicating time to these discussions.

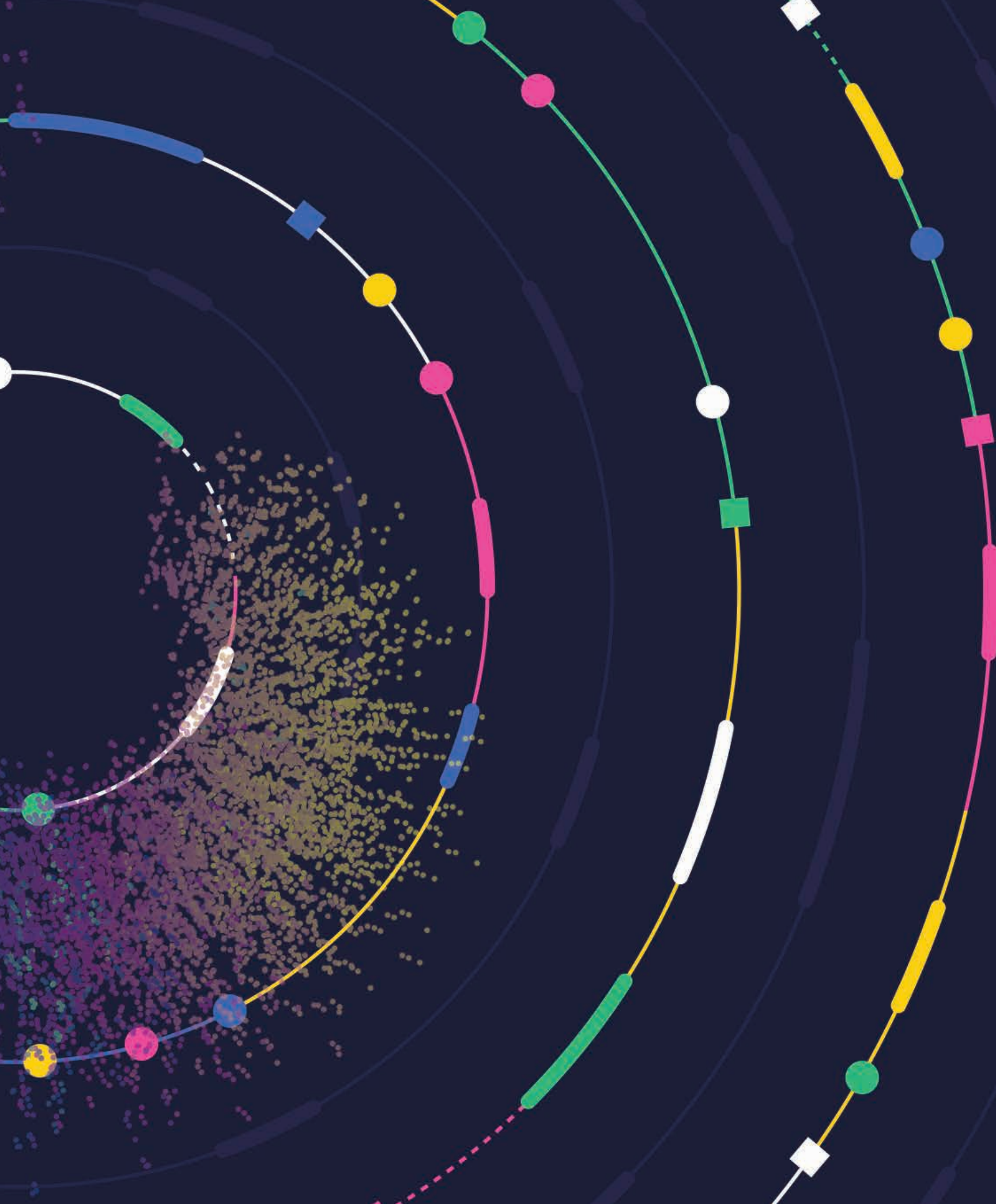
Another critical consideration that public power leaders today and in the future will face is the need to raise awareness of careers in public power and work to recruit the next generation of the workforce — from lineworkers to administrators.



The background features several concentric, curved lines in various colors (white, yellow, green, blue, pink) that sweep across the frame. These lines are punctuated by small, solid-colored circles and squares. The overall aesthetic is clean, modern, and futuristic, suggesting a path or trajectory. The text is centered and rendered in a bold, white, sans-serif font.

# NUCLEAR RENAISSANCE

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





**N**uclear energy has been an important part of the U.S. generating mix for more than 50 years. Many of the units still in operation today (which surpass 100,000 MW capacity) were built in the 1970s and 1980s and continue to provide a plurality of the country's non-emitting electric generation.

While the existing fleet has been maintained and enhanced over the years, a lot of research and development has been poured into creating a new generation of nuclear generating technologies that operate more efficiently, have passive safety features, and make a smaller footprint than the older facilities.

## Meeting New Demand

Marcus Nichol, executive director of new nuclear at the Nuclear Energy Institute, said that the demand for new nuclear for electric generation in the U.S. is anywhere from 100 gigawatts to 300 GW by 2050. The 100 GW estimate comes from a survey NEI conducted of its members to assess future needs, and Nichol suggests that when factoring in all the other applications for advanced nuclear, such as microreactors for mining, the demand is much larger.

