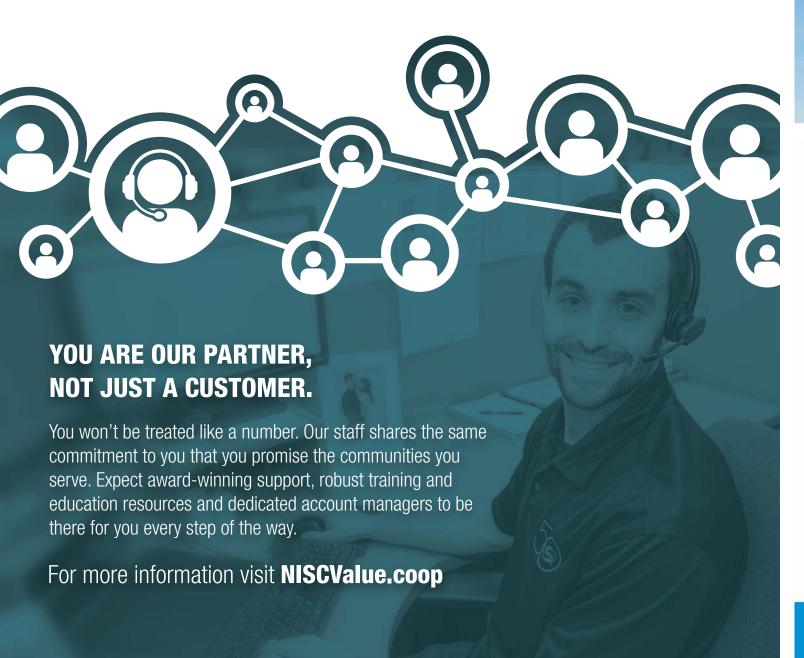


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ON THE COVER

Doug Maglothin, CEO of Diamond State Networks, stands near a telecommunications hut at the Ward Substation in Austin, Arkansas.

Photo by Garrett Hubbard

THEN & NOW

THE YELLOWSTONE SCANDAL

The 1959 Yellowstone bidding scandal was a clear-cut case of a powerful IOU exerting political clout behind the scenes to stop electric cooperatives from signing up profitable new loads, in this case Yellowstone National Park.

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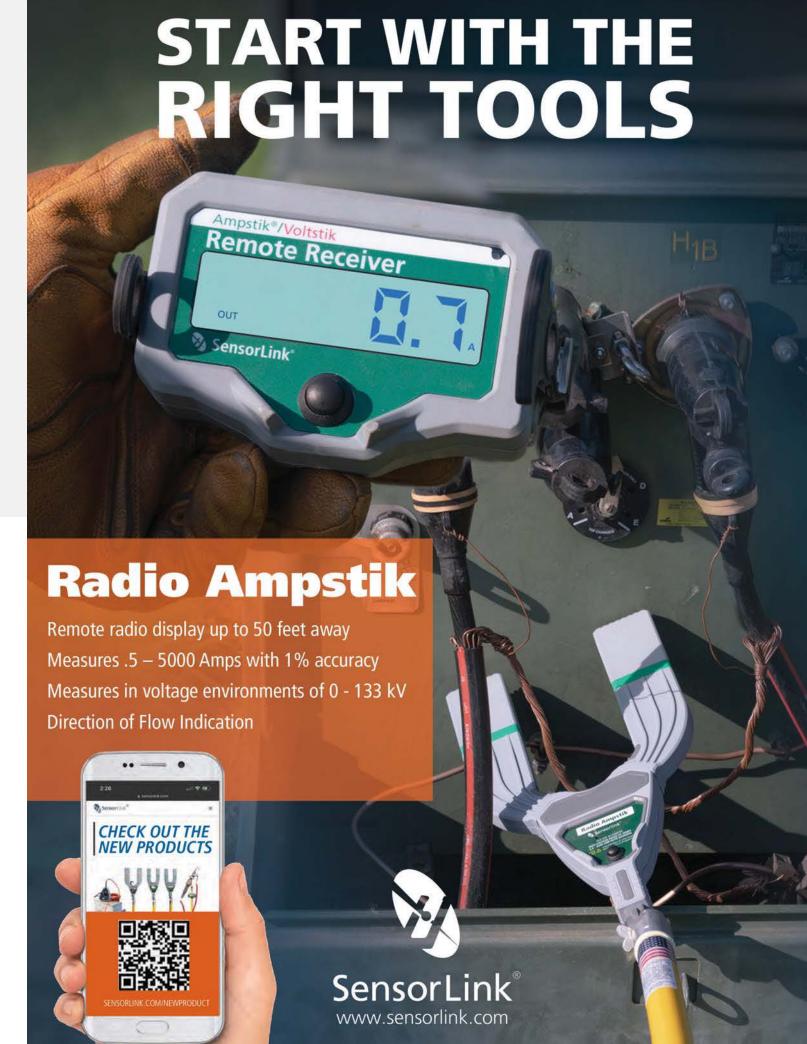
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NEWS+ANALYSIS



Sioux Valley Energy Economic Development & Community Relations Executive Brandon Lane

'EVERY STEP OF THE WAY': SVE HELPS REVIVE LOCAL TOWNS

By Victoria A. Rocha

Sioux Valley Energy General Manager and CEO Tim McCarthy has fond memories of the small Illinois town where he grew up. But to his dismay, the area is now a shadow of its former self.

"I could have just cried driving through the town, because it's lost all sense of identity," McCarthy says of a recent trip to visit his mother. "People used to keep their properties up, and it was a nice little place to grow up, and now it's a ghost town. ... It pains me to see that."

That's the scenario Sioux Valley Energy is working to avoid in its rural communities with REVIVE 2030, a program the Colman, South Dakota-based co-op built as a vehicle to spark growth through economic and community development projects. It was developed after Sioux Valley Energy's directors incorporated development into the co-op's strategic plan.

After a pandemic pause, the co-op held two community input sessions in late 2021 and early 2022 guided by outside facilitators with an array of local stakeholders. The co-op learned something surprising: Communities didn't necessarily want cash.

"The feedback was clear," says Carrie Vugteveen, Sioux Valley Energy's vice president of public relations. "Communities needed 'boots on the ground' assistance, someone with knowledge of how economic development works and who can actually be out in the communities."

Based on that feedback, SVE decided to expand its community and economic development team. Today, Brandon Lane, an economic development professional, and Jay Buchholz, already active in co-op community relations, meet regularly with elected officials, planners, business owners and other stakeholders in seven counties in South Dakota and Minnesota.

"Sometimes people aren't always sure what's available to them or how to get to and utilize those resources," says Lane, who sometimes logs hundreds of miles a week visiting different areas. "We're there to help them uncover what their community wants for a better quality of life, and we'll help them fill the voids."

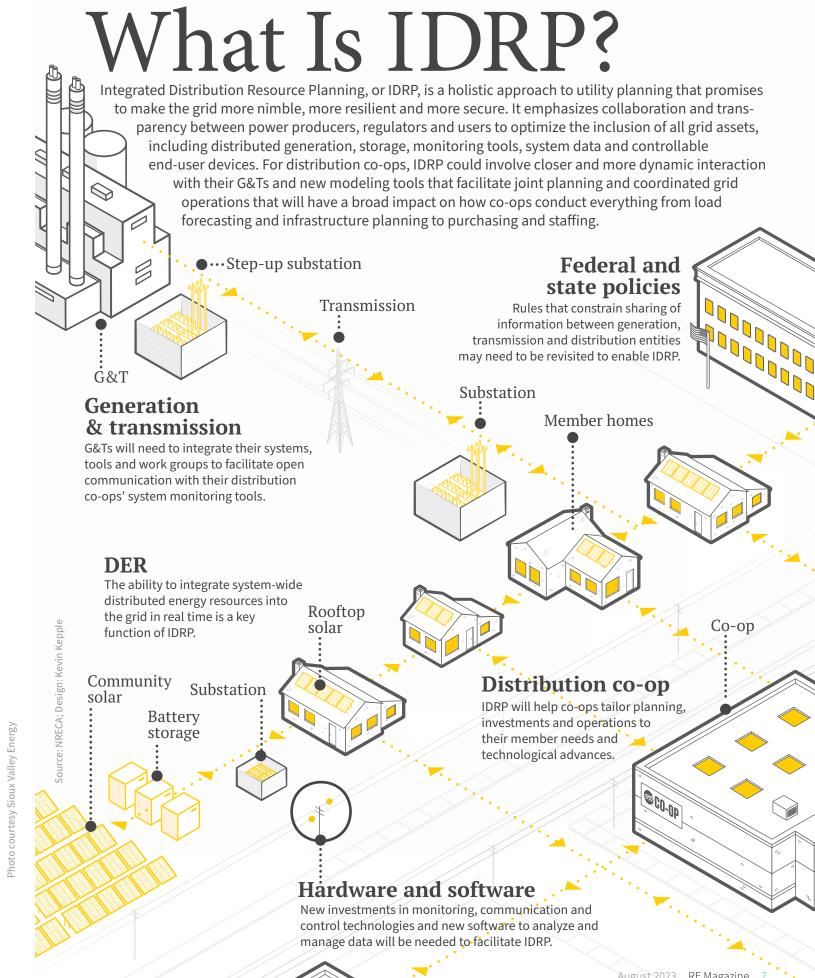
While the participating towns differ in size and makeup, Lane and Buchholz identified three common areas of concern: lack of workforce housing, day care and water access.

In Colton, South Dakota, stakeholders are leveraging a \$15,000 inaugural investment from REVIVE 2030 to help the newly formed Colton Economic Development Group finance several projects, including a 70-acre, 49-home housing development and nighttime lighting for local baseball games to attract families, says Colton Mayor Trevor Bunde.

"Sioux Valley members should be really proud they are part of an electric co-op that makes investments into communities like this," Bunde says.

Progress is incremental, as many economic development experts know, but that "shock" that Bunde was seeking to energize the community is happening.

"I see our potential," he says. "And it feels good to have someone like Sioux Valley behind you."



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LEAPFROGGING WITH XGS-PON

By Cathy Cash

Sean McGrath started streaming movies at home in northeast Mississippi 15 years ago. Now his teenage son plays virtual reality games at the speed of light. Fortunately, their electric cooperative is not only keeping up with their demands today but anticipating the broadband their quality of life will require tomorrow.

Alcorn County Electric Power Association, based in Corinth, covers its entire 19,000-meter electric territory with internet service up to 10 gigabits per second through fiber-optic technology known as XGS-PON or 10-Gigabit Symmetrical Passive Optical Networks, considered the fastest residential internet speed within the industry today.

"Every home in our territory is fiber-eligible," says McGrath, chief financial officer of ACE Power, which began connecting members within 18 months of breaking ground on its fiber network in 2020. "We think that that's a big, big selling point for our city, county and region. In fact, it's been so successful that we are venturing off system."

ACE Fiber, the co-op's broadband arm, is preparing to pass fiber by another 10,500 homes and businesses in New Albany, about an hour south, and eyeing more residential connections around Blue Springs, home to Toyota Motor Manufacturing of Mississippi Inc.

