

❖ **ELECTRICITIES** of NC
2021 ANNUAL REPORT





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POWER COST**

Recognizing communities that provide competitive and stable wholesale electric rates that meet the power supply needs of their customers.



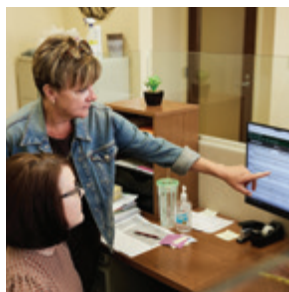
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Recognizing cities and towns that constantly review and enhance all aspects of public power with a focus on reducing costs and increasing efficiencies in current and future operations.

On the cover: Historic downtown Morganton illuminates just after sunset on a summer evening.



Lexington Utilities lineworker Caleb Miller shares the rewards and responsibilities of a career in public power with students at Lexington Middle School.

MESSAGE *from the CHAIR and CEO*



STEPHEN H. PEELER
Chair



ROY L. JONES
Chief Executive Officer

With all the ways our public power communities are unique, we face similar challenges and opportunities. But whatever we're facing—a destructive storm, the rapid pace of technology, workforce retention difficulties, or even a pandemic—we've proven time and time again that we're stronger together. And that combined strength of public power is mighty.

The lineworkers, customer service reps, engineers, technicians, communicators, and other specialists—the faces of public power—demonstrate that strength every day in their dedication and commitment to keeping the lights on for their neighbors.

Our might shined as public power found innovative ways to continue delivering on core business objectives, like meeting virtually for the 2021 Connections Summit to ensure the opportunity to dive into the complexities of using new technology and better connecting with customers.

Our combined strength was on display as we gathered in person for our 2021 Annual Conference, sharing ideas and proposing strategies for moving public power forward.

As it does every year, our Annual Report shines a light on the value of public power, highlighting how five member communities' efforts align with our five strategic priorities.

You'll learn how Lexington conveys the value of public power by being out in the community where their customers are, how leaders in Laurinburg are working together to address lineworker turnover, and about the multiple approaches Fayetteville Public Works Commission is using to keep wholesale power costs down.

You'll discover how Clayton is using AMI technology to improve efficiency and the customer experience and you'll learn about how Morganton takes a wide view to continuously improve its system reliability and reduce operating costs.

As we celebrate the successes of these and all our member communities, it's clear that the strength of public power is the value it provides—to our customers, our communities, and each other. Working together, that value will take us well into the future.

“The strength of public power is the value it provides—to our customers, our communities, and each other.”



Mr. Stephen H. Peeler
Chair
Lincolnton



Mr. Donald I. Evans
Vice Chair
Wilson



Mr. Randy E. McCaslin
Secretary
High Point



Mr. Joseph P. Albright
Gastonia



Ms. Whitney Brooks
Lexington



Mr. Anthony C. (Tony) Cannon
Greenville Utilities Commission



Mr. Jonathan Franklin
Louisburg



**Mayor Constantine H.
(Costi) Kutteh**
Statesville



Mr. Troy R. Lewis
Tarboro



Mr. Edmond C. (Ed) Miller
New River Light & Power



Mr. Charles D. Nichols, III
Laurinburg



Mr. Jonathan Rynne
Fayetteville PWC



Mr. Tony W. Sears
Kinston



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Newton



Mr. E. Todd Clark
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Chief Operating Officer

Jay Morrison
Chief Legal and External
Affairs Officer

MEMBER COMMUNITIES



Fayetteville Public Works Commission
FAYETTEVILLE, NORTH CAROLINA

WHOLESALE POWER COST

Securing safe, reliable, and affordable power supply is the foundation of everything we do. It enables North Carolina public power providers to effectively serve our customers, attract new businesses, and power our communities.

Fayetteville PWC Lineworker 3rd Class Jonathan Bullard operates hardware directly linked to the utility's capacitor banks (located on the lowest rack mount).



Lineworker 2nd Class Charles Risen performs the same task from the ground with a 40-foot telescopic hot stick.

Working all the Angles to Keep Costs Down

The team at Fayetteville Public Works Commission (PWC) knows that managing costs requires a multifaceted approach, so they’re working a lot of angles to hold down their wholesale power costs for the benefit of their customers—now and in the future.

“One of the great things about us being a municipal utility is that our Commission, which is made up of representatives of our customers, makes the decisions that enable us to reduce the largest expense of the utility—the wholesale power cost—to the benefit of everybody,” said Jon Rynne, PWC’s Chief Operating Officer of Electric Systems.

