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Powering Strong Communities

Cover Illustration By Daniel Lievano

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AMERICAN PUBLIC POWER ASSOCIATION
Powering Strong Communities

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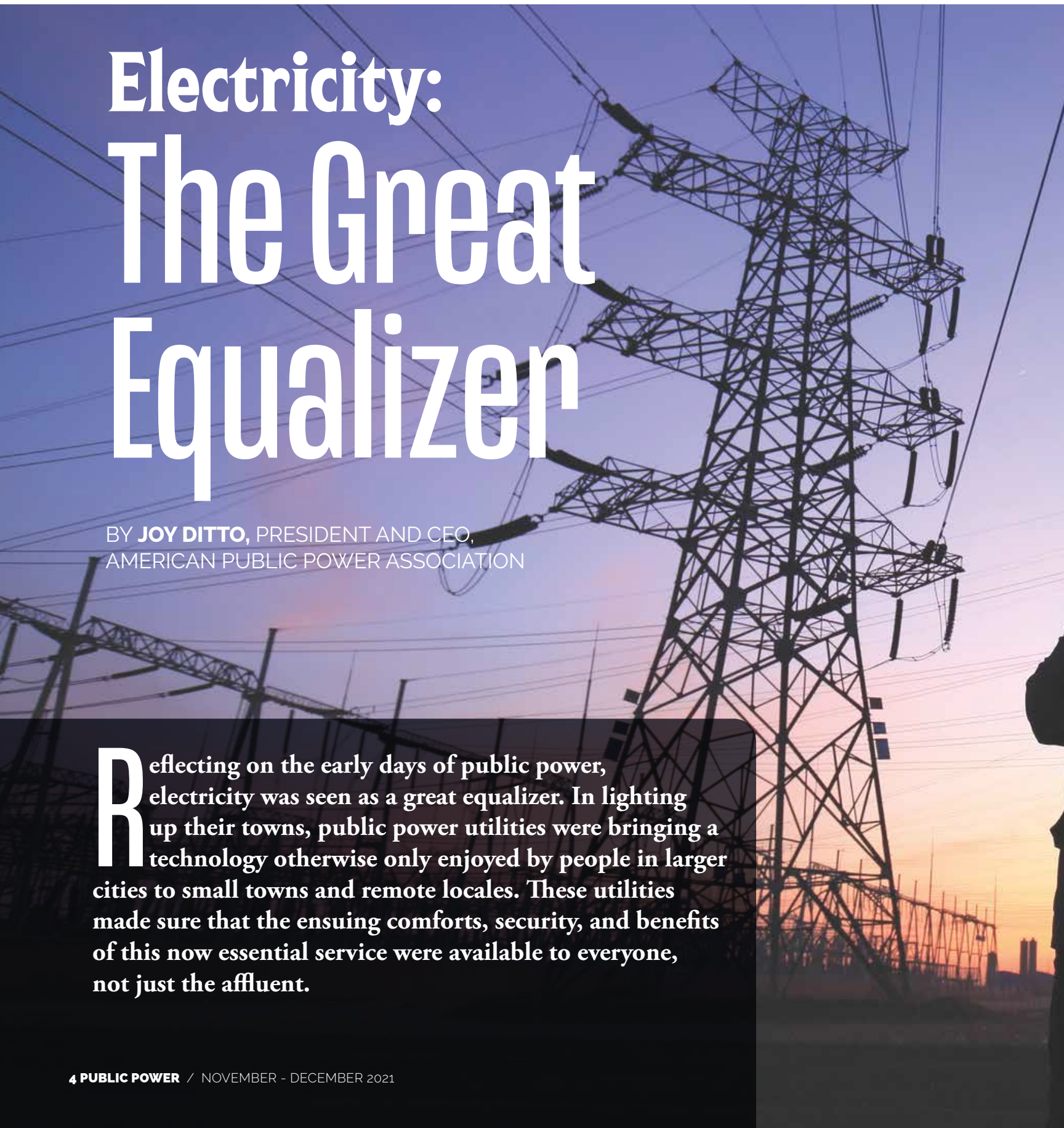
Electricity: The Great Equalizer

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



Reflecting on the early days of public power, electricity was seen as a great equalizer. In lighting up their towns, public power utilities were bringing a technology otherwise only enjoyed by people in larger cities to small towns and remote locales. These utilities made sure that the ensuing comforts, security, and benefits of this now essential service were available to everyone, not just the affluent.

In a 1932 campaign speech in Portland, Oregon, President Franklin D. Roosevelt referred to public power as a "yardstick," in that people served by a private for-profit utility could judge the quality and rates of their utility provider against what is possible with a public power model. Roosevelt asserted that this measurement by the people was necessary, and that it is not possible for the government and regulatory agencies to ensure that the public gets a "fair deal" in every case.

Even though his words were spoken before the Rural Electrification Act, when only 11% of rural households had access to electricity, Roosevelt alluded to how quality of service and rates affect the true access to the service.

"The price you pay for your utility service is a determining factor in the amount you use of it," he said, comparing the U.S.' per capita use to Canada's, which was nearly double at the time.

Today, utilities continue to see this truism play out in the patterns of how customers use electricity. We also know that households with high energy burdens aren't always able to capitalize on energy efficiency programs and technologies.

Although the idea of equity is embedded within the public power model, it takes continual effort to understand, preserve, or remedy any challenges to how different customers access or use electricity. Especially as technology continues to evolve our relationship with – and reliance on – electricity, utilities should work closely with all members of a community to make sure utility decisions reflect local values; to strive for affordability and fairness in rates; to have a workforce that represents the community we serve; to contribute to the community's success. The articles throughout this issue present different ways of how utilities can examine and address inequities in access to electricity in modern society, as well as efforts to expand broadband at the municipal level.

While we've come a long way since Roosevelt's time in building access to electricity, we're not done.

Nearly a century after a majority of Americans gained access to electricity, there are still people in the United States who are disconnected from the electric grid – and not by choice. Most of this population lives in the Navajo Nation – a vast area encompassing parts of Arizona, New Mexico, and Utah. According to the Navajo Tribal Utility Authority, about 14,000 homes in the Nation are not connected to the grid. These families rely on everything from wood burning stoves to diesel generators to flashlights and distributed resources to provide minimal levels of energy, heat, or light for the most essential times. But by and large, because of a lack of an electrical connection, they do not have reliable access to basics like water and food storage.

NTUA has been hard at work the past few decades to connect thousands of families to the grid. The challenge is becoming greater as the remaining homes are more remote and isolated. We at the American Public Power Association are glad to again partner with NTUA to solicit volunteers for Light Up Navajo, an initiative to electrify homes within the Nation. We invite members to consider sending crew members to join with NTUA crews for a week or two to help with the effort.

Thank you to those members who supported this effort in 2019, to those who plan to in 2022, and to all of you working to improve how your communities access and use electricity.

Throughout our history, by virtue of sticking to our core values — community ownership, nonprofit operations, responsive service, local decision-making — public power has remained an example of how utilities can serve all customers affordable, reliable electricity.

After all, as Roosevelt said, "it is the purpose of the government to see not only that the legitimate interests of the few are protected but that the welfare and rights of the many are conserved."

Community Decisions

How Public Power Meaningfully Engages Local Stakeholders

BY **TANYA DERIVI,** SENIOR DIRECTOR, MEMBER ENGAGEMENT, AMERICAN PUBLIC POWER ASSOCIATION

Local decision-making is a tenet of the public power model. In a rapidly changing environment, from major shifts in the power supply to consumer habits and expectations, how public power utilities engage stakeholders is requiring new approaches and ideas.

Both internal and external stakeholders have sought to influence change. External activists have demanded substantial change in how utilities operate and to be meaningfully involved in decision-making. Employees have asked for additional flexibility and benefit changes since the pandemic began. Even before the pandemic, public power utilities were especially aware of the need to ensure rate affordability to avoid over-burdening customers who can least afford higher bills. How utilities can best dedicate limited resources to ensuring that stakeholders are heard, and feedback considered, is evolving.

A changing landscape

How public power utility stakeholders get information about your utility's initiatives has likely changed significantly in the past two decades. In 2005, most likely, your stakeholders received information directly from you via mailings, your website, maybe an email, or at a local meeting. Perhaps from friends or family.

Now information (correct or not) spreads more quickly and in a more complex manner than ever before. According to the Pew Research Center, only 5% of the adult population used social media platforms in 2005. For the last five years, it has remained steady at around 70%. Social media is now one of the easiest ways to draw attention to news and to political, social, or environmental issues – any of which can affect a utility.

The landscape of interested stakeholders has evolved too. Customer and stakeholder interest groups have become more abundant – environmentalists, social justice advocates, electric vehicle enthusiasts, residents with low to moderate income, small or large commercial businesses, and vendors – with each having differing interests and capabilities of keeping up with and staying engaged on utility initiatives.

While utilities may be most familiar with neighborhood groups or established environmental interests, the past few years have seen increased activity (and growing influence) from

Utility Stakeholders (and What They Want)

Group	Primary areas of interest with the utility
Policymakers	Safe and reliable utility operations, affordable rates, equitable distribution of resources, financial and physical/ cyber security of the utility
Ratepayer advocates	To help the average consumer have an informed voice in rates and policies
Employees	Having defining roles in utility strategies, outcomes, and successes
Low-income households	Reducing energy burden, help paying bills, options for budget billing, limited means of engagement
Businesses	Affordable rates and programs to remain competitive, reliable power supply, rebates and incentives for efficiency and behind the meter assets
Environmentalists	Transition to a clean energy economy to mitigate effects of climate change, protection of local ecosystems
Social justice advocates	Addressing disproportionate climate effects, including public health, equitable access to resources, services, opportunities
Electric vehicle enthusiasts	Rate incentives, rebates, charging availability
Vendors	Fair access to utility contracts, including businesses owned by women, minorities, and veterans

grassroot advocates and influential business leaders on "corporate social responsibility" initiatives. Harvard's Business Insights blog estimated that 90% of companies on the S&P 500 index published a corporate social responsibility report in 2019. A 2018 Pew Research Center study found that the majority of U.S. adults believe that social media is very or somewhat important in getting elected officials to pay attention to issues (69%), for creating sustained movements for social change (67%), and for influencing policy decisions (58%). This activity only intensified during the pandemic as social justice movements and scenes from climate change-driven natural disasters unfolded on television screens and across social media as the public itself was forced to stay home and embrace virtual accommodations.

Local, state, and federal policymakers have noticed too.

On top of the public power business model, which values community input, and local city charters which require utilities to involve the community, some public power utilities are also starting to see policy changes that require a new level of engagement. Specifically, the states of California, New York, and Washington recently implemented laws requiring utilities to work with or examine effects to certain communities.

California requires state regulatory agencies to work to improve air quality and economic conditions in disadvantaged communities that suffer from economic, health, and environmental burdens. A stakeholder-led advisory group advises regulators on how energy programs impact these communities and what more could be done for residents. The state became the first to require local governments to incorporate environmental justice elements into general plans.

