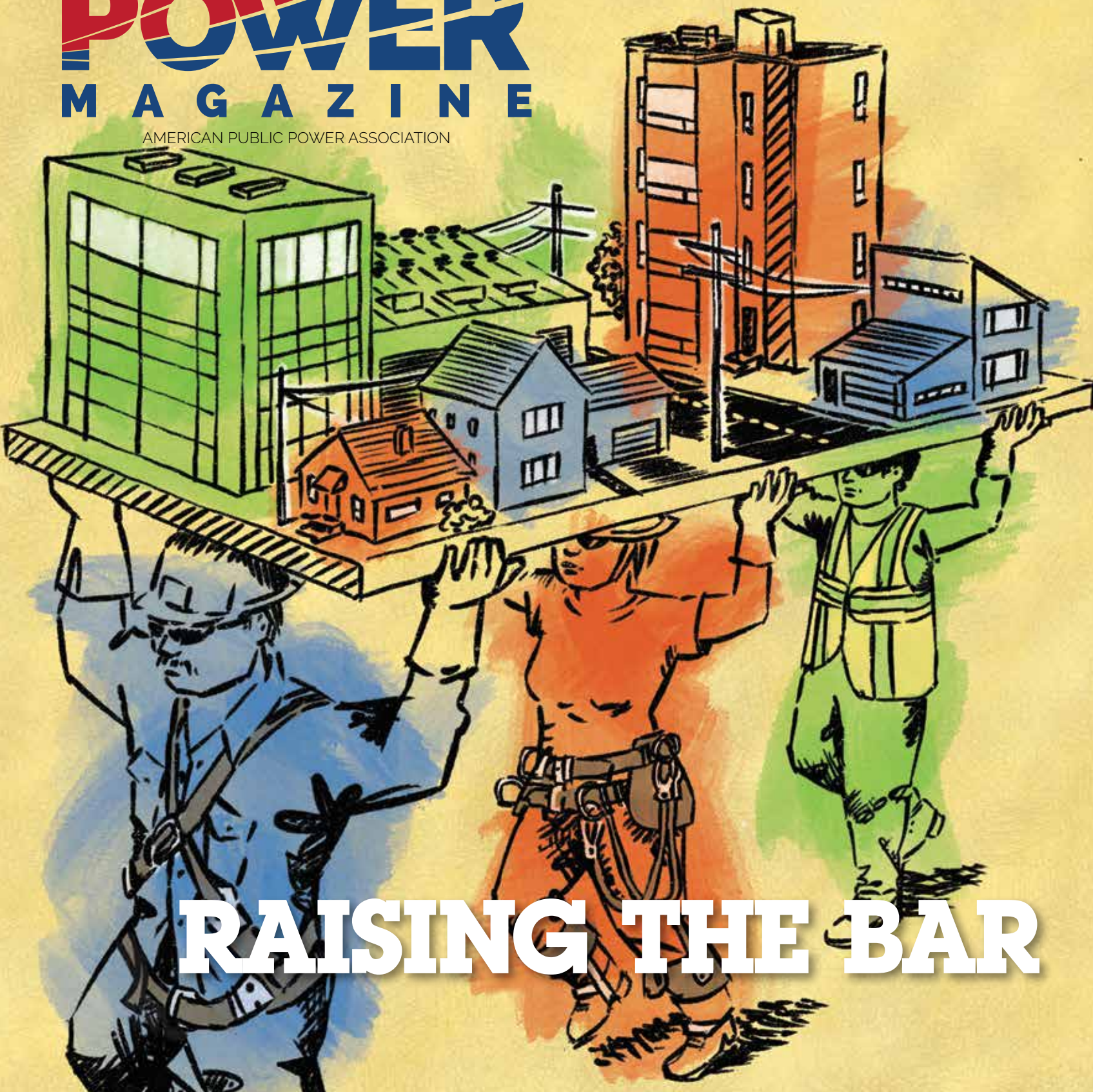


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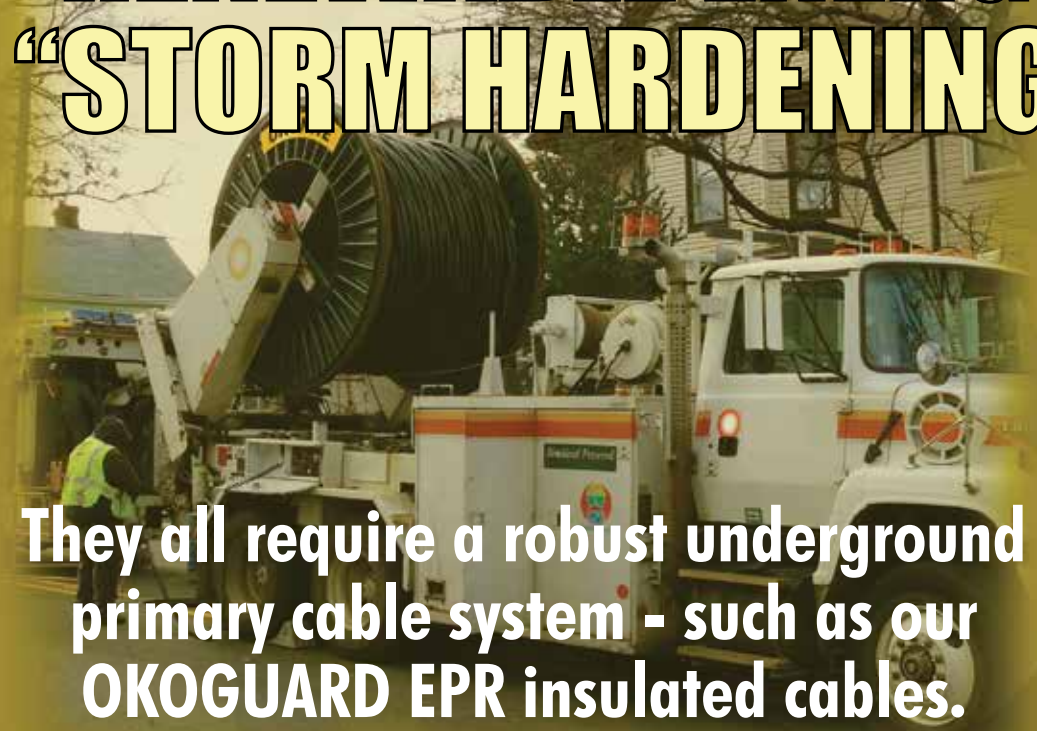
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The American Public Power Association is the voice of not-for-profit, community-owned utilities that power 2,000 towns and cities nationwide. We advocate before federal government to protect the interests of the more than 49 million customers that public power utilities serve, and the 93,000 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.

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# PUBLIC POWER LINES

SUE KELLY, PRESIDENT & CEO, AMERICAN PUBLIC POWER ASSOCIATION

## Large Public Power Utilities Model Innovation and Community

**W**hen the American Public Power Association featured small public power utilities in these pages in March 2018, I called my column “Small is Beautiful.” And when some people think of public power, they think of small utilities. But they would be wrong, or at least only half-right. Half of the most populous cities in the U.S. are powered (at least in part) by electric utilities owned by their communities and run by local governments. More than 30 million Americans — 10% of the population — are served by large public power utilities.

### Large public power utilities play many important roles.

First, having utilities that serve communities both big and small shows that public power is a viable and valuable option to power homes and businesses anywhere in the country. Look no further than San Francisco, which is looking at municipalization as I write this. As more customers reconsider their relationship with their utility, community-owned utilities in larger cities demonstrate how municipalization offers flexibility, choice, and state-of-the-art technologies. These large public power utilities help their cities thrive, because they are woven into the fabric of their communities. They maintain a local flavor while managing a complex tapestry of diverse business interests and customer expectations.

Second, with greater size comes greater opportunities to explore what is possible for the utility of the future. Having a diverse pool of customers means that larger public power utilities can test out new potential rate designs or investigate what makes programs effective. From reshaping customer service (see page 6) to testing the latest technology (see page 14) and ensuring a diverse generation supply (see page 38), large utilities consistently show the path forward. They are in the vanguard of shaping the future of public power and of the utility industry. This is evidenced by the frequent national recognition that large public power utilities receive for being among the most progressive, forward-looking utilities in the country.

Smaller public power utilities might see the extensive staff and resources of the large utilities and assume that their experiences are not relatable or transferrable. As one official from a small city put it, the large utilities “have more employees than I have customers.” Despite our differences, both large and small utilities can still learn from each other. Employees and customers are people whether they are in a town of 1,000 or 1 million. While some of the large utility efforts are specific to a larger city environment, many of the large utilities’ experiences can be scaled down to smaller public power utilities that share the business model of community ownership.

We have much to learn from the experiences of our large public power utilities. It wouldn’t be possible to capture all their insights in a single issue of the magazine. That’s why I’m glad our Association community is so strong and that we are able to foster a culture of shared knowledge and industry progress. As part of our Association’s latest strategic plan, we’re investigating ways to increase the sharing of knowledge, resources and best practices among members.

**Despite our differences,  
both large and small  
utilities can still learn from  
each other. Employees  
and customers are people  
whether they are in a town  
of 1,000 or 1 million.**

All presentations from our conferences and summits are posted online. Utilities that are DEED members have access to project reports from throughout the program’s nearly 40-year history (see page 22). At least a dozen Association listservs focused on different areas of interest have frequent and robust online conversations. Representatives from our larger member utilities also often relay to me and Association staff that they are happy to act as mentors or consultants for other utilities, whether sharing their experience in cybersecurity or communications.

They might serve millions of customers, but the largest public power utilities still stay true to the root of what it means to be public power — locally owned, community-driven entities.