Within the co-op's territory, mom and pop businesses are seeing a bump in online customers outside the state. And more members with ACE Fiber are working from home, including for Silicon Valley giants





Google and Facebook, leaving "no doubt" that the economic uptick in portions of the county that were unserved or underserved stems from broadband, McGrath says.

"It's pretty amazing," he says. "It's a great selling point for rural Mississippi."

ACE Power's 2020 decision to be an early deployer of XGS-PON was a matter of dollars and sense, applying to broadband the computer speed theory of Moore's Law that transistors should be doubled on an integrated circuit every two years.

"We didn't want to have to face a rip-and-replace within the first five years of our build," McGrath says.

The co-op also compared the cost of installing 10-year-old GPON optimal network terminal (ONT) technology with the speedier XGS-PON.

"The conclusion we came to was absolutely we can [afford XGS-PON], because what we can't afford is when that customer wants to go from 1-gig to a 2-gig service, we'd have to roll a truck and change out that ONT, and now we don't," he says. "It's already in the home."

Then there was the competition.

The cable company offered download/upload service up to 200/20 megabits per second, but "had really neglected this area for some time," McGrath says.

"Because of that competition, we wanted to be able to offer speeds where we could incrementally leapfrog Comcast if they decided to go to a gig."

ACE Fiber offers three speed tiers, but about 70% of its 7,500 subscribers take 1- or 2-gigabit internet service.

"It's going to be probably another two or three years before we have to look at our speed tiers and start adjusting those and go up to a 10-gig tier," he says.

For electric co-ops just entering broadband or expanding their network, McGrath says he highly recommends going the XGS-PON route.

"You want to be able to have something that differentiates you from the competition," he says. "I would not hesitate to recommend that a co-op go XGS-PON at this point."

BEAD ALLOCATES \$42.5B FOR BROADBAND

By Cathy Cash

NRECA CEO Jim Matheson lauded the allocation of \$42.5 billion in federal funds to states and territories for grants to bring affordable, reliable broadband to millions of unserved rural Americans.

"Efforts to bridge the digital divide began nearly 25



years ago, yet millions of Americans remain sidelined and disconnected simply because of their ZIP code,"

Matheson said following the June 26 funding announcement by President Joe Biden and the National Telecommunications and Information Administration.

"In 2023, that's unacceptable.
Access to broadband creates new
ways to live, learn and earn in rural
America," Matheson said. "These
state allocations are a major milestone in the fight to finally make
rural broadband a reality."

States received their allocations June 30 from the Broadband Equity, Access and Deployment (BEAD) Program, created by the bipartisan infrastructure law. They will have 180 days to submit plans for their grant programs to the NTIA for approval on a rolling basis.

States have some flexibility about how they administer their programs, so co-ops should be meeting with their state broadband officials and policymakers to provide input, NRECA Legislative Director Katie Culleton says.

BEAD funds initially will be used to build or upgrade broadband networks to fulfill the program's goal of affordable and reliable high-speed internet access to everyone. Remaining funds then may be applied to address secondary challenges to gaining access.

The five largest allocations went to Texas (\$3.3 billion), California (\$1.9 billion), Missouri (\$1.7 billion), Michigan (\$1.6 billion) and North Carolina (\$1.5 billion).

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not hesitate to recommend that a this point."

NEWS + ANALYSIS

NRECA BROADBAND ANNIVERSARY

By Cathy Cash

As NRECA Broadband celebrates its first anniversary, NRECA Chief Operating Officer Jeffrey Connor looks at the past and future of this valuable new service tier.

This July marked the first full year of NRECA Broadband. Tell us how this service arm came about.

Connor: Our members made it happen. Across the country, electric cooperatives are finding so many opportunities to bring connectivity to their communities. They recognize the value of speaking with one voice as we tell the story of what electric co-ops can do, and are doing, to serve people with reliable, affordable broadband. So, NRECA Broadband became that voice, which is directed at national leaders, policymakers, the media and elected officials.

What are NRECA Broadband's priorities heading into its second vear?

Connor: We'll expand our capacity and sharpen our focus: deeper and more frequent conversations at federal agencies, more chances for co-op leaders to engage, ideas and arguments that folks on Capitol Hill need to hear in order to help us succeed in our broadband mission.



NRECA COO Jeffrey Connor at the Broadband Leadership Summit

There have been some significant wins for NRECA Broadband. Tell us about them.

Connor: We significantly increased visibility for electric co-ops in broadband at the federal level and by testifying in the House and the Senate. We had some wins in the agencies as well. We pushed for states to have flexibility in determining which areas are eligible for the \$42.5 billion Broadband Equity, Access and Deployment Program instead of those grants' disbursement solely relying on the FCC's National Broadband Map. We pushed hard for improvements of the map in terms of accuracy, and it is better today, but we will continue to encourage progress on behalf of co-ops. **RE**

Editor's note: This is an excerpt of a Q&A. To read the full interview, visit cooperative.com.





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CO-OP FORUM

THIS MONTH'S QUESTION:

WHAT ARE YOUR CO-OP'S BIGGEST CHALLENGES AND SUCCESSES WITH VEGETATION MANAGEMENT?



AMANDA OPP

Integrated Services Manager Flathead Electric Cooperative Kalispell, Montana



CO-OP WEBSITE

flatheadelectric.com

ANSWER

The biggest challenge for Flathead Electric Cooperative's vegetation management program is maintaining the delicate balance between providing reliable power to our members, reducing wildfire risk and preserving the natural beauty of our surroundings. Our service territory borders Glacier National Park and Yellowstone National Park, and our members (and visitors) truly appreciate and defend Montana's pristine beauty. Educating members about our vegetation/forest management is challenging but crucial to gaining their support. Flathead Electric's vegetation management journey has been marked by remarkable accomplishments, thanks to the establishment of robust partnerships with the U.S. Forest Service and Montana Department of Natural Resources and Conservation. Forging these relationships has taken time, effort and trust. Building genuine connections and showcasing the complementary nature of our program has proven to be an asset. We are pursuing grant funding from various sources, seizing opportunities to collaborate with a diverse range of organizations during the application process. We know that grants will allow us to explore new techniques, adopt cutting-edge technologies and expand initiatives that otherwise we could not fund. With the risk of wildfires and resource adequacy concerns both rising, these grant opportunities could advance our vegetation management programs and prevent threats to our reliable delivery of power to our members.



JOE HAZEWINKEL

Director of **Environmental Affairs** Wolverine Power Cooperative Cadillac, Michigan

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CO-OP WEBSITE

wolverinepowercooperative.com

ANSWER

It's all about the landowners. They can make or break a successful program. Several times during my 13 years of cooperative vegetation management experience I have thought to myself, "Vegetation management would be easy if we could just do whatever we wanted." If only it were that simple. The biggest challenge to management along transmission line rights-of-way is interaction with the landowners. Most are not aware of what an easement allows or even that one exists across their property. Often every problem tree is "special" to the family regardless of whether it's dangerously close to our lines or not. This can become an even bigger challenge when the landowners are not cooperative members and have no personal connection to where their power comes from. Fortunately, even vegetation management challenges can be overcome by consistent education and communication. Contacting the landowner well ahead of the crew's arrival is key. They then know what to expect, who to contact regarding questions and if alternative options are available. Treating all landowners as if they are part of our cooperative family benefits everyone. Having an empathetic response to concerns and working together toward a solution is how we gain landowner trust. They will always remember, good or bad, how they are treated by the cooperative, and it's our job to make sure it leans heavily toward the good side. **RE**

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BEHIND THE SCENES







Kristin Miners and Logan Hill

SWEET SOLUTION

PRECO apprentice helps solve a bee problem and save a hive

By Derrill Holly

Bee stings made retrieving cable reels from a Florida electric cooperative's storage yard a dreaded task, but speaking up about the safety issue quickly yielded a sweet solution and a haul of honey, too.

> **WAS PRETTY COMFORTABLE IN THE BEE SUIT, AND THIS** TIME, I DIDN'T GET STUNG AT ALL.

> > Logan Hill, PRECO Apprentice Line Tech

Peace River Electric Cooperative's bee problem developed this spring when a colony of honeybees built a hive inside a nearly empty wooden wire reel at the co-op's Indian Lakes Estates district facility.

Several times in recent months, apprentice line technician Logan Hill was stung while retrieving wire reels to restock crew trucks with conductor. He talked to managers about the problem and was able to show them where he believed the bees were living.

"The hole they were going into was the hub of a reel on the top of a stack, but they actually seemed to be inside the housing of a reel at the bottom," says Dave Osburn, the Wauchula-based co-op's eastern division operations supervisor. "We didn't want to aggravate the bees by disturbing that reel, so we called in a professional."

Kristin Miners is known locally as "The Bee Lady." During the COVID-19 pandemic, the former teacher started spending more time on her beekeeping hobby, and since then, it's developed into her full-time busi-

Arriving at the co-op's yard with her gear and a skilled assistant, Miners quickly realized that removing the hive would be different from what she typically does at homes or buildings where unwanted bees are discovered. So she turned to the co-op for a volunteer.

Hill's previous encounters with the bees prompted line technicians and veteran warehousemen at the site to encourage him to take on the job. Trading his normal personal protective equipment for a bee suit,



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Beekeeper Kristin Miners looks at a hive of honeybees inside a wire spool at a PRECO equipment yard.

he stepped up to help Miners with her plan to reach the hive without agitating the bees.

Hill used his forklift expertise to remove a reel, exposing the one where the bees were hidden. That cleared the way for the beekeepers to do their work. Using smoke to control the bees, the top of the reel was removed, exposing the hive and fresh honey, without harming the bees.

"I was pretty comfortable in the bee suit, and this time, I didn't get stung at all," says Hill.

"They were all right there in the center area of the barrel," says Miners, who estimates that as many as 60,000 honeybees populated the hive. The amount of

honey and the color of the wax indicated that it was probably established sometime in February as bees in central Florida were getting active this spring.

Hill also went home with a cache of fresh honey, about half the total amount Miners was able to recover from the hive.

"I strained it out and put it in some office so people could sample it in the

Miners left a transport hive, baited

Honeybees have been on the

The entire removal operation took

That recloser belongs in a museum, not blowing your budget and reliability scores.

jars and brought back some to the breakroom," says Hill. He also kept a piece of honeycomb as a souvenir.

with collected honey and some of the combs, to attract bees that were out foraging when the removal occurred. It was retrieved the next day, and the colony is now operating from a safer, less intrusive location.

decline in recent years. Although they're not listed as threatened or endangered, federal agencies and conservation groups are working to help protect hives and encourage their recovery. Bees are essential pollinators for crop production and vegetation.

about three hours and drew the attention of several members of the co-op's staff.

"It's not the honey, it's not the wax, or the products that they can provide. It's the excitement of seeing people's eyes light up with wonder when they see the creativity of the wax that the bees have created," says Miners. "It's getting to see them taste the honey from the comb for the first time that makes it all worthwhile." RE

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COMPETING WITH THE 'BIG GUYS'

Electric co-op leaders say aggregating resources to create middle mile broadband will strengthen their bargaining power with national content providers like Netflix or Google and help them avoid the high cost of purchasing access from a third party.