New York's Climate Leadership and Community Protection Act established regional clean energy hubs to improve community engagement and ensure that all New Yorkers can benefit from the state's clean energy transition.

Earlier this year, Washington Governor Jay Inslee signed the Healthy Environment for All Act into law, which requires state agencies to consider environmental justice principles in strategic planning, budgeting, and when making funding decisions.

These evolving trends mean public power utilities must do more to meaningfully engage stakeholders.

Building trust

Starkville is a community of 24,000 people in central Mississippi with a core but shrinking retiree population, and is home to the state's largest college, Mississippi State University, with 23,000 enrollees. Starkville Utilities serves 14,000 customers, with roughly 15-20% customers who are fixed income, single- and working-class families.

Starkville's 70 employees recognized that while much effort had focused on meeting the utility's technical and financial goals, less had been done to engage with customers and other stakeholders. "We were using excuses for why it wasn't happening," said Terry Kemp, the general manager of Starkville.

"One of the bigger surprises that came from this was how little stakeholders knew about what we do. But we saw a real eagerness to better understand our industry and, once we made those relationships, they became some of our best advocates."

- Terry Kemp, general manager, Starkville Utilities, Mississippi

Utility employees also saw information shared on social media that caused pause – and reflection on the utility's practices. These recognitions led to a renewed department-wide effort to engage and listen to stakeholders – and be quick to respond to feedback.

Kemp believes that meaningful engagement "is something you must purposely pursue and keep continuous two-way communication to build relationships."

Starkville assessed customer demographics, with a focus on ensuring no one is left behind. Starkville then undertook several engagement initiatives, like producing newsletters and using other communication platforms. It began with an initial customer survey. The plan is to measure and benchmark progress, basing decisions on facts and numbers rather than emotions, from future surveys.

"One of the bigger surprises that came from this was how little stakeholders knew about what we do. But we saw a real eagerness to better understand our industry and, once we made those relationships, they became some of our best advocates," Kemp said.

It took a considerable time to build that trust and confidence in the utility's abilities. Now it's something they want to protect.

Starkville works through service agencies to help low-income customers and offers money-saving energy programs. Utility employees have ongoing conversations with "key account partners" about their future, their expectations, and how they would grade Starkville's service. This information is then assessed for opportunities to make further improvements, or to tailor programs and services to support specific needs.

Outreach extends to local decision makers as well. Kemp has biweekly meetings with the mayor on project updates and technical needs. He also takes new board members to tour facilities as early as possible to discuss customer expectations, future capital plans, and utility finances. Kemp continually looks for opportunities to involve local leaders in community events "to help them understand that we're all in this boat together." Kemp emphasizes that the utility is not in the business to make money, but rather to provide an essential service and live within its means.

Making connections

The Sacramento Municipal Utility District is constantly seeking stakeholder feedback from its advisory council to business customers – and putting it to work.

Jose Bodipo-Memba, SMUD's director of sustainable community programs, said the utility holds quarterly seminars with partners to discuss information and solicit input on what is working and what partners would like to see. Community partners have an assigned lead at SMUD. The public power utility also conducts surveys to gather a broad range of information and leverages virtual spaces for listening sessions and forums for community members and partners. In addition, SMUD's community events allow the utility to hear directly on topics of importance to stakeholders.

"These forums help inform SMUD's programs and processes. Our 800-plus partners have deep neighborhood connections and help steer and build a vision that's more equitable for everyone," said Bodipo-Memba.

Rhonda Staley-Brooks, the utility's manager of community development outreach and education, added that SMUD's targeted listening sessions include forums on environmental justice, social justice, and youth issues. "These learning opportunities are invaluable to inform decision-making at all levels of our organization. There's a lot of information-gathering we use to ensure equity," she said.

As an example of how SMUD aims to better understand community needs and the impacts of the utility's decisions, Staley-Brooks pointed to SMUD's Sustainable Communities Resource Priority Map. The interactive map indicates underserved or distressed areas by lack of community development, income, housing, employment opportunities, transportation, medical treatment, nutrition, education and a clean environment. For SMUD, the online tool shows how the utility's services and programs impact different population segments, and where resources may be lacking.

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Tips for meaningful engagement

There are numerous ways public power utilities can work toward meaningful stakeholder engagement. It requires much more than simply holding a public meeting or collecting public comment. Rather, it is a process that is ultimately intended to result in better decision-making and community outcomes.

- Be mindful of how and when meetings are held.
  - Avoid scheduling midday meetings
  - Don't rely solely on listservs to share when meetings will be held
  - Work through trusted community groups
- Give stakeholders the opportunity to be heard and to influence decisions that affect their lives or businesses
  - Provide information to help stakeholders better understand the issues, options, and solutions
  - Offer staff support to help understand technical information
  - Collaborate with stakeholders to develop decision criteria and alternatives to identify the preferred solution
- Be clear and upfront about what stakeholders can – and cannot – influence. It is rarely useful to simply ask stakeholders, "What do you want?" Such broad questions can raise expectations and direct input to areas where their influence is not actually possible.
- Give special consideration and attention to vulnerable populations and marginalized communities
  - Leverage data to determine customer energy burden and the subset(s) most in need of support
  - Set energy burden reduction goals and timelines
  - Address challenges with design, implementation, and management of programs for customers with low in comes or other groups
  - Develop new programs to reduce the gap between the support currently provided and the support needed
  - Don't provide information only in English for communities where it may not be their first language

The tool is designed not just for SMUD, but for all regional leaders and organizations to help make a difference.

"SMUD uses data and feedback to fully measure the effectiveness of what we aim to do," she added.

"When we talk about being a powerful inclusive partner, particularly for our Zero Carbon reduction goals, our focus is on realizing outcomes that benefit all members of the community," said Bodipo-Memba. This means leveraging energy solutions so everyone can participate in regional efforts from an environmental to an energy safety standpoint, and everything in between. "Our job is to make sure that everyone can be part of a larger solution to make our community better," he added.

SMUD recently created a new position for a director of diversity, equity, and inclusion. SMUD sees this role as being integral to continuing to build relationships with utility partners and the broader community. Dr. Markisha Webster started the position in November 2021.

Encouraging change from within

SMUD understands that it cannot reach its goals without a diverse workforce that reflects the community it serves. The utility is in the process of hiring a director-level position focused on diversity, equity, and inclusion across the organization. Laurie Rodriguez, the utility's director of people services and strategies, said "A diverse workforce, inclusive culture, and deep community connections are defining features of what SMUD is setting out to do as it enters a new phase of operations that looks toward a brighter, carbon-free future."

Employees are already working to influence progress. Last year, SMUD's Women's Employee Resource Group worked to address barriers

for women in three key areas: advocacy, culture, and personal and professional development. It resulted in SMUD signing the California Commission on the Status of Women and Girls' Equal Pay Pledge in late 2020, committing to: conducting an annual gender pay analysis; reviewing hiring and promotion procedures; and supporting best practices to close the pay gap. "This pledge was an extension of pay equality efforts SMUD began in 2017 to take a close look at job classes and issues tied to gender while ensuring equity in SMUD pay," Rodriguez said.

SMUD's Parents Employee Resource Group offered rich information and recommendations related to maternity disability leave and paid family leave policies. "They presented employee testimonials, proposed updates to the Employee Benefits Handbooks for broader understanding and application, and compiled research on comparative benefits offerings and related costs," Rodriguez noted. SMUD has since implemented the Employee Benefits Handbooks language recommendations and is continuing to conduct market research and evaluate options for the next iteration of SMUD's Total Rewards strategy.

In Starkville, utility employees have significantly expanded outreach to schools and colleges. Kemp is working closely with the university to foster long-term relationships, so students will want to return to the community.

"From a career standpoint, we want them to feel like we recognize their importance and give them an idea of what they could be involved with," Kemp said. Now the effort is both to get students excited about how technology is changing the utility industry and show them career opportunities.

"NISC has been a terrific partner in every sense of the word."

~ **Carole Hilton**
Customer Service Administrator
Concord Municipal Light Plant

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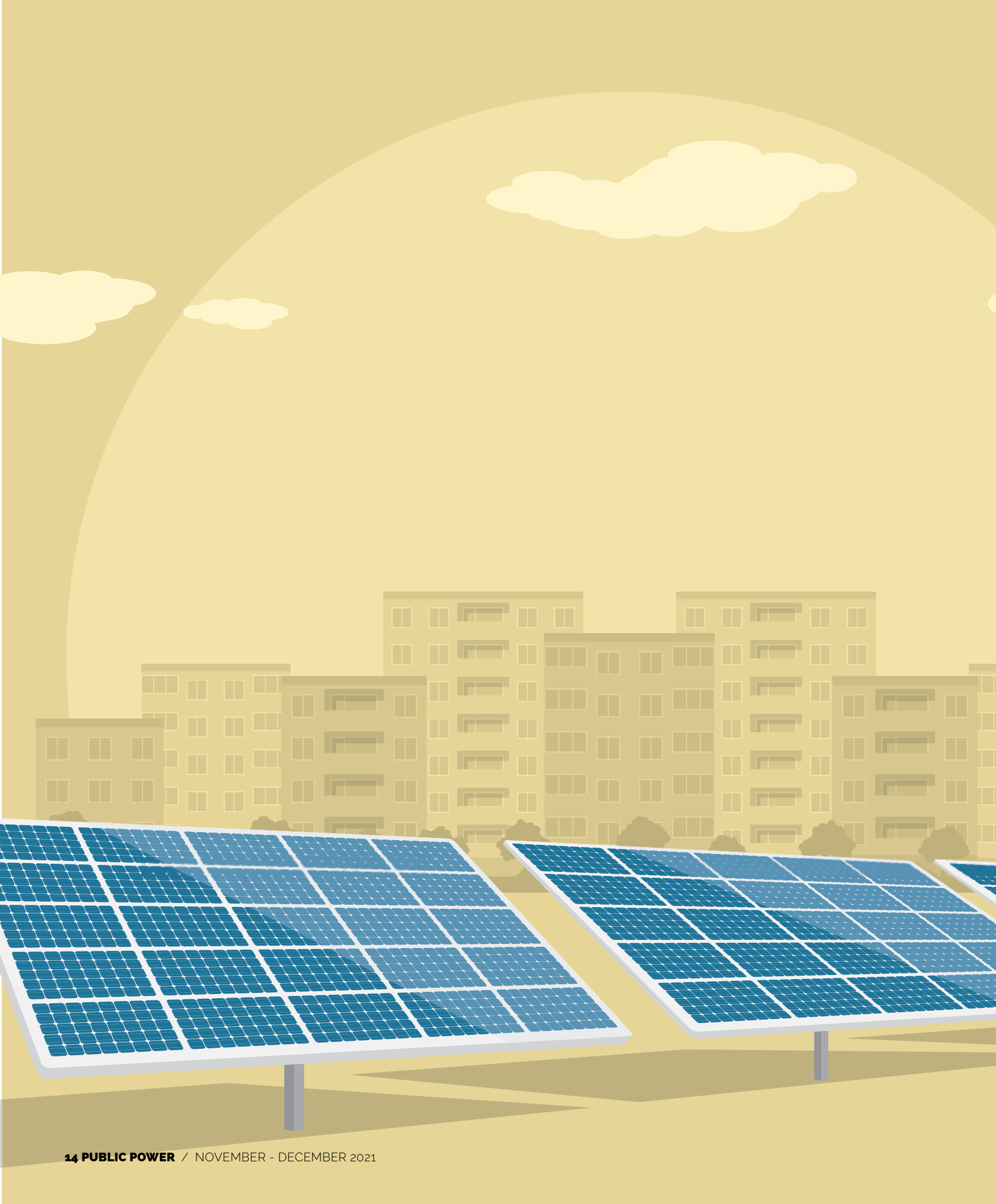
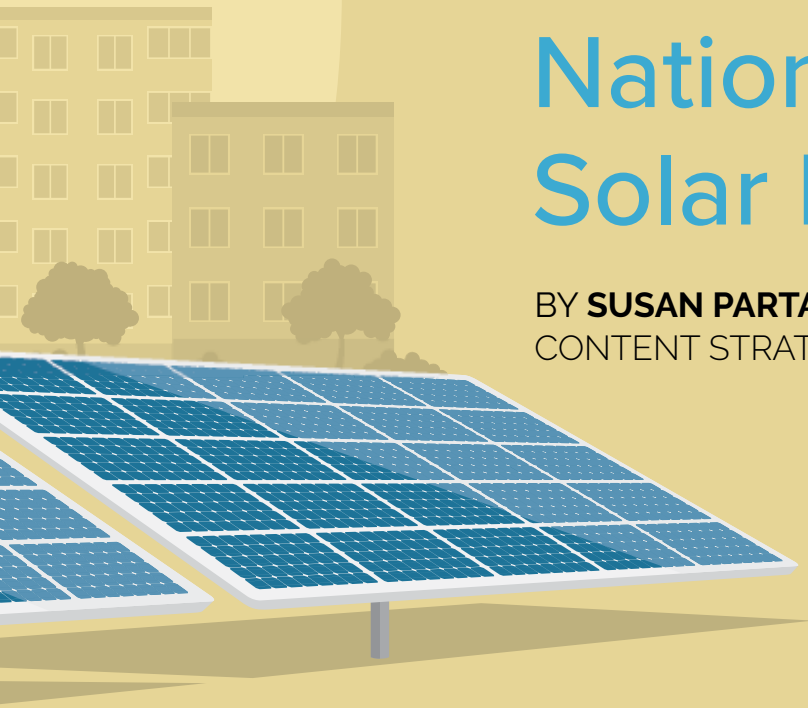