# **CUSTOMER SERVICE BEGINS AT HOME: TIPS FROM THE TOP OF THE CLASS**

**BY BETSY LOEFF, CONTRIBUTING WRITER**

**CUSTOMER SERVICE BEGINS AT HOME:  
TIPS FROM THE TOP OF THE CLASS**

**D**espite overbooked flights with undersized seats and frequent delays, the airline industry earns higher customer satisfaction scores than the utilities sector in the American Customer Satisfaction Index. Still, the electric industry has its share of high-flyers that are leading the way in exceeding customer expectations.

What sets top-tier utilities apart? Customer care that goes beyond low average call center response times or the availability of self-help functions online. Public power utilities with consistently top-rated customer service, as measured by J.D. Power and other independent research groups, shared strategies for creating a personal touch that transforms customer-facing business processes into loyalty-building opportunities.



## CUSTOMER SERVICE BEGINS AT HOME: TIPS FROM THE TOP OF THE CLASS

### TAKING THE CUSTOMER'S VIEW

**T**he utilities we talked to have extensive programs to learn more about customer needs and wants. Each one also does “journey mapping,” an exercise that looks at the steps required for a customer to complete a task, such as moving or disconnecting service.

“What does that journey look like from a customer perspective?” asked Brandy Bolden, director, customer care and revenue operations at the Sacramento Municipal Utility District, a northern California public power utility with 635,000 customers. “We’re not just looking at this from a process perspective, but how do customers interact with us? When do they interact? What are they experiencing, looking at, and feeling along that journey?”

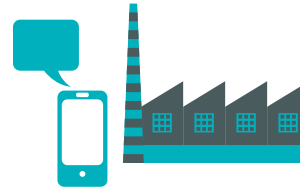
Along with journey mapping, utilities conduct surveys and focus groups and review online feedback. Salt River Project, which serves more than a million customers in the Phoenix area, has an online customer panel consisting of a few thousand people that the utility taps for opinions, noted Michael Mendonca, senior director of customer services. “We are in the field almost every day with some type of research,” he said.

Omaha Public Power District, which serves nearly 400,000 customers in southeastern Nebraska, does this type of research, too. It has a formal feedback page, OPPD Listens, dedicated to gathering public input on touchy topics like new transmission lines.

SMUD, SRP, and OPPD also segment customers by consumption level, interests, and, sometimes, by industry. They target certain segments, particularly large businesses, with special programs.

For example, in Sacramento, California, the cannabis sector has prompted SMUD to create a cannabis operations team. “There is never any down time with an indoor cultivator,” said Bolden. “We need to make sure that we understand our growers’ capacity needs, and we’re being very proactive in working with them and making investments so that we’re ready to serve them when they’re ready to come online.”

To this end, SMUD conducted detailed research on using LED lighting instead of power-hungry high-pressure sodium lighting. “A facility with 10,000 square feet of flowering space can draw up to 550 kW of power for just lighting alone,” noted a study SMUD produced on this research. “For comparison, a modern 10,000-square-foot commercial office space



### “WHAT DOES THAT JOURNEY LOOK LIKE FROM A CUSTOMER PERSPECTIVE?”

**BRANDY BOLDEN**

DIRECTOR, CUSTOMER CARE AND REVENUE OPERATIONS  
SACRAMENTO MUNICIPAL UTILITY DISTRICT

would require only around 8 kW for lighting.” SMUD makes the results of its research available to indoor cultivators to help them slash power usage.

### MORE CONSUMPTION, MORE CONTACT

**A**dvising business customers is often a face-to-face effort. Each public power utility has dedicated account representatives to work with large business customers. OPPD strengthens ties through an annual meeting as well.

“This typically happens in the fall, when those companies are working through their operating budgets,” said Stacey Bryant, OPPD manager of customer care services. “It gives them a little additional foresight into what next year will look like.” At the event, customers hear directly from OPPD’s CEO and sit side-by-side with executives from the organization. “We’re there to answer any questions they may have,” Bryant added.

In all three utilities, representatives also try to proactively answer a question that business customers should have: What’s the best rate plan for my organization? SRP does this for both large business customers and the smaller ones. “We use a price plan comparison that applies different rate plans against historical usage and aligns the customer with the best plan for them moving forward,” explained Steven Lopez, senior director of customer strategy. Then, his utility reaches out to present the findings and help customers lower their bills.

**“WE’VE MOVED TO EMPOWER OUR AGENTS TO MAKE MORE DECISIONS OUTSIDE OF POLICY. IT MIGHT BE WAIVING A FEE IN RESPONSE TO A UNIQUE SCENARIO OR GIVING A CUSTOMER A CREDIT ON THEIR BILL.”**

**MICHAEL MENDOCA**

SENIOR DIRECTOR OF CUSTOMER SERVICES  
SALT RIVER PROJECT



**CUSTOMER SERVICE BEGINS AT HOME:  
TIPS FROM THE TOP OF THE CLASS**

**TRAINING AND  
EMPOWERING STAFF**

**C**ontinuous training plays into excellent customer service scores. SMUD, for instance, uses its journey mapping insights to help representatives understand how customers might be feeling during various types of calls. “We often hear from customers who are struggling to pay,” said Bolden. “Making representatives aware of how that customer might be feeling allows us to provide supportive customer service during what may be a difficult moment. We want our reps to say, ‘I am so sorry this is happening. Let’s see what we can do. I’m here to support you.’”

“We focus as much on the employee experience as we do the customer experience,” said OPPD’s Bryant. “A happy

employee is going to serve customers well, so there’s been a very concerted effort to connect frontline employees with the broader organization to give them a greater sense of purpose for what they do.”

That means call center representatives learn about tree trimming directly from the forestry department and discover what outage jargon means directly from lineworkers so they can translate it for customers on the phone. In fact, representatives even get some ride-along time with field workers to see firsthand how lines are fixed and maintained.

Back in the call center, OPPD has put great effort into teaching frontline representatives the concept of positive language positioning, said Jennifer Johnston, director of customer experience. “It’s a matter of reframing the way you share information.”

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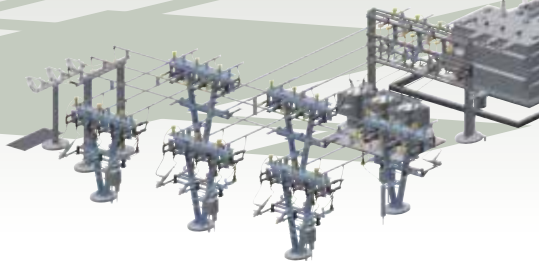
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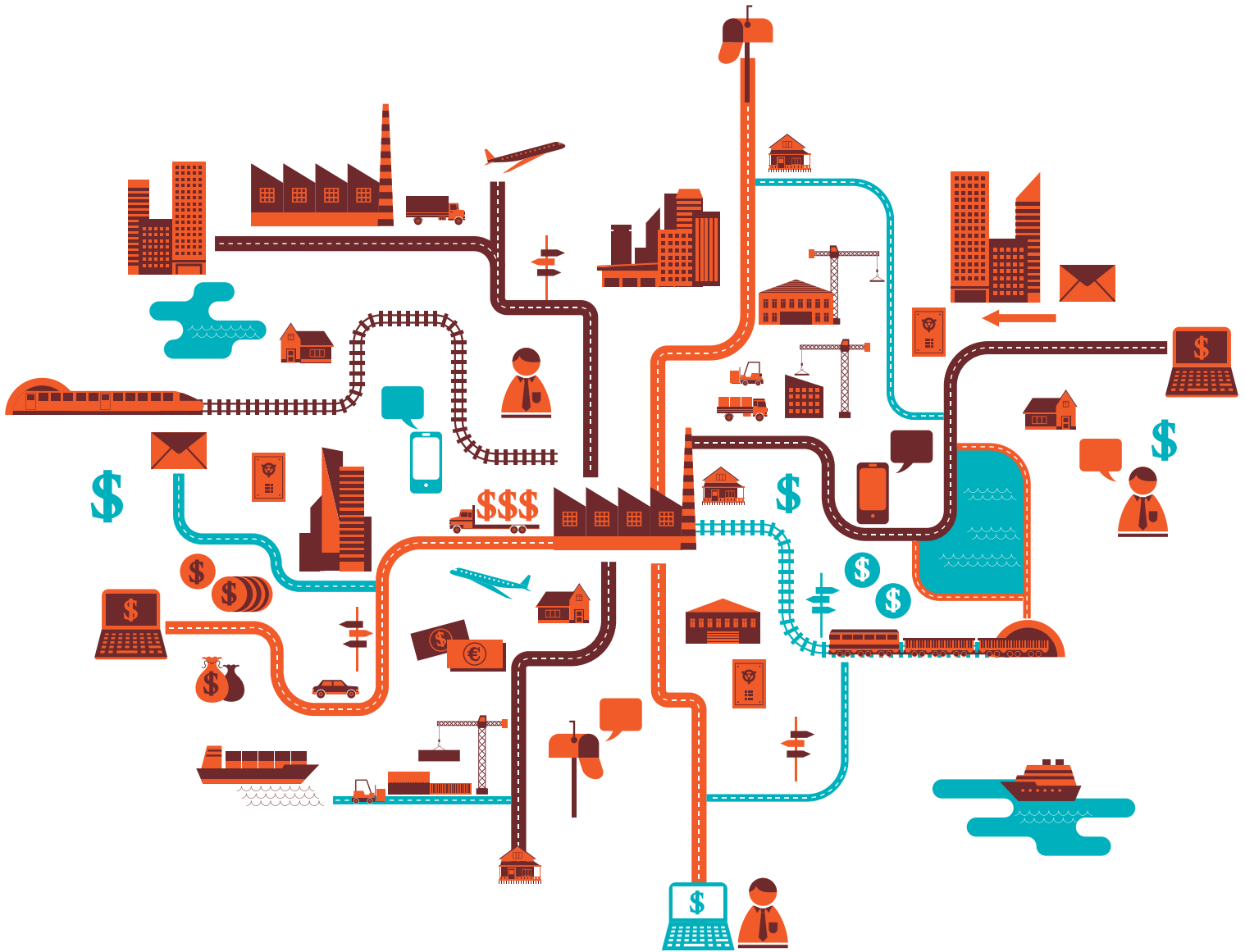
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For example, said Johnston, “If a customer is moving service, we need a little advance notice so we can schedule a meter reading. Saying something like, ‘Our next available date to transfer the service is Wednesday’ sounds a whole lot better than saying ‘We can’t schedule that reading until Wednesday.’”

