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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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HOW PUBLIC POWER IS SUITED FOR INDUSTRY CHANGES

BY JOY DITTO, PRESIDENT AND CEO, AMERICAN PUBLIC POWER ASSOCIATION

"It's a new dawn,
it's a new day,
it's a new life for me,
and I'm feeling good.
I'm feeling good."

—FEELING GOOD

s of this writing, we are seeing major downward trends in deaths and hospitalizations from COVID-19, communities are rebounding economically, and public power utilities continue to keep their communities running. The future is looking up.

Of course, this positive outlook is not intended to minimize the challenges still ahead. Our industry remains in a time of rapid change and disruption — from a shifting generating mix with new players and market rules and regulations to a host of technologies that necessitate new workforce skills, cybersecurity considerations, and being able to meet a changing set of customer needs and expectations. Put in the proper context, the public power model is well suited to take on these challenges. Allow me to elaborate.

LOCAL DECISION-MAKING.

Local governance can enable innovation in myriad ways — through rate design, infrastructure design and operations, use of new generation technologies, energy efficiency programs, and advanced communications networks allowing for digitization (or "smart grid") and deployment of external broadband. Examples of these initiatives and tools abound in this and previous issues of *Public Power* magazine.

In one-on-one conversations with public power general managers, it is clear that communities across the country are highly innovative, with unique — or customized — priorities and emphases in each locale. This innovation underscores the key nature of the relationship between public

0



power utilities and their governing bodies. Ongoing communication and transparency enable trust in decision-making on both sides. Fostering such communication, as well as ongoing education of locally elected officials about public power's business model, is an essential role of a public power general manager and senior executives (with help from the American Public Power Association, when needed).

SUPERIOR RELIABILITY.

Time and again, the people working in public power demonstrate their steadfast commitment to keeping the lights on. This commitment is most visible among the crews working to restore power in extreme weather and other events, but it is also evident in how maintenance is prioritized and when deciding what sources and safeguards make sense for our communities. Maintaining a highly reliable system brings confidence within our communities that businesses can operate what they need to work, learn, essential needs are not compromised. This commitment is borne out by the data, which show that in major events or not, public power customers experience a half to a third of the outage time of customers of other utility types.

A FOCUS ON AFFORDABILITY.

The ability to set rates locally and to provide power at cost, underpinned by access to municipal bonds, contributes to public power utilities consistently offering the lowest rates in the sector. They also continuously evaluate their power supply portfolio — whether their own generation, purchased power, or a mix — to manage costs. They also constantly advocate for better processes within regional markets and at the national level to ensure transmission costs remain just and reasonable.

VALUING SUSTAINABILITY.

Because public power employees live and work in the communities they serve, they want their utility to be clean and efficient. Environmental stewardship has been a tenet of public power for many years. In fact, the public power utility in Waverly, Iowa, deployed one of the first modern utility-scale wind farms in the Midwest in 1992. Public power utilities have used their relationships within the municipal government structure to create "win-win" scenarios. For example, many public power utilities have deployed projects whereby they use methane from local landfills as a generation fuel source. Capturing this greenhouse gas is important, as the Environmental Protection Agency notes that methane has 25 times the global warming potential of carbon dioxide. Chambersburg, Pennsylvania's public power utility is deploying such a system, which is a source of pride in the community.

EMBRACING PARTNERSHIPS.

The nature of our business model lends itself to helping each other out — through mutual aid when major disasters strike, through knowledge sharing, mentoring, and research, development, and demonstration projects. Public power entities enter into consortia with each other and with other trusted partners to leverage economies of scale for larger projects that maintain local support and priority. This network cannot be overemphasized.

These attributes, among others, give public power utilities powerful tools in their toolboxes to meet evolving customer expectations, increasing market complexities, and shifting climate/environmental goals. It's a new day, and I'm feeling good.



FROM CHALLENGE TO OPPORTUNITY: LEADING PUBLIC POWER THROUGH CHANGE

BY DAVID BLAYLOCK, CONTRACTOR TO THE AMERICAN PUBLIC POWER ASSOCIATION, AND **TANYA DERIVI,** SENIOR DIRECTOR OF MEMBER ENGAGEMENT, AMERICAN PUBLIC POWER ASSOCIATION

has changed in the industry over their tenures, what challenges lie ahead, and what advantages stem from the public power utility model. From maintaining a close connection with customers to changing the workplace culture, each leader offered insight into what will help public power thrive long-term.



A shifting culture

fter beginning his career in 1989 as an engineer at Riviera Utilities in Alabama, Tom DeBell worked his way up within the organization and was named its president and CEO in 2014. He currently serves on the boards of the Alabama Municipal Electric Authority and the Baldwin County Economic Development Alliance. He has also served as chair of the South Alabama Public Power Association, Electric Cities of Alabama, and the South Baldwin Chamber of Commerce, and as a member of the City of Foley Planning Commission.

Riviera Utilities provides electric service to more than 52,000 customers and offers natural gas, water, wastewater, and television/broadband services.

In September 2020, a hurricane brought significant damage to the service territory and left about 51,000 customers without power — nearly the entire system. The public power utility called in mutual aid from crews throughout the region who worked tirelessly to clear downed trees and replace hundreds of poles and transformers. About a week after the storm hit, crews had restored service to more than 90% of customers. "Hurricane Sally showed us that we must be ready to restore service at a pace and scale unlike what we ever did in previous years," said DeBell.

Extreme weather events are only one type of disruption that utilities must face.

In his time with public power, DeBell said the most significant change he's seen has been in the cultural needs and expectations of both the people who work for and the people who are served by public power utilities. "Employees need more transparent and open leadership, and customers expect a quicker response and tailored solutions," he said.

To prepare for changes from customer adoption of distributed energy resources and electric vehicles, DeBell said the industry should make space for unconventional thinking and creativi-



ty. "Everything new requires appropriate evaluation, but the 'always done it that way' thinking itself cannot justify sitting still," he said.

He noted that the COVID-19 pandemic helped show that the industry can accommodate rapid changes.

For public power, it is not a lack of adapting to culture change, but rather, DeBell cites, a lack of resources that is the biggest barrier to change. "Lack of resources due to our average utility size may be one of the most significant factors hindering industry changes for public power," he noted.

Despite public power utilities' relatively smaller size, DeBell sees strength in the local governance and operations model, and in public power's connectivity through association, at the state, regional, and national levels. "Even the smallest of our members can benefit by leveraging APPA's resources and networking with other members," he shared.

Plus, the public power business model allows for utilities to focus solely on what matters most — providing services that best meet the needs of customers on a cost-of-service basis.

"The best way to showcase this benefit is to create open communication channels with customers to reinforce this message constantly," he added.

Embrace multidisciplinary thinking

laina Ball became CEO and general manager of the Fayetteville Public Works Commission in North Carolina six months into the pandemic.

"It really has been a challenge coming into a new organization as CEO under these conditions, getting to know everyone — the community and the team — with social distancing and all the COVID precautions," she said.

Since arriving at the PWC, Ball has emphasized the need to build a strong connection with the staff and the community, even with COVID-19-era limitations. This has included holding an "Ask the CEO" event, where she answered more than 100 questions from staff, and finding opportunities to get plugged in with community members amid social distancing guidelines, whether as part of a running club or via philanthropic organizations.



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FROM CHALLENGE TO OPPORTUNITY: LEADING PUBLIC POWER THROUGH CHANGE



Ball believes that the challenges created by COVID-19, including changing guidelines and restrictions, have been demanding but have brought her team together in enriching ways.

"This constant state of change has pulled us together as we've had to tackle things in real-time, keeping us working together and focused, and I'm seeing that from all the public power utilities," she said.

This wasn't the first time Ball came into a utility when it was facing challenges. Her first position with public power was as vice president for technical services at CPS Energy in San Antonio. She started the role in 2006, right when Texas utilities were preparing for retail competition.

"They were looking to bring in some Six Sigma Black Belts who could help with the process improvement required for changes that needed to be made to compete in the market-place, including improving their profitability and improving their service," she said. Ball had

earned her Six Sigma Black Belt from previous work in the chemical industry.

"Wholesale competition was already around by the time I got to CPS Energy, but retail was just coming into scope," she recalled. "Utilities had a mindset of generating to load and delivering power to a predictable customer base, all a very comfortable status quo. There were times then when people were saying, 'Nothing's going to change,' ... but it just keeps changing."

Ball pointed to changes in how competitive different resources, including solar plus storage, have become on the wholesale market, and how smart meters and grid modernization have allowed utilities to offer a new set of products and services.

She said the biggest change has been the stability and proliferation of low-cost natural gas: "It has had a profound impact in wholesale market spaces worldwide while also creating opportunities and pressures on traditional generation like nuclear and coal."

Ball believes public power is uniquely positioned to take on these changes because of its connection to the community. "We can move quicker than [investor-owned utilities] to meet the demands and wants of customers and are drawn to do that since they are our 'customer-investors,'" she noted. "And that's in addition to the local control, lower average rates, and responsiveness that we offer them."

A major way in which these changes are getting successfully implemented and tackled has been thanks to another change affecting public power: the new workforce.

"If you had told me when I graduated from chemical engineering school that I'd spend a good portion of my career in utilities, I'd probably have asked, 'What did I do wrong?'" she said with a laugh. "Working for a utility wasn't a sexy job then, but it's become one because of all the cool things that are happening in the industry. We have problems that have to be solved with a variety of skill sets, and that means creat-

FROM CHALLENGE TO OPPORTUNITY: LEADING PUBLIC POWER THROUGH CHANGE



And then there's all the data that utilities get from new technologies. "Our systems are changing, we're getting digital information not only on the generation and transmission of energy, but across all of our business processes," Ball said. "We have to build skills with our existing team, find ways to leverage technology, and rely on third parties and new team members to grapple with the big data coming at us." "We have to shake out of our mental

"We have to shake out of our mental construct around how we've always produced energy, delivered it, and provided customer service, because we've seen the shake-up of many industries already, be it the taxi industry or the retail space or the automotive world," she said. "We're next, or, more precisely, it's happening to us right now."