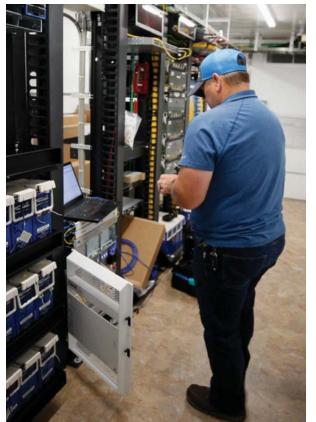
"What we are finding is it's difficult to run a business when you rely on third parties to provide a vital part of your business," says Callahan, noting that when electric co-ops call a national provider about a primetime outage, generally "a truck's not going to roll until 8 o'clock the next

With that in mind, Mississippi co-ops in broadband recently launched MS Fiber LLC to form a middle mile network. It will require each member co-op to dedicate six fibers from their own broadband networks and help underwrite the construction of another 230 miles of fiber.

"Our No. 1 concern is to get cheap, reliable direct internet access for these 17 co-ops that are providing broadband," says Callahan.

He sees co-op-developed middle mile as akin to when distribution co-ops created generation and transmission co-ops to produce and deliver electricity and ensure reliability and affordability.

"These statewide networks are the G&Ts of the 21st century for our broadband business," Callahan says. "We've got to have middle mile if we're going to compete with the AT&Ts, the Verizons and the big guys out there. We want to be reliant on ourselves [as in the G&T/distribution model], and we know that co-ops can do this."





(Left) Diamond State Networks CEO Doug Maglothin in a middle mile telecom room. (Above) A DSN truck at the Ward Substation in Austin, Arkansas. (Below) DSN Senior Field Tech Jamie Britt tests

ACCESS AT A REASONABLE PRICE

In Arkansas, 13 electric co-ops and their G&T formed Diamond State Networks in 2020 to unite their \$1.8 billion network with a middle mile buildout that connects 60,000 miles of fiber and reaches 1.5 million consumers.

The network brings more efficient connectivity to companies at a more local level and helps reach households that big internet providers have left behind, co-op leaders say.

Business owners can connect all their regional locations "through a single relationship as opposed to having to go through multiple different providers," says DSN CEO Doug Maglothin. "And internet service providers can get reliable, low-cost wholesale upstream bandwidth if they interconnect with our network."

Large industrial and commercial customers are big supporters of co-ops knitting together their fiber networks, says Jeremiah Sloan, CEO of Craighead Electric Cooperative in Jonesboro where DSN is based. While big internet transport networks in Dallas, Atlanta, St. Louis and Chicago surround Arkansas, their service is costly and lacks redundancy to avoid outages.

"We were paying very high prices for wholesale internet that we knew were not sustainable into the future, and we really needed to shift this landscape that we had in terms of connectivity," says Sloan, a co-manager of DSN. "That was really the impetus, controlling our own operating costs and making sure that we had access to the content that our members and communities needed and access in a way that was what we were used to providing as an electric cooperative—safe, reliable and affordable."

Sloan says once consensus was reached on the project, the buildout moved quickly.

"We're really excited about how quickly we've been able to stand up the network that DSN has envisioned, and we're looking forward to continuing to add these layers of success on top of what we've already invested," Sloan says. "That access to a reliable wholesale network is going to help

provide high-speed internet to rural communities at a reasonable price for education, health care, business and infrastructure."

'GRANULAR REACH'

South Central Indiana REMC entered the fiber-to-thehome space because telephone co-ops and independent service providers in its electric territory were not serving all their members. A touchy situation ensued as the incumbents feared their federal funds for rural broadband would be clawed back.

"But once we all came to an understanding that we really weren't here to destroy their business, we actually started working together," says James Tanneberger, president and CEO of SCI REMC.

Rather than extending the co-op's main line fiber backbone into the local provider's territory and building

fiber twice in the same spot, "we decided to get some of our services from them to communicate with some of our substations. Everything has taken off from there," he says.

SCI REMC quickly recognized that Indiana could benefit if existing and new providers worked together to connect their systems to create a regional network. After four years of communications and relationship building, the idea took root in 2022 as a regional middle mile network. Today, Accord Telecommunications Collabora-

tive LLC is owned by 24 service providers—17 electric distribution co-ops, four telephone co-ops and three independent broadband providers. It's the first middle mile network to include electric co-ops, traditional telcos and independent ISPs, says Tanneberger, Accord's co-founder and board chair.

Once 200 miles of ties connecting broadband networks in Indiana are completed, Accord will have 2,500 miles of middle mile and access to over 27,000 miles of member-owned fiber. Accord plans to leverage member assets in Ohio, Illinois, Michigan and Indiana and is actively pursuing partners in other states as well.

"Because the majority of the Accord members are building fiber to-the-home networks, too, we have access that goes all the way down to the home or the business," Tanneberger says. "It's that granular reach that makes us unique." If middle mile is seen as a highway, its member co-ops and companies own the off ramps or last mile of fiber connecting customers to the internet.

"A small cooperative in Indiana can now serve the local bank branches because, through Accord, we can collectively serve that bank's branches across the state and the Midwest because they have access to the highway of Accord," says Alexandra Jones, director of state policy and broadband initiatives at Indiana Electric Cooperatives, which supports Accord's effort in Indianapolis. "It's cooperation among cooperatives, and that's what we're trying to do here on the broadband side. The more success we're all going to have, the more opportunity we're all going to have, and that's really their vision for this."

Tanneberger agrees that co-op-created middle mile shares the bootstrap beginnings of G&Ts to meet members' needs.

"It's taking control of a key piece that you must have to provide the services we bring," he says. "Those G&Ts

> that we created provide a lot of services to us beyond just the generation and transmission. That's the same plan for Accord."

That's also the plan of a growing number of electric co-ops in the broadband space.

"Across the U.S., cooperatives are realizing that. just like we need a very robust transmission grid for electrical services, we need broadband middle mile networks for these rural communities that we serve," says Sloan. "And it's not just Arkansas answering the call. It's becoming a hot topic for all of us.



Crews install a telecommunications hut at a substation as part of Diamond State Networks' middle mile broadband system.

"Middle mile is the framework required to do the exciting and innovative things that we want to do both as electric utilities and as a society."

Accord and Diamond State were among the applicants with grant requests totaling over \$7 billion to the National Telecommunications and Information Administration's \$1 billion middle mile program. They did not receive funds.

"There is clearly a need for middle mile, and federal funding is imperative for these networks to serve rural America and beyond," says NRECA's O'Hara. "That's why NRECA continues to advocate for additional funding."

By controlling the broadband infrastructure, co-ops become equipped to deliver reliable and affordable high-speed internet access to their members and beyond while increasing the resiliency of their electric service,

"I expect we will see more of these cooperative middle mile partnerships emerge going forward. They're really a win-win." RE



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SHARING VOLKER

CEO splits his time at two small Kansas co-ops

By Erin Kelly

Michael Volker can be forgiven for sometimes forgetting where he's going in the morning as he heads to work.

Depending on the day of the week, Volker could be driving to his job as general manager of Brown-Atchison Electric Cooperative Association in Horton, Kansas, or to his job as general manager of Doniphan Electric Cooperative Association in Troy, Kansas.

The two co-ops have joined together to hire Volker to lead both of their staffs, making him one of only a handful of CEOs to serve two electric co-ops at once. He works at 2,300-member Brown-Atchison on Mondays and Wednesdays and at 1,100-member Doniphan on Tuesdays and Thursdays. He divides his time equally between the two on Fridays.

"I've more than once turned the wrong way and had to go back," says Volker, who lives between the two co-ops near the town of Hiawatha. "My wife will say every morning, 'Now, which one are you going to today?"

He says other co-op CEOs he's met at NRECA conferences tell him they shudder at the thought of serving two boards of directors and two sets of consumermembers and preparing for two separate monthly board meetings and annual meetings.

"Most of them close their eyes and shake their heads and say, 'How do you do that?'" Volker says. "I get that reaction all the time. Most of them have never heard of an arrangement like mine."

But Volker says he relishes the variety.

"It gives me a chance to work with two different cultures," he says. "I really enjoy working with two different groups and finding ways to succeed at each one, whether it's having really positive morale at both places or ensuring that we have very few member complaints—those kinds of little satisfactions."

The presidents of both co-op boards say sharing Volker is working well and saving money for their respective members by splitting the cost of his salary. The unique arrangement allowed them to hire an experienced manager whom neither could have afforded alone.

Volker's co-op experience includes more than five years as manager of rates and treasury at East River Electric Power Cooperative in South Dakota, more than two and a half years as vice president of utility services at Corn Belt Energy Corp. in Illinois and more than 15 years as director of regulatory and energy services at Midwest Energy Inc. in Kansas.

"It's been working out great," says Kevin Gigstad, board president at Brown-Atchison. "Michael is a sharp guy."

The idea for a joint manager came in 2021 when Gigstad and Richard Lemke, Doniphan's board president, were both searching for general managers for their co-ops.

Doniphan had had several part-time, interim managers and wanted a permanent manager right away. Brown-Atchison's manager was set to retire in about six months, and the co-op wanted to line up a replacement. At the same time, Volker was looking to return to Kansas where his daughters and grandchildren live.

"Richard and I were talking and he said, 'How about us sharing a general manager?'" Gigstad says. "I've known Richard for years, and we trust one another."

That trust is crucial if co-ops are going to share a CEO, Lemke says.

"If you do not have trust, don't even try it," he says, adding that he and Gigstad talk regularly about how the arrangement is working.

Lemke and Gigstad interviewed Volker together and agreed he was right for the job. The boards of both co-ops then had to agree to split Volker's salary and his time 50-50, even though Brown-Atchison is about twice as big as Doniphan.

"I told the other board members, 'When you pay 50-50, you get the man 50% of the time,'" Lemke says. "If not, you get crumbs."

Volker, who started at Doniphan in September 2021 and at Brown-Atchison in February 2022, says he takes that 50-50 split seriously.

"I'm even sensitive about trying to wear only a Brown-Atchison shirt at that co-op and a Doniphan shirt when I'm there," he says. Volker also sends out emails with different logos beneath his signature, depending on where he's working that day.

However, he says the reality of his job is that he always needs to be accessible to both co-ops, no matter which day of the week it is. When he's at Brown-Atchison, he's often taking phone calls from Doniphan, and vice versa.

"I'm never really gone from either co-op," Volker says. "I really like, personally and professionally, the staff at both places. Not being able to be there and work with them every day is a challenge. But they've adapted to this model, probably better than I have."

Volker's two board presidents say he's highly organized and keeps them both informed of what's going on at each co-op.



Michael Volker shows off his branded gear as CEO of both Brown-Atchison Electric Cooperative Association (left) and Doniphan Electric Cooperative Association (above).

"He's on top of everything," Gigstad says.