SRP teaches call center representatives to deal with the whole person and that person’s circumstances, not just the problem at hand. Mendonca offered this example: A customer calls needing more time to pay a bill. The rep who answers that call might review the account to see if the customer is late every month. “Maybe their due date would be better suited for a different time, and the rep could offer to move it,” he said. “Or maybe the customer struggles to pay each month, and they may be eligible for our economy price plan, which is a discount for limited-income individuals.”

If the rep hears about some life event that had an impact on finances, that rep might refer the customer to the utility’s credit counseling group, which could connect the customer to community resources that can help get the bills paid. The goal

is to go beyond saying, “Yes, you can have two extra weeks to pay your bill,” and help customers in a more significant and meaningful way.

Along with being well trained, agents at utilities known for customer service have authority. “We’ve moved to empower our agents to make more decisions outside of policy,” said Mendonca. “It might be waiving a fee in response to a unique scenario or giving a customer a credit on their bill” after a negative experience or inconvenience. Mendonca said this empowerment helps improve the utility’s first-contact issue resolution numbers.

Another point of empowerment SRP has made comes through an online purchasing arrangement with Hallmark. When a representative hears about some important life event, such as the birth of a child, the loss of a loved one, or deployment to military service, he or she can prompt the utility to send an appropriate card expressing congratulations on the new baby, sympathy for the loss, or gratitude for service to the country.

**CUSTOMER SERVICE BEGINS AT HOME:  
TIPS FROM THE TOP OF THE CLASS**

## A DIGITAL-FIRST MINDSET

**R**esearch conducted by American Express found that more than 60% of Americans prefer to solve their basic customer service issues through a self-service site or app. Not surprisingly, SMUD, SRP, and OPPD use robust self-help portals and offer plenty of online options for self-service.

OPPD has some soft-touch technology, too. “After completing certain phone and online transactions, we send them a confirmation so that they’re assured things are all set up,” said Johnston. “People are busy, so any kind of reminder to prevent them having to call back or reach out to us again is helpful.”

“We are constantly re-evaluating all our digital platforms,” said SRP’s Lopez, who said evaluations focus on whether the platforms are meeting customer needs.

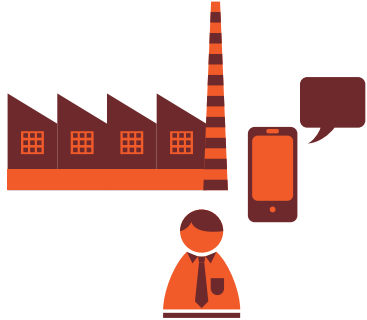
SMUD takes similar steps and has found that about 30% of customers tend to interact and transact online or via apps.

That’s why the utility has a “digital first” strategy to meet that group, its largest customer segment.

“Over the past year or two, we’ve rolled out a laundry list of digital enhancements,” said Bolden. These include email or text alerts that signal when an outage is underway or the customer is approaching a cost threshold, and mid-bill estimates to help customers stay on track with budgeting. It also includes auto-reconnect, which allows customers to go online to pay a delinquent bill and be reconnected immediately.

Nifty digital tools help but, in the end, excellent customer service boils down to how the people who sell treat the people who buy from them.

“It all comes down to culture,” said Lopez. He added that great customer service isn’t just something employees deliver; it’s part of who they are. “It’s in our DNA,” he said.



**“PEOPLE ARE BUSY, SO ANY KIND OF REMINDER TO PREVENT THEM HAVING TO CALL BACK OR REACH OUT TO US AGAIN IS HELPFUL.”**

**JENNIFER JOHNSTON**  
DIRECTOR OF CUSTOMER EXPERIENCE  
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# R&D PREPARES PUBLIC P

BY JAMES PATERSON, CONTRIBUTING WRITER



# POWER FOR THE FUTURE

**I**nnovating and staying up to date with cutting-edge technology is no longer an option but essential, experts say. Large public power utilities are investing in research and development, shaping a path to the future for all community-owned utilities.

Public power utilities are finding that R&D pays off by making their operations safer, more efficient, and more reliable, while keeping them relevant.

# INNOVATING FOR EFFICIENCY

On a hot summer day along rugged terrain in northern Alabama, it's hard to inspect equipment or repair power lines. And then there are the rattlesnakes.

Snakes are not the primary reason Wayne Jordan, manager of electric operations at Huntsville Utilities, and his team have begun using drones, but they're on their minds. About two years ago, Jordan and his team began using the technology with cameras and infrared sensors aboard to check and record data about equipment, spot dead trees, and expedite storm recovery. As a result, a long, challenging trek through rocky terrain and thick forest by two people can be replaced by a 20-minute drone flight.

"This technology makes some routine jobs easier, but it also allows us to get ahead of problems," Jordan said. "That makes it worth the investment."

Huntsville has partnered with a local drone company, Avion Unmanned, to obtain drones with specific capabilities and train the staff. Jordan said such collaboration is very important in a new project.

Home to the U.S. Space & Rocket Center and NASA's Marshall Space Flight Center, Huntsville's identity is rooted in exploring innovative technology.

That's why Huntsville decided to construct its own network for Google Fiber after an unsuccessful bid to be one of the cities in the Tennessee Valley to build a high-tech fiber network in partnership with Google. The project is more than halfway complete and will bring gigabit internet service and Voice over Internet Protocol telephone service to the area.

**"This technology makes some routine jobs easier, but it also allows us to get ahead of problems. That makes it worth the investment."**

#### WAYNE JORDAN

MANAGER OF ELECTRIC OPERATIONS  
HUNTSVILLE UTILITIES

When completed, the network will consist of a fiber ring around Huntsville so that service can branch off into neighborhoods. Huntsville Utilities manages and maintains the core ring, and Google Fiber owns and manages the network from the point of access at the street to the customer.

In an article in Huntsville Business Journal, Joe Gehrdes, community relations manager for the utility, described how the investment benefits both the community and the utility. "This undertaking has been great for Huntsville, but it has also been great for telecom and cable providers, too, because it has significantly improved the infrastructure under which all of these providers offer services," he said. "They, too, can now offer a better, more affordable service to their customers."

Gehrdes noted that utilities across the country are watching to see how successful the initiative is to learn from what Huntsville has done and determine what they can replicate in their own cities.

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**DALE THOMPSON**

MANAGER OF EMERGING TECHNOLOGY  
LOS ANGELES DEPARTMENT OF WATER AND POWER

## INNOVATING OUT OF NECESSITY

“The electric utility industry is undergoing an accelerated transformation as a result of increased regulations, climate change, legislation, local policies, and new and emerging technologies,” said Reiko A. Kerr, senior assistant general manager, power system engineering, planning and technical services for the Los Angeles Department of Water and Power. “Advanced technologies in other industries also are increasing customer expectations and driving industry changes through grassroots advocacy. Although R&D has not been a big focus for LADWP in the recent past, we and other utilities need to move more quickly to adapt.”

She said utilities “need to reinvent their ways of doing business, conform to new business models, and modernize electric infrastructure while maintaining a high level of system reliability.”

LADWP is involved with a flurry of R&D projects as it races to meet state and local mandates for reducing the use of fossil fuels.

“Research and development and developing new ways of thinking — it’s all critical,” said Dale Thompson, manager of emerging technology. “The technology we have now isn’t going to work, so we have to explore options. Everything will be different. We haven’t seen anything like this since Edison.”

Thompson says that along with a host of projects to explore new clean ways of generating power (a decision was made earlier this year to not repower ocean-cooled generating units at three gas-fired generating stations -- the units have to be converted to dry cooling or retired in the next 10 years), the utility is focusing on storage, working on 10 such projects, including a unique one starting soon that is being funded in part by a \$125,000 grant from the American Public Power Association’s Demonstration of Energy & Efficiency Developments (DEED) R&D program.

The project, undertaken in collaboration with the University of California, Riverside, will be a “game changer,” according to the grant application. It will combine solar power with battery storage and explore upgrades to proto-

types of a photo-rechargeable lithium-ion battery, with a photo-anode and lithium cathode.

The results are expected to scale solar energy systems from the single-module level to the residential, commercial, industrial, and utility-scale applications. It will help deploy solar energy with the capability for energy storage, controlled power output, and dispatchability.

“This is a very new approach and so important for the use of renewables,” Thompson said.

LADWP also has developed the La Kretz Innovation Campus, which houses its Sustainable Living and Customer Engagement Labs and the LA Cleantech Incubator, a center in a formerly neglected industrial zone where, according to its website, “entrepreneurs, engineers, scientists, and policymakers can collaborate, promote, and support the development of clean technologies and L.A.’s green economy.” It is the first such utility lab connected directly with an R&D facility.

## INNOVATING TO MEET EXPECTATIONS

Fort Collins Utilities, which serves about 70,500 customers, is known for its cutting-edge work in new approaches to distributed generation and energy services programs. In fact, John Phelan, energy services senior manager, shelved a detailed report on innovation and R&D at the utility that is just five years old because things have changed so quickly.

“That seems ancient,” he said as he checked off a list of projects the utility is undertaking, many in collaboration with Colorado State University. Phelan meets monthly with a senior researcher to exchange updates, and teams from both organizations gather a few times a year to discuss potential joint projects.

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**“You have to carve out some time and network — but then also have to advocate for this type of work. And that’s just not always possible. I’d love R&D to be a bigger part of my job description.”**

**JOHN PHELAN**

ENERGY SERVICES SENIOR MANAGER  
FORT COLLINS UTILITIES

Several new research efforts have resulted from the utility’s ability to leverage existing data. Tools now break down traditional silos between data from power and water services, property records, demographics, and businesses and put it in a flexible, functional database, which Phelan said should be the norm in communities but typically isn’t. The utility hopes its model can be widely used by public power.