Driving this demand are a growing number of state and utility plans that view advanced nuclear as a key to being able to transition away

from fossil fuels. Another driver, he noted, is the rapid load growth from data centers and manufacturing. And nuclear facilities, said Nichol, are designed to meet rapid increased in load growth.

Nichol said that many states have made moves in recent years in support of nuclear, whether that's through repealing moratoria on building new nuclear, commissioning studies about its potential, or providing incentives to deploy new reactors.

Nichol noted that many of the roughly 30 advanced nuclear projects already in development in North America means that the U.S. is ahead of most countries in deploying the technology. He said that the interest in seeing these projects launch isn't just within the U.S., but that other countries are also wanting to see the technology demonstrated in the U.S. before they deploy their own projects. Once the initial set of small modular reactors are deployed, Nichol said the pace of deployment will need to be between 10-20 reactors becoming operational per year.

Successful early deployments will improve the conditions for others to follow to help reach the projected demand, said Nichol. Part of this success is overcoming the barrier of simply being first.

"First of its kind of any technology is almost always more expensive," he said. For advanced nuclear, part of what drives costs is whether the regulatory environment or market structures make the economics less favorable. He said the lack of policies at the federal and state level to address some of the risks involved with advanced nuclear is part of what contributed to the cancellation of NuScale's Carbon Free Power Project. Nichols doesn't see that cancellation as having affected the momentum for SMRs, though. He also recognizes that every project has contributed to the mutual understanding of how to deploy such projects.

"The industry is actually being proactive to help reduce the risk for future projects," he shared. This includes sharing construction best practices and other lessons from previous projects that can inform development of implementation guides.

A particular project he is watching closely is Ontario Power Generation's Darlington project, which plans to have four SMR units when completed. He said site work is already underway for the first unit and that it has "cleared all of the business case hurdles."

"There are a lot of opportunities for public power to play in advanced reactors," said Nichol. "Public power has a lot of choices about how they incorporate it into their portfolios. Some may find it is better to go on their own and partner with an experienced operator. Others may want to partner with other public power providers to share risk. Others may look at it and see if they can be a power offtaker."

In any case, said Nichol, "It's important to start thinking through those decisions early, to be able to figure out the strategy. Companies could find out overnight that the policy environment has been created for [advanced nuclear] to make a lot of sense, so they should be able to act quickly."



**"The industry is actually being proactive to help reduce the risk for future projects."**

MARCUS NICHOL,  
EXECUTIVE DIRECTOR, NEW NUCLEAR,  
NUCLEAR ENERGY INSTITUTE



## NUCLEAR RENAISSANCE

### A New Era

The latest nuclear capacity to come online in the U.S. are two new units at Plant Vogtle in Georgia. Before the new Vogtle units came online in 2023 and 2024, there had only been one other new nuclear facility opened in the U.S. since the 1990s. The new Vogtle units, 3 and 4, are also the first in the U.S. to use the advanced AP1000 reactor, which has a simplified design, smaller footprint, and enhanced safety features compared to more traditional reactors.

MEAG Power is a 22.7% owner of plant Vogtle, meaning that the Georgia-based joint action agency has been involved in the major development decisions for Units 3 and 4 on behalf of its member communities participating in the project.

Jim Fuller, president and CEO of MEAG Power, said that getting the units built and operational is not only a major step forward for the nuclear industry, but comes at a time when demand for electricity is accelerating.

“At the time we were considering involvement in the Plant Vogtle expansion in 2005-2006, there were growing concerns over reliance on fossil fuels and natural gas prices were hitting record-highs. In addition, our future sources of baseload generation were facing uncertainty,” he said, explaining that some of their existing nuclear units were facing operating license expirations in the 2030s, and that federal climate legislation and regulation meant rising costs and potential closure if its coal resources.

“Back then, excitement built around a renaissance of nuclear power in the U.S. as a key solution to these challenges,” he said. “We’re seeing that same enthusiasm rise again for nuclear.”

Not that the Vogtle project has been without challenges.

**“Communities evaluating advanced nuclear must consider the ownership structure, the cost of capital and available financing options, in addition to current and future load needs.”**

**JIM FULLER,**  
PRESIDENT AND CEO, MEAG POWER, GEORGIA



**AS A TOP-TIER PROVIDER OF RENEWABLE ENERGY SOLUTIONS, TPI IS COMMITTED TO ADVANCING COMMUNITIES THROUGH COMPREHENSIVE SERVICES THAT INTEGRATE SUSTAINABLE ENERGY PRACTICES AND ENVIRONMENTAL SOLUTIONS.**

- Solar
- Battery Storage
- O&M
- EV Charging
- Consulting

**COOPERATIVE OWNED, COMMUNITY FOCUSED**

[todayspower.com](https://todayspower.com)  
 501.438.0031

“The project has faced numerous challenges including multiple changes in the lead contractor, the bankruptcy of Westinghouse, four changeovers in the presidential administration, and the impact of COVID-19 on the workforce and supply chains,” shared Fuller. “Our role through it all has been supporting the long-term interests of our participant communities and helping find ways to overcome these obstacles to keep the project moving forward.”

Before deciding to join the project, Fuller said MEAG conducted careful analyses of the short and long-term energy needs of each community. MEAG Power also held more than 500 meetings with elected officials from its 49 participant communities to talk through the potential benefits and risks.

“The consensus was that while there was no risk-free choice from available sources of sustained baseload power, the expansion of Plant Vogtle — 500 MW of emissions-free energy in our portfolio for 60 to 80 years — would best meet the future needs of the majority of our participant communities,” he said.