Volker's advice to other co-ops that might want to share a manager is to look for a candidate who has strong administrative experience.

"You can't do this job if you're down in the weeds," he says "Physically, you can't micromanage two staffs. I'm constantly checking in with them, but I'm not micromanaging them. Our staff has stepped up and taken the ball and run with it. You've got to let them do that."

Ultimately, Volker says, "it takes the right marriage" of two co-ops.

"It requires not only getting the right individual in the door, but also the right blending of cultures and the willingness of both boards to be flexible and work with each other to make it succeed," he says. "The cost savings of this arrangement sound great, but it takes a lot of effort to make it work." RE

I REALLY ENJOY WORKING WITH TWO DIFFERENT GROUPS AND FINDING WAYS TO SUCCEED AT EACH ONE, WHETHER IT'S HAVING REALLY POSITIVE MORALE AT BOTH PLACES OR ENSURING THAT WE HAVE VERY FEW MEMBER COMPLAINTS—THOSE KINDS OF LITTLE SATISFACTIONS.

 Michael Volker, CEO, Brown-Atchison Electric Cooperative Association/Doniphan Electric Cooperative Association

Photo courtesy Mic

PUBLIC POLICY

By Erin Kelly and Cathy Cash

AUGUST RECESS TOOLKIT

NRECA has released a new toolkit to make it easier for electric cooperatives to meet with their members of Congress in August when lawmakers are home for their annual legislative recess.

"The August recess is a great time to engage with lawmakers as they travel their districts and re-engage constituents," NRECA CEO Jim Matheson said in a recent email to co-op CEOs.

More than 2,000 co-op leaders came to Washington, D.C., in April and converged on Capitol Hill to meet with their congressional delegations during NRECA's annual Legislative Conference. Connecting with those lawmakers again while they're home will "continue our congressional engagement by inviting them to visit their local co-ops for discussions on the importance of reliability and what it takes to keep the lights on every day," Matheson said.

The toolkit helps co-ops talk about why reliable, affordable electricity should be a key focus of federal energy policy. It includes an infographic that highlights nine federal regulations that threaten reliability.

The toolkit also helps co-ops educate lawmakers about the five biggest issues affecting reliability: growing demand for electricity as transportation and other economic sectors electrify; decreased supply as fossil-fuel-based power plants are closed prematurely; permitting challenges that delay new energy projects; continuing supply chain disruptions; and natural gas shortages.

NRECA has been pushing the reliability message hard on Capitol Hill, but lawmakers also need to hear directly from their local electric co-ops, says Shelby Hartley, NRECA's advocacy communications manager.

"Members of Congress are beholden to their constituents, and co-op members are their constituents," she says. "We can shout it from the rooftops here in Washington, but it makes a bigger impact if they hear it from the people living in their districts."

NRECA originally created a congressional engagement toolkit in 2020 to help co-ops set up virtual meetings with their delegations during the COVID-19 pandemic. The updated toolkit offers a step-by-step guide for inviting members of Congress to visit local co-ops. It also includes draft press releases and social media templates for co-ops to publicize the events.

"But the main focus is really to create an echo chamber on energy reliability and continue to stress that to elected leaders when they are home in August," Hartley says.

NRECA is asking co-ops that schedule visits with their lawmakers to let the association know. That way, the Government Relations team can follow-up with those members of Congress and amplify the message, Hartley says.

Co-ops that need any additional help after reviewing the toolkit can contact Hartley at shelby.hartley@nreca.coop or Hannah Hardin in Government Relations at hannah.hardin@nreca.coop.



DIRECT-PAY PROPOSED RULE

The U.S. Department of the Treasury has issued its proposed rule for the direct-pay tax credits that electric cooperatives will soon be able to use to deploy new energy technologies. Treasury is calling the incentives "elective pay" credits. The rule includes many important provisions sought by electric co-ops. A 60-day comment period began when the proposed rule was published in the Federal Register on June 14.

CONTACT

Louis Finkel louis.finkel@nreca.coop



NINE THREATS TO RELIABILITY

NRECA has released an explanation of the nine key federal regulations that pose a threat to electric reliability in the U.S. They include the Ozone Transport Rule; Mercury and Air Toxics Rule; Clean Air Act Section 111(b) and 111(d); the Legacy Coal Ash Ponds Rule; NEPA Phase 2 Rule; Power Plant Wastewater Rule; and 2023 WOTUS. Visit www.electric.coop/9Threats.

CONTACT

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SUPREME COURT



WOTUS RULING

The U.S. Supreme Court recently issued a decision that limits what constitutes "waters of the United States" under the Clean Water Act, but the regulatory whirlpool of uncertainty is expected to swirl until a replacement regulation, now under construction, is finalized. "The bottom line is that with fewer jurisdictional waters, fewer federal CWA permits should be required, particularly those for dredging and filling wetlands and other WOTUS under CWA Section 404, which regulates those activities," says Viktoria Seale, NRECA regulatory affairs director. "Overall, it's good news."

CONTACT

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BROADBAND

MATHESON: IMPROVE CONNECTIVITY PROGRAMS

NRECA CEO Jim Matheson asked the House Agriculture Committee to make key improvements to broadband programs at the U.S. Department of Agriculture as it develops the Farm Bill. Those include: making the ReConnect program permanent and easier to access; providing robust funding for rural broadband through USDA; prioritizing symmetrical speeds and scalable networks in any future rounds of federal funding; and investing in middle mile infrastructure.

CONTACT

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LAWMAKER PROFILE

SEN. TAMMY BALDWIN

By Erin Kelly



Sen. Tammy Baldwin

STATE: Wisconsin

Steve Freese, president and CEO of the Wisconsin Electric Cooperative Association, first met Sen. Tammy Baldwin in the early '90s when they were serving together in the Wisconsin State Assembly as representatives of different political parties.

Freese, a Republican who

served as speaker pro tempore, says Baldwin, a Democrat, was "always the kind of person you could work with." Now that Baldwin is in her second term in the U.S. Senate and serves on the Democratic leadership team, she is still someone who strives to find bipartisan solutions, Freese says.

"From my time in the state legislature to today, she has not changed her stripes," he says. "She has always been welcoming, open and willing to work with us.

"She's a hard worker and very smart—she knows the subjects she's talking about inside and out. She will work to find common ground when it makes sense to do that. She's not a flamethrower, unlike other members of both caucuses. When you meet with her, she lets you know where she stands. There's no ambiguity. I have a great deal of respect for her."

When it comes to supporting legislation and policies that benefit electric co-ops and their members, Baldwin "has never been on the wrong side of issues that are important to us," Freese says.

He credits the senator with playing a key role in the 2019 passage of the SECURE Act, which saved co-ops tens of billions of dollars in pension insurance premiums paid to the federal government. Baldwin also supported direct-pay incentives for co-ops to deploy new energy technologies as part of the Inflation Reduction Act.

The senator serves on the Senate Appropriations Committee, including the subcommittee that sets spending for the U.S. Department of Agriculture and rural development programs. In that role, Freese says, Baldwin supports strong funding for the Rural Utilities Service, which provides grants and loans to electric co-ops to modernize their infrastructure.

Baldwin also advocates for increased funding for Rural Economic Development Loan and Grant programs, which provide funds to co-ops to pass through to local businesses that create and retain jobs in rural communities. In addition to her support for legislation crucial to co-ops, Baldwin has helped Wisconsin co-ops on federal regulatory issues, Freese says.

She has worked with La Crosse-based Dairyland Power Cooperative to try to help them find a safe storage site to relocate waste from a nuclear power plant the co-op closed back in 1987. And she helped reach out to federal agencies and congressional leaders for help when Washington Island Electric Cooperative needed assistance after an ice shove—a pileup of ice along the shoreline—damaged the underwater cable that brings electricity to its members.

"Senator Baldwin makes sure to sit down and talk with us about our issues," Freese says. "Not everybody's senator is like that. Some of them pawn you off on staff. But she takes the time to hear about our problems and help us."

Baldwin says every family and business in Wisconsin "deserves access to dependable electricity at a price they can afford."

"And our rural electric co-ops deliver just that," she says. "They provide affordable, reliable energy to hard-to-reach areas in the state so families can access high-speed internet, schools can keep lights on, and businesses can stay running. I am committed to continuing to support our electric co-ops so they can continue providing these essential services."

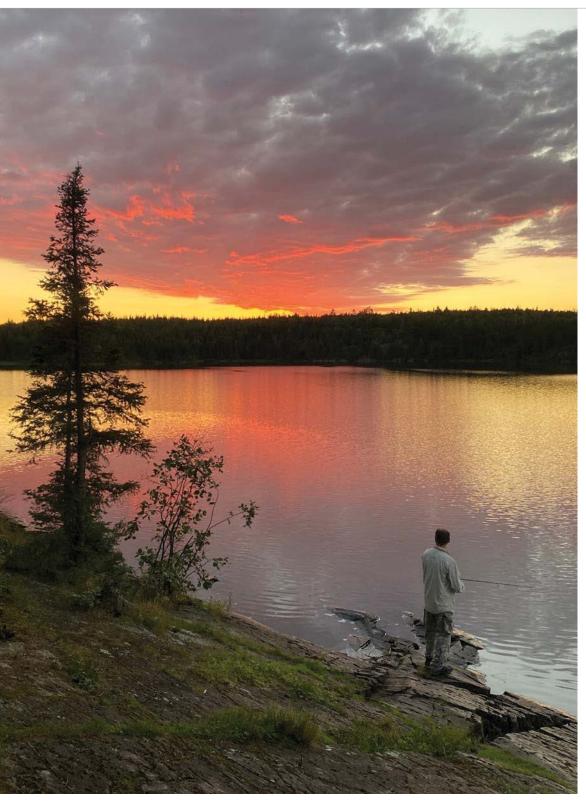


Sen. Baldwin meets with electric co-op leaders from Wisconsin.

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CO-OP SHOTS

JUNE PHOTO CHALLENGE WINNERS THEME: GONE FISHIN'





WINNER: EVENING FISHING

An angler tries his luck amid fading light in the Boundary Waters Lakes near Ely, Minnesota. Photo by Jen Peterson





RUNNER-UP: FIRST OFFSHORE FISHING TRIP

Gulf Coast Electric Cooperative COO Francis Hinson and Jameson Evans are all smiles after a day of fishing off Southport, Florida. Photo by Kristin Douglas

OTHER FINALISTS



We've Got a Man Down by Jason Patterson



Boys of Summer by Chad Simon



Speckled Trout by Blake House



CO-OP SHOTS SPONSOR HASTINGS



August: Thunderstorm Shots September: Fall Festivals

October: Breast Cancer Awareness
November: NRECA Decal Challenge

Visit **cooperative.com/REmagazine** to see all the photos, read the contest rules, like your favorite shots, or enter some images of your own.

THINKING BIG

'ISLAND CO-OPS STICK TOGETHER'

Tiny Isle au Haut EPC gets a taste of co-op cooperation

By Erin Kelly





Jeffery Wright (top-left), president and CEO of Block Island Utility District, and Lead Lineworker Evan Carey, brought four transformers to Isle au Haut EPC on a mailboat.