He said adding capacitor banks on PWC’s distribution system over the past few years has enabled the utility to alleviate losses in particular areas. The banks also improve the efficacy of the utility’s conservation voltage reduction program, enabling PWC to consistently apply voltage reduction across all customers on a circuit while maintaining voltage requirements.

Over the next year, PWC will move from manual to automated conservation voltage reduction using the utility’s

advanced metering infrastructure (AMI) system. “It’s a really good use of AMI technology, SCADA systems, and GIS mapping, using software to optimize the process,” Rynne said.

PWC is also using a multipoint approach to residential load management, piloting a traditional program using switches on water heaters and air conditioners, as well as a program using Wi-Fi-connected devices, like smart thermostats.

By providing time-of-use rates, including optional coincident peak rates for larger customers, Rynne said PWC has been progressively lining up the drivers of retail rates and wholesale power supply costs, reducing both.

When load forecasting identified the future need for two new delivery points on PWC’s system, “We prepared ourselves by purchasing property right underneath the transmission lines so we can access them and build those points of delivery as the load growth requires,” Rynne said. “Having good access to transmission lines where you need it when you need it is really important to being able to serve your customers.”



Carolyn Justice-Hinson, Fayetteville PWC’s Communications/Community Relations Officer, shares a map outlining the land acquired to access and build points of delivery as the community’s load growth requires.



Fayetteville PWC’s Peak Savings Electric Water Heater Program helps reduce the community’s electric load when demand for electricity is highest. During peak demand, the Aquaanta smart water heater device turns off power to program participants’ water heaters for a short period.

Capacitor banks have enabled PWC to alleviate losses in particular areas and improve the utility’s conservation voltage reduction program.

“PWC has been progressively lining up the drivers of retail rates and wholesale power supply costs, reducing both.”

❖ OUR SUPPORT

ElectriCities supports its members by consulting on rate issues, assisting with cost of service studies, conducting energy audits in public power communities across the state, and educating customers about ways to improve energy efficiency.



LAURINBURG, NORTH CAROLINA

WORKFORCE DEVELOPMENT

Competitive compensation and a clear career path are critical to attracting, developing, and retaining outstanding public power employees. As employees with decades of public power experience are retiring in record numbers, a new, diverse generation of utility workers must be recruited and trained.

Laurinburg lineworker Mitchell Mishue relocates a fault indicator.

“ A 5% 401k with no match required doesn’t mean much to a 25-year-old when an IOU is waving \$10 more an hour at them. ”

Laurinburg’s Electric Utilities Director Jason Lighthall (center) and his team gather near a local substation. Team pictured left to right: Cameron Jackson, Teddy Quick, and Mitchell Mishue.

LAURINBURG, NORTH CAROLINA

Creating a New Compensation Structure to Address Lineworker Turnover

For about 10 years, four of the nine positions in the City of Laurinburg’s electric department seemed to have a revolving door. “We were a training ground,” said Jason Lighthall, the City’s Electric Utilities Director. After a year’s training, the employee would leave for more money, taking that experience and training with them.

Laurinburg wasn’t alone. City Manager Charles Nichols heard similar stories from his public power colleagues on the ElectriCities Board of Directors and the NCEMPA Board of Commissioners.

Even changes implemented after a city-wide compensation study in 2019 didn’t completely fix lineworker turnover. And Lighthall knew why. Those pay increases still weren’t enough to make their salaries competitive with other electric providers.

“Our benefits are as strong as anybody in the industry, but a 5% 401k with no match required doesn’t mean much to a 25-year-old when an IOU is waving \$10 more an hour at them,” Nichols said.

The company performing the 2019 salary study compared Laurinburg to other municipalities—apples to apples, as Laurinburg’s Human Resources

& Risk Management Director Betty Galloway put it. But that’s not where the electric department’s hiring competition is. “We have not, to my knowledge, ever lost a lineworker to another public power community,” Nichols said.

Working with ElectriCities Vice President of Human Resources Melissa Miranda, Nichols, Lighthall, and Galloway determined they needed a separate pay plan for their electric department employees. They ran scenarios until they hit on the right mix of compensation and benefits.

Along with the more competitive pay structure, the City created a career pathway for lineworkers based on ElectriCities’ Apprenticeship Program. That enables workers to advance their careers based on their training and experience. “Prior to that, the only way they were going to move up was if somebody retired,” Nichols said.

By providing competitive pay for their lineworkers, Nichols said, “We have nine of the most qualified, highly skilled people working on our local power.”