The system can provide a range of linked information to researchers and the public, whose work will also benefit the utility. It might, for instance, merge data from the county assessor, utilities, and the building permitting and sales tax offices to increase participation in energy efficiency programs through targeted outreach. It could provide information to analyze solar rooftop performance and improve utility programs while offering academic research experience.

The utility is working with a variety of partners, led by the National Renewable Energy Laboratory, on a funded research project that could connect a development of 500 homes to optimize their energy generation, storage and management for localized and distribution feeder performance. The project, starting with a field demonstration of 20 homes, will significantly increase efficiency and reliability.

Other projects include a sophisticated set of demand response initiatives with varying levels of customer control that respond to variability in renewable generation; a battery demonstration project at its home office; and research on the wellness benefits of home energy efficiency, including healthier air and reduced stress.

“You have to carve out some time and network — but then also have to advocate for this type of work. And that’s just not always possible. I’d love R&D to be a bigger part of my job description,” said Phelan.

## FINDING ALLIES

Huntsville, LADWP, and Fort Collins all have worked with others — including colleges and universities, state and federal government, business and regional development groups, corporations, and other utilities — to bring R&D projects to life. This is the idea behind the DEED program, which encourages collaboration up front and shares project results widely.

“Collaboration is important because we can achieve so much more when we work together on issues of mutual importance,” said Michele Suddleson, DEED program director. “We can leverage our resources to create even better research projects for large and small utilities.”

Suddleson sees five areas of increasing importance for R&D: artificial intelligence and machine learning, robotics (including drones and other unmanned aerial vehicles), cyber and physical security, sustainability, and storm readiness and coastal hardening.

Experts say R&D efforts should start small and be scaled, with a strong design, clear goals, and a plan to collect good data about their performance.

“It’s definitely going to have to be a group effort,” Thompson said. “We need to find partners for these projects and then share results to maximize their value.”

## PROCEED WITH CAUTION

Phelan and other experts said R&D is good for utilities of any size, even though it is an additional expense and can be riskier than the status quo. Entities that don’t innovate, as one researcher put it, “are likely to become irrelevant in the marketplace.”

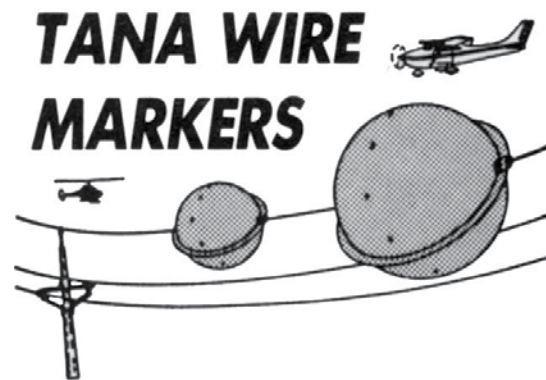
R&D might solve a problem or make a task simpler, like the drones in Huntsville; keep a utility on pace with big changes that are rocking the energy industry, like the multiple projects in Los Angeles; or just let others know the utility is striving to serve them better.

“As a municipal utility, however, we must proceed somewhat cautiously when investing in new technology,” said Kerr from LADWP. “Committing to R&D in general requires substantial capital and effort and a reasonable estimation of risk and potential return on that investment.”

“Public power utilities are proactive some of the time and reactive some of the time — it’s just the way things are,” said Huntsville’s Jordan.

Phelan said that city leadership expects innovation, and customers now increasingly don’t want the utility just doing “the same old thing.”

“That said, it is sometimes hard to get funding and support for research and development. Budgets are tight, there are concerns about rates, and there are a lot of other things power companies have to do,” Phelan said. However, Phelan said that city officials expect innovation, and that customers now increasingly don’t want the utility just doing “the same old thing.” “There can be an inherent tension between innovation and operations, and we’re excited to challenge ourselves to pursue both at a high level.”



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# PUBLIC POWER'S R&D BOOSTER



Since 1980, the Association's Demonstration of Energy and Efficiency Developments (DEED) program has helped public power utilities of all sizes to expand research efforts, foster innovation, and promote collaboration across the industry. Here are a few highlights of how large utilities leverage DEED.

## SMUD, CALIFORNIA

GRANTS AND INTERNSHIPS AWARDED: **18**

FUNDING RECEIVED: **\$797,872**

YEARS AS DEED MEMBER: **22**

LATEST PROJECT: **COORDINATING EV CHARGING WITH RENEWABLE ELECTRICITY GENERATION USING BLOCKCHAIN INCENTIVES**

"DEED focuses on projects that provide direct, tangible, and transferable benefits specifically geared toward public power utilities. SMUD has been a direct beneficiary of these benefits, having received funding for several projects that demonstrated new technologies, fostered partnerships in the energy community, improved energy efficiency, reduced costs, and offered new and improved services to customers. The broader public utility family benefits as well, as these projects help develop industry best practices and the final reports provide useful information so that utilities don't need to recreate a project and can instead determine if further research is needed." - **JIM PARKS, PROGRAM MANAGER, SMARTSACRAMENTO**



## AUSTIN ENERGY, TEXAS

GRANTS AND INTERNSHIPS AWARDED: **44**

FUNDING RECEIVED: **\$437,342**

YEARS AS DEED MEMBER: **35**

LATEST PROJECT: **THE GRIDOPTIMAL INITIATIVE:  
A NEW RATING SYSTEM FOR BUILDING-GRID INTERACTIONS**

"Even as a large utility, we don't always have the money we want to do the things that we feel are important for our customers, so having that additional support to get that research done so we can prove to our stakeholders and to our council – this is really a good thing to do – is really important. There's also the opportunity to partner with either other utilities or universities. The DEED program offers a wealth of knowledge for public power utilities. It's just an amazing library of research and work that's going on out there." - **LIZ JAMBOR, MANAGER, DATA ANALYTICS AND BUSINESS INTELLIGENCE**



## NEW YORK POWER AUTHORITY

GRANTS AND INTERNSHIPS AWARDED: **7**

FUNDING RECEIVED: **\$419,000**

YEARS AS DEED MEMBER: **29**

LATEST PROJECT: **UNMANNED AIRCRAFT SYSTEM EQUIPPED WITH LIGHT DETECTION AND RANGING TECHNOLOGY**

"Support from the DEED program has given the New York Power Authority the opportunity to take on new and relevant research and development projects and make them a priority. We tested an innovative security system at one of our substations and are currently evaluating pairing a drone with LIDAR technology to improve our vegetation management program. Investigating new technology is fundamental to helping NYPA improve efficiency and reduce costs, and we plan to share our findings to benefit other utilities as well." - **GIL C. QUINIONES, CEO AND PRESIDENT**



## CITY UTILITIES OF SPRINGFIELD, MISSOURI

GRANTS AND INTERNSHIPS AWARDED: **10**

FUNDING RECEIVED: **\$363,885**

YEARS AS DEED MEMBER: **33**

LATEST PROJECT: **MEASURING THE BENEFITS OF CONTACT VOLTAGE TESTING**

"DEED has allowed City Utilities of Springfield to partner with regional universities for practical research on emerging technologies, such as microgrids, batteries, EV chargers, and solar panel controls. Many times, the utility and suppliers are seen as biased for or against a technology, whereas a university is seen as a neutral party in assessing its benefits and cost. This research has allowed CU to experience the effects of this technology before it is placed on our system. The research has also created a knowledge center for our customers to review their energy options. Overall, DEED has allowed CU to have ongoing R&D, which has benefited the utility and our customers." - **BRENT MCKINNEY, DIRECTOR-ELECTRIC TRANSMISSION & DISTRIBUTION**



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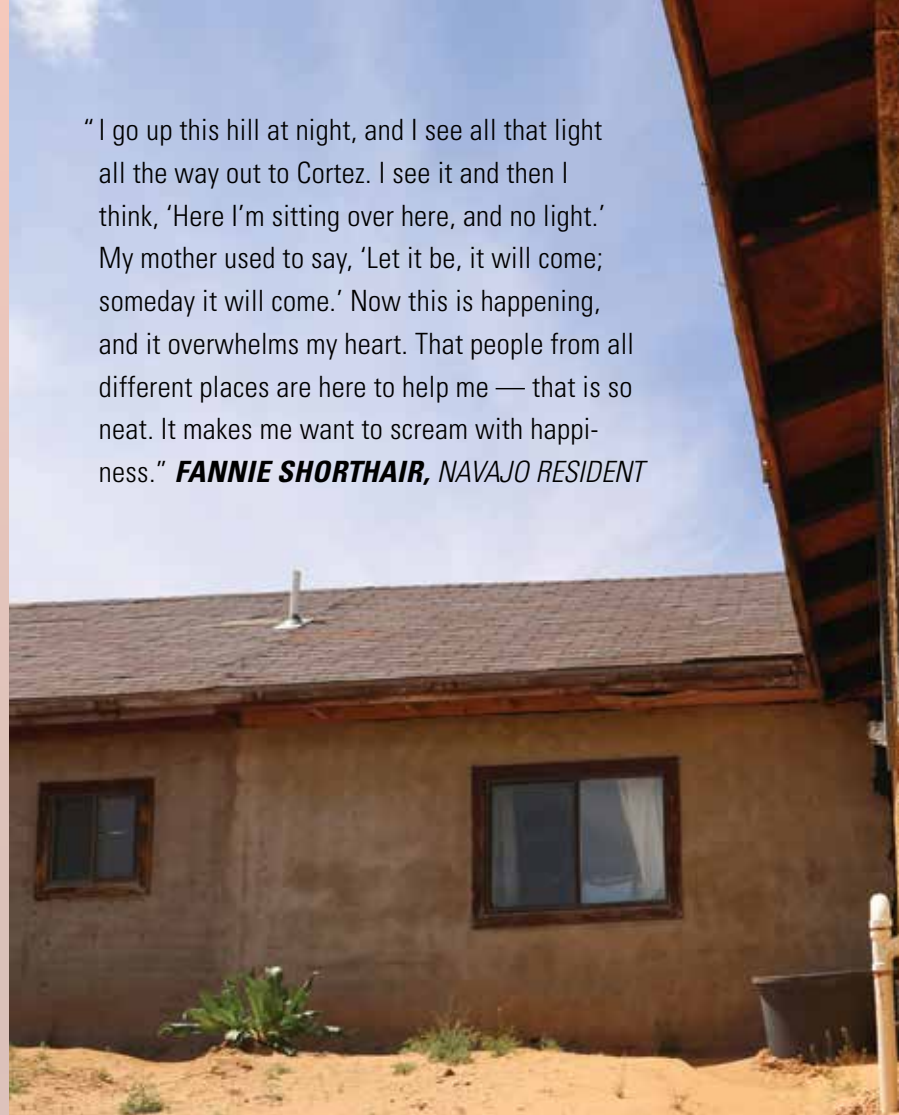
CHANGING LIVES, CREATING OPPORTUNITIES:  
**ELECTRIFYING HOMES  
IN THE NAVAJO NATION**