Allow for innovation

Ithough Bill Schwandt was just recently named general manager of the Modesto Irrigation District in California, he previously worked for Moorhead Public Service, a public power and water utility in Minnesota, for 38 years, and 27 of those years he spent as general manager.

He pointed to the speed of technological change — both in computing power and better capital equipment — as having a significant impact on public power throughout his career. From changes in metering technology to the development of viable rooftop solar and protective system equipment, Schwandt listed a number of technologies that have changed operations, workforce needs, and power supply and demand. He also stressed how such changes have driven smaller municipalities to form joint action agencies and other alliances to reap the benefits of increased cooperation.

"Working together has helped us obtain economies of scale and political influence to compete with our investor-owned utility competitors," he said.

Technological change has also led to fastpaced and abundant communication, which Schwandt described as bringing both benefits and challenges.

"While we are spending significant time communicating, I'm not sure we are spending an appropriate amount of time thinking about what we should be communicating today," he cautioned. He recounted how the cost of long-distance calls in the 1980s meant that he and his then-fiancée (now wife), who lived 500 miles apart, only spoke for five minutes per week and wrote letters to each other to stay in contact. Now, he noted, the cost of communicating is negligible, and communication can be less structured.

He is hopeful that current and future technological innovations "will help the utility industry to safely use, conserve, and protect our resources for our children."

Another challenge public power utilities face is in attracting and retaining skilled employees. This includes combating apathy by ensuring public sector employees both feel appreciated for the work they do in giving to their communities and are appropriately compensated. He called apathy the enemy of engagement. "You want excitement and debate — it's a good dynamic to have," he stressed, including among all levels of employees and at the board level. People need to be encouraged to keep asking good questions, to be proactive, and to "remember that our customers expect us to be working on the next great thing."

Attracting the best and brightest workers is also about showing how utilities can innovate. Schwandt lamented how three of his six children are electrical engineers, but he was unable to convince them to work in public power.

ing exciting job opportunities that weren't there for most of the history of power utilities."

Having a multidisciplinary mindset will be required, said Ball. She sees young people coming in with new ideas and new skills as key to making it possible for utilities to thrive in the future, in particular as the industry tackles electrification and the influx of data — and as customers demand new products and services.

"Electric vehicles are coming faster than we ever thought as major automotive manufacturers announce the end of days for internal combustion engines," she said. "We're preparing and trying to recognize the upside that can come with this. It's an exciting time for us to challenge ourselves and how we do business. The infrastructure needs to be ready, the rates need to be rethought, and we've got to be very bullish on these changes."

"Every book I read about organizational structure seems to have our business model as the ideal."

BILL SCHWANDT

GENERAL MANAGER MODESTO IRRIGATION DISTRICT, CALIFORNIA

He added, "I'm passionate about utilities. The power field has become incredibly exciting. We're talking climate change, the end of coal ... all the new technology that will save the world."

When it comes to innovating, Schwandt believes public power has some innate advantages.

"Innovation happens in smaller teams much more often than in large bureaucracies," he said. "We [in] public power and water have a special advantage since we are, in many cases, very small 'self-directed' teams. This allows us to implement creative solutions to problems that larger, hierarchical organizations cannot."

Schwandt views public power as a benchmark for the electric industry, in how the utilities stay connected with customers and how they find efficiencies.

"Every book I read about organizational structure seems to have our business model as the ideal: nonprofit, community owned, locally controlled, wholeness of purpose — it's customer focused," he said.

Learn from challenges

ne hundred forty years have passed since Edison invented central station electricity, and most of that time span has been, to put it bluntly, boring, at least in terms of how business was done," said John Twitty, president and CEO of the Missouri Public Utility Alliance, a joint action agency serving 120 community-owned utilities in Missouri, Arkansas, Illinois, Mississippi, and Nebraska. "You built an asset, made electricity, delivered it, read a meter, and collected a bill." Now, said Twitty, "the very underpinnings of the industry are in question, so you have to figure out how you go forward."

Twitty started with MPUA in August 2020, capping off a career that began in 1983, when he transitioned from being a teacher to a business manager at Rolla Municipal Utilities in Missouri. After working up to become general manager of Rolla, Twitty returned to his hometown of Springfield, Missouri, to work for City Utilities of Springfield in 1991. He also served as executive director for the Transmission Access Policy Study Group.

One of the biggest issues he has faced wearing his many hats — as a utility manager, as a transmission policy advocate, and as the head of a joint action agency — has been deregulation.

"The disconnect between making electricity and actually delivering it to retail customers has really caused a lot of change in the last few decades," he said. He acknowledged that Missouri utilities faced less change than others, since the state is not deregulated.

"Even if you own your generating assets, it's not really you making the decision about how that generating asset gets operated," he added. He believes this kind of situation will affect how public power adapts to the changing generation mix and in deploying storage.

Twitty expects that priorities laid out by the Biden administration will create an environment for rapid movement on the energy storage front, which will necessitate "the next big bang in battery technology," so that utilities will require less space to house them while also being able to use more wind and solar resources.

He noted that an added challenge will be preparing for the proliferation of electric vehicles, which he said might require four times the output that generating sources provide today.

Twitty believes that public power is better positioned than other actors in the electric sector to make this happen thanks in large measure to its close connection to its customers.

He shared an encounter from when he was with City Utilities of Springfield. In 2007, when a major ice storm knocked out power for some customers for as long as two weeks, he made a concerted effort as general manager to be responsive and communicative with the community about restoration efforts.

"One day, toward the end of it, a guy walked up to me at the car wash and said, 'You're John Twitty, right?" he recounted. "I'd been in the paper and on television a lot at that time and was prepared to have my arms torn off. And he said, 'I called you during the ice storm ... and you called me back!"

"That's the essence of public power: He's my neighbor, so of course I'd call him back — and all the others who wanted to know when life might go back to normal."

"Customer expectations matter so much because, as public power, the customer is the central reason we exist," he said. And, in public power, "the customer and the owner are the same people, and that's a really powerful model to work from. You have the advantage of a direct link with those customers, a direct link to what they are paying, and they're the ones making some key decisions about what you are supposed to be doing on their behalf."

He advised public power leaders to be agile and "active and aggressive" in communicating with customers and policymakers to get buy-in

FROM CHALLENGE TO OPPORTUNITY: LEADING PUBLIC POWER THROUGH CHANGE

"There are challenges ahead, and some of them [will] come by surprise — others we can prepare for — but the public power model is well suited to that."

JOHN TWITTY

PRESIDENT AND CEO
MISSOURI PUBLIC UTILITY ALLIANCE

on changes and to shore up understanding from them when a challenge inevitably comes up.

A core example of this agility came during the winter storms that hammered much of the middle of the country early in 2021, with Missouri facing historic low temperatures and resulting historic increases in demand on electric and natural gas systems, which led to unimaginable prices.

He cited how some MPUA members were able to garner understanding from customers — and counter a bit of the sticker shock — by providing information within the bill about how the cold weather and market factors affected wholesale prices. "When you put actual data in front of people, they start to get why it happened," he said.

He also pointed to public power's efforts to help customers through payment arrangements and relief programs. "There are challenges ahead, and some of them [will] come by surprise — others we can prepare for — but the public power model is well suited to that," he said.

In a very unpredictable 12-month span, Twitty, a 38-year veteran of the public power industry, has had no shortage of challenges.

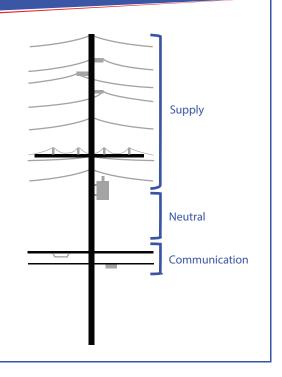
"To be in a business when there is a pace of change that sometimes seems pretty staggering, and to do that while taking on a pandemic, working remotely, and seeing weather that is historic or near-historic, has made for an interesting year," he said. "We got tested and stretched but found a way to make it work. I'm glad that we had an opportunity to show we could recover from these types of events, but I sure don't need to do it again."