Designing Community Solar for Everyone

Takeaways from the National Community Solar Partnership

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



The traditional model for having rooftop solar limits which customers can access the technology. Usually, a person has to own their home, which has to have adequate roof space, and which gets enough sunlight.

Then there's the issue of cost. While some companies and local governments have offered incentives to install solar panels, the upfront cost and long-term period to actualize savings remains a barrier for those wanting to deploy the technology.

Community solar programs have been touted as an alternative option for customers who would like to have a stake in the technology but cannot otherwise install panels. However, many programs continue to be structured in ways that present barriers for customers to participate, limiting who truly has access to the programs.

In fall 2021, the Department of Energy announced a target of reaching five million homes across the U.S. with community solar by 2025 through the National Community Solar Partnership. Achieving this target would mean installing more than eight times the current community solar capacity – in just four years.

Throughout 2021, a group of seven public power utilities participated in a series of workshops with the American Public Power Association, DOE and the National Renewable Energy Laboratory to explore and discuss how to develop practical, effective, and affordable community solar projects. The Municipal Utility Collaborative, part of the National Community Solar Partnership, focused on unique challenges that public power utilities might face in deploying community solar projects, and is compiling a workbook that highlights the lessons shared throughout the year, including best practices for reaching low income and other underserved communities.

Here's a run down of some of the key insights and best practices discussed as part of the collaborative and highlighted in the forthcoming workbook.

Understanding needs

Properly gauging interest in any community solar project is a must, and reaching groups that have historically been underserved requires extra considerations. Before reaching out to customers, utilities can look into who is and isn't currently served by other solar programs the utility might have, and how participation might already differ from the demographics of your service territory as a whole.

Utilities can then look at how much overlap there is between a community solar program's goals for who to reach and who is not currently served or might have interest in participating due to specific factors. For example, channels such as DOE's Low-Income Energy Affordability Data tool can help utilities to identify clusters of customers who might be interested in a community solar program to relieve high energy burdens.

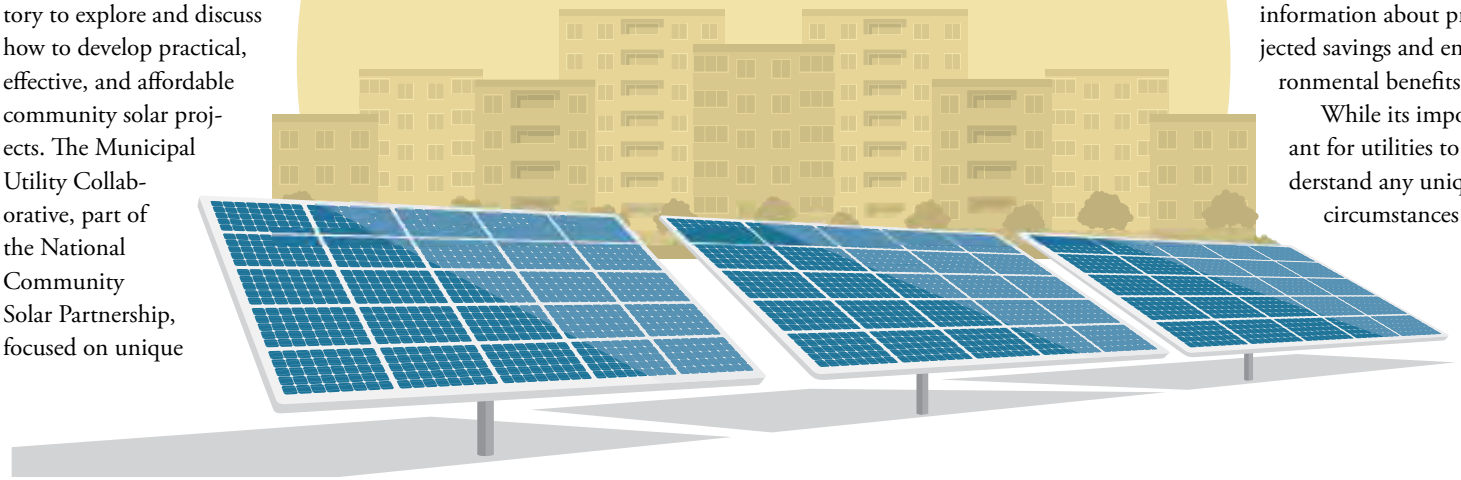
Getting a baseline of interest should start with surveying customers and providing education on the project. Everything from the format in which you deliver a survey to the language(s) such a survey is available in can translate to how accurate and representative the results are of who will participate.

Utilities wanting to develop a community solar project should reach out to trusted community groups that can engage with targeted customers to help spread the word about the project, answer questions, and gauge any interest or concerns.

Utilities should have information such as eligibility criteria, how much participation will cost for a customer, how frequently payments are required, and expected commitments clearly spelled out along with information about projected savings and environmental benefits.

While its important for utilities to understand any unique circumstances

Have information such as eligibility criteria, how much participation will cost for a customer, how frequently payments are required, and expected commitments clearly spelled out.



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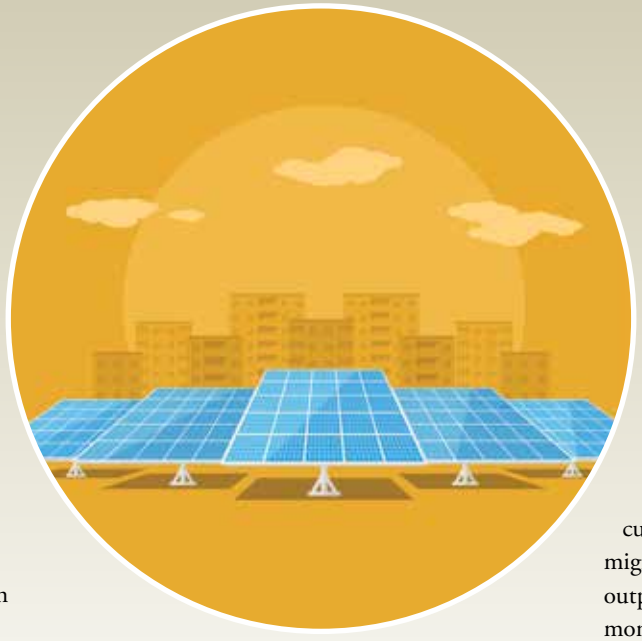


or perspectives of customers with lower and moderate incomes, experts caution against assuming that customers fitting these criteria have different values than other members of your community. Specifically, while customers with lower incomes have reported caring about upfront cost savings, they also rank values such as accessing "clean energy" high among reasons for participating in community solar.

The workbook notes that this kind of outreach to inform possible participation can and should continue throughout the project to reassess any evolving needs or values and to support continuous improvement.

Design for participation

Of the more than 2,600 MW of community solar across the US, less than 1% of capacity is directed toward low-income communities.

For subscription-based projects, the collaborative found that the following practices support program success.

- Do not require any upfront fees from customers
- Offer at least 5-10% savings from utility's standard residential rate
- Do not require a credit check to participate
- Offer a consolidated billing option
- Set a minimum term for participation

While lengthy term minimums can discourage initial participation, utilities have found that having a one-year minimum participation in programs can help with attrition. Research on the topic has found that about a quarter of participants will leave after only one negative experience with the program, which puts programs that have month-to-month subscribers at increased risk of losing participants.

NREL found that having shorter terms and no upfront fees led to reduced subscriber acquisition costs for utilities.

On top of the practices listed above, programs that have few barriers to entry and that can offer participants immediate savings are more attractive for participants with lower incomes.

Another factor to consider is transferability – whether participants can easily transfer their subscription if they move within the service territory, which would be more attractive for individuals who rent and might need to move more frequently than customers who own their homes.

Providing immediate value

A major driver for many in wanting to add solar is cost – customers see it as a way to bring down their electric bills.

And that driver is backed up by the Sharing the Sun report, released by NREL in collaboration with NCSP in July 2021, which showed that community solar can lead to savings on electric bills ranging from 5% to 25%. The NCSP predicts that reaching the five million household goal would lead to $1 billion in energy bill savings for customers.

A review of community solar programs found that the majority have provided customers with a net positive value, but the savings to recoup upfront costs might not be realized for several years.