**INTERVIEWS AND PHOTOS BY ALYSA LANDRY,**  
FREELANCE CONTRIBUTOR

It's hard to believe that 15,000 families in the Navajo Nation still have no electricity. However, between March and May 2019, more than 200 families experienced something most people in the rest of the U.S. probably don't remember — watching the lights in their home come on for the first time at the flip of a switch.

Step inside this life-changing experience through the stories from the crews that built the new connections and the residents who came onto the grid as part of the Light Up Navajo initiative, a unique mutual aid effort organized by the Navajo Tribal Utility Authority and the American Public Power Association.

"I go up this hill at night, and I see all that light all the way out to Cortez. I see it and then I think, 'Here I'm sitting over here, and no light.' My mother used to say, 'Let it be, it will come; someday it will come.' Now this is happening, and it overwhelms my heart. That people from all different places are here to help me — that is so neat. It makes me want to scream with happiness." **FANNIE SHORTHAIK**, NAVAJO RESIDENT



"Power is everything. I've had it my whole life; for me to be without it now, I don't know what I would do. It's amazing that people are still going through this — they don't know any different. It's truly an honor to come here and do this for people and to see their faces when the light goes on." **STEPHEN FROST**, SALT RIVER PROJECT, ARIZONA

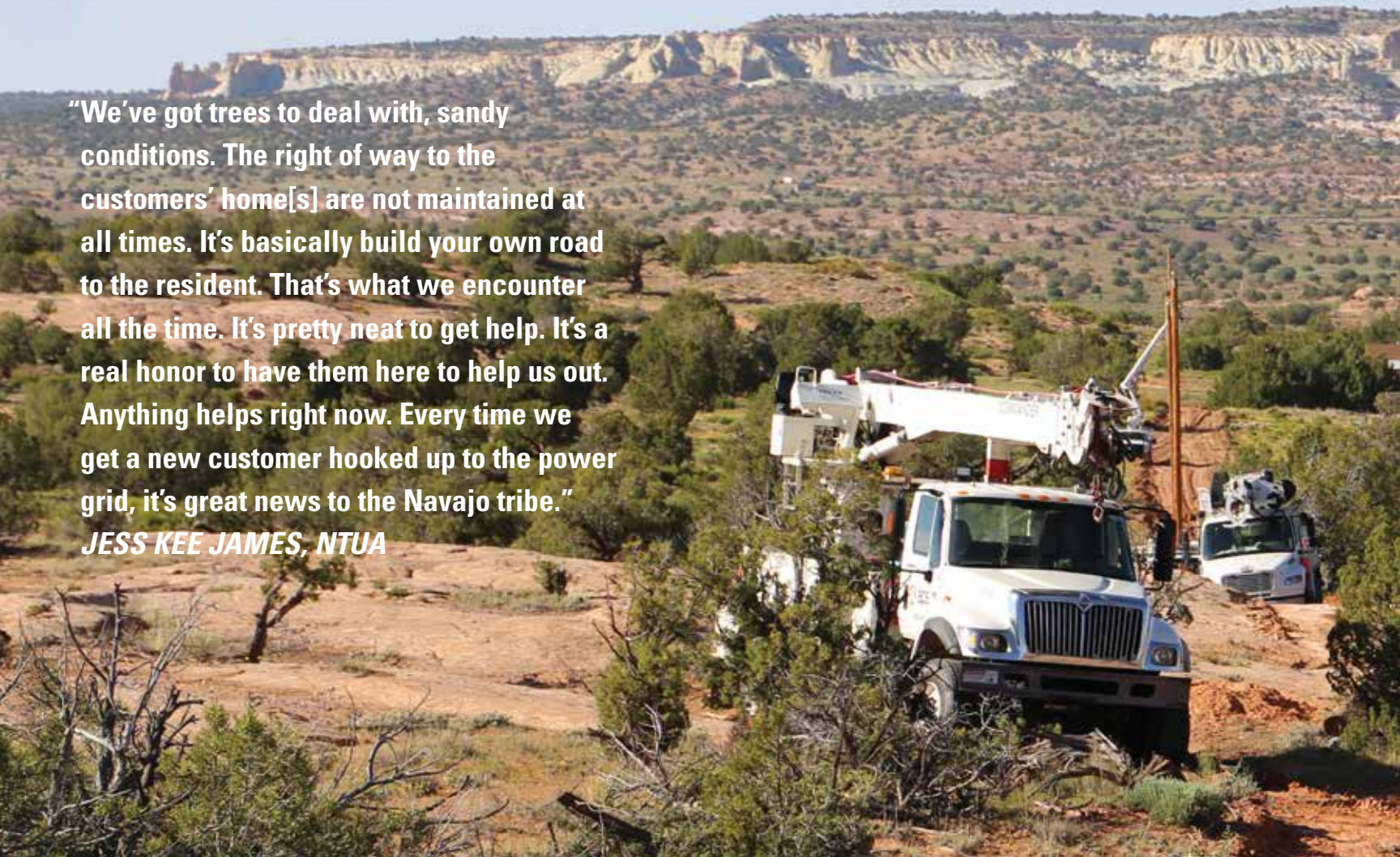
"For my job, I used to fly all over, and I've seen all different types of things. And how certain people have no jobs, but they still have the power to move forward without any kind of income. They have computers and Wi-Fi and stuff like that, where they can make a step forward. That's a certain kind of power. [And] that power behind it is electrical power. When I come back home, I go 'Oh, yeah, I forgot that I don't have electricity.' It makes it that much harder to move forward." **KIRBY GOLDTOOTH**, NAVAJO RESIDENT



“People where we’re from don’t have power for an hour and it seems like they haven’t had it forever. Then you come out here, and people haven’t had it for 80 years, or their whole lives. People in our industry like to help people out and get the lights on. The first day, we got some people turned on, and they were very happy. It was a good feeling to get people turned on, ease their life a little bit with the convenience of electricity.” **JACK LIZOTTE,** *LITTLETON ELECTRIC LIGHT & WATER, MASSACHUSETTS*

**“We’ve got trees to deal with, sandy conditions. The right of way to the customers’ home[s] are not maintained at all times. It’s basically build your own road to the resident. That’s what we encounter all the time. It’s pretty neat to get help. It’s a real honor to have them here to help us out. Anything helps right now. Every time we get a new customer hooked up to the power grid, it’s great news to the Navajo tribe.”**

***JESS KEE JAMES, NTUA***





“The last job we were on — those people needed it bad. The medicine that the child was on needed to be refrigerated. We got them that power, [and now] they have the refrigeration they need. That’s what I’m here for: I’m here to get as many people on as I can before I leave.” **STEVEN WILLIS**, GRAND RIVER DAM AUTHORITY, OKLAHOMA

“When you live without electricity at all, it’s hard. I broke down a lot of times. I just had to make it work, but it was hard every day, every night. I prayed, I hoped everything would go fast. But today’s the day I’m happy about. I’m so glad that they [the volunteers] are helping out with the project. It makes it faster. I can’t believe how fast they hooked the lines and set up the poles. I’m very thankful for them to come out and help with NTUA.” **SHIRLEY ATENE**, NAVAJO RESIDENT

“That was the most appealing thing to me — getting some different perspective. If you drive one block down the road in Murray, you pass hundreds of houses. Here, if you drive 10 miles, you might have only passed two houses. It’s just a whole different area. In the U.S., you don’t think of people living without power. But my next-door neighbor just down in the next state — it’s kind of surprising that it’s been this long, and we’re just barely starting to find out about it.” **TYLER KIRKHAM**, MURRAY CITY POWER, UTAH





"At least an hour off the main highway ... middle of nowhere, and here comes the power lines. There was a lone house out there. In talking to the customer — and she's actually an employee of the utility — but she's been waiting 10 years for power. She was very joyful. She raised her kids there with no power, the kids had to do reading and homework in the dark. Her son came out and was very appreciative. He even had a light on his hat, ready to do his homework at night." **COREY SMITH, SMUD, CALIFORNIA**

"For us, our safety is No. 1. We have to slow down ... it is a very remote area. We're out there and thinking, 'We have so much more to do.' As you can see, a lot needs to be done. A lot of our guys, to have that experience, it's the passion they have for the work. It is always good to have that different cultural experience; how you don't take life for granted." **MELISSA PARRISH, NTUA**

"I was shocked that people in America don't have electricity. I've never heard of such a thing, unless you don't want it. Here, these people can't really afford it. Where they live is so far off the main lines, and it costs money to get it there, and they can't afford it. It's just great to be able to do it. The last job we just did this morning — we got it energized, and she couldn't wipe the smile from her face. That was worth the trip." **JEREMY LANCE, CITY OF WADSWORTH, OHIO**