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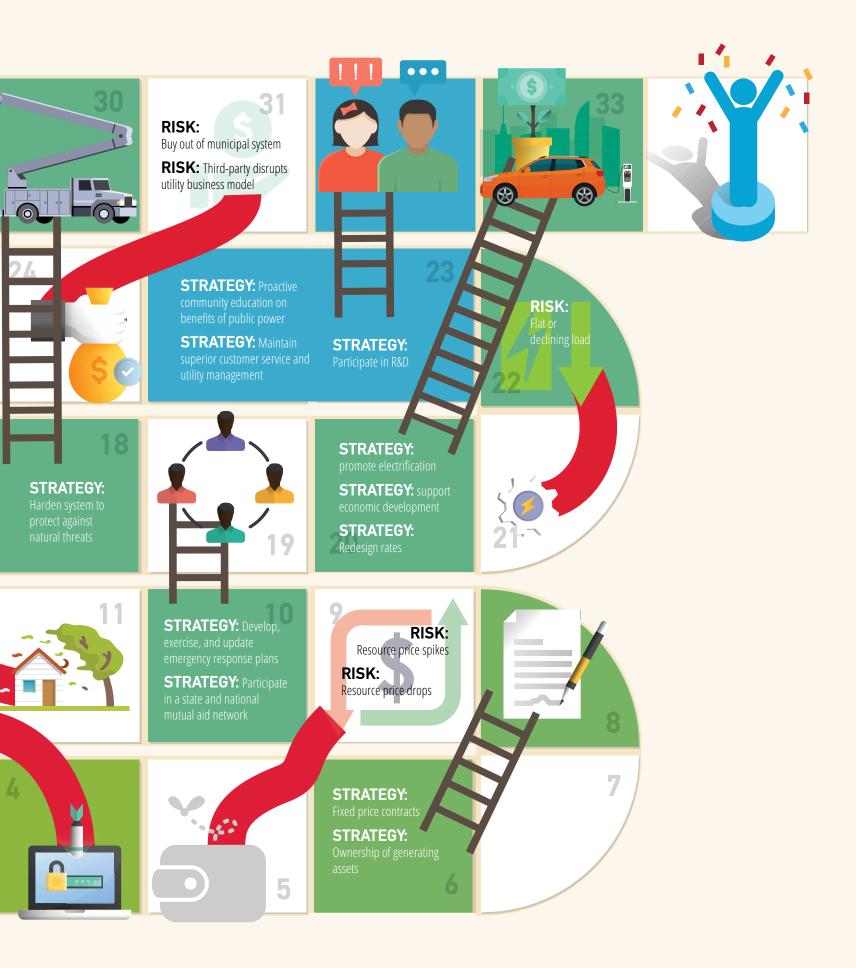


Managing Risk in Public Power

Operating a modern electric utility means managing a variety of risks — and weighing the costs of consequence with implementing strategies to mitigate them. No approach is a guarantee, and public power utility leaders make careful decisions about what investments are right for their communities as part of a holistic risk management plan.









STRONG UTILITY WORK FORCE.

1 (Coping)

DEVELOPI.

PEOPLE

FIRST



BY JESSICA PORTER, CONTRIBUTING WRITER

s utility operations become more complex, the utility workforce must encompass a wider or different array of skills and core competencies. Focusing on the long-term picture, public power utilities are looking for customer-centric, technology-focused, self-motivated team players who want to provide the best service when they show up for work every day. To get to this desired workforce, public power utilities are finding ways to develop, recruit, and retain people with the right set of skills.

More than a decade ago, the Center for Energy Workforce Development painted a grim picture of the energy industry's employment future: Many seasoned employees were expected to retire within the decade, and utilities lacked incoming skilled workers.

The situation called public power utilities to action, sparking change in recruitment, education, outreach, and company culture to ensure future success. The efforts have paid off and are expected to continue the influx of new, skilled employees to the energy industry.

"We will teach you over 10 years, you can earn a journeyman card, and you will triple or quadruple your starting wage."

MARK GAMBILL

DIRECTOR OF THE ELECTRIC DEPARTMENT MCPHERSON BOARD OF PUBLIC UTILITIES

SHIFTING THE CULTURE

few years ago, Mark Gambill was an experienced journey lineworker with the electrical department for the city of Kingfisher in Oklahoma, where he worked under a superintendent who had what Gambill called an "outdated mindset." The superintendent didn't want to put energy into developing and training new hires out of fear that employees would take those skills to competitors. Gambill said it created a culture in which employees were not encouraged to gain knowledge and grow with the utility.

When the superintendent retired, Gambill became director of the electric department and immediately began to work with leadership to change the stagnant culture. Some of the changes began upfront, starting with ensuring the utility offered a competitive wage and benefits package. Leadership also moved to eliminate some of the potentially prohibitive startup costs to new employees by outfitting employees with the gear needed and sending new hires to climbing school.

Ensuring wages and benefits are competitive is a crucial component to recruitment and retention at the McPherson Board of Public Utilities in Kansas as well.

"In today's world, employees are looking at the opportunities and benefits a job has, considering the flexibilities a company has from a work perspective, including family protection through health care and sick leave," said Tim Maier, general manager for the McPherson BPU.

Since Maier started with the utility 37 years ago, McPherson has updated its policies, providing family sick leave, more vacation days — including the ability to accrue those vacation days more quickly — and additional holiday time off. Leadership also ensures that the utility's wages are competitive, within 5% and 10% of the union wages for linemen and mechanics in the region.

DEVELOPING PEOPLE AND TEAMS

n addition to competitive wages and benefits, Kingfisher now offers robust training programs and clear career growth opportunities. It provides employees free apprenticeship training, and pays for employees' journeyman training if they agree to stay with the utility for three years. The utility's training program gained Department of Labor journeyman certification, so employees can attain their certificate free while working full time. The program also focuses on recruiting veterans who can use GI Bill benefits during training.

The option for employees to earn their DOL journeyman certification on the job helps the utility with recruitment. Several competitors in the area require employees to have already earned the three-year apprenticeship certificate, which can be a significant barrier to employment. Instead, Kingfisher employees earn the certificate surrounded by a team of seasoned employees who can help them learn.

The opportunity for advancement helps new employees understand the value of taking advantage of those advancement opportunities and sticking with the utility long-term.

"We tell them that we have a viable skill here," Gambill said. "We will teach you over 10 years, you can earn a journeyman card, and you will triple or quadruple your starting wage."

"My lead lineman now has 14 years of experience," Gambill said. "He's going to a supervisory school now, and when younger employees see that, it builds them up."

Anaheim Public Utilities in California offers many avenues for employees to advance their careers as well. Employees can participate in the city's mentor-mentee program, where they are paired with employees in other city departments, such as police or parks and recreation.

"The program takes seasoned managers and pairs them with newer or other city folks. It gives an opportunity for some of the newer employees to engage professionally with more experienced employees, and talking about goals and successes," said Melissa Seifen, communications supervisor at APU. "Newer employees do role-playing exercises to help them think about how they would handle challenges in a supervisory position. It's a good opportunity for folks looking to progress."

Employees can also participate in a rotational opportunity program, where they are exposed to the various positions available in the utility. Employees can participate in job shadowing to better understand future opportunities, allowing Anaheim to hire internally more often.

"What are considered entry-level positions tend to attract folks with secondary degrees. They come in, taking an entry-level position, and hope to grow," said Melinda Avelino-Walker, Anaheim's general services manager. "We identify what types of positions we have with opportunities for cross exposure."

"We see a lot of talent and folks with great skill sets, so we want to ensure it's understood that if they want an opportunity to go in a different direction, they have that opportunity," she said.



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"The younger workers help people who have not grown up with that technology, so it's a great complement."

TIM MAIER

GENERAL MANAGER
MCPHERSON BOARD OF PUBLIC UTILITIES

CROSS-GENERATIONAL LEARNING

reating teams of more experienced employees with newer and younger employees helps demonstrate growth opportunities — and strengthens Kingfisher in unexpected ways.

"When I first joined the workforce, you were told to do something, and you did it. But that's not how it is for the younger generation," Gambill said. "If you give a younger employee a splash of the 'why,' they understand the purpose better — and they might see a better way [of doing something] than we could have dreamed."

Maier noted that younger employees tend to be more tech-savvy, which helps the team when new equipment is introduced and in adopting advanced metering infrastructure and system automation.

At McPherson, employees from older generations typically have more experience and understand the systems extensively, so they are crew leaders. However, younger and newer employees offer more insight from a technology perspective. Because crews are mobile and rely on technology in the field, having younger people on each team is an advantage.

"The younger workers help people who have not grown up with that technology, so it's a great complement," Maier said.

FINDING THE RIGHT FIT

key component to building strong, generationally diverse teams is finding the right new hires. Finding the right employee no longer means focusing on a resume of specific skills. Now, it means finding the right type of person, one with the ability to be a team player, adapt to changing circumstances and maintain a positive attitude.

"All of my team members have different personalities. You can watch them and see how they work in a team environment. Different personalities are what make a great team," Gambill said.

Successful utilities look beyond traditional skills on a resume to get to the root of an employee's personality and spot the soft skills that will make employees team players and signal longer-term retention.

When recruiting, Gambill looks for people with deep roots in the community. He looks for people who have a strong work ethic who will work well on the crew and will not be afraid to get their hands dirty.

McPherson recruits employees with similar traits, focusing on people who have a positive attitude, are self-motivated, and work well with others. To ensure employees have these traits, McPherson in part relies on its internship program. It brings on two interns each year who work with the company for 60 to 90 days, allowing leadership to evaluate whether they fit with the team before making a hiring decision.

"You can teach people skills, but you can't teach attitude and drive," Maier said. "Some people can form good relationships with coworkers, and other people can't."

McPherson also developed a company culture that gives employees a lot of accountability. "We don't micromanage employees, so we need people who want to do a good job and take pride in what they do," said Maier.

These types of employees are also naturally customer-centric because they take pride in themselves and their professions — and in public power, often are members of the community in which they work.

A DEEP PIPELINE

o enhance recruitment and keep a steady pipeline of future workers, Anaheim Public Utilities focused on creating clear pathways to growth. For prospective employees, this means educating young people about the opportunities in public power.

Approximately five years ago, APU partnered with a local high school district to offer a mentorship program. Each fall, the utility develops four mentorship sessions led by managers and supervisors who each mentor three to four students about different areas of public power. They meet once a month for four months to discuss various careers available in public power, work on interview skills, and tour different utility facilities to get a look at the various working environments.

"As a public utility, at the end of the day, we're all working toward providing water and power, but a lot of different careers exist in our industry," said Avelino-Walker. "So, it made sense for us to expose high school students to those opportunities."