Fuller noted that MEAG Power also undertook many risk mitigation measures, including ensuring such measures were part of its engineering, procurement, and construction contracts. It also took steps to mitigate financial risk.

“One of the ways we shared risk was through power purchase agreements, which enabled us to spread debt payments among partners for the first 20 years, and meet our projected power needs,” explained Fuller. “We also were able to obtain commitments for almost three-quarters of our projected capital needs through low-cost public capital raises and Department of Energy loan guarantees.”

Fuller noted that the units are financed through its initial 40-year operating license, and, at the end of that time frame, “the original debt issued to construct the units will be paid off, and we expect the units to continue to operate for an additional 20-40 years.”

Since signing onto the project, Fuller said MEAG now has another financial benefit of being able to monetize the value of production tax credits to third party project partners, which tax-exempt entities could not previously do on this type of project until the passage of recent federal legislation.

“Favorable economics are crucial to building large-scale nuclear, given the size and scope of costs required,” advised Fuller. “Communities evaluating advanced nuclear must consider the ownership structure, the cost of capital and available financing options, in addition to current and future load needs, when deciding what level of participation would be best.”

He advised that “anyone interested in developing new advanced nuclear should go into the project with their eyes wide open. Take great care in the ownership structure, as co-owners, while providing benefit through a shared risk arrangement, must be fully committed to the project and have the capital resources necessary to support the project. The size and scale of these projects exposes you to the risk of having to shoulder the debt

“What we are finding with a lot of our members is that the risks of not doing something like this are growing to be almost as big. If we don't have something like this, where is the power going to come from?”

**GREG CULLEN,**

VICE PRESIDENT FOR ENERGY SERVICES AND DEVELOPMENT, ENERGY NORTHWEST, WASHINGTON

service responsibility on the substantial capital investments over the life of the units with the risk of having to endure sunk costs should the units not operate.”

“While the discussion in today’s nuclear conversations often centers around SMRs, there is still a great deal of uncertainty involved in being a ‘first mover’ into this technology,” said Fuller. “In the future, we expect communities to continue to consider large-scale nuclear facilities provided the federal government provides supporting policies and risk mitigation measures.”

“Risk mitigation is a crucial factor to the success of any new nuclear initiative. Based on our experience from our nuclear expansion efforts, I would urge interested public power agencies to diversify construction and operating risk, size participation only to their own needs, and set up your capital funding plans up front as much as possible to mitigate interest and credit risk during the construction phase.”

## A Clear Case

In Washington state, efforts are moving ahead in developing small modular reactors.

Greg Cullen, Energy Northwest’s vice president for energy services and development, said that the joint operating agency first got pulled into looking at advanced nuclear projects back in 2010. He said that some

## NUCLEAR RENAISSANCE

of its member utilities, along with investor-owned utilities in the region, put together a consortium that funded a study on whether the agency should be looking at advanced nuclear.

Then, the Washington state legislature passed the Clean Energy Transformation Act, which called for the shuttering of coal-fired facilities by 2025, and for a system that is at least 80% clean by 2030 and 100% clean by 2045.

“That was the point when we started pivoting, because it became more and more clear that we were going to need something like [nuclear],” said Cullen. Energy Northwest commissioned a study from Energy and Environmental Economics in 2019, looking at different scenarios that will allow the region to have sufficient capacity to meet peak loads. The study laid out a clear case for nuclear as part of the Pacific Northwest’s energy future.

“It was almost \$8 billion per year cheaper to have a system with new nuclear in it than one that tried to meet it with wind and solar alone,” said Cullen. The results at the time seemed surprising, said Cullen.

“Too often, we tend to think in terms of comparing a megawatt-hour of wind or solar to a megawatt-hour of nuclear to say which is more expensive. But when you look at it from that system perspective, particularly a capacity perspective and to make sure that you’re going to be able to meet peak loads, it becomes clear very quickly that it’s far more cost effective.”

In 2020, the Department of Energy created its Advanced Reactor Development Program to support funding for two new nuclear designs in the U.S. Cullen noted that as one of the only operators of a nuclear facility in the region, vendors with advanced nuclear designs saw Energy Northwest as an opportune partner to apply for the funding.

“Those three things came together for us to make it very clear that new nuclear will be a part of the mix,” said Cullen. Since, he said interest in advanced nuclear projects has only expanded.

The agency is now involved in a project near its Columbia Generating Station in Richland, Washington to develop a series of small modular reactors with X-energy. The project plans include up to 12 SMRs, for a combined capacity of 960 MW, with the first module is slated to become operational in 2030. Cullen said that Energy Northwest also consults with development in other projects, including Terra Power’s Natrium design for a facility in Wyoming.

Energy Northwest’s projects are all participant-based, so members (and non-members) can decide whether to sign on. So far, 17 public power utilities have backed its project in Richland, plus an IOU.

Cullen acknowledged that being among the first to deploy advanced nuclear involves risks. “The risks are real, and we want to talk about and be frank about them. But what we are finding with a lot of our members is that the risks of not doing something like this are growing to be almost as big. If we don’t have something like this, where is the power going to come from? How are we going to meet all these requirements?”