**“Not having light, not being able to buy certain kinds of food — we always have cans and dried food, with no refrigerator. I haven’t really got it in my head that I have utilities now. I always wondered at someone else’s house [that had it] that I wish I had utilities. The first thing we can think of is refrigerator. Of course, through school, they ask questions. Yesterday, they asked us how many fruits and vegetables we eat, and ours was really low, we don’t really eat that stuff. It will be really exciting to go buy a refrigerator.” PAULINE YAZZIE, NAVAJO RESIDENT**

"It's been pretty physical and a lot of work, when you live without electricity. It's pretty cold in the wintertime. You have to chop wood outside. Sometimes you find some coal to bring in. Because there's no heat, and there's no water, you have to heat water. Right now, we have no running water — we've got to work on that, too. You can't really have anything that's technology, where you just flip a switch. Out there, news comes right away, and you know what's going on. Here, you have to wait maybe a week for the newspaper [to] come out to start reading. Having a battery-powered radio — that's the best thing we can have." **LAURENCE OLIVER, NAVAJO RESIDENT**



"Before we got power today, we were part of a PV solar project, which is what we've been using for maybe the past two years. Having to conserve energy, especially through the winter, was very hard because of cloudy days and the rain, wind, and snow. We actually ran out of juice maybe three times, and we had to wait until the battery life came back up. Specifically, what I'm looking forward to is getting my refrigerator out of storage, bringing it over and plugging it in. And making it more homey, because lately, we just get in the evening what we'll be eating that day, and that was it. So, I'm looking forward to refrigeration. And air conditioning this summer. Now that we have power, I can bring my family back under one roof." **LUCITA MANHEIMER, NAVAJO RESIDENT**



**“It’s humbling. To have this life, to never have had electricity. Being able to come out here and provide help and be a part of this project, it’s amazing just to see their smiles. The house we did earlier, the kids were jumping and having fun. It brings you tears; it is a blessing.”** *JORGE VASQUEZ, GEUS, TEXAS*



**“I just kept hoping that we’d get to come out. I was counting the days looking forward to it and ready to go. It’s so basic everywhere else. You just get used to it, and they don’t have it. When you do finally heat them up, and you see how thankful they are just to have something so simple that everyone else has, it makes you feel really good. It is fun to be out here doing what I love to do, but we’re also doing an amazing thing, helping these people and providing them with something they’ve been neglected of. The job we wrapped up this morning was a single mom [with] two kids. She lived off the grid a ways — I think it was eight spans and 2,000 feet of wire. We did it all in a day and a half. She rearranged her schedule so she could be there when we heated them up and gave her power. It definitely touched them. They were very thankful, very grateful. It was just a good feeling.”** *CARSON KALTENBAUGH, CITY OF WADSWORTH, OHIO*



"We've gone through two generators. I had to fill up the generator with gas every day. It was hard not having fresh food, fresh milk, fruits, vegetables. We have two kids. We are so grateful that their future is looking bright. We can raise them healthy and strong and not just living on dried goods." **RETHEMA KENNEY, NAVAJO RESIDENT**

"Get people the power that need it. Whatever we've got to do. We're working seven days a week, 12 hours a day. And I like it. I'm hoping that more and more people over the years will do it, and one day we won't even have to mention that people are without power in the Navajo Nation." **SCOTT LARSEN, LITTLETON ELECTRIC LIGHT & WATER, MASSACHUSETTS**





"I prayed for this day. I think I prayed a million times. I'm really thankful for American [Municipal] Power. To help us, to help families in need. Not just me, but to our Nation here. I'm very grateful they are out here away from their family. I know how it is being away from family. I used to work on the road, I'd be gone three or four months. I just want to say thank you."

**JIMSON LEE, NAVAJO RESIDENT**

"I could not imagine opening my fridge and nothing's cold. Yesterday, there was a lady and she had three kids, two young kids. She never had power her whole life. When we got her power, the first thing she said was, 'I'm going grocery shopping for a whole week.' So she could keep the food cold. She got all teary-eyed. It got me emotional. It was one of the best feelings I've ever had in my life — that she could turn on that light switch. It is amazing. Amazing. I think everyone in the line business should come out and spend a week here." **COREY HERSMAN, CITY OF PAINESVILLE, OHIO**



"My hope is that this program can continue on, and we can get over 1,000 families a year [connected]. That would still be about 15 or 20 years, but at least I'll be able to see it done in my lifetime."

**WALLY HAASE, NTUA GENERAL MANAGER**

# LIGHTING THE NAVAJO NATION

Of the **50,000** homes in the Navajo Nation, about **15,000 – 30%** — do not have electricity.



This accounts for **75%** of all U.S. households without electricity.

For many of these families, that means food and groceries can't last more than a few days, homework is done under the dome light of the family car, and hefty expenses are incurred to run generators as needed.

For the last **10** years, the Navajo Tribal Utility Authority has been hard at work connecting an average of **487** homes per year in its remote and vast service territory.

At that rate, NTUA would be on track to connect all existing homes in the Navajo Nation in 30 years.

To help, the American Public Power Association and NTUA developed the Light Up Navajo initiative, which convened more than **120** volunteers from **25** public power organizations in **12** states in April and May 2019.

## Working with NTUA, volunteers:

**Worked**  
**10,000+**  
hours

**Installed**  
**42.4**  
miles of lines

**Electrified**  
**228**  
homes

This reduced the total number of U.S. homes without electricity by **1%** — in **6** weeks.

NTUA estimates the cost of connecting these homes was **\$1.8** million; an average of under **\$8,000** per home. That's less than one-fifth of the typical **\$40,000** cost to NTUA to connect a home.

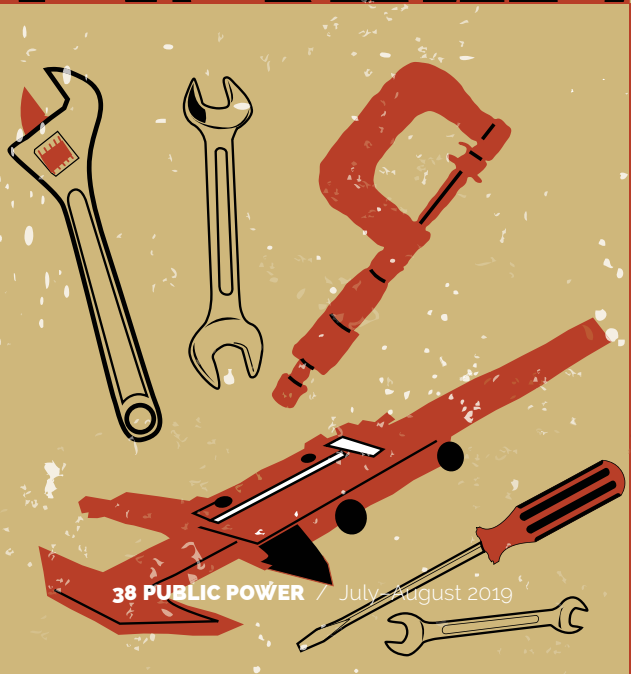
To offset this cost, in addition to about **\$440,000** worth of volunteered time, people and organizations across the country donated more than **\$272,000**, including **\$26,000** in individual donations through a GoFundMe page.

These donations will save the families thousands in out of pocket costs and allow NTUA to focus its resources on continuing to help additional families.

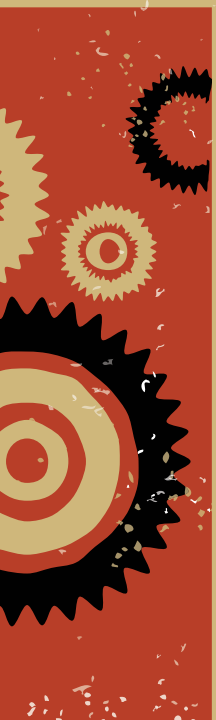
Extrapolating from this pilot, the remainder of unelectrified homes on the Navajo Nation could be connected with more than **614,000** worker hours. However, the most remote and difficult to reach homes remain.



**THANK YOU VOLUNTEERS**  
**#PublicPower**







# ENGAGING CUSTOMERS IN INTEGRATED RESOURCE PLANNING

BY SUSAN PARTAIN, SENIOR EDITOR AND CONTENT STRATEGIST, AMERICAN PUBLIC POWER ASSOCIATION

**I**ntegrated resource planning might sound wonky to customers, and engineers and utility staff involved know that the multiyear process is a cumbersome endeavor. Yet it is critical that public power utilities include a variety of customer perspectives in the IRP process to make sure that the community gets energy the way it wants.

“If you run [the IRP] entirely as an internally focused electrical utility process, you might find that you missed the mark, or [you] might have the dubious honor of doing it twice,” said Tom Falcone, CEO of Long Island Power Authority in New York.

The keys to a plan that reflects the community’s desires are getting consensus on a clear goal, engaging customers early, and knowing the right amount of information to share based on customer interests.

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## IN THE CUSTOMER’S SHOES

Who is going to determine success for the project? What are they going to want? These are the questions Falcone said should kick off the resource planning process.

“When designing the scope of the IRP, you should know who is going to be interested in it. You don’t want to get to the end of the IRP and not have run the key scenarios or thought about how you are going to communicate it; then it is too late,” said Falcone.

This scoping helps design the back end of the plan for engineers and planning staff or consultants, Falcone said, so that they know what the plan needs to produce to answer each set of key stakeholders’ questions. He recommended thinking about how to offer information to different segments of customers based on different levels of interest and knowing the hot-button issues in your community.

“I think about my sister with a couple of kids — she doesn’t have as much focus on what power plant decisions we’re going to make. For her, the level of interest is, ‘Are you cleaning

the grid, is it sustainable, are you moving in the right direction, how fast are you going?’” he explained. “That can be conveyed in your advertising, in your bill inserts, through your clean energy programs ... that might be the right touchpoint for the vast majority of customers.”