The public power utility also hosts a yearly Career Path Symposium, a half-day conference during which 50

BUILDING A STRONG UTILITY WORKFORCE: DEVELOPING PEOPLE FIRST

to 60 students learn about the many opportunities, as well as associated salaries, available in energy and water.

Anaheim offers internships to local high school students as well. "We find [students] might have a specific major in mind but don't realize there are so many industries that major is applicable in, like public power," Avelino-Walker said.

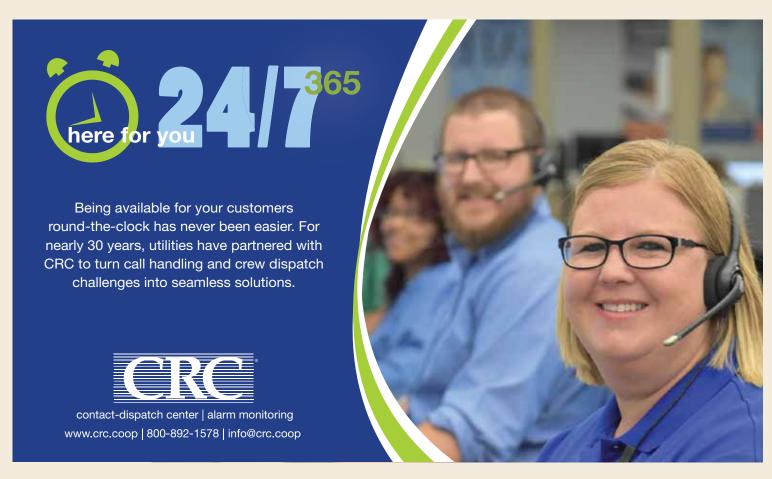
Anaheim offers one or two scholarships each year to students attending a two- to four-year accredited college or trade school. Recipients also can participate in a summer internship, where they work closely with other interns and employees. Interns are required to develop a sustainability activity that they teach to local second and third graders and give a presentation about their internship experience to company leadership.

The utility doesn't just focus on older students — it plants the seeds young. Every year, APU hosts an event for second and third graders, where the students learn about electric safety and how electricity is generated. The utility recently constructed a new substation and invited students to tour the facility and learn how electricity goes from the substation to their homes.

"We find [students] might have a specific major in mind but don't realize there are so many industries that major is applicable in, like public power."

MELINDA AVELINO-WALKER

GENERAL SERVICES MANAGER
ANAHEIM PUBLIC UTILITIES





everal events have rattled the industry over the past year, raising questions of how utility financing might be affected in the short and long term. In reviewing reports and other materials from S&P Global, Fitch Ratings, and Moody's Investors Service, there are common themes about what can potentially help or hurt public power.

Overall, the agencies point to a stable outlook for public power, noting the essential nature of its services and the strength and resilience of the business model.

A resilient model

Resilience is specifically what S&P cited in January 2021, saying that utilities seemed to be weathering disruptions from the pandemic.

Other factors supporting S&P's positive outlook include low prices for natural gas and the cost-cutting measures utilities have taken in response to financial pressures, such as reduced electric sales. S&P found an advantage of modest economic growth, in that it has slowed the need for investment in additional generation. The outlook also listed low borrowing costs that are helping fuel capital-intensive investments as an advantage in the current environment.

Moody's December 2020 report also gave a stable outlook for public power, pointing to positives in the business model in the face of challenges from a weaker economy throughout 2021. Specific positives noted are public power's "inherent resilience," and the ability of public power utilities to "set rates to help manage cost recovery."

Moody's noted the essential nature of the services that public power utilities provide, plus strong liquidity, as other factors working in public power's favor.

Fitch Ratings had a similar tone in its December 2020 report, citing how lower expenses have helped preserve margins and liquidity in the face of declines in electric demand and revenue. The Fitch report stated "a continuance of low, stable energy prices and interest rates should also help preserve operating margins and affordability."

The Uri effect

Following Winter Storm Uri, dozens of cooperative and public power utilities saw a negative credit impact from S&P, either from being placed on CreditWatch or from having their rating downgraded. S&P cited immediate concerns from utilities that had depleted liquidity because of the extremely high prices during the storm, and longer-term concern with deficiencies in ERCOT's market posing a likelihood for extreme price spikes in the future. Factors that S&P notes might further negative credit ratings for affected utilities include total defaults for ERCOT market participants, if utilities enact steep rate increases, and the pricing and availability of hedging measures.

"Uri upended the Texas notfor-profit utility sector's traditional resilience because the magnitude of the weather event's price spikes was so large and protracted that we see it as diminishing ratemaking options," said an S&P report from March 2021.

The report went on to explain that utilities that added to their debt now face upward pressure on rates, which undermines public power's tradition of flexibility in ratemaking.

The S&P report acknowledged that while utilities outside of ERCOT experienced price spikes during the storm, only Texas-based utilities saw ratings affected.

Challenges ahead

As for what might affect the longer-term national outlook, two factors appear to be strongest on the rating agencies' minds: environmental regulation and the speed of economic recovery.

S&P expects that more stringent environmental regulations will "place upward pressure on electricity production costs and retail rates," while Fitch's 2021 outlook report said that implementing a national renewable standard "could pressure operating costs, as well as the affordability metrics, at public power systems located in states with no standards or targets, or that have exemptions in place."

"Two factors appear to be strongest on the rating agencies' minds: environmental regulation and the speed of economic recovery."

S&P also expects that only a handful of public power utilities that rely heavily on load related to travel and tourism would be vulnerable to the pandemic's economic pressures into 2021. "We recognize that financial performance and credit ratings could be pressured, particularly at utilities that rely on electric revenues from customers hardest hit by

the pandemic, such as businesses engaged, and residential ratepayers employed, in the hospitality and travel industries, or utilities required to make transfer payments to offset declines in municipal tax revenues."

Moody's noted that demand has continued to improve since spring 2020, and like S&P, expects utilities that serve areas with industries disproportionately affected by the pandemic to continue to be hardest hit. However, Moody's noted that if the economy recovers faster than expected, then it expects public power's liquidity and fixed charge coverage ratios to strengthen, switching the outlook for public power to positive. The uneven economic effects also means that some communities have seen load growth, due in large part to commercial and industrial sectors that have picked up during the pandemic, such as home improvement and food production.



Where there's talk of public power

reating a new utility or changing a utility's ownership model doesn't happen very often in the U.S. in this day and age, but many communities explore the idea of forming a public power utility — also called municipalization — on a regular basis. Here's a look at communities who are currently or have recently explored the public power option and what inspired them to take a look at local ownership.

DECORAH, IOWA

STATUS: Exploring the option

WHY THE COMMUNITY WANTS PUBLIC POW

Affordability, community investment

The City Council voted to create a task force examine whether to update or revisit a feasi conduct a new study, or move ahead with a referendum. A referendum to municipalize in three votes.

BOULDER, COLO.

STATUS: Suspended

WHY: Desire for cleaner power, local decision-making over generation mix

After a decade-long push for municipalization, in Nevember 2020 Boulder voters approved the city to renew an agreement with Xcel Energy. The agreement allows for the city to resume efforts if the IOU fails to meet certain targets in the coming years.



SAN FRANCISCO, CALIF.

STATUS: Exploring the option

WHY PUBLIC POWER: More stable rates, local control

over energy choices

10U rejected city's affer of \$2.5 billion in 2019

SAN JOSE, CALIF.

STATUS: In exploration

WHY PUBLIC POWER: Increased reliability. such as through microgrid development. and local decision-making

The mayor commissioned a feasibility study following the public safety power shutoffs the city faced in the 2019.



STATUS: In discussion

WHY: Lower rates, a focus on equity

The city council extended the current franchise agreement by 6 months. through June 2021, as it continues to explore the best options for the city.



GREAT EXPECTATIONS:

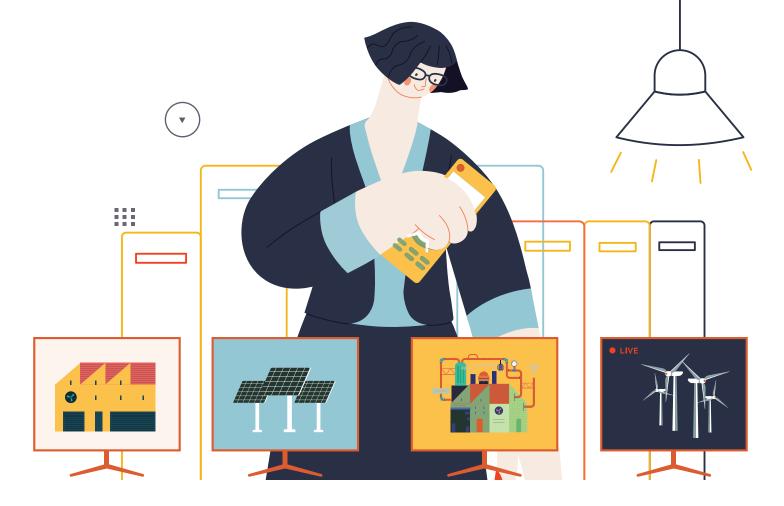
What customers want and why it matters

BY BETSY LOEFF, CONTRIBUTING WRITER

rom continuing to offer low rates and unmatched reliability to showcasing sustainability and providing best-in-class customer service, personalized data insights, and tailored options, utilities face increasing expectations from customers. For public power, delivering what customers want will become even more important as customer choices expand.

When it comes to energy choices, most public power customers might already feel somewhat limited based on where they live. Customers can't choose their energy provider outside of retail choice states, and even within those states, options are limited or unavailable to most residential customers. Public power for the most part is exempted from or did not opt into retail choice. For many utilities, customer choice is about how the utility can educate customers about how an everexpanding array of technology affects electric usage and rates, and how different programs and rate plans can best match their needs.