Isle au Haut Electric Power Co., which serves an 8,000-acre island with just 40 year-round residents off the coast of Maine, is one of the most isolated electric cooperatives in the nation. But, as General Manager Bryan Carroll recently discovered, no co-op is truly an island.

Carroll, the only full-time employee at the 130member co-op, needed a transformer for a new consumer-member and didn't have one on hand that met the need. He also was looking to expand his small inventory of a half-dozen transformers, especially with global supply chain challenges continuing to make it difficult for co-ops to get the crucial equipment quickly.

"I was scouring the Eastern Seaboard for small, 2,400-voltage transformers," Carroll says, noting that most co-ops use bigger transformers than those on Isle au Haut's system.

Carroll, whose co-op joined NRECA about a year and a half ago, reached out to Susan Mortensen, NRECA's membership relationship manager, for help. She, in turn, contacted NRECA Chief Operating Officer Jeffrey Connor, who got in touch with Jeffery Wright, president and CEO of the Block Island Utility District in Rhode Island, NRECA board member and president of the Northeast Association of Electric Cooperatives.

A few weeks later, Wright, his lead lineworker, Evan Carey, and co-op Commissioner John Warfel jumped in a truck with four of the co-op's used, freshly painted transformers and headed north for Maine. After a seven-hour drive and a 45-minute trip on a mailboat from Stonington, Maine, the Block Islanders delivered the transformers to Carroll on Isle au Haut.

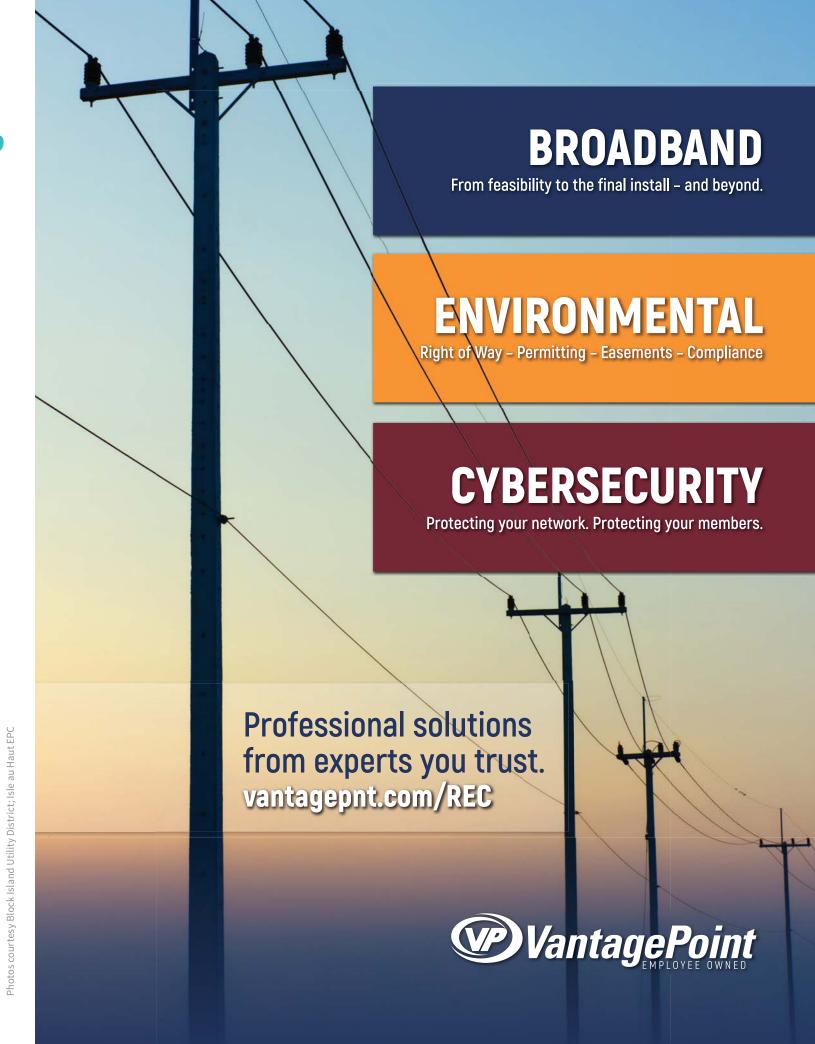
"We were engulfed by dense fog on the mailboat, and then the fog lifted, and it was just breathtaking heading into Isle au Haut," Wright says.

He says it felt good to help a fellow island co-op.

"I know that help will come back to us someday," says Wright, whose co-op serves about 1,950 members. "The island co-ops have got to stick together."

Fortunately for Isle au Haut, Wright had saved a pile of used transformers after being advised by a supply co-op to hang onto them because of the challenges involved in procuring new ones.

In another stroke of luck, 1,600-member Fox Islands Electric Cooperative in Maine was about to send its old transformers out to be recycled when CEO Amy Watson Turner learned that Isle au Haut needed some.



INNOVATIVE PROBLEM-SOLVING OF SMALL AND MEDIUM-SIZED CO-OPS

"They were already on a pallet waiting to be picked up," she says. "So I was really glad that Bryan emailed me when he did. They were too low a voltage for us, but two of them were good, working transformers."

Carroll paid a local lobsterman to take him and his assistant general manager on a fishing boat for the 25-minute trek from Isle au Haut to Vinalhaven to pick up the transformers, which weigh between 200 and 400 pounds each.

"It was kind of a big event," Carroll says. "Everyone on the island was wondering what was happening as we lifted transformers instead of lobster crates."

With a total of six donated transformers from the two co-ops, Carroll has now doubled Isle au Haut's inventory.

"There's not enough I can say to thank everyone for all the help," Carroll says. "Both Amy's crew and Jeff's crew said they'd be happy to help us out with their service personnel any time we need it. We don't have career linemen out here, so having some of those steady hands absolutely improves our efficiency. And I could certainly go over and help Amy's co-op if she needs me."

Turner says small businesses like the three island co-ops are always searching for resources.

"To find out you can actually help someone else was a really good feeling," she says. "It was a great opportunity to meet a neighbor and to remember that we have neighbors."

Island co-ops can feel uniquely isolated and alone, Turner says.

"I think the lesson here is, 'Don't be an island, even if you are an island,'" she says. "Reach out."

Wright says he feels like he has a new friend now that he's made the trip to Isle au Haut and met Carroll.

"When we arrived, Bryan made us delicious bakingpowder biscuits with fresh Maine blueberries and maple syrup," he says. "What could be better than that?"

Wright says the tale is a great example of cooperation among cooperatives.

"The cooperative network is nearly 1,000 co-ops strong, and it only takes one phone call for someone to come forward willing to help—even if it takes a 7-mile mailboat ride to get to you." **RE**







TECH INSIGHTS

By Todd H. Cunningham

AT A GLANCE

- **38** Co-op Vegetation Experts
- **39** Smart Inverters
- 40 IDRP

Lake Region Electric Co-op Inc.

CO-OP TYPE Distribution

LOCATION

Hulbert, Oklahoma

SIZE: 25,753 meters

GOAL

Provide the first electric-co-op-established fiber-to-the-home project in Oklahoma, offering high-speed internet and home phone services to more than 11,000 subscribers in the co-op's service territory.

SOLUTION

Built a fiber network over 10 years on 3,000 miles of distribution infrastructure that supports multi-gig broadband for all co-op members. "Connecting rural Oklahoma to affordable and reliable highspeed internet is the most important infrastructure effort of this generation, and I think it seems only appropriate that electric co-ops such as yourselves would be leading the way because of your essential role in another important improvement ... the Rural Electrification Act of the 1930s," said Oklahoma Broadband Office Executive Director Mike Sanders.

CONTACT

Lake Region EC, 800-552-7658



Minnkota Power Cooperative

CO-OP TYPE: G&T

LOCATION

Grand Forks, North Dakota

SIZE: 6.4M MWh sales

GOAL

Advance Project Tundra, a joint effort to build one of the world's largest carbon capture and storage projects at the Milton R. Young Station.

CONTACT

Minnkota: 701-795-4000

SOLUTION

The project is designed to capture up to 4 million tons of carbon dioxide, which will be safely and permanently stored more than a mile underground in deep geological formations. Minnkota's Project Tundra partners are TC Energy (teenergy.com), which will lead commercialization activities; Mitsubishi Heavy Industries (mitsubishi.com), the lead technology provider; and Kiewit Energy Group (kiewit.com), which will construct the project.

We aim to advance carbon capture technology in a way that can serve as a blueprint for our state, nation and world to meet ambitious decarbonization goals.

—Mac McLennan, President and CEO, Minnkota Power Cooperative



Holy Cross Energy

CO-OP TYPE

Distribution

LOCATION

Glenwood Springs, Colorado

SIZE: 59,369 meters

GOAL

Improve ability to quickly diagnose outages, dispatch energy resources in real time and increase reliability between co-op data centers in the event of an emergency as well as offer access to a fiber network for nearby communities.

SOLUTION

Install fiber infrastructure between Glenwood Springs and Aspen and utilize HCE fiber where available to support co-op members and communities by subleasing network access to regional internet providers. The three-phase project will bring middle-mile broadband infrastructure to communities of the Roaring Fork and Eagle River valleys. Phase II, between Avon and Gypsum, is expected to begin this summer, and Phase III will connect the first two phases with a link over Cottonwood Pass.

CONTACT

HCE, Jenna Weatherred, 970-947-5470

Suwannee Valley Electric Cooperative

CO-OP TYPE: Distribution

LOCATION: Live Oak, Florida

SIZE: 27,099 meters

GOA

Build a fiber-optic network across the co-op's service territory in order to expand SVEC's smart grid/self-healing capabilities while also increasing system security and resiliency. The goal is to ultimately extend fiber internet access to all of the co-op's consumer-members.

SOLUTION

Selected Conexon (conexon.us; NRECA Associate Member) to deliver comprehensive services for the FTTP project. The effort is expected to take up to four years to complete, at a cost of up to \$93,000,000. Construction was expected to begin in the second quarter of this year, with the first connection expected in the third quarter of 2023.

CONTACT

Suwannee Valley EC, 800-447-4509

other parts of rural America, our area finds itself on the wrong side of a 'digital divide.' >>

-Mike McWaters, CEO, SVEC

Tri-County Electric Cooperative

CO-OP TYPE

Distribution

LOCATION

Madison, Florida

SIZE

19.311 meters

GOAL

Deploy a multi-gigabit-capable fiberto-the-home (FTTH) network in the co-op's Big Bend service area.

CONTACT

Tri-County EC, 800-999-2285 Conexon, Carl Meyerhoefer, Carl.Meyerhoefer@conexon.us

Joined with four other Florida co-ops and Conexon (NRECA Associate Member; conexon.us) to collectively secure almost \$56 million in American Rescue Plan Act funding for deployment projects across the Sunshine State. The networks will collectively span 20 counties served by the co-ops and ultimately serve almost 100,000 of their members. The other participating Florida electric co-ops are Central Florida EC, Escambia River EC, Glades EC and Suwanee Valley EC.