For context, Cullen said that Washington’s state energy strategy calls for developing about 138 GW of wind and solar by 2050, which would also require adding a lot of storage and transmission. “If we’re trying to do it with just renewable resources and energy storage alone, we might end up paying a lot more, and having a lot of challenges, assuming we could even build everything that would be needed.”



AMPHENOL CHARLES INDUSTRIES'

# Below Grade Enclosures

Superior protective  
solutions for underground  
equipment and buried  
network components



- ✓ Durable and easy to manage
- ✓ Wide selection available
- ✓ Tier Rated

For more information, scan  
the QR code



[www.charlesindustries.com](http://www.charlesindustries.com)



# Electrification Alliances

How Utilities Are Working Across  
the Community to Transform Energy Use

BY BETSY LOEFF,  
CONTRIBUTING WRITER





→ Old Sacramento  
↑ WEST  
↑ Sutter Health Park  
↑ West Sacramento

DOWNTOWN

RIGHT LANE  
MUST  
TURN RIGHT

ANY TIME

Measham

WEST SACRAMENTO  
WEST SACRAMENTO  
WEST SACRAMENTO

#D



## HOW UTILITIES ARE WORKING ACROSS THE COMMUNITY TO TRANSFORM ENERGY USE



Seattle, Washington

It has been said that no one can whistle a symphony, as it takes an entire orchestra to play one. The same is true for pursuing emissions and electrification goals. Utilities alone can't orchestrate net-zero emissions for all sectors. It's going to take some teamwork. Here is a look at a few actions three public power utilities are taking to collaborate across their communities.

### Driving Change

The Sacramento Municipal Utility District in California has made decarbonization of the transportation sector a priority, and the public power utility has a long list of alliances aimed toward similar goals. Among them are a local council of governments, the regional and metro air quality management districts, and the Sacramento Regional Transit District, which provides public transportation in the area. Lora Anguay, SMUD's chief zero carbon officer, said these agencies and SMUD have worked together to develop a zero-emission vehicle strategy for California's capital region, which also aligns with the utility's bold goal of zero emissions by 2030.

One of the group's biggest successes so far is a regional charging station located at the transit authority's Power Inn light rail station. "Once it's fully built out, it will be one of the largest DC fast charging stations in the United States," Anguay said. Right now, there are 20 DC fast charging handles, plus spaces that can accommodate buses and semi-trucks. The site, which is centrally located off a major freeway, made use of transit agency land and SMUD's expertise in building out the infrastructure to handle the load.

SMUD also is partnering with major automobile manufacturers in a managed charging initiative. "There are different ways of doing managed charging," Anguay said. "Some solutions manage through the charger, but



## HOW UTILITIES ARE WORKING ACROSS THE COMMUNITY TO TRANSFORM ENERGY USE

you can manage charging through vehicle telematics, too.” To see what works best, SMUD is working with Ford, BMW, General Motors, and Tesla in a pilot program. Ahead, the utility hopes to leverage charging load and vehicle-to-grid technology as dispatchable resources.

Another key alliance SMUD has is with the California Mobility Center, or CMC. The standalone organization was created by SMUD, Sacramento State University, and the Greater Sacramento Economic Council. Sacramento State is donating the land needed to support the development of a ramp up facility on its campus, the economic council looked for funding opportunities to support it, and SMUD’s staff supported creation of the organization.

SMUD supported the creation of the CMC because it supports economic development in the region and offers companies with emerging technology a developmental space. “As we transition to clean energy resources, there are new entrants into the market. Having a ramp-up facility for new companies to test out their equipment or technology is

important,” Anguay said. Among the companies working with the CMC is Sparkz, a new battery storage company, and Zeus Electric Chassis, a company that has developed an electric chassis cab for medium-duty trucks. Another key focus for the CMC is workforce development, with a focus on historically underserved communities, to ensure there are people skilled to work in the well-paying careers in the e-mobility sector.

In Washington state, Seattle City Light is also working on transportation electrification and has many alliances. One is with the Electric Power Research Institute, which is working on a project to map where the big loads will soon be showing up on the grid.

“Our distribution grid is in good shape for smaller-scale, personally owned electric vehicle adoption, but we’re definitely keeping an eye on electrification of our port,” said David Logsdon, director of electrification and strategic technologies. “We’ve got 4,500 trucks operating out of the port on a regular basis. That’s where medium- and heavy-duty truck electrification will come in, and that will put a lot of strain on the electric grid.”



**SHOP TALLMAN  
FOR YOUR LINETOOL NEEDS**

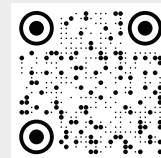


**TALLMAN**  
**EQUIPMENT CO., INC.**  
**EMPLOYEE OWNED**

### TOOL SALES, RENTALS & REPAIR

Tallman carries the top brands in the industry, while maintaining competitive pricing and stock. We have tools in stock while others are on backorder!

Our certified technicians can fix most any tool we sell, saving you money over time.



**Scan to shop!**

**877-860-5666**

[tallmanequipment.com](http://tallmanequipment.com)

## HOW UTILITIES ARE WORKING ACROSS THE COMMUNITY TO TRANSFORM ENERGY USE



Downtown Huntsville, Alabama

To meet that strain, the utility has partnered with the Port of Seattle and the Northwest Seaport Alliance and is now developing the Seattle Waterfront Clean Energy Strategy.