LIPA prepared and distributed communications to customers in areas where high property taxes on power plants were affecting electricity rates. LIPA also shared an information booklet with managers at power plants affected by the resource plan that explained how and when changes would impact the plant.

Falcone said utilities should plan on having “lots of ongoing meetings” with stakeholders who are going to take a deeper interest in a resource plan, such as developers, to get to know their interests.

To form its latest plan, released in 2017, LIPA held a series of town halls and one-on-one meetings with a variety of stakeholders. Falcone said that the one-on-one meetings allowed LIPA to collect the key takeaways from stakeholders with greater interest in the process and check if the plan would answer their questions. “At the end of the process, everyone was heard. Not everyone agreed with us, but a lot of people did.”

## BUY-IN FROM ALL STAKEHOLDERS

To capture a variety of customer and community perspectives in its resource plan, for the past two planning cycles, Austin Energy in Texas has formed a community working group focused on integrated resource planning.

“We want to be able to engage every type of customer,” said Erika Bierschbach, vice president of market operations and resource planning at Austin Energy, noting that the group members include commercial and industrial customers, people who represent low-income communities, and the city’s financial department. The utility does not have a formal recruitment process for the work group and relies on the city’s utility commission and city council members to reach out to different segments of the community.

Previously, Austin Energy collected community feedback on its IRP through a task force. Bierschbach said the working group seems to be a much more engaged way of reaching different customer segments and “allows us to tap into parts of the community we wouldn’t be able to otherwise.”



However, she noted that participating in the work group is a hefty commitment, as members have to be available for regular meetings that can take several hours and happen two or three times a month over the course of four to six months.

For customers who want to be engaged in the process but cannot make that time commitment, some working group meetings allow “citizen communication” time for customers to ask questions or provide feedback on the plan components.

The utility and the utility commission still drive the resource planning timeline and scenarios, but the work group reviews materials from the utility and informs what is brought forth to the city council.

Kim Doyal, a community engagement consultant for Austin Energy, noted that it is important for key accounts managers who work with high energy users like schools and hospitals, to stay on the pulse of what these customers are interested in and offer basic education about topics likely to come up in the next study cycle. “When the five-year [mark] comes around, we know who to call, we’ve done basic

education, and we can go in and get specific with whatever we need to tell them,” she said.

“Because we do have an involved community here in Austin, over time, we’ve developed a structure to meet whatever those needs are out in the community,” said Doyal. “We have an internal structure that allows us to collect that feedback, put it in places where we can access it, and deliver on it.”

### KEEPING IT LONG-TERM

Austin Energy’s planning period is five years, but the utility checks in on key metrics related to plan goals every two years. “Trying to update every two years is cumbersome and ineffective,” noted Bierschbach. “We provide metrics and KPIs — and we’re updating on a quarterly basis where we are on those goals — but we’re not trying to go out and create new goals every two years.”

To test the waters around emerging technology or in meeting other city goals related to but not central to the utility, such as electrified transportation, Austin Energy looks to a handful of other city commissions to pilot initiatives or make recommendations. The utility keeps tabs on any interrelated goals and notes when a commission has a study going on that could inform the next resource planning process.

Falcone mentioned legislation in New York that would accelerate the state’s goal to move toward renewable energy and noted that LIPA’s long-term approach to its resource planning process means that the utility doesn’t have to adjust its plan timeline alongside changing policies. “Even when you have statewide goals that are changing a lot, they are changing the out years. What’s going to happen on the grid in 2021, 2022 is not going to change that much — we need to look at 2026, 2027. It is really the back end that is changing a lot, and you need to revise your plans for the back end.”

“Reaching out to everyone, getting everybody’s input, comes at a price,” said Bierschbach. “You need to have a base level of education, but you can’t do that for everyone in that short period of time. That’s why we try to get people in the working group that have a good base of education [and who] can bring perspectives to the team.”

“Talk to a lot of people. It is very time-consuming. It’s why you don’t do it every year,” Falcone concurred.

### ONE PIECE OF THE GRID

Utilities need to ensure that resource plans encompass any state or regional efforts that might impact their service.

“It’s one grid, so we can’t totally ignore what’s going around us. It is Long Island, but we aren’t an island. We are interconnected to the rest of New York, we are connected to New England, we are connected to the PJM market,” said Falcone. “We’re still an integrated utility in a state where most utilities aren’t integrated. We can only control our resources, but other people’s decisions may very much impact our system, and we still need to plan for them.”

Falcone gave the example of New York’s push for increasing offshore wind. “We may be integrating offshore wind, but if it’s a statewide goal in a deregulated state with a wholesale market, we have to make sure that when NYISO makes market rules, those rules reflect that reality. You have to work through those processes and market signals to make sure our customers are bearing an appropriate share of the cost but not the whole cost of integrating the wind into the grid when it lands on Long Island.”

## BOILING IT DOWN

Both LIPA and Austin agreed that a major part of the process revolves around distilling the wide and complex range of scenarios down to a few options for public consumption and discussion.

“There are only so many scenarios that can be run. [You] need to set reasonable expectations of what can come out of a resource plan,” said Bierschbach. “Because there are a lot of really passionate and engaged customers that we really get a lot of very good information from.”

“It’s not one scenario, but also it isn’t 500 scenarios. It’s a little bit of a Goldilocks scenario — low, medium, and high,” said Falcone.

“That helps frame issues for people. That gives people a range of outcomes, and then you can talk about it from there.”

“The city can’t go in eight different directions — you have to form one [plan],” said Bierschbach. “There are different needs and wants — that’s just normal. What we have found as the most effective way to meet the larger needs of the community is to have higher-level goals that meet the needs of the community as opposed to prescriptive goals.”

“IRPs have to be driven by engineers and planning, and they have to be sound. They are very complex and have an unbelievably large number of scenarios,” said Falcone. “At the end of the day, you have to boil it down to something that someone not in the industry will understand. That means getting communications people involved early in the process, knowing what questions you are likely to get from stakeholders, and putting together the materials so that someone sitting down with you for an hour could get it,” he added.

“We’re here to serve our customers, and our job is to deliver the product that they want. And it is our job to be able to digest all of those wants and deliver a product that meets the most of those needs as possible,” said Bierschbach. “Being very specific about ‘this is what we’re going to do in this timeframe’ helps all of

**“We’re here to serve our customers, and our job is to deliver the product that they want. And it is our job to be able to digest all of those wants and deliver a product that meets the most of those needs as possible.”**

### ERIKA BIERSCHBACH

VICE PRESIDENT OF MARKET OPERATIONS  
AND RESOURCE PLANNING  
AUSTIN ENERGY

the customers. If we can keep our customers or public interest at a higher level, then we seem to get much more customer satisfaction overall than inefficiently spending time, resources, and money on those lower-level goals.”

## ALLOWING FOR FLEXIBILITY

Focusing on the overarching goals, said Bierschbach, also helps inoculate a utility from getting stuck with a technology that might be more costly and less effective than newer technology that might come onto the market after a plan is set. “Things change. We need to be able to move and change with [them]. Whatever goal our city may choose, just being able to have the nimbleness to get to that goal depending on what technology is used is proving to be more prolific, affordable, and better for the customer overall,” she said.

“Sometimes things look shiny and new, and then you don’t realize until after you’ve spent a lot of money that maybe you shouldn’t have gone that way,” said Bierschbach.

LIPA’s approach to being responsive and flexible with the use of new technology or other trends is to put out a smaller annual plan, called Utility 2.0, that “looks for the initiatives and what we’re going to do that makes a difference,” said Falcone. LIPA allows for public comment on these annual plans, which offer options for where the utility could go with electric vehicle incentives, battery storage programs, or time-of-use rates. This smaller annual plan also allows LIPA to check in on how its energy efficiency programs are doing or what customers want from them, which helps the utility gauge how well customers are helping to meet the energy efficiency and demand reduction goals set forth in its IRP.

“For anything we do, it is about transparency. Being honest with the community, telling them why we are doing what we’re doing, how it’s all going to roll out — and if it needs to change, here’s why it needs to change,” said Bierschbach.



**“ At the end of the day, you have to boil it down to something that someone not in the industry will understand. That means getting communications people involved early in the process, knowing what questions you are likely to get from stakeholders, and putting together the materials so that someone sitting down with you for an hour could get it.”**

**TOM FALCONE**

CEO

LONG ISLAND POWER AUTHORITY NEW YORK

# INSIGHTS

## BOND MODERNIZATION

### A Team Approach to Tax Policy Improvements

BY SUE KELLY, PRESIDENT AND CEO, AMERICAN PUBLIC POWER ASSOCIATION, AND JOHN DI STASIO, PRESIDENT, LARGE PUBLIC POWER COUNCIL

**T**he scope of tax policy in the U.S. is huge, touching every aspect of our economy. It is not surprising, then, that tax policy is also huge in Washington. In fact, tax is the single most lobbied issue on Capitol Hill, according to OpenSecrets.org.

The utility sector is just a small part of that world; electric utilities are a smaller part still. While public power plays a significant role in the electric utility sector, it can be challenging to be heard in the maelstrom of tax policy debates.

However, public power has several advantages in this environment. We have utility leaders and locally elected officials who are passionate about public power and who routinely work with their congressional delegations. Likewise, there is a broad array of national associations representing state and local governments with whom we work both individually and collectively (including through such coalitions as the

Public Finance Network and the Municipal Bonds for America Coalition).

We are strongest when we speak with a unified voice in support of public power. Doing so reinforces our message and allows us to collectively bring our unique strengths to bear. The American Public Power Association represents the interests of nearly 2,000 public power utilities operating throughout the U.S. These utilities operate in the states of 98 out of 100 senators and in the congressional districts of 335 out of 435 representatives. The Large Public Power Council comprises 27 of the largest community-owned utilities in the U.S., all of which are Association members. LPPC members operate in some of the nation's largest cities and provide reliable, low-cost power to more than 30 million people — more than 10% of the U.S. population.