THANKS TO STATEWIDE **COLLABORATION AND SUPPORT** FOR CO-OP BROADBAND, DIGITAL **EQUITY IS WELL ON ITS WAY TO BECOMING A REALITY.**

> —Iulius Hackett, CEO. Tri-County Electric Cooperative





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CO-OP VEGETATION EXPERTS



SMART INVERTERS



By Reed Karaim

Electric cooperative representatives will get a chance to share their expertise on their unique vegetation management challenges during a special panel at an upcoming national arborist conference.

The panel discussion will be part of the Trees & Utilities Conference Sept. 12-14 in Pittsburgh. The event is co-sponsored by the Arbor Day Foundation and the Utility Arborist Association (UAA), an organization of

energy utility vegetation managers.

The panel was organized by UAA board member Amanda Opp, integrated services manager at Flathead Electric Cooperative based in Kalispell, Montana. Opp says the overarching goal is to build a sense of community among co-op vegetation managers.

"I really want to see the co-op vegetation management community have a place, a voice and have meaningful conversations where we share experiences and talk about solutions to some big problems that we all face," she says.

Among the topics the panel plans to tackle are vegetation management planning—including herbicide application, budget constraints and regulatory issues—wildfire management, storm and disaster response and federal grant opportunities.

"I see all these conversations weaving into each other," Opp says. "For example, we're looking at storm and disaster response, and that's going to play into federal grant possibilities."

Another example, Opp notes, is the different components of creating a vegetation management plan and how those can be used to promote ROW habitats and stewardship.

In addition to Opp, George Leader from Pedernales Electric Cooperative in Johnson City, Texas, Joe Jazewinkel from Wolverine Power Cooperative in Cadillac, Michigan, and Brenda Green from Powder River Energy Corp. in Gillette, Wyoming, are scheduled to be part of the panel. Megan Olmstead, NRECA regulatory affairs director, will moderate.

Opp notes the panel will also give the wider arborist community a beneficial look at how co-ops work with members on vegetation issues.

"We're always trying to collaborate first," she says.
"We knock and talk."

By Reed Karaim

Smart inverters have untapped potential waiting to be unleashed at many cooperative distribution systems, according to NRECA research.

These devices are becoming relatively common as distributed energy resources (DER) such as solar and battery storage proliferate. But their capabilities go

TO GET THE MOST BENEFIT OUT OF DER, YOU NEED TO DO MORE THAN JUST INTERCONNECT THEM TO A DISTRIBUTION SYSTEM; YOU NEED TO OPTIMIZE THEIR OPERATION.

— Fathalla Eldali, DER Engineer, NCEMC

beyond simply converting DC to AC power, including functions such as voltage regulation, frequency support, easier two-way communications and even "black start," using DER generation to re-energize parts of the grid after an outage.

"To get the most benefit out of DER, you need to do more than just interconnect them to a distribution system; you need to optimize their operation," says Fathalla Eldali, distributed energy resources engineer with North Carolina Electric Membership Corp., a G&T based in Raleigh, N.C. "Smart inverters are a key component in that."

Exploring the full advantage of smart inverters involves a four-part process, says Eldali, who was a lead researcher on several smart inverter field studies while at NRECA. "We developed a framework that co-ops can follow if they want to unleash the additional benefits of having smart inverters on their distribution systems."

The four steps are:

- Establish the full range of capabilities of the smart inverters on your system.
- Determine alternative inverter settings that allow you to tap those capabilities to accomplish system goals through simulations. One of the most common and beneficial is voltage optimization.
- Implement the settings in field tests.
- Monitor and measure data in post-implementation analysis to determine real-world results from different inverter settings and operation modes.

As a result of the field tests, Eldali notes, the participating co-ops became more aware of inverter capabilities and realized specific settings or modes could help mitigate system issues they had encountered or could encounter in the future.

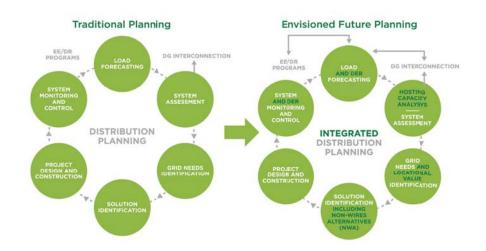
"They saw there's a lot of opportunities for using the grid services that come with these inverters," he says.

Trees & Utilities Conference

September 12-14, 2023 Pittsburgh, Pennsylvania treesandutilities.org Photo by Nisian Hughes (Getty Ima

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IDRP



By Reed Karaim

A rapidly changing power grid requires a more holistic approach to planning, leading the power industry to what's known as Integrated Distribution Resource Planning (IDRP).

Distributed generation, smart devices allowing greater system monitoring and control and changing consumer desires are combining to increase the interdependency between generation, transmission, distribution and consumption of electricity, notes Venkat Banunarayanan, NRECA vice president of integrated grid.

"The challenge is how do we plan in a way that takes into account the changes happening at all levels of the electric grid," he says. "The need for coordination

> A DISTRIBUTION CO-OP **CANNOT DO IT ALONE;** A G&T CANNOT DO IT ALONE. THEY HAVE TO DO IT TOGETHER.

— Venkat Banunarayanan, Vice President of Integrated Grid, NRECA is becoming more and more apparent. That need for coordination is really the genesis of IDRP."

At least 10 states have implemented some form of IDRP for regulated activities, according to the Smart Electric Power Alliance, with more considering IDRP as they seek to encourage renewable distributed generation and take other changes in the grid into

IDRP involves participants at all levels of the grid working together during planning and operations to assure that DG like solar, wind, battery storage and controllable end-user devices are used in ways that maximize benefits.

For co-ops, the approach starts with sharing data between G&Ts and distribution co-ops at a granular level, Banunarayanan says, and developing power grid modeling tools that can simulate an integrated generation/transmission/distribution/consumption system, allowing joint planning and coordinated grid operations.

Whether they formally refer to it as IDRP or not, some co-ops are already implementing its principles. For example, Arizona Electric Cooperative (AEPCO), a G&T based in Benson, Arizona, and AEPCO's member distribution co-op, Anza Electric Cooperative, headquartered in Anza, California, worked closely together in the engineering design and installation of Anza Electric's microgrid grid and battery storage project. AEPCO also provides Anza Electric with resource planning.

Banunarayanan believes IDRP will become more commonplace as the grid continues to evolve, requiring more collaboration across the co-op community.

"A distribution co-op cannot do it alone; a G&T cannot do it alone," he says. "They have to do it together." RE



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SEARCHES

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NEW PRODUCTS

DERMS SOLUTIONS

NISC announced several moves to help its member cooperatives incorporate advanced *distributed energy resource management systems* (DERMS). One is a partnership with Open Access Technology International Inc. (OATI) that allows NISC members to leverage OATI DERMS software to manage distributed energy resources (DER) like thermostats, direct load controllers, solar panels and electric vehicles. Another is a partnership with Virtual Peaker, whose Shift DERMS provides tools to optimize supply management functions for a wide array of DER programs. And NISC Marketing Services was created to help member co-ops better connect with their end users.

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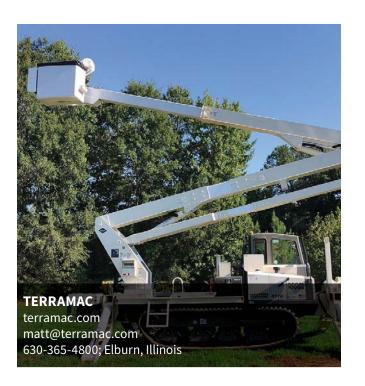
Itron Inc.'s new Itron Fiber Mini Access Point leverages fiber and RF mesh connectivity for a wide range of endpoints, including advanced metering infrastructure (AMI), distributed intelligence, distribution automation, low-voltage network management, smart lighting and more. It extends industrial internet of things (IIoT) network coverage in rural areas with low meter-permile density while reducing infrastructure and total cost of ownership. Co-ops can utilize Itron's extensive partner ecosystem to address grid modernization challenges and enable advanced applications such as electric vehicle monitoring and management, distributed energy resource management, conservation voltage reduction and more.





TRANSFORMER DATA MANAGEMENT

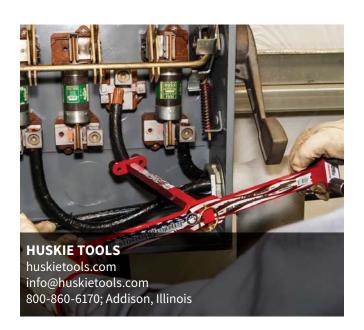
Hitachi Energy's new TXpert Hub enables transformer monitoring by aggregating, storing and analyzing the information from digital sensors. It makes the digitalization of transformers easier, more effective and secure. The TXpert Ecosystem includes digital sensors and monitoring system with asset-level data visualization, asset performance management software and advanced services.



COMPACT CRAWLER CARRIER

Terramac released its *RT7U crawler carrier* designed for utility applications and capable of accommodating a wide array of support equipment. With a Versalift VST-7500 aerial lift, it has a working height up to 80 feet and 47 feet of horizontal reach. The company also has two rubber track carriers—the RT9U and heavy-duty RT14—that can be configured with a Terex Commander 6060 digger derrick, providing an equipment solution for constructing, maintaining and restoring power. The track utility carriers are built with an extended frame and various hydraulic pump drive configurations.

NEW PRODUCTS



CABLE BENDING

Huskie Tools' *Bulldog Bender* provides the power and leverage to easily install, bend and terminate cable switchgear, pad-mounted transformers, load centers, motor controls, LB conduit bodies, service panels, meter bases and more. Four tool sizes cover a wide range of cable sizes up to 1000 MCM. High-strength steel construction and durable powder coat finish ensure long tool life. A 90-degree offset dowel allows ease of use in a variety of applications. A pro handle with an adapter bar allows left or right cable bends.



FUSE INSTALLATION AND REMOVAL TOOL

Hastings designed its *Universal Fuse Cups* to hold 100-and 200-amp fuse barrels from any manufacturer. The universal cup simplifies fuse barrel captures and makes installation and removal faster and easier. The fuse cups are made of fiberglass material to eliminate potential hazards of flashover when handling fuse tubes and are manufactured in Hastings' safety yellow, making it easier to see in all light conditions. For greater strength, the aluminum prong is sealed and covered with fiberglass-reinforced nylon. Each fuse cup weighs less than 5 ounces.

AUTOMATED UNDERGROUND RESTORATION

S&C Electric Co.'s new *EdgeRestore® Underground Distribution Restoration System* improves reliability by mitigating outages and eliminating emergency truck rolls on underground residential distribution systems. The system quickly identifies and isolates faults and restores power. It's easy to deploy and fits inside the transformer enclosures on new or existing underground residential loop circuits.