Another big load the utility will need to serve is an all-electric fleet of buses the King County Metro transit department will soon have on the road. City Light worked with the metro transit authority and the city of Tukwila to build the city's first bus charging station, a 52,000-square-foot facility that can charge up to nine buses at once using enough electricity to power up to 192 homes. Seattle City Light handled the infrastructure to support that load.

### Big Loads, Big Opportunities

Huntsville Utilities in Alabama has been partnering with other organizations to build facilities that support electrification, too. The utility is working with its wholesale power provider, Tennessee Valley Authority, to install another charging station in town. However, Huntsville's biggest decarbonization win came through an alliance with one of the community's largest employers: Toyota Motor Manufacturing Alabama Inc.

"We started building our alliances with our corporate customers — our key account customers — because they have sustainability goals that they're trying to reach, and they come to us and say, 'Hey, how can you help us?'" said Wes Kelley, Huntsville's president and CEO. "We always

want to be a trusted energy adviser. Whether it's creating renewable energy options for organizations or working on energy efficiency approaches, that's where we want to be."

When Toyota started thinking about doing a solar installation behind the meter, staff called Huntsville Utilities early on. "The project was on a smaller scale, and when we got involved, we said, 'Let's do something in front of the meter and do it utility-scale,'" Kelley explained.

Toyota had a convenient solar partner: Toyota Tsusho America, a multimarket, multibusiness enterprise that is a subsidiary of Toyota Group. "We partnered with Toyota directly to build solar on their land and entered into a 30-year power purchase agreement to buy what the panels produce," Kelley said. "It's a 30-megawatt solar installation, and Huntsville Utilities is buying all of that generation."

The project required unusual due diligence. "It was the first time we'd done anything like this, so we had to seek an opinion from the state attorney general about our ability to enter into this contract and whether it complied with competitive bid laws in our state," Kelley said. The utility also had to wait for archaeologists to dig through the area given concerns about the site's history, he added.

The car manufacturer and the utility are splitting the renewable energy credits that the solar plant delivers, and Kelley said the utility will make some of those credits available to other business customers. Toyota gets to fulfill its corporate responsibility goals, while Huntsville gets a great price on 30 MWs of power. "The price of this PPA is less than our fully loaded wholesale cost with TVA, so all of our ratepayers are benefiting from this lower-cost energy," Kelley noted.



## HOW UTILITIES ARE WORKING ACROSS THE COMMUNITY TO TRANSFORM ENERGY USE

**“We try to speak to what customers care about. If we’re talking about EV charging in the multifamily sector, we talk about becoming a more attractive leasing opportunity for prospective tenants. One in four new vehicles sold in King County are EVs, so it’s something property managers should be paying attention to.”**

**JOSEPH FERNANDI,**  
DIRECTOR OF CUSTOMER ENERGY SOLUTIONS, SEATTLE CITY  
LIGHT, WASHINGTON

### Community Connections

Community engagement has always been a big part of public power, and electrification is bringing smart practices back into focus.

“We have deep partnerships with several community-based organizations,” said Seattle’s Logsdon. Two projects being developed with such organizations are a fleet electrification program and EV charging for multifamily housing units.

The utility is using targeted communications to connect the programs to customers who could use them. “We try to speak to what customers care about,” said Joseph Fernandi, Seattle City Light’s director of customer energy solutions. “If we’re talking about EV charging in the multifamily sector, we talk about becoming a more attractive leasing opportunity for prospective tenants. One in four new vehicles sold in King County are EVs, so it’s something property managers should be paying attention to.”

The utility also produces webinars and other customer education tools aimed at contractors to encourage devices such as heat pumps, electric water heaters, and EV chargers in new homes.

In Sacramento, SMUD is working with the city’s Hispanic Chamber of Commerce to support business electrification using \$1.5 million in American Rescue Plan funds. It’s also working with neighborhood

associations in low-income areas. “We received \$3 million in federal funding to offset electrification costs for residents in those neighborhoods,” Anguay said. “We work directly with those neighborhood associations.”

The utility and association representatives have even gone door to door to explain the programs and available funding. In addition, the utility has started hiring neighborhood ambassadors who work directly with customers and community organizations in these neighborhoods.

In Seattle, Fernandi noted that City Light gets constituents involved in projects early as well. The utility does so “to ensure we’ve got a clear understanding of the community’s priorities so that we design programs that are useful and beneficial to the communities we serve.”

He added that there’s a critical payoff from constituents to participate in projects from the inception phase on. “You can bring people along that continuum from outreach to engagement to partnership,” he said.

**TECH**  
PRODUCTS, INC.

**SIGNS, TAGS & MARKERS**

Everlast Pole Tags | Tech-3D Distribution Signs | Phase Markers

VM 1-16  
20/140  
19P  
33330

**1-800-221-1311**  
[www.TechProducts.com](http://www.TechProducts.com)

**MADE IN USA** SINCE 1948  
A VETERAN-OWNED BUSINESS



# Leading the Way Through Ambitious Energy Transition Goals

**BY GARY STEPHENSON**, SENIOR VICE  
PRESIDENT OF POWER SUPPLY, LONG  
ISLAND POWER AUTHORITY, NEW YORK

**S**ince the Long Island Power Authority's inception in 1998 as a public power utility, we have been committed to protecting our local environment. The largest island in the contiguous U.S., our service territory is home to over 3 million people. From Queens to the Hamptons, Long Island, New York, is a remarkably diverse place. But as an island, it is especially vulnerable to the effects of climate change, and we know we need to take action.