The Netflix effect

ost recent research is showing that consumers increasingly want choices," said Paul Zummo, director of policy research and analysis for the American Public

Power Association. Zummo said part of this shift relates to people becoming accustomed to having products and services on demand. "My kids grew up with Netflix and having every show they've ever wanted at their fingertips," he said. "I think we're going to see more of that on-demand expectancy in the form of energy choices."

Liz Jambor, Austin Energy's manager of data analytics and business intelligence, agrees that societal changes have raised the bar on expectations. "It's all about what people get used to," she said. "We're never returning to 'normal' after COVID-19. I can't imagine my mother giving up the curbside service that cut her grocery trip down to 30 minutes instead of an hour and 30 minutes."

Given our changing world and its impact on consumers, Jambor added, "The biggest challenge is getting ahead of customer expectations and trying to manage them. We may not always be able to meet them." A case in point: Jambor said some customers of the Texas utility want lower-priced or free power during summer months. "Our prices don't change, but people use more electricity," she explained. "We can't meet that expectation, but there are easier ways to get through the summer. We can give customers budget billing, so they have relatively equal payments all year. Or we can help people better manage their energy use and lower costs overall. The question is, how can we better educate customers so that their expectations come more in line with the services we provide?"

That education includes making sure that customers understand they have more choices than they realize. "While people might not have the option to choose between one utility and another, they have a lot of choice within a utility," Jambor continued. "Most public power utilities will give you the option to choose a rate program," or some other options, like green power.

Getting the price right

ustomer choice can also mean competing for customers in a deregulated or retail choice environment, or other policies that allow for customers to select their energy provider.

Low rates are a top consideration for commercial and industrial customers. For Marietta Power and Water, a utility serving a city of about 60,000 just north of Atlanta, the public power utility competes with other utilities — including an investor-owned utility — for customers with load of at least 900 kilowatts under a statewide program called Customer Choice.

Through the program, C&I customers get a discounted rate from the power provider for a certain number of years and then go on the utility's general service rate, thereby bringing in steady revenue for the utility.

That means Heidi Dasinger, business development manager at Marietta Power, is on the lookout for upcoming development that fits this profile, such as large office buildings or data centers.

"Marietta is a good-size city, but we're very built out," Dasinger said. "We don't have the physical land space for a lot of 50,000-plus-square-foot buildings to be built in our area, so there's not a lot of organic growth that we can have within our territory. Customer Choice lets us reach outside of our territory to the rest of the county, and that gives us opportunity for a lot of growth at once."

To find these opportunities, Dasinger combs through construction industry reports and looks for parts of the city that are being rezoned to commercial uses. Then, she starts hunting decision-makers, often people outside Georgia who don't know that her state has a competitive market for accounts like theirs. Finally, she nurses these opportunities, generally for two or three years. Getting in the door, she said, is all about relationship-building. That's what wins her the chance to bid for the job. What wins the account? Rates. "When I lose or win an opportunity, it sometimes comes down to a quarter of a cent per kilowatt-hour," Dasinger said.

Greg Sherman, general manager for The Houlton Water Company in northern Maine, also recognizes the importance of rates. His utility serves about 6,000 residents on the power side with approximately 5,200 hookups. As a deregulated state, customers can choose their energy provider because the transmission and distribution "Customer Choice lets us reach outside of our territory to the rest of the county, and that gives us opportunity for a lot of growth at once."

HEIDI DASINGER

BUSINESS DEVELOPMENT MANAGER MARIETTA POWER

cost is separate from the energy cost in Maine. While none of Houlton's residential customers have strayed, business customers are more price sensitive. Keeping rates low is a priority for Houlton, and customer expectations led to recent transmission investments.



Make us prove it.

"The big thing we hear from our customers is they're looking for a high quality of power — good voltages, few interruptions, very little flicker — and reliability."

GREG SHERMAN, GENERAL MANAGER HOULTON WATER COMPANY

Utility choices from community desires

oulton had been getting its generation via an IOU in northern Maine, where costs often fluctuated. "We were always challenging those costs with [the Federal Energy Regulatory Commission]," said Sherman.

The town is a 10-minute drive from the Canadian border, and there isn't much generation in northern Maine. The state also has aggressive climate action plans, and Sherman was seeing that a push for wind power from environmentally conscious residents — plus transmission to carry that power to loads — would bring even more rate increases.

Determined to keep some of the lowest rates in New England, Sherman went to his board with a \$6.2 million transmission project to connect Houlton with New Brunswick Power, a Canadian company. The project delivered savings of more than \$1.5 million annually on transmission costs to the town. Along with lowering rates, the project increased utility reliability.

"The big thing we hear from our customers is they're looking for a high quality of power — good voltages, few interruptions, very little flicker — and reliability," Sherman said. "We have a backup agreement with Versant Power, so we now have two pathways to help us keep our grid reliable."

Better yet, the connection to NB Power helps satisfy the increasingly green consumer. According to Sherman, the energy the utility buys from NB Power is 86% renewable, which is higher than state mandates and something he touts on the utility's Facebook page. "We get good response from the community," he said.

Planning for technology adoption



ustomers are placing increased importance on environmental impact, both for the utility and for personal choices. The latter will bring more interest in adopting rooftop solar, electric vehicles, and other technologies.

In terms of when customers will widely adopt new energy technologies, "I think there's a foundation, but I'm not sure that tomorrow, or even in the next five years, we're going to see a drastic transformation," noted Zummo. He predicted that "maybe there will be another precipitating event" that leads to a more sudden adoption of EVs or rooftop solar, but otherwise expects utilities to see gradual change in these areas.

Utilities must decide, in part, how much they want to be seen as shaping the future versus responding to actual needs.

"It becomes a bit of a 'chicken and the egg' problem," noted Zummo. For example, with EVs, "Do you build the chargers and the expectation of building demand, or do you wait for demand to increase before you build the chargers?"

"What it really means is the utility has to reach out to its customer base," he said. "Talk to them about what they're interested in, what kind of technologies they're interested in, and seeing if there's a third party out there that can help them."

In Austin, for instance, EVs are likely to gain a higher profile when Tesla finishes building its Austin-based factory later this year, and the city's utility has recently responded to customer demand for more fast-charging stations. "Customers don't want to sit around and wait for the car to charge. They'd rather spend 20 minutes charging than 40," Jambor said.

She noted that Austin Energy is using analytics to match marketing messages with customer interests. For instance, "We know that people who are interested in EVs also like other gadgets," she said, so when the utility learns that a customer has an EV, it might market smart thermostats to that customer.

Austin also supports customers' green leanings with multiple efficiency programs, in addition to community solar and a rebate program for residential solar.

Rooftop solar adoption does not come without challenges. Sherman said Houlton has seen increased interest in rooftop solar and net metering and, while these additions have not yet affected the utility, it's on his radar to ensure solar customers don't lead to upward pressure on rates.

Sherman is also planning for the day when his team will need to spend more time evaluating circuits to handle additional load when he only has seven workers serving a distribution system for 5,200 customers.

Austin Energy is facing similar demands on a bigger scale, and Jambor maintains that part of the way to meet the challenge of new technologies is to continuously communicate with customers. "We can't assume we have a captive market," she said. "We need to engage in a continual conversation to build up a partnership with our customers and be seen as a trusted energy partner."

This will be vital, she added, for the safety of the grid when people start adding self-generation resources to it because, in the end, it's the utility that will need to manage the grid, not the photovoltaic installation company.

GREAT EXPECTATIONS: WHAT CUSTOMERS WANT AND WHY ILMATTERS

The public power advantage

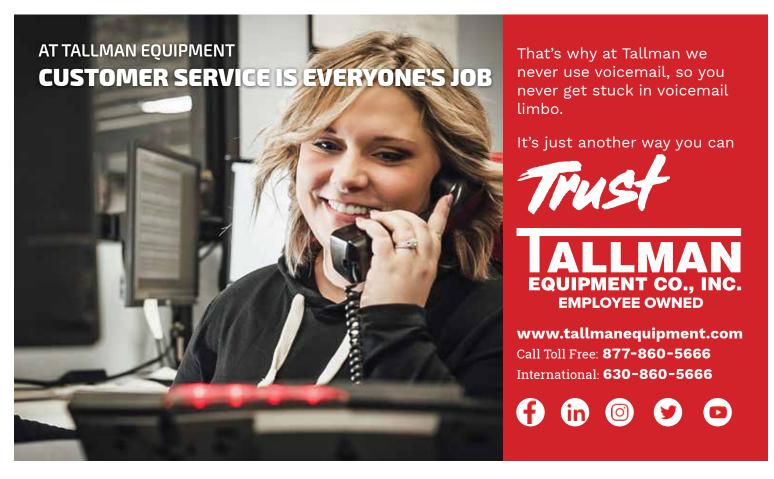
ambor said public power is in a great position to become that trusted energy advisor. "One thing public power overall does really well is keep the customer in mind, because most of us are a city entity. We're also our own customers," she said. In Austin, monitoring customer expectations happens through spontaneous customer feedback, a utility-run customer survey, and contracts with J.D. Power and Associates and eSource.

In Houlton, communication is more direct. "Here, customers get instant feed-back," Sherman said. "If you have an issue with a large utility, you aren't going to get the general manager or the president of the company on the line. Here, if customers want to talk to me, they can talk to me."

In the end, recent research conducted by Austin Energy found that the key to meeting customer expectations was delivering great customer service. The survey asked customers of unregulated utilities why they chose the utility they chose, and regardless of customer type — business or residential — customers picked customer service over price, reliability, and most other factors.