Many community solar programs require a full upfront payment, which makes participation in the program out of reach for some customers. Utilities looking to encourage participation from customers with low and moderate incomes have a variety of options for allowing customers to buy in without an upfront payment. Options include fixed or floating monthly rates. Fixed rates offer customers more predictable bills, where they might get a steady credit based on the solar output or their usage, whereas more dynamic monthly rates offer more potential for customers to save – and better aid the utility in cost recovery.

Utilities that choose to develop portfolio-based programs, where participants subscribe to a part of the utility's aggregated solar capacity instead of only one location, could pass savings along to participants as the utility's solar portfolio expands or as prices drop.

Paying for the project

While community solar projects cost less than other types of utility-scale generation facilities, Lazard's October 2020 levelized cost of energy analysis shows that community solar has a higher cost per watt than utility-scale solar projects, with a range of $1.30-$1.50 per watt. Utility costs include capital expenditures, from installation labor and permitting fees to land use and interconnection costs. Utilities should also factor in costs for operations and maintenance over the life of the facility.

Collaboration participants pointed to NREL's System Advisor Model as a helpful tool to calculate potential cash flow throughout the project and balance the costs with the likely production of the solar facility. Starting with this understanding of feasibility can also bring up how various siting and design considerations will affect overall costs – for example, if a project can be installed at a location that wouldn't involve buying or leasing land.

Financing the projects can involve multiple strategies, from purely selling subscriptions to the project to getting loans and project investors and securing state and federal grants to subsidize participation from income-qualified customers. Since public power utilities cannot currently directly benefit from tax-based incentives such as the investment tax credit, working with a third-party developer might allow for a developer to receive these credits and pass along part of the economic benefit in the form of reduced project costs.

Projects with investors and loans need to factor interest rates and expected investor returns into the overall costs.

The workbook recommends that projects include a carve out for customers with low to moderate incomes, but keeping projects open to a mix of customers. "Projects with a diversified mix of customer types are in a better position to achieve efficient project financing structures," advises the workbook. "High concentration of low-income customers would require grants and/or public funds to reach the same level of efficiency."

The collaborative also discussed how including such a carve out and ensuring that participating customers with low to moderate incomes can achieve cost parity might mean imposing a higher cost on other subscribers to the project.

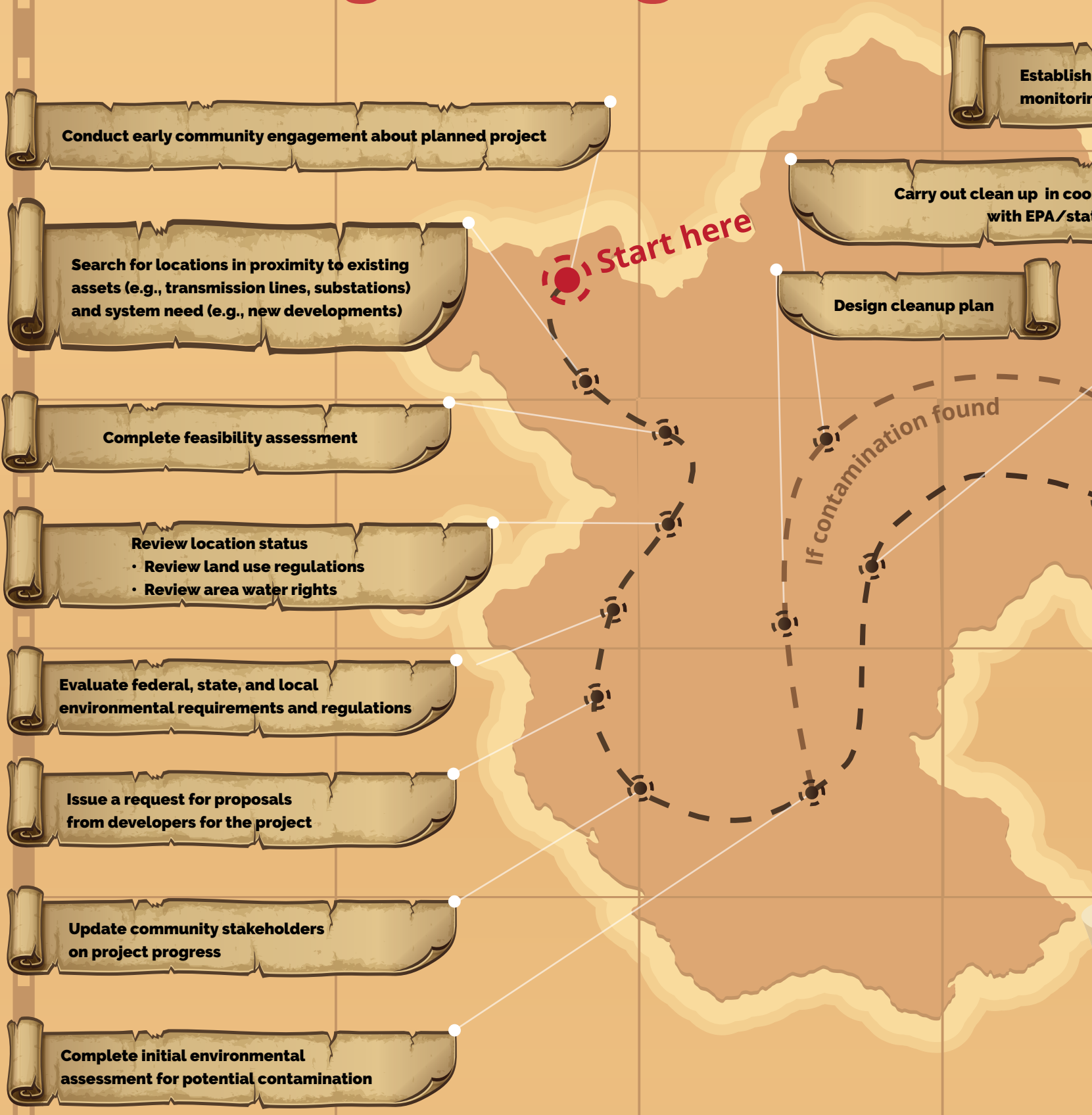
An anchor tenant, such as a large commercial customer, can offer more financial stability for the project by agreeing to participate in a larger portion of the array. However, state laws may limit how much capacity anchor tenants can take up, and how much of the array the anchor tenant occupies can limit how representative participation can be, which might affect grant funding prospects.

Learn more

The workbook will be available to public power utilities in 2022 from APPA's website.

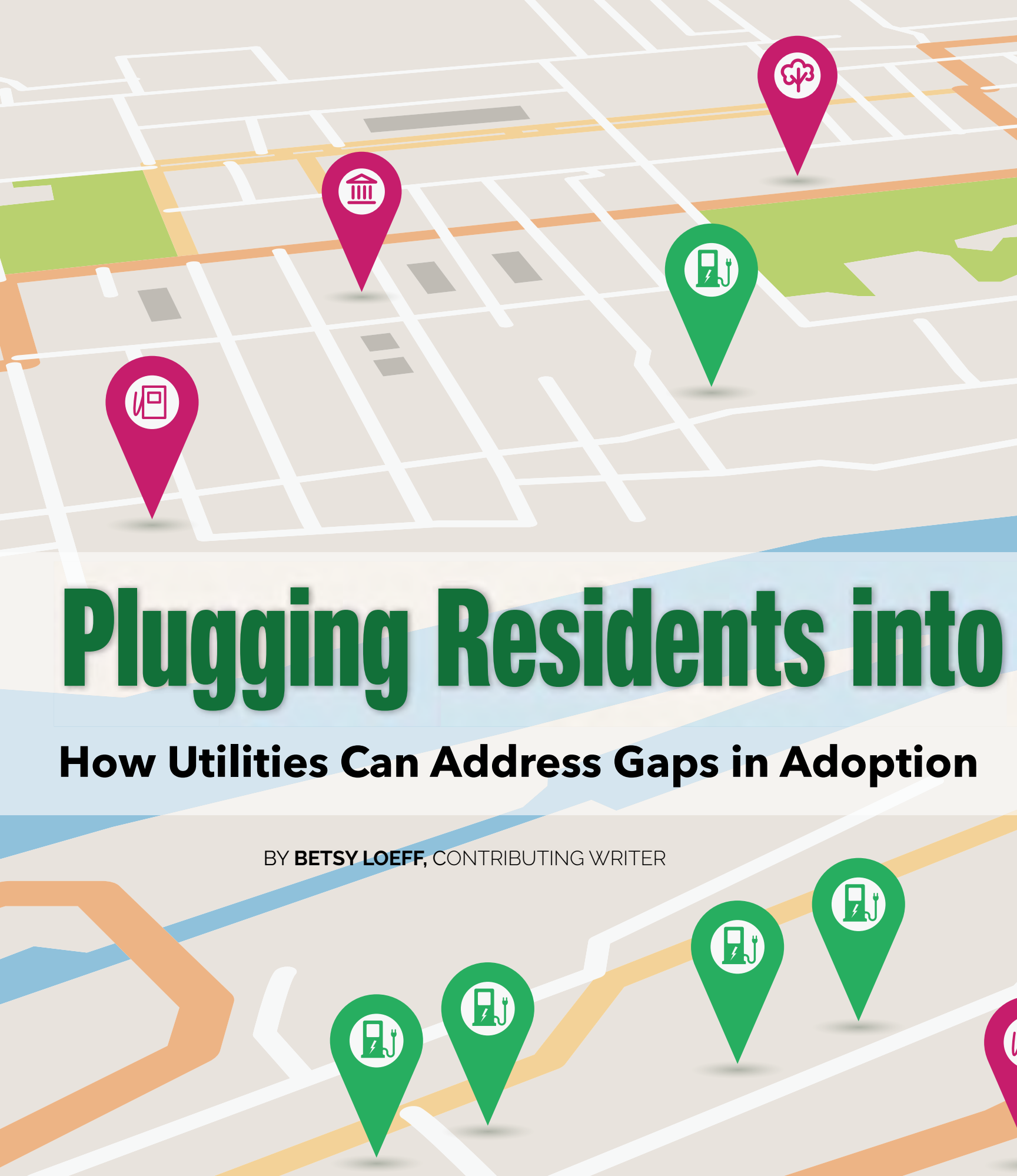
APPA will continue to work with NCSP for the municipal utility collaborative in 2022. Public power utilities can apply to receive free technical assistance from the NCSP, including consultation to help accelerate or enhance a program or to model potential costs and benefits of implementing a community solar program.

Securing the Right Site A Jou



rney to Getting a Facility Off the Ground

There are many steps to finding and developing the right location for a utility facility – whether building a solar field, wind farm, or more traditional power plant. While each state has its own process, this map outlines the steps generally required to ensure the site will be a good fit – for the utility and the surrounding community.