Photo credit Orsted

Our vision for power supply is to provide clean, reliable, and resilient energy to our customers at an affordable cost. That is how we best serve our customers and how we best support economic growth, investment, and jobs in our communities. When we bring renewable energy, electric vehicles, energy efficiency, and clean heat to Long Island, we bring savings and growth. We seek to bolster the economic competitiveness of our region while minimizing economywide greenhouse gas emissions by encouraging the electrification of vehicles, buildings, and equipment.

New York's Climate Act is among the most ambitious in the nation. It calls for an orderly and just transition to a clean energy economy with investments that create good-paying jobs and foster healthy communities. This is both an ambitious agenda and a realistic one.

LIPA, along with the state and other New York utilities, is taking action to achieve the goals set forth in the Climate Act, including a 100% zero-carbon electric grid by 2040 and an 85% reduction in economywide carbon emissions by 2050. That zero-carbon electric grid will unlock opportunities to further reduce emissions in other sectors of the economy, including transportation, buildings, industry, and agriculture.

LIPA's leadership on zero-carbon power spans decades and includes some of the first and among the largest renewable energy projects and initiatives in New York state. One example of this dates back to 2015, when LIPA sought new resources to meet load growth on the South Fork of Long Island. We ran a comprehensive solicitation and selected a portfolio of clean resources, consisting of load control programs, battery storage, and an offshore wind farm. In 2017, LIPA signed a power purchase agreement for South Fork Wind — the first offshore wind farm in federal waters and in New York state. LIPA will buy the energy, capacity, ancillary services, and renewable energy credits from the project, which was developed by Ørsted and Eversource.

South Fork Wind began construction in February 2022, starting with the onshore export cable system that links the project to our electric grid. The wind farm reached its “steel in the water” milestone in June 2023 with the installation of the project's first monopile foundation, and its final turbine was installed in February 2024.

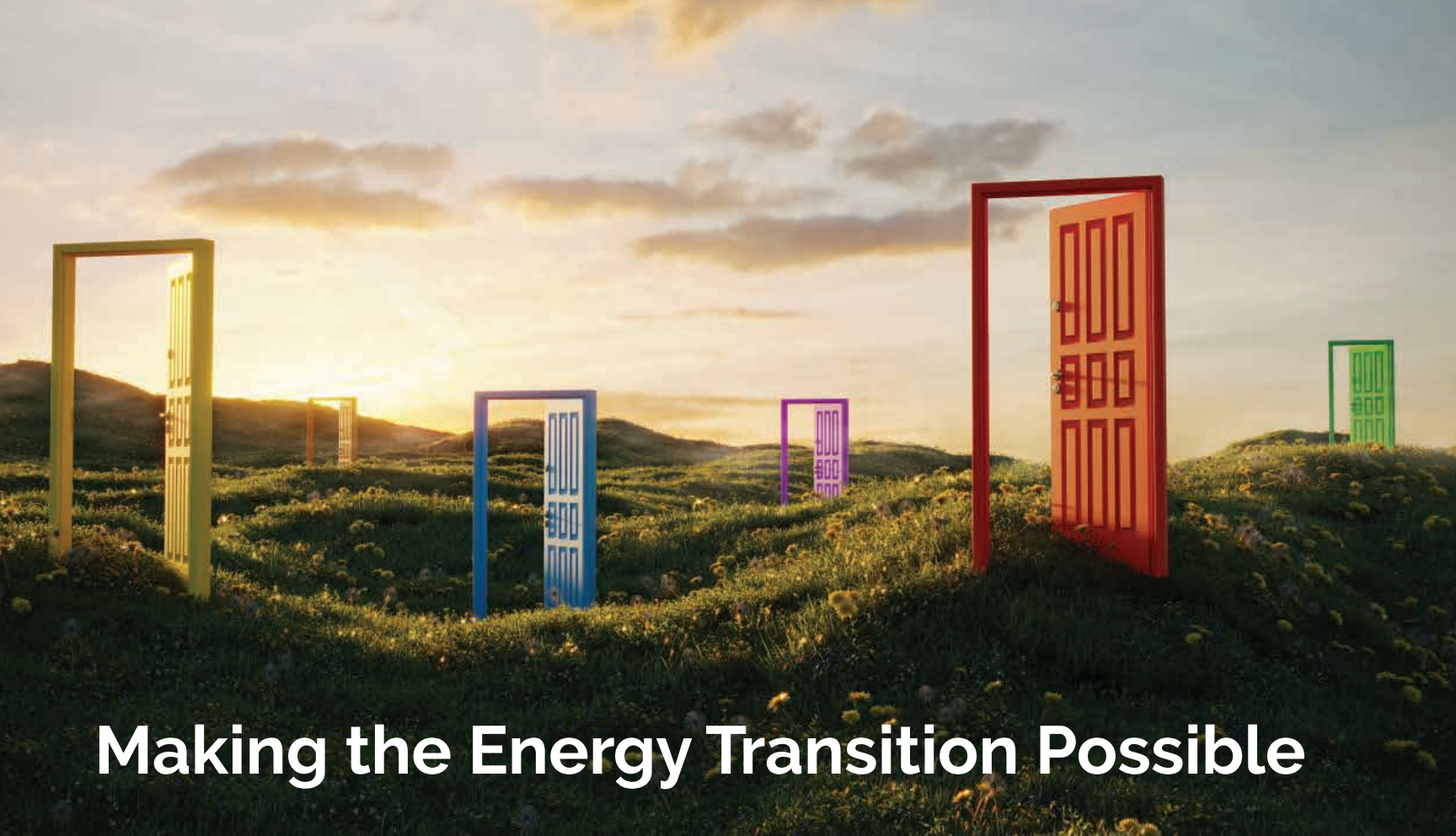
In total, the wind farm consists of 12 wind turbine generators, each with blades 318 feet in length and spanning over 656 feet in rotor diameter — about the length of two football fields. Located 35 miles from the easternmost point of Long Island, the project delivers 130 megawatts of power to the local substation in the town of East Hampton through undersea and underground transmission cables.