"As long as customers like the way they are treated, they are willing to stay with a utility through rate increases or even outages," Jambor said. "That's something all of us should remember: Keep putting that customer first and deliver a high level of customer service from every utility touch point. If we can do that, everything else falls in place because the customer can say, 'Oh, they're thinking about me."





MANAGING TOMORROW'S UTILITY: PUBLIC POWER LEADERS WEIGH IN ON PLANNING FOR THE FUTURE

BY VANESSA NIKOLIC, COMMUNICATIONS ASSISTANT, AND SUSAN PARTAIN, SENIOR MANAGER OF CONTENT STRATEGY, AMERICAN PUBLIC POWER ASSOCIATION

ublic power utilities face an uncertain future — and plentiful opportunities to use new technologies, to innovate, and lead their communities through change. We asked a select group of utility executives recognized as outstanding public power leaders in 2021 for their predictions on public power's readiness for the future, what innovations they are intrigued by, and what opportunities utility leaders should be taking advantage of to prepare for change.

The interviewees will be recognized with the James D. Donovan Individual Achievement Award or the Mark Crisson Leadership and Managerial Excellence Award at the American Public Power Association's National Conference in June.

PUBLIC POWER LEADERS WEIGH IN ON PLANNING FOR THE FUTURE

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INTERVIEWEES INCLUDE:



MICHELLE BERTOLINO, utility director, Roseville Electric Utility, Roseville, California 2021 James D. Donovan Individual Achievement Award winner



MARK CHESNEY, CEO/general manager, Kansas Power Pool, Wichita, Kansas 2021 James D. Donovan Individual Achievement Award winner



JEFF FELDT, general manager, Kaukauna Utilities, Kaukauna, Wisconsin 2021 Mark Crisson Leadership and Managerial Excellence Award winner



WILLIAM JOHNSON, general manager, Kansas City Board of Public Utilities, Kansas City, Kansas, 2021 Mark Crisson Leadership and Managerial Excellence Award winner



JACK KEGEL, CEO, Minnesota Municipal Utilities Association, Plymouth, Minnesota, 2021 James D. Donovan Individual Achievement Award winner



PAUL MCELROY, retired CEO, JEA, Jacksonville, Florida 2021 Mark Crisson Leadership and Managerial Excellence Award winner

Public power has the moral and ethical high ground to lead in the future. We exist for the public good and earn customer loyalty through passionate public service. PAUL MCELROY

How ready are public power utilities for the future?

BERTOLINO: Public power utilities are ready for the future. We have a long history of forward thinking, planning, and supporting each other, which provides us with tremendous resiliency and reliability. I know we will continue that tradition as long as we look to the future with open minds and focus on our core responsibility, to safely deliver reliable electricity.

FELDT: Public power utilities are ideally situated to adapt and thrive in a changing and technological-driven industry, as we are locally controlled and exist to serve the needs of our customers and communities. This sets us apart from our competitors and allows us to implement a clear and concise strategic direction to the overall benefit of our stakeholders.

JOHNSON: Like the rest of the electric utility industry, public power will continue to take the necessary steps to address the ever-changing energy requirements of the future. To that end, public power must completely embrace the fact that the industry will continue to change as customers will want to seek alternative ways of receiving energy, either from traditional energy resources, renewables, or through partial connection and self-generation. Some public power utilities will do quite well with offering alternative energy sources, while others will slightly lag close behind. Public power should always strive to be the utility of choice in their communities and focus on delivering best-inclass customer service.

MCELROY: Public power has the moral and ethical high ground to lead in the future. We exist for the public good and earn customer loyalty through passionate public service.

We are big enough to have big ideas and yet small enough to effectively share our resources and best practices with one another.

MARK CHESNEY

KEGEL: After 33 years of working in public power and 43 years of involvement in the industry, I have always been impressed at how well public power has adapted to the constant change and evolution that has characterized the industry. I'm confident that public power will continue to meet the challenges that lie ahead.

CHESNEY: It is absolutely crucial for utilities — in particular small utilities that I have had the good fortune of working with — to have an alignment mentality. We need to be aligned with one another. If it is not through joint action, it simply must be through some alternate form of collaboration. If utilities tend to isolate themselves [and] keep their needs, planning and solutions to themselves, I think they do not have a bright future. This is not the electric industry of the year 2000, or even 10 years ago. One of the sentiments that hits me every time we physically gather together in our meetings and conferences is that we are each part of something very big. We are big enough to have big ideas and yet small enough to effectively share our resources and best practices with one another.

Is there an innovative utility project that you are interested in?

KEGEL: As we move away from fossil fuel generation toward intermittent renewables, storage will play an increasingly important role in maintaining system stability. Utilities should be investing in storage, learning how to incorporate it into their operations, and building a knowledge base and foundation for major investments in storage later in the decade.

BERTOLINO: Although some may not consider microgrids innovative, they have my attention right now. This past year, both Texas and California had major electricity grid emergencies. Our job today is to do all that we can to prevent and/or mitigate future energy shortages and grid failures. I believe that one of the solutions we need to strongly consider is microgrids. While microgrids already exist in many places, utility-driven microgrids can strengthen our systems and build greater utility resiliency during extreme weather, wildfires, or other events. Microgrids might also change distribution system planning and design. While they might reduce energy sales and impact our bottom line, we need to do everything we can to sustain system and community resiliency and reliability.

> Treat customers the way you want to be treated in this fast-paced and instantcommunication world. JEFF FELDT



Having better analytics should provide better protection against potential threats or barriers that might impact utility operations.

WILLIAM JOHNSON

CHESNEY: More and more utility executives, including me, are fascinated with the ramifications of electrification. Many utilities — particularly smaller ones — seem to feel a bit self-conscious about embracing this technology to the point of promotion. Electric loads are flat. Utilities should see [electrification] as a source of growth and revenue. And besides that, retail customers deserve to view their utility as energy experts and as a valued source of technical competence. If utilities don't take that position, they risk allowing third parties to get in between the utility and the customer's top-of-mind thinking.

attention is how best to compile enough data analytics to effectively measure our overall utility performance and become nimble enough to adjust to ongoing changes when needed. Having better analytics should provide better protection against potential threats or barriers that might impact utility operations. As data scientists continue to develop more stable and mature software, utility executives will be able to better forecast the short- and long-term needs of the utility.

FELDT: For me, it's all about battery storage and all the applications, known and unknown, that will come with it. I encourage public power leaders to engage and challenge their employees to gain a better understanding of the technology and how it can be used to the benefit of their stakeholders.

What's the biggest opportunity public power has at this moment?

FELDT: In this age of 24/7 communication, there is an opportunity for public power to really connect with their customer base by providing responsive, consistent, and reliable customer-facing communications. It's really a simple concept when you think about it: Treat customers the way you want to be treated in this fast-paced and instant-communication world. With that comes the opportunity for engaging, educational content around the multiple benefits of a public power utility, the impressive reliability factors, the importance of sustainable energy resources, and more. These pieces are an excellent opportunity to strengthen your brand, build customer loyalty, and set the benchmark as a highly effective organization that all stakeholders turn to for reliable and factual information.

CHESNEY: Utilities must recognize that grid technologies will eventually achieve cost parity with established economic utility models. When that happens, customers will take the providing or securing of energy into their own hands, and the industry will have changed forever. Utilities should dust off their strategic plans and perhaps broaden their research and discussions.

JOHNSON: Public power has a tremendous opportunity to continue to play a huge role in improving lives in the communities we serve. In partnering with city and county governments, we can continue to help deliver sound economic development results to our community. Citizens and the businesses we serve will benefit from a community that is not only growing but also bringing in a rich, diverse mixture of new businesses and residents. We also have

an opportunity to help develop and shape the minds of the next generation. It will become vitally important to invest in workforce training as well as connect with students early on to educate them about the utility industry and the [variety of] opportunities in our professional-and skilled-level positions.

KEGEL: The two keys to combating climate change will be, first, to decarbonize electric generation and, second, to electrify as much of the economy as possible. Our greatest challenge over the next 10 years will be to provide reliable service with a grid that is increasingly reliant on intermittent wind and solar. Success on that front will enable us to move on to the second key. The opportunities for electric utilities in decarbonizing the economy will be enormous.

BERTOLINO: Focus on our core services and continue to do what we do well — improve our communities' quality of life by delivering safe, reliable, affordable electricity services — and embrace new ways of doing things. This includes new technology, work environments, and customer engagement.

Our greatest challenge over the next 10 years will be to provide reliable service with a grid that is increasingly reliant on intermittent wind and solar.

JACK KEGEL

What's one thing utilities should be doing now to underscore success in five years?

JOHNSON: Investing in technology and finding ways to modernize the electric grid. Utilities must work to help consumers answer ongoing questions surrounding renewable energy. We need to continue to work with state and local officials and regulators as partners to determine what our energy future needs to include. Building a sustainable bridge to the future will help to ensure that our strategic plans capture the best possible forward-looking ideas to meet our customer needs of tomorrow.

KEGEL: Utilities should be planning now to have the infrastructure in place to be operating in a more complex environment, with decentralized power supply relying on intermittent resources, power flowing both ways on the distribution system, and customers demanding new and more individualized products.

CHESNEY: Seriously reconsider standard liquidity planning and practices. My agency, as with virtually all utilities in the Southwest Power Pool, suffered through an utterly unbelievable winter storm in February. Market natural gas prices increased every day for five days until they reached nearly 200 times normal. My utility's cost for natural gas in six or seven days was 33% greater than all of the year 2020. No one could have rationally predicted this. Our strategies should be steady and sustained. Now-

adays, events of a single day can mean ratings downgrades. Also, they can portend massive long-term borrowing — or worse!