Our collective strength is not just political. Together, we also



bring a wealth of experience and technical expertise. Our combined tax policy teams have decades of experience on Capitol Hill and working with the Treasury Department and Internal Revenue Service.

This teamwork has resulted in proven successes. In 2012, when the attention of the state and local community was largely focused elsewhere, there were growing

signs of a desire to tax municipal bonds as part of a “grand bargain.” The Association and LPPC worked to raise awareness of the threat and to educate lawmakers on the costs such an unprecedented tax would have imposed. Eventually, PFN and the Municipal Bonds for America Coalition would take up the charge, but public power’s work was — and remains — foundational in the defense.



In the wake of tax reform in 2017, the Association and LPPC have again joined forces to develop a legislative and regulatory bond “modernization” agenda. This agenda includes reinstatement of advance refunding bonds, repeal of private use rules that punitively single out public power, prevention of further sequestration of payments to issuers of Build America Bonds and New

Clean Renewable Energy Bonds, and an increase in the small issuer exception from \$10 million to \$30 million. While this last item is likely not of much use to LPPC member utilities, it is important to smaller public power utilities as well as many other municipal issuers. By working together, we have seen the PFN take up this bond modernization agenda, substantially increasing the likelihood that

some or all of it will eventually be adopted.

Likewise, together we have pushed lawmakers to provide public power with comparable treatment for energy-related tax incentives. As a result, we’ve already seen enactment of legislation allowing public power utilities to transfer the advanced nuclear tax credit to project partners. Plus, additional measures introduced in the 116th Congress would expand transferability to other energy-related tax credits or allow the issuance of special purpose municipal bonds for clean energy investments.

The Association and LPPC are also working together to seek relief from regulations that make it increasingly difficult for public power utilities to negotiate customized contracts for large commercial customers. This issue most directly affects larger public power utilities, but, again, by raising our collective voices with Treasury and the IRS, we believe our chances for relief are better.

The saying goes, “If you want to go fast, go alone — if you want to go far, go together.” By going together on tax policy, we hope all public power utilities will benefit from our work.

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# Public Power Gives Back

## HIGHLIGHTS FROM THE 2019 PUBLIC POWER DAY OF GIVING

**O**n June 8, 2019, public power organizations across the country led service initiatives and community donation drives as part of the Public Power Day of Giving. Here's a snapshot of events from the day (not including the 170 participants that joined one of three projects in Austin, Texas ahead of the National Conference!).

 In North Carolina, **Kinston Public Service** delivered donations to Mary's Kitchen, a local soup kitchen, and **Greenville Utilities Commission** delivered more than 60lbs of donated food to the Food Bank of Central and Eastern North Carolina.

 **Kerrville Public Utility Board** in Texas donated 25 box fans to the Salvation Army.



 Employees of **Kissimmee Utility Authority** in Florida packed 2,300 personal hygiene kits — complete with handwritten notes of encouragement — to distribute to local social service agencies.







Employees of **Fayetteville PWC** in North Carolina participated in a community cleanup.



In Texas, **New Braunfels Utilities** employees prepared meals for community members in need at the New Braunfels Food Bank.

The **Vermont Public Power Supply Authority** helped connect Vermonters with healthy foods by volunteering at the Lamoille Community Food Share.



## Take part in the next **Public Power Day of Giving, June 5, 2020!**



**Easton Utilities** in Maryland volunteered with Habitat for Humanity

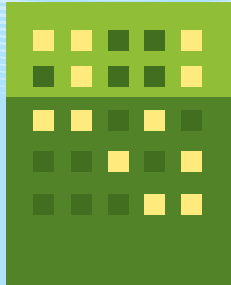


In Arkansas, **Conway Corporation** employees donated more than 100 volunteer hours and 4,000 food items to the local Student Market.

# PUBLIC POWERHOUSES

Large public power utilities are a significant part of the U.S. electric utility industry.

**5/10**  
AND  
**12/25**



of the most **populous cities** in the U.S. are served at least in part by public power utilities.

The largest 25 public power utilities serve

**11.5M**  
customers –



**half**

of all public power customers.

The top 10 serve nearly 2 in 5 (8.3M) public power customers, and all serve more than the median number of customers for investor-owned utilities.



The largest 50 utilities bring in more than  
**\$44.6**  
billion  
in annual revenue



The largest utilities also employ more than

**50,000**  
people

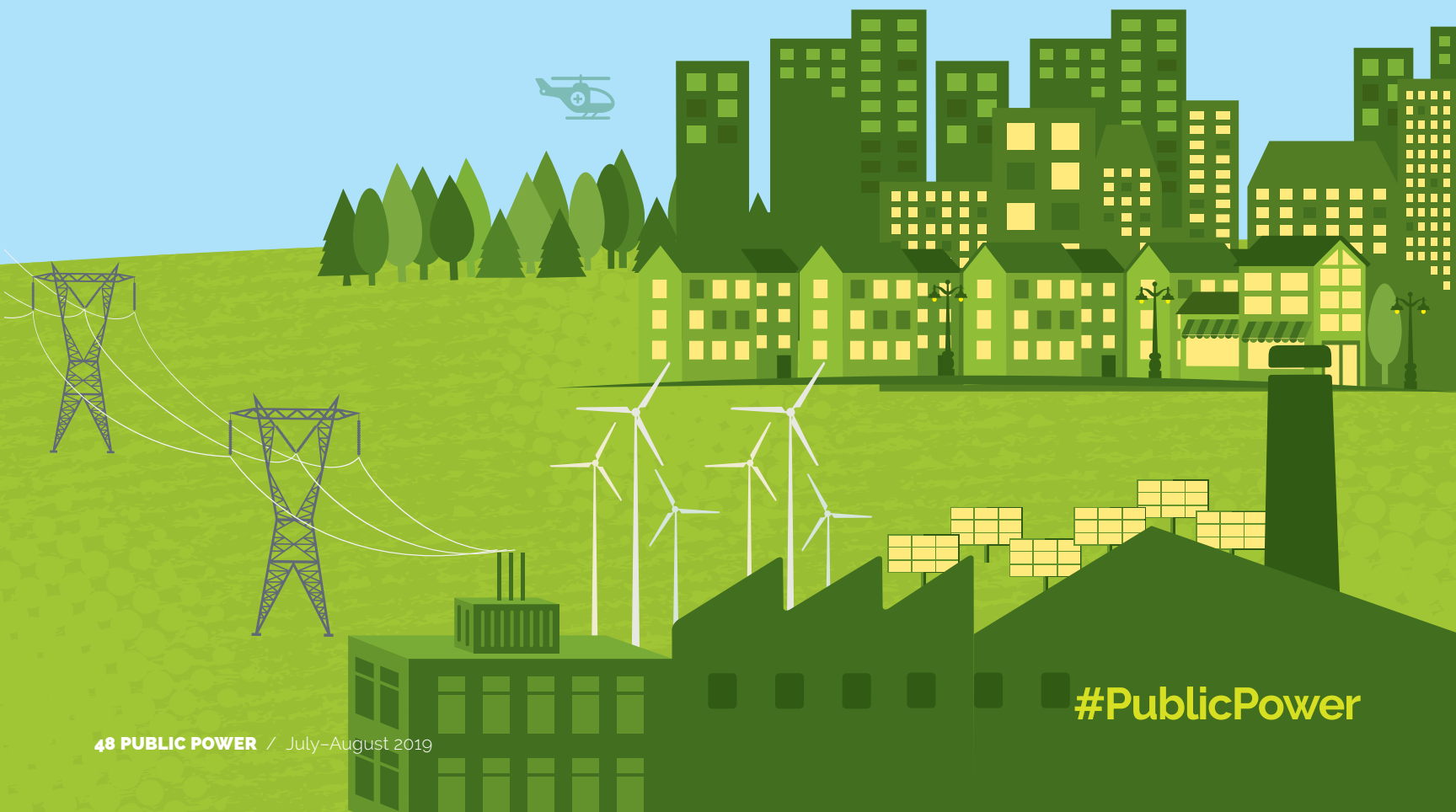
in local, hometown jobs.

The 25 biggest producers of public power generated  
**310,684,060**  
megawatt-hours

in 2018, representing 80% of all public power generation, and

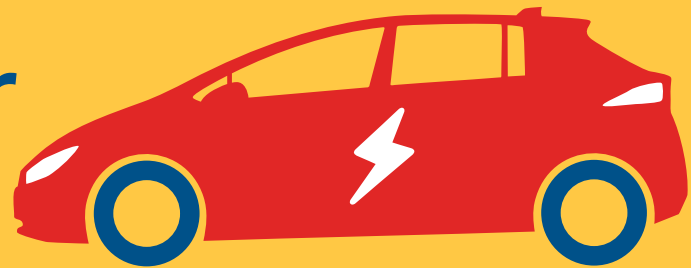
**7.5%**

of all electricity generated in the U.S.



**#PublicPower**

# An Affordable EV Option for Your Public Power Community



American Public Power Association member utilities and customers are eligible for rebates on a 2019 Nissan LEAF, through September 30, 2019.\*

Find out how to claim the rebate from your local Nissan dealer and get tools to promote the benefits of electric vehicles and the rebate offer to your customers at [www.PublicPower.org/EVRebates](http://www.PublicPower.org/EVRebates)

## Questions?

Email [Membership@PublicPower.org](mailto:Membership@PublicPower.org)



#COMMUNITYpowered #ElectricVehicles

@PublicPowerOrg @NissanLeaf

\*Customers are eligible for rebates of up to \$3,500. Utilities are eligible for rebates of up to \$5,000 to electrify your fleets.



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- Fewer stripping errors, less particle contamination, more productivity.
- Reduced termination time (50%) and increased cable life.

#### Discharge Resistant EPR Cable

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- Immune to voltage discharge – won't degrade like "Discharge Free EPR."
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