Plugging Residents into

How Utilities Can Address Gaps in Adoption

BY **BETSY LOEFF,** CONTRIBUTING WRITER


EV Opportunity

Gas-fueled cars and trucks are currently the largest single source of greenhouse gas emissions nationwide. Reducing emissions of carbon dioxide across the economy means getting more electric vehicles on the road, which will require making them more accessible to more drivers.

As public power utilities are trusted energy advisors for their communities, understanding the barriers to access to EVs and working to address these gaps will be an important part of this role.

Addressing affordability

Top of mind for many drivers – especially people with lower incomes – is the cost associated with having a car.

In part because of an early focus on producing luxury EV models, the average upfront cost for a new EV is generally more expensive than new cars with an internal combustion engine. However, as more manufacturers produce a wider range of models and battery prices continue to decline, the upfront cost is quickly coming in line with gas-fueled cars. Bloomberg NEF forecasts that cost parity on new vehicles will be reached by 2024.

The total cost of EVs drops with tax credits, which the federal government and some states still offer on most EV models (the federal credits have expired for models made by Tesla and GM). However, tax credits only work when you have taxes due to take advantage of the benefit, and many people with low income don't make enough in a year to see advantage from the credit. What's more, tax credits can't be carried forward for next year's tax liability. If you can't use the full credit during the year you bought the car, you simply don't get the full credit.

But low-and moderate-income earners aren't generally buying new cars, said Sherry Bryan, program manager with Ecology Action, a non-profit organization that helps people and communities adopt solutions for a low-carbon economy.

"Most low-income people are not able to afford the down payment and financing for a new vehicle," she said. "Many are renters, and a car is the biggest purchase they'll make. They're looking at cars in the $6,000 to $10,000 range, so how do we get the purchase price of an EV down enough that people will buy them instead of gas cars?"

Peter Ambiel, associate programs manager at Peninsula Clean Energy, a non-profit community choice aggregator providing electricity for San Mateo County in California, cited a report from the International Council on Clean Transportation that predicted lower-income adoption may not happen until the end of this decade, when cost parity of EVs will fall in line with used ICE vehicles.

Some 70% of all cars sold in 2020 were bought used.

For people with lower incomes, financial incentives that can be more immediate are more attractive.

Bryan advocates grants be used to cover down payment costs that bring financing expenses down. These grants should cover both new and used vehicles, she said. So should rebates, which currently are available for new vehicles only.

Such programs – plus the inevitable expansion of the used EV market – may help get more EVs into the hands of lower-income drivers.

Getting over the upfront cost barrier will ultimately help lower income earners longer-term, who Bryan said typically spend about four times the proportion of their income on gas and car maintenance than people with higher incomes.

EV drivers already benefit from reduced operations and maintenance costs. A study into the levelized cost of charging by the National Renewable Energy Laboratory found that EV drivers can save thousands on fuel costs alone over the life of the vehicle. Potential savings were greatest for people in areas with relatively low electricity costs and when they had the option for a time-of-use rate.

Ambiel points to another issue, too: "Lower-income folks tend to have only one car, and that car has to serve a wide variety of needs, so they may need certain types of vehicles, like trucks or vans." Available inventory, he said, might not yet accommodate such needs.

Charging access

Even when upfront costs come down and more types of used vehicles become available, there's another issue: where to recharge the vehicle's battery. Often, the most economical option for drivers is to charge at home.

A 2019 study by the U.S. Department of Energy found that more than 80% of EV charging takes place at home, but not every home offers easy plug-in options. "We estimate that about 25% of our population is in multi-unit dwellings, like apartments," said Melissa Garza, an engineer in the distributed energy resource team at Colorado Springs Utilities, a public power utility serving more than 200,000 customers in central Colorado. "They might not have access to residential charging." The utility is focused on creating a plan to help people have access to three types of charging: residential, worksite and opportunity charging, such as charging stations in public places people routinely visit.

That's easier said than done, particularly with residential charging in multi-unit dwellings. "Oftentimes, the outlets in multi-family units are not attached to the individual renter's power meter. The outlets – if there are any at all – are attached to house power, the common panel where the landlord is paying for utilities," Bryan said.

Her organization works to entice multi-family property owners to add charging infrastructure, but she said it's a hard sell right now. "I can't tell you how many times we show up on the scene, and property owners are actually walling off outlets to prevent tenants from drawing power," she said. "There is no return on investment for a landlord to increase power, install a new transformer, or get infrastructure for tenants to charge. It's just an amenity."

There are options for property owners to make use of this power, including from regular wall outlets or level 1 chargers, available on a pay-to-use basis. Companies such as Plugzio offer a service where users can scan a QR code next to an outlet to activate power and charge to their account.

Bryan added that the for-profit charging market isn't working for multi-family spaces

> **"We want to design within the panel capacity. If we cannot do that, then we want to design and build within the capacity of the transformer serving the building."**
>
> - Peter Ambiel, associate programs manager, Peninsula Clean Energy, California

right now either. "If you install a charger in a multi-family housing complex, there is no guarantee anybody will use it for a few years. There's no market incentive for the vendors."

Getting EVs and charging access to people with lower incomes may be challenging, but Peninsula Clean Energy, Colorado Springs Utilities, and Ecology Action are all working on it anyway.

"Undersized panels, both in older single-family homes and apartments, are something we are running into consistently with programs that we're doing," Ambiel said. "Part of Peninsula Clean Energy's charging program is that we developed a set of design principles to minimize installation costs and maximize the number of ports that we can install."

First, Peninsula Clean Energy's team figures out mileage needs of drivers in the dwelling. "Then we're going to implement technologies – like power management or using the level 1 outlets – to minimize the impact of that new EV charging load on the panel. We want to design within the panel capacity. If we cannot do that, then we want to design and build within the capacity of the transformer serving the building. We don't want to trigger a transformer upgrade," Ambiel said.

Ecology Action, which works with power providers around the country, has a similar approach. "Our key recommendation for trying to sell multi-family charging is make it free and make it so there's no hassle for the property owner," Bryan said. "That means a program comes in and does a site assessment, analyzes the power that's available and creates a solution that fits the parking and operational needs."

Colorado Springs is still in planning phases of its EV program, but Garza said the utility is also considering a "full-service model, where the utility comes in, takes care of installation and covers that cost over time, taking away that upfront burden."

Other initiatives being considered in Colorado Springs include:

- Rebates for owners of multi-family properties or commercial sites
- Utility-owned charging infrastructure to provide opportunity charging around town
- Policy recommendations related to residential development and charging infrastructure

That last item is especially appropriate for Colorado Springs, a rapidly growing metropolis. Currently, Colorado Springs is the second-largest city in Colorado by population with nearly half a million residents. By 2050, the state demographer anticipates that the city will gain more than 400,000 residents, and Colorado Springs is expected to be the state's most populated city in 15 years. Growth like that means plenty of building is underway.

"We're going to have a set of recommendations with regard to parking and EV-ready spaces" at new developments, Garza said.

Preparing the grid

Another area utilities can examine regarding EV charging access is grid infrastructure.

Colorado Springs is studying its distribution system, particularly in older neighborhoods, like the "old Colorado City" part of town. "Some of those houses were built before there were cars and garages," Garza said.

"Generally, a transformer is sized based on the size of panels connected to it," Ambiel noted. "If you have smaller panels, you have smaller transformers."

Ambiel referenced a recent study that looked at distribution systems for two large investor-owned utilities: Pacific Gas & Electric and Southern California Edison. The study found that homes in lower-income neighborhoods tended to have less power capacity, which could present an additional barrier for property owners in these areas to add technology such as charging stations or heat pumps.

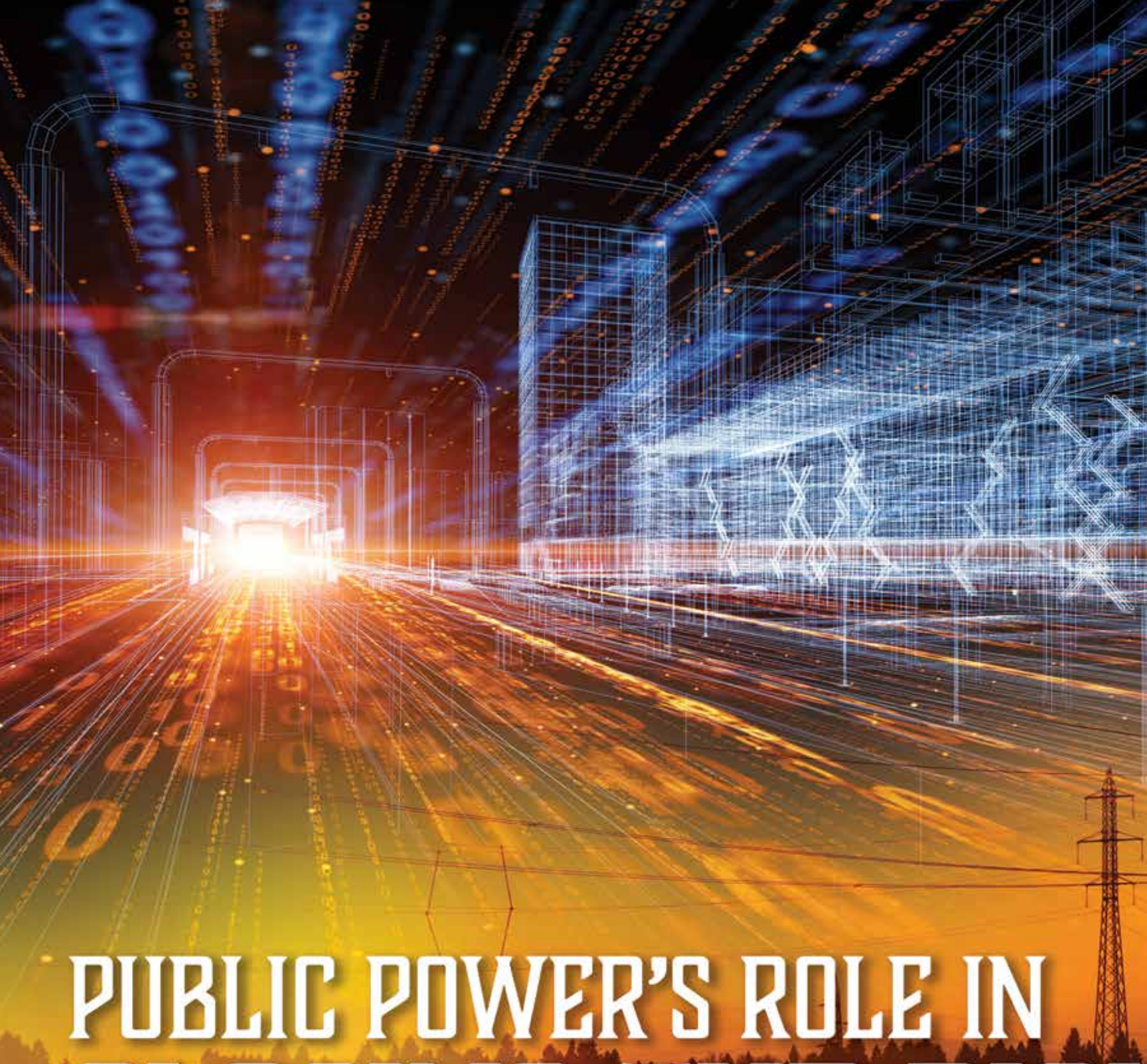
But, he noted, poorer and older neighborhoods aren't the only areas that face distribution system capacity concerns. Ambiel pointed to a study the City of Palo Alto published last year after examining the city's distribution system and potential impacts of all-electric homes. "They found that 95% of their transformers would be over-capacity. So would 20% of secondary distribution lines and 25% of feeders."