Over the life of the project, over 6 million tons of carbon emissions will be offset, the equivalent of taking 60,000 cars off the road. Offshore wind is poised to become the largest source of energy for Long Island and the Rockaways by 2030, when nearly half of the power supply to Long Island is projected to be sourced from offshore wind.

While we've made some major accomplishments, there's still more to do. The path forward is set forth in our Integrated Resource Plan that was recently approved by our board. The plan lays out an evolving deployment of renewable technologies and other decarbonization solutions and illustrates how LIPA can meet and exceed the goals of our state's Climate Act while maintaining the two most critical aspects of service to customers: reliability and affordability.

The energy landscape is most certainly going to shift over the course of the next five years, and we are well positioned to navigate those changes with smart planning and investments — continuing to lead the way into our clean energy future on behalf of our customers.





# Making the Energy Transition Possible

**BY PAUL ZUMMO**, DIRECTOR, RESEARCH AND DEVELOPMENT, AMERICAN PUBLIC POWER ASSOCIATION

If there was a way to continue to operate our electric grid with the same reliability and affordability as today, but with entirely non- or low-carbon-emitting sources, utilities likely would have already made the switch. There is a gulf that exists between the ideals motivating energy transition goals and the practical realities of today's technologies and processes to have truly "clean" electrons delivering power throughout a system.

That's where research and development comes in. Looking back over the past few decades and recent years, while regulatory and other factors have certainly played a role, significant strides in energy R&D have already paved the way for the energy transition to be possible. For example, advances in photovoltaic technology that have increased capacity factors while decreasing costs have made solar a much more viable form of electric generation. The amount of solar capacity has increased tenfold in the U.S. in the past decade, and wind capacity has doubled.

At the same time, advances in energy storage have buttressed these technologies. A pair of recently completed projects funded through the Demonstration of Energy and Efficiency Developments, or DEED, program highlight these advances. Burbank Water and Power in California recently cut the ribbon on a 75-kilowatt long-duration iron-flow battery capable of storing six to 12 hours of energy. The storage is paired with a 265-kW solar array, combining to provide enough energy to power 300 homes.

Farther north, the Northern California Power Agency continues to move ahead with a hydrogen conversion project for its Lodi Energy Center. NCPA has received two DEED grants for the project, investigating the economic feasibility and the engineering design of using a blend of hydrogen to fuel the 300-megawatt facility, potentially moving to 100% hydrogen in the future. The facility will better enable NCPA to store the excess solar generation produced during off-peak hours and distribute it via the production of green hydrogen.

The transition is not just about shifting the way electricity is generated, but how all forms of energy are used. As such, several other DEED-backed R&D projects are tapping into the potential for electric vehicles. Northern Wasco County Public Utility District in Oregon worked with the nonprofit Forth on a program that enabled customers in rural areas to test-drive EVs, thus increasing the likelihood of these customers purchasing the vehicles. Meanwhile, Energy New England tested a program that explored factors that would bolster the used EV market.

One part of innovation is creating tools and resources to enable utilities to maximize the potential of new and emerging technologies. For example, the Iowa Association of Municipal Utilities is working with several of

## MAKING THE ENERGY TRANSITION POSSIBLE

its members to develop a comprehensive EV toolkit that will help other utilities engage fleet customers and to better plan infrastructure development, particularly related to transformer upgrades.

Energy R&D is focused on solving the practical near-term challenges that need to be addressed and can set the stage for how various industries can or will be involved in moving to economywide emissions reductions through increased electrification. One such example is a guidebook on grid-interactive efficient buildings created by WPPI Energy, a Wisconsin-based joint action agency. The guidebook is intended to help small and midsize utilities to be better positioned to take advantage of grid-interactive efficient buildings, which are energy-efficient buildings that use smart technologies and onsite distributed energy resources to provide demand flexibility.

In South Dakota, Missouri River Energy Services worked with member community Brookings Municipal Utilities to install, operate, and study a container-based indoor food-production unit. The examination

of controlled-environment agriculture is the sort of research that lays the groundwork for reduced emissions in the agricultural sector of the economy while also providing other environmental benefits such as reduced soil usage.

The work being done today to better understand and develop these technologies — even if they do not become a regular part of our energy system — is critical in determining how the grid of the future will operate. Further research into emerging technologies, as well as the development of toolkits and other resources, is necessary to help utilities navigate the challenges of today and the changes ahead.

To move public power and the larger energy community forward, there needs to be continued investment into studies of emerging battery and storage technologies, EV charging infrastructure, new generation resources, rate design, and other areas. Through R&D, the creative forces at work in the energy sector can speed up the timeline of deployment of technologies that can truly transform the American economy.