BERTOLINO: Invest in our current and future workforce. Our continued success relies on an engaged, innovative, diverse, and motivated workforce. The utility workforce of the future will be different than the workforce of today and yesterday, which will make us even better than we are today. We must embrace this and adapt and evolve how we work together as well as how we recruit and retain our staff. This will require that we plan, develop, and implement core comprehensive workforce initiatives, similar to how we plan and maintain our utility systems, that embrace our differences and encourage new ideas and ways of doing things.

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~ **Brent Bradley** *Project Manager* Cowlitz County Public Utility District



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Our continued success relies on an engaged, innovative, diverse, and motivated workforce.

MICHELLE BERTOLINO

FELDT: Ensure that your employees are valued and provided the tools and resources necessary to be successful, including training and educational opportunities that are mutually beneficial. These are the future leaders of tomorrow, so properly preparing them today will ensure that the organization continues to move forward to higher levels of success and achievement.

MCELROY: Obsess over exceeding customer expectations — [for] all customers, not just those with means or who are tech savvy. Prioritize the public power workforce of the future — leverage the opportunity with socially

minded millennials; they will make extraordinary public servants engaged in delivering on the vision of public power. Focus on the financial health of the public power model, which may be strengthened by emerging changes to federal environmental and tax policies. Achieving further operating scale will become an existential requirement for future success, so now is the time to build the skills necessary to successfully engage in partnerships, strategic alliances, and contracting. For all the reasons above and more, it is critical all of us within the public power space make a major commitment to the continued success of APPA.

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Easton Utilities
Easton, Maryland



General Manager
Piedmont Municipal
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Greer, South Carolina

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MARK CHESNEY, CEO/General Manger, Kansas Power Pool, Wichita, Kansas

MARSHALL EMPEY, Chief Operations Officer, Utah Associated Municipal Power Systems, Salt Lake City, Utak

JACK KEGEL, Chief Executive Officer,
Minnesota Municipal Utilities Association, Plymouth, Minnesota

LARRY HOBART 7 HATS AWARD

ROBERT LAFAVE, Village Manager, L'Anse Electric Utility, L'Anse, Michigan

JAMIE LINDSTROM, Utility Superintendent, Argos Municipal Electric Utility, Argos, Indiana

JOE PRICE, Village Administrator, Grafton Power & Light, Grafton, Ohio

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CITY OF TALLAHASSEE ELECTRIC UTILITY, Tallahassee, Florida

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PHILIPPI ELECTRIC DEPARTMENT, Philippi, West Virginia

ARE Small towns THE NEXT BIG THIC?

BY SUSAN PARTAIN, SENIOR MANAGER, CONTENT STRATEGY, AMERICAN PUBLIC POWER ASSOCIATION

ublic power utilities serve communities of all kinds and sizes — from vast rural counties to tribal nations, islands, and major metropolitan areas. When asked to envision the quintessential public power utility, though, people are likely to describe a utility that serves a small but vibrant community, one where people feel like they know each other well. Where utility management can be found chatting with customers about the latest storm while they are both shopping for groceries.

This vision has some basis in reality: About half of public power entities serve communities of 5,000-50,000 people, which aligns with the definition of small city or big town put forth by the U.S. Census Bureau.

It would be fair to say that when small cities and towns thrive, so does public power.







MIGRATION

ver the past year, there has been ample talk about people moving away from big cities and showing increased interest in less crowded settings.

In the spring and early summer of 2020, more rural and suburban areas started to see booms in their real estate markets, while major cities, such as New York and San Francisco, saw their market decline. Articles in outlets including the New York Times and The Hill detailed where people were moving from major cities because of the COVID-19 pandemic, and theorized on how long the trends would hold or how permanent the moves would be.

Even before the coronavirus pandemic, smaller cities and towns were growing at a faster pace than larger cities and suburbs in several regions.

According to the U.S. Census Bureau, from 2010-2019, small towns in the West saw a bigger population growth than large Western cities, with 13.3% population growth in small towns

compared to 9.1% for large cities in the region. The South also saw population growth during this time, but small towns grew at a slightly slower pace, 6.7%, than big cities, which grew by 11.8%. The Census defines small towns as incorporated areas with 5,000 residents or fewer, and big cities as having populations of 50,000 or more. Midsize cities, which the Census defines as between 5,000-10,000 people, also grew from 2010-2019 in every region except the Northeast.

Some of the fastest growing cities and towns in each state, as estimated by the Census, are those that are served by public power, including Bentonville, Arkansas; Fairhope, Alabama; Lincoln, Nebraska; Sioux Falls, South Dakota; and Queen Creek, Arizona.

Immediate migration away from larger areas was possible among people with the means and money to make the move, and for those who could continue working remotely. While those who could move to smaller, less dense areas during the pandemic tended to be people with higher incomes, shifts before 2020 largely came from people with more moderate and lower incomes moving to areas to take advantage of lower housing costs and gain a higher quality of living.

CHANGING PREFERENCES

Gallup poll conducted near the end of 2020 found that nearly half of respondents would prefer to live in a small town or rural area, representing a nine percent jump in this preference compared to 2018.

The number of respondents showing a preference for living in a small city remained flat, at about 16%, and the biggest jump came from people desiring to live in a "town" — which jumped from 12 to 17%. The type of community that saw the biggest dip in preference were suburbs of big cities – which dipped to 16% preference from 21% in 2018.

Gallup left the definition of these community types up to the respondents, so there might be a wide range in how people perceive what constitutes a small city or a town or rural area.

The poll touched on preferences across various demographics and based on what type of environment people currently live in. Every demographic group saw an increase in preference for living in a town or rural area compared to 2018, with the largest increased preference among people living in the South, non-white adults, and those who identify politically as Republicans. The increases did not necessarily push all demographic groups to a majority preference toward small town life - for example, despite a 12-point jump from 2018, only 39% of non-white adults expressed a preference for living in a town or rural area. And people currently living in a small town or rural area showed a clear preference for staying in such a community - with about three-fourths of respondents selecting the lifestyle.

SUCCESS FACTORS

ven among these statistics, not all communities fare the same. There are several reasons for why some small communities stand out as more appealing for inbound migration than others.

A major driver of growth is economic opportunity and jobs. A 2018 story in Forbes looked into small cities and towns that were thriving economically, with many of the featured areas having a connection to the energy industry — whether natural gas, oil, or wind — or benefitting from a resurgence in manufacturing and industrial jobs. The article points out how small cities attract companies to set up shop due to their relative affordability — including having lower electricity costs. Communities served by

public power on this list included La Grange, Georgia and McPherson, Kansas, which have both seen a boom in manufacturing over the past decade.

Aside from attracting people and businesses with lower costs and job, the Forbes article rattled off a few factors that help smaller cities continue to expand, including having access to technology, quality education, and work-life balance. Such factors aren't just simple amenities to add, but "only those small cities able to assemble the right mix of talent, market focus, and civic cooperation will succeed," the authors wrote. For that last point, communities with a public power utility could be at an advantage, as they already have a legacy of civic duty and collaboration across various municipal entities.

A 2019 Walton Family Foundation analysis of the "Most Dynamic Micropolitans" echoed

EVEN BEFORE THE
CORONAVIRUS PANDEMIC,
SMALLER CITIES AND
TOWNS WERE GROWING
AT A FASTER PACE THAN
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SUBURBS IN SEVERAL
REGIONS.

similar themes. The foundation defines a micropolitan statistical area as a location that comprises of "one or more counties with at least one city with more than 10,000 but less than 50,000 in population." Census estimates from 2017 expected about 27.2 million people (8.4% of the U.S. population) lived in such areas.





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UTILITIES PLANNING MAJOR UPGRADES OR CHANGES TO ASSETS COULD BE IN A POSITION TO BE KEY PLAYERS IN A TOWN'S ECONOMIC DEVELOPMENT PLANS

A small town is considered more dynamic if it shows growth in jobs, income and wages, and employment within new businesses.

Areas that were thriving in the metrics reviewed were those that "capitalized on location advantages" – whether that was in the form of recreation and tourism or by tapping the expertise and resources of its citizens. Public power towns in the top 10 of the rankings include Heber, Utah and Fredericksburg, Texas.

The report noted that Heber was thriving thanks to its proximity to outdoor recreation and an economic diversification plan that targets software development and information technology, professional services, healthcare, and advanced manufacturing. "Further, Heber's Small Business Development Center Utah Valley University campus and Business Resource Center provide entrepreneurial support and mentoring," said the report.

Fredericksburg was noted for growing due to booming wine production in the area, and the report mentioned that the town is looking at ways to diversify and strengthen other local industries.

REPLICATING SUCCESS

very community's path to success will be unique to them, but there are still some lessons to be learned from the communities who have developed meaningfully.

Site Selection magazine interviewed Ross DeVol, an author of the report, who called out seven actions that small cities and towns take that make a difference in supporting economic development that lasts.

The actions he noted are:

- 1. Being aware and supportive of local entrepreneurship
- Working with local community colleges and high schools to encourage entrepreneurship.
- 3. Training young people in the skills that major employers demand.
- 4. Focusing on their niche industries.
- 5. Refining their central value proposition.
- Recognizing that arts and museums attract people and firms.
- 7. Continually evaluating the total portfolio of offerings as a business destination.

DeVol stressed that attention to recruiting and retaining small businesses, including newer

startup initiatives, is a defining factor between successful micropolitans and those that are less

These success factors align with the Environmental Protection Agency's smart growth program. The EPA released a Framework for Creating a Smart Growth Economic Development Strategy in 2016 that outlines tips, examples, and metrics for small towns — including those that want to diversify their economies and those that want to alleviate rapid development pressures that might be disrupting their small community atmosphere.