WILDFIRE MITIGATION

Schweitzer Engineering Laboratories (SEL) has developed a solution designed to *locate and de-energize a broken power conductor* before it touches the ground, decreasing wildfire risks and improving public safety. It uses synchronized data streamed from devices throughout the distribution power system, such as protective relays, recloser controllers and meters. Patented algorithms analyze the synchrophasor data for voltage abnormalities. When a broken power conductor is detected, the system sends a trip command to the devices nearest the break to isolate and de-energize that section.





DIGITAL POLE INSPECTION

IML North America's *pole inspection tool*, the IML-RESI PD-Series, can drill at every height of the pole, from the soil level to the top end. It provides a fast and efficient method of capturing the internal state of the wood, taking the guesswork out of the inspection and providing real data to support better decision-making. The inspection drill captures the resistance of the wood against a 1/10-inch bit, providing an outline of where decay or a cavity may be found. WoodInspector Pole Inspection Software gives a pass or fail result and the remaining strength of the pole.

POLE TOP DECAY PROTECTION

Osmose's Pole Toppers create a durable, long-lasting barrier against moisture and sunlight that helps to maintain structural stability and preservative retention of wood poles. They adhere to virtually any shape pole and can be installed in minutes without hardware or tools. They're made from a cross-linked, reinforced, water- and UV-resistant material with performance characteristics similar to commercial-grade roofing. They're available in three sizes to fit both distribution and transmission poles. **RE**



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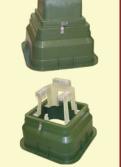
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REGION 1

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Kentucky Mississippi Tennessee

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REGION 6

Minnesota North Dakota

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Arkansas Louisiana Missouri Oklahoma

REGION 9

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REGION 10

Arizona New Mexico

REGION 1

REMEMBERING BROWN

As a lineworker, line foreman and finally the general manager at Oneida-Madison Electric Cooperative, Bouckville, New York, **Don Brown** was a well-known figure in his community, where he also served as justice of the peace and president of his local school board. Brown, who passed away earlier this year at age 81, joined the co-op staff in 1965 and moved into the general manager's office in 1986. "During his tenure at Oneida-Madison," the co-op said in its member newsletter, "Don saw a vast expansion of territory and membership, climbing from 669 to 1,611 active electric services. Mr. Brown was instrumental in shaping the amazing organization your cooperative is today." He remained a popular local figure for an entirely different reason after retiring in 1996, according to the newsletter's obituary. "Even while enjoying his retirement, Don continued to serve the membership. Don with his band, the Blue Valley Boys, were often the entertainment at the annual meetings. Attending annual meetings and stopping into our Bouckville office right up until his passing, Don kept watch over the cooperative he worked so hard to help build."

Solid safety training and quick action by employees of Adams Electric Cooperative, Gettysburg, Pennsylvania, saved the board treasurer's life after he suffered a massive heart attack at a recent co-op event. **Tom Knaub** and other board members had just started taking questions during a district meeting when he collapsed in front of the 600 members at the gathering. **Kevin Dehoff**, the co-op's dispatch coordinator, raced

across the hotel meeting room to help two members who were performing CPR, while Sarah Frank, communications & community relations coordinator, got an automated external defibrillator (AED) from the hotel staff. Dehoff applied the AED paddles once and Knaub promptly came around, answering when they asked him his name. "I've been doing this for 40 years and I've never had anybody wake back up and talk to me," said Dehoff, who's been a volunteer firefighter for all of those four decades. "Thank God he started talking to us." An ambulance crew took Knaub to the hospital, where doctors diagnosed a "widowmaker" heart attack. **Glenn Bange**, president of the co-op board, and his wife, **Doris**, took Knaub's wife to the hospital and stayed with her overnight until other family members arrived. The Pennsylvania Rural Electric Association (statewide), Harrisburg, plans to recognize Dehoff and Frank with a safety award, and Dehoff and three co-op members who assisted in the rescue have been honored by the American Heart Association and two state legislators.

A local food bank got a big boost from Northern Neck Electric Cooperative, Warsaw, Virginia, thanks to the co-op's Power Community Golf Tournament. The tourney lured golfers from as far away as Massachusetts after the co-op invited business partners, contractors, consultants and other electric co-ops to an event that raised more than \$10,000 for Warsaw's Healthy Harvest Food Bank. "I am overwhelmed by the support of our employees, our friends and our partners," said **Brad Hicks**, the co-op's president & CEO. "The result and impact of that support is incredible. There are many in our community who lack access to healthy food and the education about its benefits." The golf tournament may be only the beginning, according to Kyle Allwine, manager of public relations at the co-op. "Over the last two years, we started to realign our events and community investment with our mission to improve the quality of life in our communities," Allwine said. "This event certainly delivered on that mission, but we aren't done yet. We still have more work to do in our community." Craig Hazard, the food bank's director of operations, was deeply grateful for the support. "For some students in our region, they only get a healthy meal at school," he said. "With this significant donation, we can provide meals for those students over the weekend and all summer."

Mathew Anderson has joined the staff at Rappahannock Electric Cooperative (REC), Fredericksburg, Virginia, as its new director of substation and transmission engineering & technical services. In addition to overseeing design, construction and maintenance of substations, transmission lines and mobile substations, Anderson will also direct infrastructure protection and take responsibility for land procurement, site selection and permitting for substations and easement acquisition for transmission lines. He comes to the co-op from an investor-owned utility, where he supervised construction and maintenance of the IOU's facilities in Maryland, West Virginia and Virginia. "His extensive

experience in transmission, substation, distribution and utility construction will be key in exceeding our members' expectations," said Chris Stoia, the co-op's managing director of engineering & power supply.

Members of Bedford Rural Electric Cooperative, Bedford, Pennsylvania, have elected Tory Mickle to a full term on the co-op's board. Mickle was appointed to the board after **John Oldham** resigned last year. Reuben Lafferty and Paul Rummel were re-elected at the co-op's recent annual meeting.

REGION 2

WHITE HOUSE VISIT

Curtis Wynn, CEO at SECO Energy, Sumterville, Florida, and **Lisa Johnson**, CEO at Seminole Electric Cooperative (G&T), Tampa, Florida, joined moderator Andrew Berke, Rural Utilities Service administrator, on the grounds of the White House recently for a panel discussion on the Department of Agriculture's new \$11 billion initiative to expand clean, affordable, reliable energy in rural America. Wynn, who last year was named to the department's new Equity Commission subcommittee on rural economic development, cited "the grant funding, tax credits and low-interest loan funding" available through RUS's New Empowering



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Rural America (New ERA) program, which he said SECO Energy is "well-positioned to tap into." "It really gives us an opportunity to provide the level of service



TRACEY COTTRELL

that everybody deserves, especially our underserved communities, while keeping our rates as low as possible." Also at SECO Energy, **Tracey Cottrell**, corporate security & risk management specialist, has been elected to the state's Sunshine 811 board of directors. An 18-year employee at the co-op, she has long experience with the statewide underground utility locating

system. "Representing SECO Energy, I am willing to share my knowledge with my fellow board members and continue to enhance the Sunshine 811 strategy to promote safe digging across Florida," Cottrell said. She'll do the co-op proud, predicted **Gregg Morrell**, the co-op's chief corporate services officer. "Safety is SECO Energy's top core value," he said. "We are very proud of Mrs. Cottrell's election to the Sunshine 811 board and trust that she will be a valuable resource and promoter of safe-digging practices."

John Revell's recent retirement from the member

services team at Talquin Electric Cooperative, Quincy, Florida, closed out more than three decades of dedicated service at the co-op. "Over the past 32 years," the co-op noted in The Current, its member newsletter, "he has loved working at Talquin and will truly miss the great people, organization and helping members. John is looking forward to spending time with his family and horses after retirement." Also at the co-op, Jackson Rudd came home from the Florida Lineman Competition with three top trophies: first place in the mystery event, second overall in the apprentice events and third in mutual aid. And dispatchers Jonathan Casey and Elaine Merchant recently completed the system operator certification program.

Florida Keys Electric Cooperative, Tavernier, used its local pages in a recent issue of Florida Currents to invite its members to salute three staffers celebrating service milestones. The honorees were **David Ragland**, 15 years, and **Mike Robinson** and **Miles Shumaker**, both five years.

Journeyman lineworker teams from Jackson Electric Membership Corp., Jefferson, Georgia, claimed first-, second- and fourth-place finishes in the recent Georgia Lineman's Rodeo, with numerous other line crew members from the co-op ranking high as well. Jeremy Adams, Kaleb Chapman and Jeff Sutton made up the

top overall team, while their co-workers **Justin Cash**, **Austin Gragg** and **Devin Triplett** took second. **Justin Roper**, **Matt Tolar** and **Austin Yearwood** ranked fourth overall. All told, the co-op was represented at the event by six three-member journeyman teams and 27 apprentices, who competed individually. "Our linemen take tremendous pride in the work they do for their community," said **Patrick McAuliff**, director of engineering & operations. "When they compete in the lineman's rodeo, they bring a strong competitive spirit to the event, and their families and fellow employees get to see their work in action."

Will Anderson has been elected to the board of directors at Blue Ridge Electric Cooperative, Pickens, South Carolina. More than 8,200 members registered and voted in a two-day drive-through annual meeting format, electing Anderson to succeed the late longtime board member **Ben Bolt**.

REGION 3

LOVE'S PASSING

It was "with heavy hearts" that Caney Fork Electric Cooperative, McMinnville, Tennessee, announced the recent passing of **Bobby Love**, a 29-year member of

the co-op's board. The sixth-generation farmer was "a dedicated board member since 1994 and made significant contributions to the development and success of the cooperative," the co-op said in the local pages of the statewide consumer magazine. "His unwavering commitment to the cooperative and the community is a testament to his character and integrity." Love was 66.

Jarrod Brackett, general manager/CEO at Fort Loudon Electric Cooperative, Vonore, Tennessee, has been elected to chair the board of the Tennessee Valley Public Power Association (TVPPA, service), Chattanooga, Tennessee. William "Dave" Cross, CEO at Plateau Electric Cooperative, Oneida, Tennessee, was elected as the association's secretary/treasurer. And two co-op representatives were newly elected to the TVPPA board: Stacey White, general manager at Arab Electric Cooperative, Arab, Alabama, and Loyd Muncy, general manager at Chickasaw Electric Cooperative, Somerville, Tennessee.

The Tennessee Valley Authority (TVA), Knoxville, Tennessee, has named **Mike Knotts**, CEO at the Tennessee Electric Cooperative Association (statewide), Nashville, to its Integrated Resource Plan working group. Knotts is one of 22 representatives of a range of business and consumer sectors on the panel, which will advise the federal power marketing agency on

approaches to meeting the region's future electric demand. "The partnership between electric co-ops and TVA has literally changed Tennessee," Knotts said. "Tennessee's rural and suburban communities and the co-ops that serve them have unique needs, and it is important that those needs are heard and understood. I applaud TVA for giving stakeholders a seat at the table to shape the future of the region's power supply."