HVI - The World's Source for High Voltage Test Equipment

## Cable Fault Locating & VLF Testing – AC & DC Hipots

*HVI Makes it Easy and Efficient*



### VLF/Thumper Combination

VLF hipot: 0 - 33 kVac @ 1  $\mu$ F @ 0.1 Hz  
Fault locate: 0 - 13 kV @ 760 J  
VLF Fault Burner  
Radar/TDR ready

Other Thumper models:  
5/10/20 kV @ 1000 J  
9/18/36 kV @ 3200 J

**You Can Rely on HVI!**

### All That You Need

- Very Low Frequency AC Technology
- Cable Diagnostic TD & PD Testing
- Cable Fault Locating with Controlled Energy
- AC & DC Hipots, Aerial Lift Testers, Oil Testers
- $\Omega$ -CHECK® Concentric Neutral Testing
- Custom Engineered & Fabricated Van Pkgs.



50 kVac @ 3 kVA Hipot  
1 piece & w/cable output



VLF 0.1 Hz @ 34 kVac  
Computer control - wireless



80 kVdc Hipot/Megohmmeter  
1 instrument - 2 tests



All HVI Products are  
Made in the USA

31 County Rt. 7A • Copake, NY 12516 • Tel: (518) 329-3275 • Fax: (518) 329-3271 • [sales@hvinc.com](mailto:sales@hvinc.com) • [www.hvinc.com](http://www.hvinc.com)



# The Changing Energy Workforce

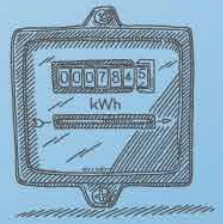
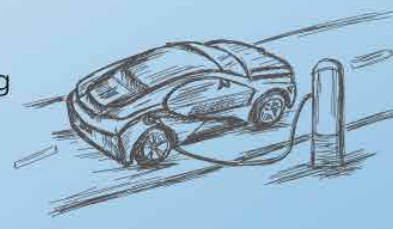
The Center for Energy Workforce Development highlighted some of the key changes happening in the utility workforce in its 2023 Energy Workforce Survey.

## Key and emerging technology jobs continue to grow

40% of the workforce consists of "key jobs" (as defined by CEWD) – including lineworkers, technicians, plant and field operators, and engineers. This is up from 32% in 2021.



Emerging technology jobs include roles focused on advanced metering and grid technologies, machine learning and artificial intelligence, renewable generation, and electric vehicle management.



These roles more than quadrupled from 2021, although only make up 2.6% of the workforce.

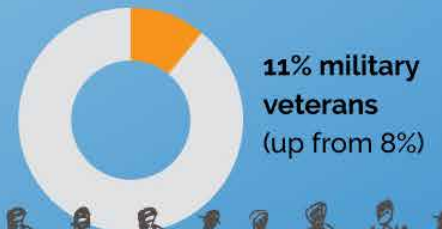
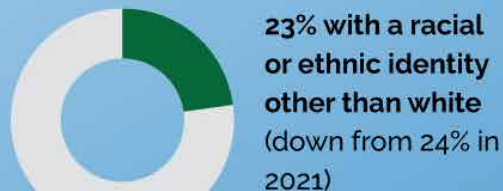
## Aging less of a problem, retention more so

56% of utility workers have less than 10 years in the industry

Among lineworkers and engineers, there's an even higher proportion of less than a decade of service

## Changing demographics

The utility workforce comprises:



Customer service and IT roles had the highest percentage of non-white workers



# TWO EVENTS, ONE PLACE

Join us September 8 – 11 in Cleveland, OH

APPA ACADEMY

# B&F

CONFERENCE  
BUSINESS & FINANCE

## INVEST IN YOUR SUCCESS

40+ sessions for public power professionals focused on:

- Accounting & Finance
- Human Resources
- Rates & Pricing
- Risk Management & Insurance

[www.PublicPower.org/BandF](http://www.PublicPower.org/BandF)

APPA ACADEMY

# CYBERSECURITY & TECHNOLOGY SUMMIT

## SECURE THE FUTURE

Connect with other security and technology-oriented professionals.

- Cybersecurity & Supply Chain Assessments
- Privileged Access Management
- Threat Briefing
- Microsoft and Google Cloud Solutions
- AI Awareness

[www.PublicPower.org/CyberSummit](http://www.PublicPower.org/CyberSummit)

AMERICAN  
**PUBLIC  
POWER**  
ASSOCIATION

Powering Strong Communities



## Coming this Summer

The APPA eSafety Tracker powered by ESAMS is a one-stop shop for safety, training, inspection, and incident-reporting programs, with a mobile app to access key features remotely and off-line.

As a subscriber to the eSafety Tracker, you can:

- Search the **APPA Safety Manual** online & offline
- Assign & track all **training** programs
- Access APPA's **SafetySmart videos**
- Record & track **job safety briefings** online & offline
- Report, investigate, & track **incidents**
- Complete & track **crew inspections**
- Upload **utility-specific content**
- Use dashboards & analytical data to **track safety training & trends**
- Access key features on a **mobile app**

*“The eSafety Tracker is a versatile tool that can be adapted for use by large and small utilities to enhance their job training and safety programs.”*

**Minnesota Municipal Utilities Association**

**Get started today at [PublicPower.org](https://PublicPower.org)>Shop  
or contact [Products@PublicPower.org](mailto:Products@PublicPower.org).**