❖ OUR SUPPORT

ElectriCities works with member communities to establish career development programs and assist with compensation studies. Learning and development programs are available through ElectriCities, including safety training, leadership training, and a lineworker apprenticeship program. ElectriCities actively promotes energy careers to students and works in partnership with other utilities to address workforce challenges.

LEXINGTON, NORTH CAROLINA

THE VALUE OF PUBLIC POWER

There are a lot of advantages to living in a public power community, but not everyone recognizes them. In fact, many customers don't even realize their power is provided locally. We can change that by telling our story and sharing the value of public power.

Lexington Utilities employees visit a local middle school to demonstrate how electricity works and teach students about careers in public power.

Educating by Supporting the Community

Lexington Utilities has found that the best way to educate their community and customers about public power and the value it provides is to be out in their community where their customers are.

“We want people to know that we’re not only providing power. We’re also trying to give back and make the community a better place to live, because we live here, too,” said Utility Services Manager Susan Floyd.

At community events and celebrations, you’ll find Lexington Utilities team members armed with branded giveaways and answering questions about the utility’s services and what it means to live in a public power community.

Lineworkers attend career fairs, showing off bucket trucks and tools of the trade. For younger students, they show safety videos and use hands-on activities to teach about electricity.

To show community support and keep the utility name in front of its customers, Lexington Utilities provides 40-50 charitable sponsorships throughout the year. Employees often participate in events, like the St. Jude Radiothon each December.

The utility donates branded items, like T-shirts and foam footballs, to the four high schools in its service area.

They also support area schools by purchasing yearbook ads and participating in backpack food programs.

When they’re not out and about, they’re on social media, using the Lexington Utilities and City of Lexington Facebook pages to share helpful information, including rebate opportunities, outage and restoration details, and customer appreciation events. They’re also on local television and radio promoting public power benefits.

Partnering with Spectrum, the utility has created commercials promoting the value it provides. One features lineworker Caleb Miller, who tells viewers, “Providing our community with reliable power is not only our top priority, it’s our passion.” Other commercials promote heat pump and water heater rebates and the utility’s commitment to restoring power safely and quickly after a storm.

However the message is delivered, Floyd said Lexington Utilities wants its customers to know, “We’re not only your utility provider, we care about you.”

❖ OUR SUPPORT

ElectriCities provides communications support and resources to help members spread the word about the value of public power, including materials to celebrate Public Power Week, social media campaigns, and a variety of promotional materials. ElectriCities’ communications team also consults with members on how to develop their own events and campaigns to highlight the benefits of public power.



Top left: A Lexington middle school student learns about careers in linework.

Top right: Students enjoy the bucket truck demo.

Bottom: At a community event, locals learn about Lexington Utilities services and what it means to live in a public power community.



Tammy Palmer, Lexington’s Marketing Representative, shares educational materials and other goodies with local residents.

CLAYTON, NORTH CAROLINA

GRID MODERNIZATION

Our nation's electric grid is one of the largest and most complex in the world. About 700,000 miles of transmission lines safely deliver energy to millions of homes and businesses. Developing grid edge technologies promise to provide utilities with a path forward to improve service, improve their connection to their customers, and meet customers' growing sustainability requirements while maintaining the highest levels of reliability at affordable rates.

Clayton's Revenue and Utility Customer Service Director Ann Game (standing) and Utility Billing Specialist Eileen Folger (seated) review and discuss remote-read meter data.

Using Technology to Increase Efficiency and Improve the Customer Experience

For about 12 years, the Town of Clayton was on the path to upgrade from manual meter reading to automated meter reading (AMR), starting and stopping the process as the department’s budget allowed. Even after all that work, in 2018, less than half of their meters were AMR.

“We still had a lot of boots on the ground and a lot of inefficiencies in meter reading,” said Ann Game, the Town’s Revenue and Utility Customer Service Director. “That also meant a lot of opportunity for human error, as is common when people were keying numbers into a device.”

Determined to remedy those inefficiencies and upgrade their customer experience, Game and the Town were at a crossroads. They could continue with AMR or skip it and take a leap to where technology was leading: advanced metering infrastructure (AMI).

They took the leap, kicking off AMI implementation in 2019 and finishing in late 2021. The result: More efficient processes and a better customer experience.

“Customers now have usage information at their fingertips,” Game said. They

can monitor their energy consumption through an online portal, and they can receive usage and outage alerts.