Milad Solemani, a doctoral candidate at Texas A&M University, recently released a study examining how distributed resources such as solar and storage systems could prevent

transformer overload in areas with high concentration of EVs. The study, which was funded in part through a grant from the American Public Power Association's Demonstration of Energy and Efficiency Developments program and supported by Bryan Texas Utilities, found that using optimized battery storage systems could significantly reduce risk of transformer loss of life. The key, Solemani noted, is ensuring that customers with the systems receive real-time price signals and that battery systems are appropriately calculated to mitigate stresses that could reduce transformer life.

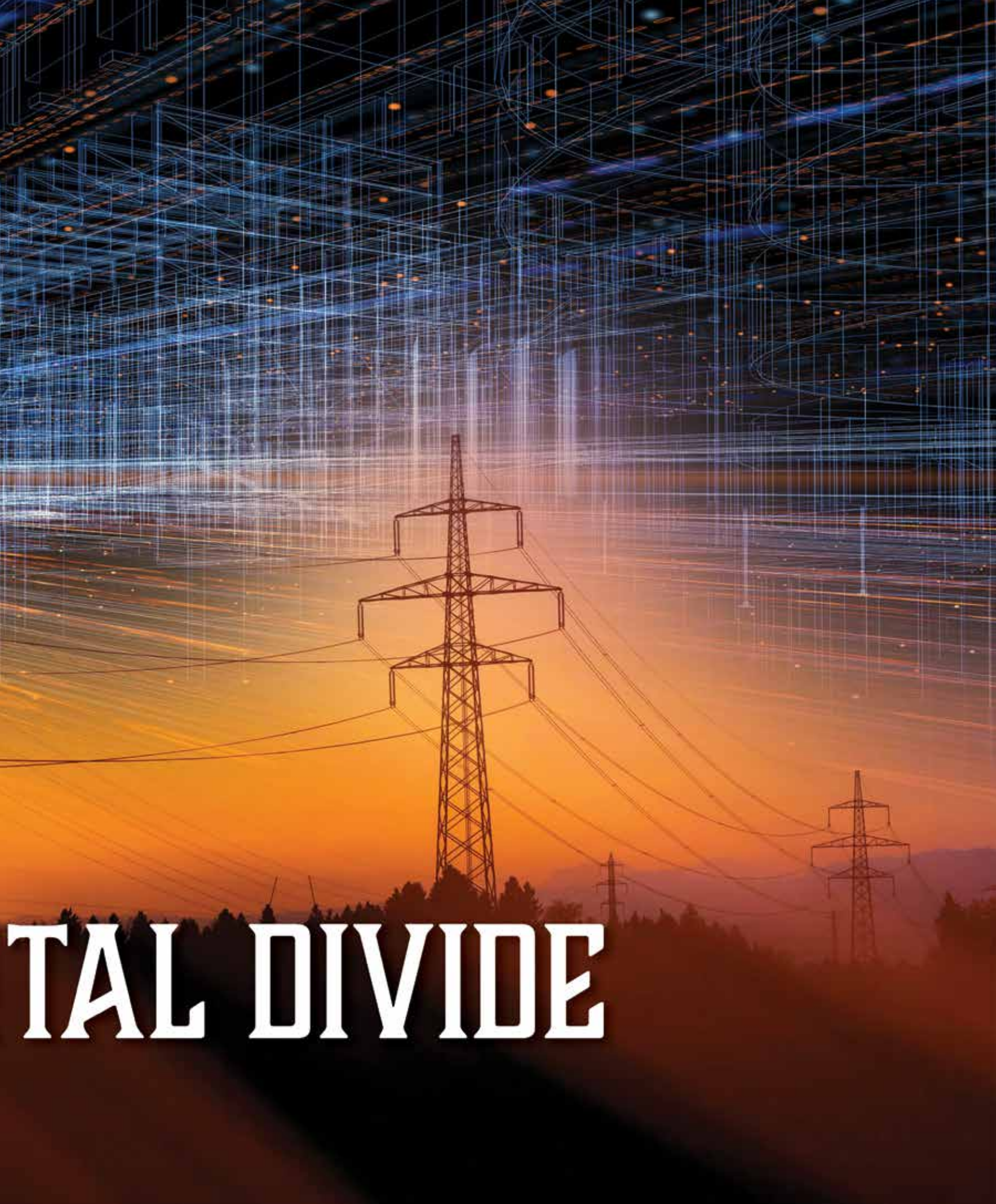
Not surprisingly, distribution system impacts were the very first item Garza named when asked what impediments her city was looking at to support EV adoption. Still, this city – like so many others – is moving forward with a commitment to all its citizens, no matter where they live or how old the distribution system asset happens to be. "We want to make sure the deployment of EV infrastructure and EV incentives are fair and equitable for everybody," she said.

"Energy is a public good. It's critical for everyone in everyday life, so no one can be left behind," said Ambiel. "It's fitting for power providers to lead the way because we're the ones who know the energy space. We're uniquely positioned to do that."



PUBLIC POWER'S ROLE IN CLOSING THE DIGI

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


TAL DIVIDE

PUBLIC POWER'S ROLE IN CLOSING THE DIGITAL DIVIDE

For the past few years, the Federal Communications Commission has prioritized getting every American access to high-speed broadband internet connectivity. This priority, according to the FCC, is because "high-speed broadband and the digital opportunity it brings are increasingly essential to innovation, economic opportunity, healthcare, and civic engagement in today's modern society."

Put in plain terms, people with access to broadband have fewer barriers in being able to apply for jobs, complete some work from home, have tele-health appointments, and access information. Children living in households without high-speed internet, especially as schools moved to virtual formats during the pandemic, have greater difficulty learning and in completing schoolwork.

Just as public power utilities formed to provide essential electric service, cities and towns are turning to municipal broadband to offer residents reliable, affordable internet service options. Whether fully run by the utility or building off local electric infrastructure, community broadband service is helping communities gain access to high quality, affordable internet connectivity.

Expanding access

In its latest Broadband Deployment Report, published January 2021, the FCC noted that about 14.5 million Americans live in areas without access to broadband service – which is down from nearly 18 million only two years earlier.

The Infrastructure Investment and Jobs Act authorizes $65 billion for broadband, including $43 billion for grant programs through the National Telecommunications and Information Administration to support broadband equity, access, and deployment. The funds will be allocated largely to states and tribes based on the extent of unserved and underserved areas each has.

While the overall trends point to increased adoption across the U.S., certain populations continue to face barriers to access along income, geographic, and demographic trends. According to a Pew Research Center survey, more than 40% of households making less than $30,000 annually do not have broadband service at home. More than a quarter of adults in this income group rely solely on a smartphone for internet access and do not have broadband access at home – a percentage that is more than double what it was in 2013.

People living in rural areas also have lower adoption of broadband, with 72% of rural adults reporting having broadband access at home, compared to 79% of adults in suburban settings. In a 2018 Pew survey, almost a quarter of rural adults across all income levels reported access to quality, high-speed internet as a "major problem," and another third reported it as a "minor problem."

A study by the Joint Center for Political and Economic Studies found that Black Americans in the rural South were nearly twice as likely than White rural southerners to not have internet access at home. The study also found that across southern rural counties with at least 35% of residents that are Black, more than a quarter (25.8%) of residents did not have the option to subscribe to broadband service.

The FCC's definition for "high-speed" is service that reliably provides download speeds of 25 megabits per second and upload speeds of 3 Mbps. Some of the grant funding through the infrastructure act ups the requirement for minimum speeds to 100/20 Mbps, which would allow for reliable high-speed access across multiple devices.

A great equalizer

In Barbourville, a small city of about 3,000 people in rural southeastern Kentucky, the Barbourville Utility Commission has been working to offer residents better connectivity than surrounding communities for more than three decades. Josh Callihan, Barbourville's general manager, said that the public power utility started offering residents broadband service through cable in the late 1990s, at a time when such service was often only available to people living in bigger cities.

The offering earned Barbourville the distinction of being named one of "America's Most Wired Cities" by Yahoo Internet Life Magazine back in 2000.

Callihan said that having the service set Barbourville apart from surrounding communities and brought jobs, including data processing centers, to the area – with many such jobs still local two decades later.

"We have internet speeds that are comparable to bigger cities in a rural Appalachian town," said Callihan. "It's a great equalizer, when you live in a rural area and you have geographical constraints, to be able to bring information and opportunities to people – and broadband is a mechanism for that for sure."

Once established, the utility wanted to be sure to stay on the forefront of offering its community the connectivity. Starting in 2017, the utility intentionally overbuilt the cable system to become a fiber-to-the-home network accessible to the entire area. Callihan estimated that about 4,000 customers in the area can now access the service, which is available in speeds up to one gigabit per second. He said that about 2,000 customers are signed up for the service, and that the utility has been steadily adding customers since the fiber to the home service first became an option in 2018.

In the past few years, having the high-speed service has allowed residents to more easily adapt to increased teleworking, virtual school, and more. Having the connectivity already in place meant one less hurdle for residents and local businesses to navigate.

"If you are trying to do business globally, you can do it right here in Barbourville. [Broadband] brings it to the people," added Callihan.

Helping communities grow

Having reliable, high-quality service is increasingly seen as a vital need for businesses of all sizes.

"As far as economic development, I don't know that you could have any type of growth without broadband," said Jeff Bergstrom, general manager of Marshall Municipal Utilities in Missouri.

He explained that the public power utility grew the fiber network from the utility's internal communications network, which originally was built to provide fast connectivity between substations and other utility facilities.

Bergstrom said the utility recognized a greater community need, since the only option available at the time was dial-up service, and the rural town wasn't big enough to meet the subscriber minimums required by private companies.

> **"I don't know that you could have any type of growth without broadband."**
>
> Jeff Bergstrom, general manager, Marshall Municipal Utilities, Missouri

Marshall Municipal Utilities saw an opportunity to fulfill that need. He said that two employees began to work on expanding the fiber network in 2005, connecting a handful of customers at a time. Since it was a slow process, the utility didn't advertise the offering for several years, and it took as long for the service to be self-supporting.

Even though it took a while for the service to ramp up, Bergstrom believes starting from the utility's network was the right approach. He said that when many utilities look at connecting their facilities, they then notice how that infrastructure will go by "a lot of potential customers."