The framework's guidance focuses on how small cities and towns can highlight their unique assets to support the local workforce, businesses, and quality of life. The EPA cites infrastructure projects as a potential catalyst for smart growth — which suggests that utilities planning major upgrades or changes to assets could be in a position to be key players in a town's economic development plans. The framework also lays out a few infrastructure financing possibilities to support and encourage improvements to items such as outdated utility assets.

As the spotlight continues to shine on smaller communities, public power utilities that serve smaller areas continue to play an important part in making the communities shine – keeping costs low for businesses, employing local workers, and underpinning the overall quality of life.

HOW FUTURE-READY IS PUBLIC POWER?

INTERVIEW WITH GEOFF TUFF, PRINCIPAL AT DELOITTE CONSULTING LLC AND BESTSELLING AUTHOR

TUFF IS DELIVERING A KEYNOTE ADDRESS AT THE AMERICAN PUBLIC POWER ASSOCIATION'S 2021 NATIONAL CONFERENCE IN JUNE.

Deloitte's Future of Energy scenarios, and your new book, Provoke: How Leaders Shape the Future by Overcoming Fatal Human Flaws, focus on navigating uncertainty. Are there any certainties when it comes to the future of the energy industry?

"Uncertainty," like "digital" and "innovation," has become an increasingly meaningless term. It has come to be used to describe any situation in which we don't have all the data to be definitively certain. Especially as change accelerates, if we use that definition it will come to mean pretty much everything. So we like to differentiate between situations in which we don't know *if* something is going to happen and situations where we know that something is going to happen, we just don't know *when*, or at what scale.

There are some things that are genuinely uncertain. Take, for example, the possibility that a pandemic would kill millions and shut down the world's economy for over a year. That had been considered a possibility for a very long time, but we were caught completely unprepared because most of the world listening to the prognosticators wondered *whether* it might happen rather than *when*.

But there are plenty of considerations related to the future of energy which might have been historically uncertain but are now demonstrably happening. Those are certain trends that we need to plan against, even if we don't know everything about them. The world will continue to decarbonize. Innovation in renewable technologies will accelerate and their costs will come down exponentially. Global energy demand will continue to increase.

While we are living through an energy transition impacted by uncertainty, that doesn't mean we should wait to see how it turns out before shifting our business models. It is a foregone conclusion that if you roll the clock forward 15–20 years, energy production and consumption is going to be fundamentally different. *How* it is going to be different is the billion- or trillion-dollar question ... and those who act now have the chance to shape the outcomes if they can turn away from analysis of historical data and focus on driving the future in which they have advantage. That's why I find this whole topic fascinating and exciting.



HOW FUTURE-READY IS PUBLIC POWER?

How can we best plan as a society which acknowledges that we have moved past the point of wondering *if* an overhaul of the energy system is going to happen to *when* it is going to happen? That is at the heart of the Future of Energy scenarios.

What are the biggest changes that utilities will need to adapt to in our energy future?

The interesting challenge for any utility is to strike a fair balance between understanding how you deliver value through your system for your constituents today even as you pay attention to what the rest of the world is doing as signal for what might be possible to do — or necessary to avoid — in the future.

I have found that many utilities discount what is happening in other parts of the world because they operate in what are by definition regional — or in some cases hyper-local — markets, with unique license to operate and constraints. But the reality is that what happens in the rest of the world in terms of the energy transition will impact us: through the rate and nature of capital flows into new technologies, through the advent of new policy models, through the radiating impact on customer expectations, et cetera.

The good news is that utilities are on the forefront of actually delivering whatever energy solutions are available to their customer base, and therefore uniquely able to anticipate how needs are shift-

ing. I would characterize the biggest change that we need to make as a shift from the old mindset of 'delivering reliably at an acceptable cost' to 'innovating locally by paying attention globally, using customer insight as a core source of competitive advantage.'

Utilities are typically fairly risk-averse organizational cultures.
What is the biggest threat to staying in a "wait and see" mindset for utilities?

■ We have for decades and decades lived in world of linear change. All of our businesses systems, reactions to policy, etc., have been implicitly built on the presumption of continued, somewhat predictable change. Over the past five years, that presumption has been challenged. Many technology advances these days are showing signs of being exponential in nature, in part because they are based on computing power which — thanks to Moore's Law — has become one of the most famous examples of exponential change at work. But humans are pretty terrible at understanding the possibilities behind exponential change; we are genetically wired to live and survive in a linear world.

If you overlay an exponential curve on a linear curve, you tend to not see anything happening on the exponential until it crosses the linear curve. Once it crosses, it appears to come out of nowhere and shoot straight upwards. If that's the first time you have paid attention to it, it will be way too late to react to it.

We've increasingly seen that companies that operate within a very specified industry can get blindsided by competition that seems to come out of nowhere because they have been operating — usually implicitly — based on a belief that linear change will continue. Digital native companies are often the ones best able to blindside the incumbents because they understand and take advantage of the power of exponential change.

We have enough data now to say that if companies don't turn outward instead of inward and pay attention to ways they might be able to operate differently, there is increasing chance that someone else is going to come in and figure out a way to provide the service that they provide in a fundamentally different way — via a better experience or in a cost-advantaged way.

Even if someone is not going to come in and blindside you, it is inevitable that the energy system broadly will increasingly be using different sources of energy and different assets to deliver the services it delivers today. While it may be uncertain which of those energy sources will be the leader for any given application, the fact that they will shift is not.

If you are only planning the way you have historically, then you will be left behind — either by the regulators that impact your right to operate or by others who infringe on your territory because they are further down the learning curve around new energy sources.

What we've learned throughout our careers may be helpful in some



circumstances but is actually going to be more of a constraint than if we are able to look at things differently. One of the best things about looking through the lens of scenarios is trying to imagine how we are or are not prepared for each of those versions of the future and what we can do to better prepare ourselves for any of them ... even if we're confident that none of the scenarios is definitely the way the future will turn out.

How might public power utilities play a different role in the energy transition than private sector players or investor-owned utilities? Is there anything holding public power utilities back from being ahead of the curve on industry changes? Do they have any advantages?

HOW FUTURE-READY IS PUBLIC POWER?



"While we are living through an energy transition impacted by uncertainty, that doesn't mean we should wait to see how it turns out before shifting our business models."

The role of any utility, whether public or private, is the same. It is the operating conditions and both the constraints and the enablers that will differ. It is easier to point to all the constraints and things that an organization can't do because of the environment it is plugged into. But the public power ownership model brings a whole bunch of enablers as well. The first thing I would pay attention to are those enablers and what we have access to that gives our model the possibility of lasting advantage against possible disruptors.

Public power organizations are in theory already connected with those that govern them with much greater system of insights than any private player. Just because you have operating conditions that provide limits doesn't mean you are ultimately limited in the way you go to market.

How do we not think about our relationship to government as a hindrance, but instead as an enabler? That will help accomplish the mission of whatever administration we're working with.

What should public power utility leaders do to plan for the future?

Looking across all four of our scenarios, there are a small set of "no regrets" moves that utility planners need to make in order to create the nimbleness as change unfolds, but also they are the way we need to be able to operate in the face of a new energy transition.

Almost always, one of those "no regrets" moves has to do with digitization of assets. That's the type of thing that's going to be if not future-proof, then at least future-ready.

A reality for any company that is dealing with increasing uncertainty is that the closer you can get to your end-customer base, the more advantage you are going to hold. The most basic driver of demand conditions in any business, but especially in energy, is the behavior of individuals who sit at the end of your value system. What customers and end users ultimately decide to do is going to have an impact at the local and regional level, even in the most highly regulated markets.

There is a traditional way of "knowing your customers" — satisfaction data, survey data — which are retrospective reflections of the quality of service provided and the degree of satisfaction provided.

Instead of *only* looking historically, utilities will increasingly need to anticipate what customers will want in the future. Power

users are going to be facing a range of choices that they haven't historically had, so you can't just ask them how they'll likely react in hypothetical situations: they can't predict how they are going to act any better than you can. Using tools like observational research and ethnography can help utilities to anticipate what customers will be looking for in the future. It doesn't mean you need to use that data to shift your services, but it gives you better insight into the direction your organization is going and can inspire new ways of competing that you might not have seen before.

There is a ton of data and insight into actual customer behavior that any utility has access to, which a lot of companies would pay a lot of money for. The ability to turn that insight and data into new business models and new revenue streams — and to do things differently in the face of a highly regulated environment — is one key to evolving using your natural advantage. There are some with a perception that the power industry is not going to change, that they can't act like companies you see in more dynamic environments, where the expectation is you are going to shift up your offerings all the time and do innovative things.

For the organizations that can figure out how to do that and overcome conventional wisdom — releasing the constraints that are naturally embedded in well-established business models — there is a ton of upside both in terms of value they can bring to their customers and their ability to thrive through the energy transition.

What customers want – and how public power delivers

Electric utilities hear a wide array of desires and expectations from customers. While it is not always possible to meet these expectations, public power utilities have several advantages in satisfying some of the most common demands.



Public power advantage:



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Electricity from clean or renewable sources

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Programs and rate plans that match their needs



Local governance and regulation allows utilities to be nimble, making it easier to try out and institute new rate plans and programs



Personalized energy use insights and ways to bring it down Utilities of all types can implement an online platform that shows a customer's energy profile and usage history — what makes public power stand out is a closer connection to customers and dedication to smarter energy use and shared decreased costs borne from their nonprofit status

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June 20 - 23 | Orlando, Florida

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