The Town’s AMI software enables remote meter reading, with meters read automatically as frequently as every 15 minutes and transmitting encrypted data on a secure network to utility databases. Bills are more timely and more accurate, resulting in fewer customer complaints.

Utility staff who used to spend a lot of time in trucks or on foot manually accessing meters are now using AMI technology to remotely diagnose meter issues and fulfill service connection and disconnection orders in hours instead of days.

Employees spending less time in trucks provides the cost savings of fewer vehicles on the road. Game said it also frees up employees for more proactive customer service, like talking directly to customers, making sure they understand usage and how their lifestyle affects their bills every month.

Implementing AMI has been a very positive experience, Game said. “The support from the community has been great.”



Top: Michael Strauss (left) and Energy Services Technician Ethan Poppe (right) review features Strauss can access through the customer portal.
Bottom: Strauss checks his energy use in the customer portal.


❖ OUR SUPPORT

ElectriCities helps its member communities ensure they have the right technology to support their customers. ElectriCities regularly advises members on infrastructure improvements and keeps them informed about emerging technologies—from smart meters to SCADA solutions—that can improve operations, increase efficiencies, and enhance customer service.



Michael Strauss uses the customer portal to access his billing data anywhere, anytime, including outside his small business, The Design Haus, in downtown Clayton.

“Customers now have usage information at their fingertips.”

A utility worker, Gary Benfield, is shown in a white bucket, wearing a white hard hat, sunglasses, and a yellow safety vest over a tan shirt. He is holding a long wooden handle for a bypass handle. The background shows a dense green forest. In the foreground, there are large blue insulators and metal structures of a power line. Another worker in a yellow hard hat is visible in the lower left background.

MORGANTON, NORTH CAROLINA

CONTINUOUS IMPROVEMENT

Being successful means always looking for ways to improve. For public power communities, that means embracing new technologies and adopting new processes to meet changing customer expectations.

Morganton 4th Class Lineworker Gary Benfield demonstrates work on a bypass handle for a recloser. This enables crews to fix outages without customers realizing they've lost power.

Improving Reliability and Keeping Costs Down to Ensure the Best Service

“We’re doing everything we can to improve our system’s reliability to reduce our operating costs,” said Brooks Kirby, Morganton’s Electric Services Director.

When about a dozen apartment complexes with decades-old direct-buried cable began experiencing increased outages, the City launched a 10-year project to replace the failing cable with new underground-rated wire in PVC piping. The utility completed upgrades at its first site in early 2021, eliminating the outages that were occurring, Kirby said.

Installing automatic reclosers throughout its system has also improved reliability. A recloser acts like a breaker on a circuit. So if a fault occurs, the entire circuit doesn’t lose power. “We can reduce our number of customers out from, for example, 1,200 to 200,” Kirby said.

For industrial customers located near two different circuits from two different substations, he said, reclosers can provide backup power by automatically switching circuits. Kirby said the City will soon upgrade the reclosers, adding cellular communication cards

that alert the team via text if there’s an outage. Cellular technology is also monitoring smart photocells the City installed on its streetlights, sending the team a text if an outage is detected.

Other cost-cutting, reliability-enhancing projects include gradually replacing old-style streetlight bulbs with LED bulbs, replacing old substation breakers with new remote-control breakers, and installing remote-read meters on large customer accounts and remote-controlled cutoff meters for repetitive non-pay customers which reduces truck runs and saves tens of thousands of dollars annually.

It turns out, “doing everything we can to reduce operating costs” is quite a lot. “If we’re smart with our operations and technology, then we can pass that on to our customers by keeping our rates the same or gradually reducing them,” Kirby said.

That improved reliability means the City gets a higher reliability rating from the Energy Information Agency, or EIA, adding to Morganton’s appeal when commercial or industrial companies are looking to build or expand.



Top: Morganton’s Electric Department is proud to keep the lights on in their public power community.
Bottom: Garrett Rowe uses the utility’s software to detect streetlight outages.

“ If we’re smart with our operations and technology, then we can pass that on to our customers by keeping our rates the same or gradually reducing them. ”

Morganton’s Electric Services Director Brooks Kirby (left) and Technical Service Supervisor Garrett Rowe (right) review outage details while crew members fix a streetlight.



❖ OUR SUPPORT

ElectriCities works with members to identify and implement impactful improvements to their electric utilities. Members can participate in the annual Retail Customer Survey to identify changing customer needs and in the Utility Assessment to benchmark their utility operations. With this upfront information, members know where to make investments. Members can also participate in forums to share best practices and learn about emerging technologies and issues.



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