The service has taken off the past five years, and now about 3,500 customers subscribe to Marshall's broadband service. The utility received a pair of grants from the U.S. Department of Agriculture ReConnect Pilot Program to further expand its broadband network to the surrounding county, which will include connecting some schools and nursing homes.

"As a local utility, if you're helping the community then you're helping yourself," said

Bergstrom, explaining that providing a locally owned needed service supports the community in many ways.

Beyond fulfilling a community need, Bergstrom sees benefits in local ownership of broadband service. Similar to advantages on the electrical side, he cited a commitment to affordability, reliability, and customer service.

"It's not just tech service you call into and troubleshoot over the phone but if there's an actual problem, we know we've got staff available to go out and make repairs as needed," said Bergstrom.

Not overlooked

Rolling out broadband service didn't go exactly as planned for the city of Rock Falls, Illinois, according to city administrator Robbin Blackert.

The city's public power utility had laid more than 40 miles of fiber to connect substations across the city of about 8,800 people. The city began exploring what it would take to build that network out to create a fiber-to-the-home network for all residents and established $4.4 million in bonds for the build out. However, as the process began to move along, and in working with a financial consultant, the city discovered a few state and local laws applying to municipalities that would have significantly driven up the costs for the city to take on the project directly.

Instead, the city sold the infrastructure to a third party with the intent that the third party would complete the build out and provide the city with franchise fees for use of the system. While not what Blackert and city officials originally envisioned, she noted that the ultimate goal was for the city to have the service available for residents and businesses.

"We're kind of the overlooked little towns… We know the big companies aren't going to come in and spend that capital investment," she said.

In early October, Blackert estimated that about two-thirds of the city had access to its gigabit service. She expects the network to be completely built out by Spring 2022.

Some of the groups that were able to get access to the service early on included area schools and businesses. The city worked to get access for these customers up quickly, and to ensure costs could be kept low. Blackert said this prioritization meant that Rock Falls' schools were at a significant advantage in switching to remote learning compared to schools in surrounding communities when the pandemic began.

Residential customers already on the service remarked on how much better their home connections were than work – making remote work not only tangible, but attractive. As remote work opportunities expand, Blackert sees this as an ongoing selling point for the city, which is

about two hours west of Chicago and an hour east of the Quad Cities area on the border of Illinois and Iowa.

"We just see this as something you have to be able to offer your residents, or they'll go somewhere they can get it," said Blackert. "It's no longer just a luxury – it's a necessity. Just like electricity."

Reducing cost

Having municipalities step in to help bring broadband service to their community can also bring more competitive prices.

The Open Technology Institute's Cost of Connectivity 2020 analysis found that the average monthly price for internet connection in the U.S. is $68.38 – not including the sometimes significant taxes and fees, such as installation costs and equipment rental fees, that companies often charge consumers. Once these costs are factored in, the analysis pegged the average bill as being anywhere between $84 - $92.

The analysis found the average for a monthly fiber-based plan in the U.S., not including related taxes and fees, is $79.92. For gigabit speed, the average monthly bill is $131.70.

"In the U.S. market, prices vary widely across the country—but municipal networks tend to offer the fastest, most affordable options," the Cost of Connectivity report stated.

Utilities touted their cost advantage and competitive rates as advantages for their communities. In Barbourville, packages range from $40 per month for 50/Mbps to $75 for the gigabit service (1,000 Mbps). Marshall's "entry-level" package, which advertises speeds of 50 Mbps, is $30 per month, and its highest speed service, 450 Mbps, is $70. In Rock Falls, monthly costs range from $65 to $95, depending on the package, and advertise that plans do not tack on installation fees nor require long-term contracts.

Public power providers also pride themselves on being able to provide superior service for less cost.

"A lot of times, your price goes up, but your service level or your speed doesn't. And we've been able to do the exact opposite, which is raise speeds and increase service and do it for the same cost," said Bergstrom.

RECRUITING FOR A DIVERSE, EQUITABLE, AND INCLUSIVE WORKFORCE

BY **TANYA DERIVI,** SENIOR DIRECTOR, MEMBER ENGAGEMENT, AMERICAN PUBLIC POWER ASSOCIATION

There are many layers to what makes an organization's working environment diverse, equitable, and inclusive. For the San Francisco Public Utilities Commission, multiple initiatives underway support its vision of becoming a more diverse and inclusive workplace, starting with retooling its recruiting and hiring practices. From proactively recruiting a more diverse applicant pool, to helping address unconscious bias for hiring managers and ensuring a welcoming environment where employees can discuss race and diversity.

Starting with culture

The SFPUC is working under a mayoral and commission directive to reimagine cultural values and set expectations. Catherine Spaulding, power deputy manager, added that SFPUC is "gearing towards an employee engagement model of organizational change." Multiple staff-led subcommittees are dedicated to: empowering employees to learn about racial equity in a safe space; supporting an advisory panel made up of representatives with a variety of racial backgrounds; and using an equity screen before program implementation to prioritize support for low-income and historically marginalized communities.

The utility shares and tracks related efforts with all employees, and welcomes feedback on these efforts. Barbara Hale, SFPUC Power Enterprise's leader, regularly participates in such staff activities to reinforce their importance.

Recruiting

Ashlye Wright, management assistant at SFPUC, said that staff had identified the need for better efforts to recruitment diversity. Wright noted that some positions had not typically seen a diverse applicant pool. She said that the human resources department is building out a "drop-off rate tool" to measure the demographics of applicants throughout the hiring process.

The SFPUC is also revaluating where the utility recruits to bring in a more diverse applicant pool — such as dedicated outreach to Historically Black Colleges and Universities and Hispanic-Serving Institutions, and to diversity-focused professional associations and job boards. During interviews, interviewers from Power Enterprise will also begin to ask applicants about diversity and equity issues.

"We want to show our candidates that we are a welcoming, diverse and inclusive place to work, and we want to identify people who

have those competencies to work here," Wright added. Part of that effort is ensuring that interview panelists are diverse – and trained to help remove subconscious bias and address "group think" leanings.

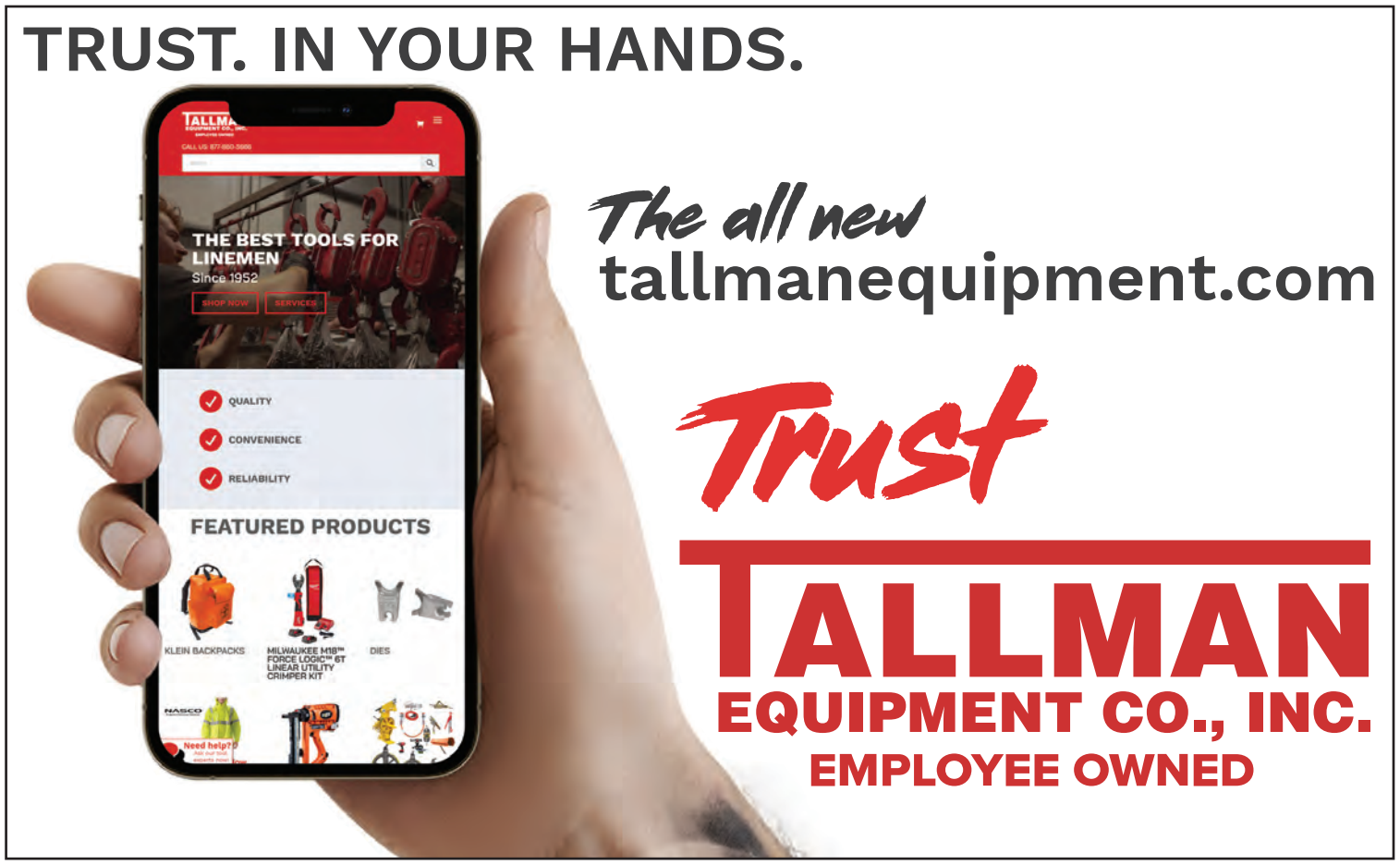
Supporting growth

"There were fair and unbiased hiring standards and processes in place before, but we needed to do more," Spaulding said. The city's new Office of Racial Equity, for example, is working on collecting data so city departments can show progress. "The employment lifecycle program gives us the chance to support, track, and communicate out important milestones and make sure that all staff are receiving the same feedback and opportunities," said Jonathan Pettey, SFPUC Power Enterprise's organizational development manager.

He said new employees have regular manager check-ins to speak about role objectives and to consider constructive feedback. The utility is working to increase equity in promotion opportunities by more proactively communicating job opportunities to all employees. A new SFPUC employee newsletter centralizes promotional opportunities, training and development, and support programs and may help inform more targeted training for specific types of roles.

Spaulding said the SFPUC has also focused on more robust apprenticeship programs. "We want to ensure we are recruiting and hiring from a diverse pool" of applicants earlier, she said. Part of that effort is reevaluating job requirements. "We are revisiting minimum qualifications to make sure they are appropriate," she added, calling it counterproductive to limit progress towards greater equity by keeping unnecessary restrictions. As one example, the SFPUC is looking to substitute work experience for educational history where appropriate.

The pay scale at public power utilities also continues to be a challenge. Pettey said the SFPUC is working with the city to reevaluate salary ranges by benchmarking compensation against other local utilities. "We want to create job pathways to our external communities through local high schools and elementary schools to get kids excited about this industry," he said.



BUYING LOCAL:

Examining Public Power Procurement to Support Community Suppliers

BASED ON A CONVERSATION WITH **CAROLYN JUSTICE-HINSON,** COMMUNICATIONS AND COMMUNITY RELATIONS OFFICER, AND **LEXI HASAPIS,** LOCAL VENDOR PROCUREMENT ANALYST, FAYETTEVILLE PUBLIC WORKS COMMISSION

In terms of its buying power in the community, the Fayetteville Public Works Commission, a public power utility serving more than 80,000 customers in North Carolina, does a little bit of everything. It is involved in construction, seeks a variety of professional services, uses regular office supplies and goods, and gets catering for some meetings. This all adds up. Of its roughly $400 million annual budget, the PWC estimates that it spends about $25 million locally across all purchasing.

In the summer of 2021, the PWC and the City of Fayetteville engaged a law and consulting firm to study its policies related to local, minority, and women owned businesses. The idea is to look at not only how effective its policies are in driving choices about supporting these businesses, but also in getting a deeper understanding of where there might be disparities in the availability of needed goods and services through these firms and its use of them.

This in-depth study is a culmination of a PWC strategic planning effort that began back in 2016 to increase use of local small businesses. The current target is to have at least 10% of construction-related expenses go toward local or minority-owned businesses.

Part of the study is determining a realistic goal to achieve, and if goals can be set for specific expense areas. Having a separate examination for the PWC from the city makes sense, since utility needs include a number of specialized supplies and services, such as transformers, which do not have a local vendor. Although the end goal for both the city and the PWC is to focus on local purchasing, having the same targets might not make sense for building a ballpark versus building a substation.

The study involves not just a thorough review of the city and utility's policies and procedures, but also includes a survey of current vendors on their needs and perceptions about working with the city and the utility and an inventory of local businesses.

Some might have the perception that since there are lawyers involved in the analysis, this study is a negative reflection on the organization and city. The PWC sees the study as a way to show them how to create a better procurement program that takes the strategic priority set in 2016 to heart, and ensure it is maximizing efforts to support a diverse array of local businesses.

The PWC expects the study to reveal more about local business community needs, what demand there might be for using more local, minority and women owned businesses, and if it can target specific areas for improvement. It hopes to have a clearer picture about what goods and services are available locally and what requires going outside of the city.

Doing this kind of study, said the PWC, is central to making sure the utility is upholding the values of public power. Namely, that public power utilities are dedicated to making their communities better – and giving back where possible. The PWC sees the study as a good way to balance a desire to support the community with the bottom line.

Outside of the study, building relationships with local vendors and understanding how community business skills can match utility needs has been an ongoing effort, made stronger by the public power governance model. Having PWC's governing board comprised of local leaders means that they can relay questions and concerns from local businesses regarding procurements and how that process is with the city. In fact, it is because the PWC's commissioners were tuned into this kind of community feedback that they set the strategic initiative back in 2016.

The PWC expects to see findings from the study in Summer 2022.

Equity's on the Federal Agenda

What That Means for Public Power

BY **CAROLYN SLAUGHTER,** DIRECTOR, ENVIRONMENTAL POLICY, AMERICAN PUBLIC POWER ASSOCIATION

With the issuance of a handful of Executive Orders, President Biden signaled a priority for the federal government to advance and support equity in its programs and policies.

In Executive Order 13985, Advancing Racial Equity and Support for Underserved Communities Through the Federal Government, the Biden Administration laid out a definition for equity and a vision for how the federal government could address inequities.

The EO defines equity as the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to communities that have been denied such treatment, whether because of their race, ethnicity, religion, sexual orientation, disability status, or geographic location, or other persons otherwise adversely affected by persistent poverty or inequality.

The EO called for a comprehensive and systematic approach to advancing equity – instructing executive departments and federal agencies to "recognize and work to redress inequities in their policies and programs that serve as barriers to equal opportunity," and to "assess whether, and to what extent, its programs and policies perpetuate systemic barriers to opportunities and benefits for people of color and other underserved groups."

Following a comprehensive assessment of whether certain communities face systemic barriers in accessing their program benefits, agencies must prepare a plan to address any inequities discovered. Agencies were given one year, until January 2022, to develop the plan. An interagency working group is available to consult with and support agencies in this effort.

The EO also challenged the Office of Management and Budget to identify opportunities to promote equity in the President's budget and study strategies for allocating federal resources to increase investment in underserved communities so that specific federal resources could be put behind the effort.

Specific to the energy industry, Executive Order 14008, Tackling the Climate Crisis at Home and Abroad, directs federal agencies to develop programs, policies, and activities to address disproportionate health, environmental, economic, and climate effects on disadvantaged communities.

The order established a White House Environmental Justice Interagency Council and a White House Environmental Justice Advisory Council to address current and historical injustices. It also established new or strengthened offices at the Environmental Protection Agency, Department of Justice, and Department of Health and Human Services to allow for monitoring and enforcement of problems relating to environmental justice.

Notably, the order sets a goal of delivering 40% of the overall benefits of relevant federal investments to disadvantaged communities. Called the Justice40 Initiative, interim guidance from OMB suggests that relevant programs in the initiative include those that focus on climate change, clean energy, energy efficiency, and remediation and reduction of legacy pollution. Covered programs also include those focused on training and workforce development related to climate, natural disasters, environment, clean energy, clean transportation, housing, water and wastewater infrastructure, and legacy pollution reduction.

The interim guidance also outlines how agencies can calculate the full benefits of a program and how much those benefits flow to disadvantaged communities. The amount of program funding to a specific community is one factor, but not the only part of the equation when agencies calculate total benefits directed at a community.

Performance toward the investment goal is also going to be tracked via a yet-to-be-released Environmental Justice Scorecard. The order also initiated the development of a Climate and Environmental Justice Screening Tool, building off EPA's EJSCREEN, which will help agencies to identify disadvantaged communities and inform equitable decision-making.

While an array of energy-related programs will be affected by the Justice40 Initiative, 21 programs are part of a pilot to implement the Justice40 guidance and offer insight into how to maximize benefits directed to disadvantaged communities. The pilot programs include the Department of Agriculture's Rural Energy for America program, which helps rural small businesses to adopt renewable energy and energy efficiency measures.

EPA's draft Strategic Plan for FY 2022-2026 offers further insight on how the agency plans to advance equity. The plan highlights EPA's commitment to strengthen the External Civil Rights Office and its ability to enforce federal civil rights laws to their "fullest extent" by conducting "affirmative investigations" in overburdened communities and securing timely and effective resolutions to address discrimination. EPA is exercising these civil rights authorities to influence environmental activities by the state regulatory community in a number of permitting cases.

With the one-year mark nearing, we can expect to see further guidance from the agencies that support public power initiatives soon, including the Department of Energy and the Federal Emergency Management Agency. For public power, this guidance isn't only about meeting federal grant requirements, it comes at a time when addressing equity might also be top of mind for city council and utility board members — such as those looking to report on how the utility performs on environmental, social, and governance factors — and other community members who might be getting more engaged in siting and planning projects as the energy sector transitions.

What Does Electricity Have To Do With Equity?

As an integral part of community life, how public power utilities structure everything from rates to programs and infrastructure can be viewed as supporting or detracting from how fairly people are treated within a community.
Here are some steps utilities can take to ensure their community members have equal access to the same reliability and quality electricity.

Assessing how rate structures affect people in different living circumstances, and any related usage patterns

Making sure key utility messaging is accessible to various parts of your community – including those who might not have access to certain technology and to those who speak other languages

Connecting with various neighborhood groups to gather feedback from across the community

Ensuring infrastructure upgrades deploy fairly across the service territory

Learning if certain communities face disparate health effects from any type of energy infrastructure. For example, areas with high traffic might experience health problems related to gasoline emissions. Utilities could work with public transit agencies to site charging for electric buses and other "last mile" options in these areas.

Developing community solar projects with carve outs for income-qualified customers

Targeting home retrofitting weatherization assistance programs to customers with higher energy burden

Reviewing work to ensure vegetation management practices are applied similarly in lower-income neighborhoods as others

Checking if customers with certain demographics or within specific neighborhoods are not enrolling in utility programs – and learning what might be stopping them from doing so

CONGRATULATIONS

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We salute your commitment to prioritizing energy efficiency, distributed generation, renewable energy, and environmental initiatives as you provide affordable and reliable electric service to your communities.

Anaheim Public Utilities, CA

Austin Energy, TX

Belmont Municipal Light Department, MA

Borough of Chambersburg, PA

Braintree Electric Light Department, MA

Burlington Electric Department, VT

CDE Lightband, TN

Cedar Falls Utilities, IA

Cedarburg Light and Water Commission, WI

Chelan County PUD, WA

City of Bowling Green, OH

City of Colton, CA

City of Columbia Water & Light, MO

City of Palo Alto Utilities, CA

City of Tallahassee Electric Utility, FL

Clark Public Utilities, WA

Colorado Springs Utilities, CO

Columbus Water & Light, WI

Danvers Electric Division, MA

Elk River Municipal Utilities, MN

EPB, TN

Fayetteville Public Works Commission, NC

Florence Utilities, WI

Fort Collins Light and Power, CO

Guam Power Authority, GU

Holland Board of Public Works, MI

Holyoke Gas & Electric Department, MA

Independence Light & Power, IA

Independence Power & Light, MO

Jefferson Utilities, WI

Kansas City Board of Public Utilities, KS

Kaukauna Utilities, WI

Kissimmee Utility Authority, FL

Lake Mills Light & Water, WI

Lansing Board of Water & Light, MI

Lincoln Electric System, NE

Littleton Electric Light and Water Departments, MA

Longmont Power & Communications, CO

Maquoketa Municipal Electric Utility, IA

Mason County PUD No. 3, WA

Menasha Utilities, WI

Middleborough Gas & Electric Department, MA

Moorhead Public Service, MN

Muscatine Power & Water, IA

Naperville Electric Utility, IL

Napoleon Power & Light, OH

Nebraska Public Power District, NE

New Braunfels Utilities, TX

New Holstein Utilities, WI

New London Utilities, WI

New Richmond Utilities, WI

New York Power Authority, NY

Norwich Public Utilities, CT

Oconomowoc Utilities, WI

Oconto Falls Municipal Utilities, WI

Richland Center Electric Department, WI

River Falls Municipal Utilities, WI

Salt River Project, AZ

Santee Cooper, SC

Silicon Valley Power, CA

Snohomish County PUD, WA

Stoughton Utilities, WI

Sun Prairie Utilities, WI

Tacoma Power, WA

Taunton Municipal Lighting Plant, MA

Two Rivers Water & Light, WI

Wakefield Municipal Gas and Light Department, MA

Waunakee Utilities, WI

Westerville Electric Division, OH

Wilson Energy, NC

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