Nolin Rural Electric Cooperative Corp., Elizabethtown, Kentucky, said a public "fond farewell" to two stalwart supporters recently. A.L. "Buddy" Rosenberger served on the co-op's board for 45 years before retiring earlier this year. His long tenure included stints as the board's secretary/ treasurer and its representative on the board of East Kentucky Power Cooperative (G&T), Winchester. John Scott retired as the co-op's attorney after 42 years in the role. Scott "has been





CO-OP PEOPLE CO-OP PEOPLE

an important part of the Nolin family," the co-op said in Nolin News, its member newsletter. "We are grateful to both of these gentlemen for their many years of hard work on behalf of our members and we wish them the very best."

William Larkey has joined the board at Jackson Energy Cooperative, McKee, Kentucky. Larkey was appointed to his seat recently to succeed Keith Binder. "It is an honor to be in this position, where I will strive to make a positive impact for the cooperative and the southeast Kentucky region," Larkey said. "I want the best for my family and my community, and given this opportunity I will work diligently in serving the members."

REGION 4

BUCKEYE LIFESAVERS

Two employees of Buckeye Power (G&T), Columbus, Ohio, were the surprise stars of an otherwise routine staff meeting at the G&T's Cardinal Plant when they were honored by the American Red Cross for saving a contractor's life. **Coty Lee**, the plant's safety & health supervisor, and **Scott Law**, its fire protection & security specialist, moved fast last summer when the contractor went into cardiac arrest and collapsed after climbing a flight of stairs. Lee was about 300 yards away when the "downed man" call went out and rushed over with a defibrillator. Law activated the machine and both men administered CPR for a quarter of an hour until emergency responders arrived. "Our team goes above and beyond the requirements," said Bethany Schunn, the plant manager, who nominated the pair for the Red Cross award. A local television station reported on the presentation, and Lee and Law used their interviews to emphasize the importance of safety training. "If you ever see somebody go into cardiac arrest," Law said, "doing something is better than doing nothing, because when you do CPR, you're physically pumping blood for that person."

Hancock-Wood Electric Cooperative, North Baltimore, Ohio, proudly announced recently that two of its trustees had achieved Board Leadership certification through NRECA's demanding board member training program. **Gene Barker**, who chairs the co-op's board, and **Ron Riegle** are the newly certified board members. The co-op "encourages all its trustees to earn these certifications because the coursework required dramatically broadens a trustee's knowledge of the electric cooperative industry," the co-op said in announcing their achievements.

Garrett Duhnovsky has joined the staff at Carroll White Rural Electric Membership Corp., Monticello, Indiana, as the co-op's new distribution system engineer. He brings five years of experience with an Indiana IOU to his new post. "I am extremely happy

to be a part of the Carroll White REMC family," Duhnovsky said.

When **Bob Stroup** passed the gavel as chair of the board at Hoosier Energy (G&T), Bloomington, Indiana, he triggered a round of promotions for the rest of the board's officer corps. **Gary Waninger**, who represents Southern Indiana Power, Tell City, moved to the head of the table, with **David Smith** of Southeastern Indiana Rural Electric Membership Corp., Osgood, taking Waninger's place as vice chair. **Jodie Creek**, who represents Whitewater Valley Rural Electric Membership Corp., Liberty, advanced to the secretary position, leaving the treasurer's post open for **John Edwards** from Daviess-Martin County Rural Electric Membership Corp., Loogootee.

Employees, board members and staff at Tipmont Rural Electric Membership Corp., Linden, Indiana, were saddened by the recent passing of **Fred Rayburn**, who served on the co-op's board for more than 20 years before retiring in 2003. A lifelong farmer, Rayburn was 86.

REGION 5

T.I.P.'S TOP CHANGE

Dean Huls, who joined T.I.P. Rural Electric Cooperative, Brooklyn, Iowa, as a lineworker in 1980, retired recently as its general manager. Huls spent 25 years on the co-op's line crews, followed by eight years as electrical adviser, before moving into top management as operations manager and assistant general manager. He took the top staff job in 2019. Following a similar career path, Operations Manager Scott Long was named to succeed Huls. Long has worked for T.I.P. Rural Electric for 25 years. The co-op also welcomed Chase Witte into its staff ranks as an early-arriving apprentice lineworker. Witte suited up ahead of his official start date to help out with storm-restoration efforts.

Midland Power Cooperative, Boone, Iowa, has named **David Speed** as its new manager of community & business development. He comes to the co-op from Mrs. Clark's Foods, an Iowa-based food company that serves national and international markets where Speed served as warehouse and distribution manager. Also at the co-op, employees and board members mourned the recent passing of Jack Runge, who served on the board for 28 years, half of them as its president. Runge was an active community leader, as his obituary reported: "If there was an organization around, he was on the board." Added **Bill McKim**, the co-op's CEO: "We will miss his practical, commonsense approach to cooperative governance and his passioned advocacy for safety and training in our workplace. We will all feel the impact of his loss." Runge was 67.

Andrew St. John has moved up to take the top job at

Central Iowa Power Cooperative (CIPCO, G&T), Cedar Rapids. St. John, who joined the G&T in 2016 as vice president & CFO, was named to take over as executive vice president & CEO after **Bill Cherrier** retired from the post. "Over the past seven years, Andrew has demonstrated exceptional leadership and strategic planning abilities," said CIPCO board President **Paul Heineman**, a board member at Midland Power Cooperative, Boone. "We're pleased to have the opportunity to promote a cooperative leader familiar with CIPCO's member-owners, power supply portfolio and our strategic partners."

The Cooperative Choice Network Credit Union, which serves rural electric and telephone co-op members in Illinois, has established a fund to support Rural Electric Youth Tour participants in honor of the late **Shewan** "Tootie" Holmes, the credit union's former division manager. Holmes, who passed away three years ago at 64, worked at the credit union for 32 years. Lisa Widner, the credit union's current division manager, knew Holmes well and frequently discussed the value of the Youth Tour with her. Widner was struck by "how much she encouraged people to go if given the opportunity." Caroline Guthman, who was chosen this year to represent Egyptian Electric Cooperative Association, Murphysboro, was one of the first two recipients of the new fund's support. "I have heard so much about Youth

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Tour, and I was unsure if I'd ever get the opportunity to go," Guthman told Illinois Country Living, the statewide consumer magazine. "Because of the Tootie Holmes Memorial Fund, I can attend and am looking forward to the opportunity and experience. I'd like to thank those involved in selecting me to attend in her name."

Miss America set the stage nicely when she appeared as the keynote speaker for the recent annual meeting at Dairyland Power Cooperative (G&T), La Crosse, Wisconsin. Grace Stanke, who was Miss Wisconsin before donning the Miss America crown, said her home state's values led to her rise. "I wouldn't be the clean energy advocate that I am, nor Miss America, if it weren't for my Wisconsin upbringing," she told the annual meeting crowd. "I now ask you, what is Wisconsin doing to move its energy portfolio forward, and how can we as Wisconsinites help?" Dairyland Power President & CEO Brent Ridge had the answer, pointing to the G&T's "All In" meeting theme: "Dairyland is 100% all in on the clean energy transition as we look to bring significantly more wind and solar to our generation portfolio, in addition to exploring zero-carbon nuclear and pumped energy storage systems. We will meet our sustainability goals and our obligation to ensure reliable, cost-competitive electricity, through investment in renewable energy and the 'always available' resources that support

REGION 6

FREEMAN WINNERS

A four-student team of budding engineers at the University of North Dakota has won this year's Andrew **L. Freeman** Design Innovation Competition with the "Batter Shaker," an appliance that helps bakers remove cake bubbles. The award, presented by Minnkota Power Cooperative (G&T), Grand Forks, North Dakota, honors the G&T's first general manager. Freeman, who died in 1996, headed the co-op from 1940 to 1982 but was best known as the inventor of the headbolt heater, designed to help cars start on North Dakota's cold winter mornings. "The most beloved inventions are often those that solve an irritating problem faced by everyday people," Minnkota Power's Kaylee Cusack wrote in covering the Freeman Award winners. "In the spirit of making life a little sweeter, the winners ... created a contraption called the 'Batter Shaker,' which shakes cake batter on a platform to remove bubbles that cause voids in a cake. ... They impressed the competition sponsors at Minnkota with their simple ingenuity and teamwork." Freeman would have approved, according to Brendan Kennelly, the G&T's vice president of power delivery. "There were three values that he held dear," Kennelly said. "Teamwork,

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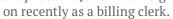
CO-OP PEOPLE

innovation and communication. That's how we rated the presentations and projects, based on his principles." The Freeman Award carries a \$2,000 cash prize, which was a hit with the Batter Shaker team. "It's amazing," said **Michael Ramseth**, a mechanical engineering student.

Roughrider Electric Cooperative, Hazen, North Dakota, announced new roles for three members of the co-op's line crews recently. Leading the lineup was **Shawn Olson**, who moved up to line superintendent. "His 29 years of experience and leadership will be instrumental to our success as we continue to serve the needs of our membership," the co-op said in announcing his move in its pages of the statewide consumer magazine. The same announcement congratulated **Tyler Phelps** on his move to general foreman and **Brock Swensrud** for taking on the working foreman position.

Derek Hittle earned a round of applause in a recent issue of the member newsletter at Agralite Electric Cooperative, Benson, Minnesota. Hittle, the co-op's locator, marked five years of dedicated service to the co-op.

The board of directors at Traverse Electric Cooperative, Wheaton, Minnesota, has chosen Jeremy **Huhnstock** as the co-op's new general manager. He succeeds **Joel Janorschke**, who moved on late last year to become CEO at Cooperative Light & Power, Two Harbors, Minnesota. Huhnstock comes to Traverse Electric with 10 years of co-op experience, most recently as key accounts coordinator at Adams-Columbia Electric Cooperative, Friendship, Wisconsin. "This position worked directly with the members and provided me the opportunity to enjoy getting to know members not only on a cooperative level but on a personal level," he wrote in an introductory message in the member newsletter. "I would like to carry that on with the membership at Traverse Electric." He's not the only newcomer at the co-op: **Stacie Johannsen** signed





CHAD KINSLEY

as vice president of operations for an Arkansas natural gas company serving more than 183,000 customers. "His career passion is in the energy sector, where he has spent the last 15 years leading electric and natural gas businesses," said **Don Heeren**, board president. "Chad is very excited to join the Southeastern Electric Cooperative team.

He is especially thankful to be joining the cooperative team due to our organization's values and member-focused mission." Kinsley takes over from **Brad Schardin**, whose recent retirement closed out a 40-year career at South Dakota electric co-ops. He had led Southeastern Electric since 1990. "I would like to express once again my deep gratitude and that of everyone associated with Southeastern.



BRAD SCHARDIN

to Brad Schardin for the many years of excellent and dedicated service he has provided to our cooperative," Heeren said.

REGION 7

ANTHOS ARRIVES

Michael Anthos has joined the staff at Mountain View Electric Association (MVEA), Falcon, Colorado, as vice president of finance. He brings 13 years of banking experience to his new post, most recently with CoBank (service), Denver, Colorado, where, as a senior relationship manager, he worked with electric co-ops in Colorado, Montana and



MICHAEL ANTHOS

Wyoming. That work, he said, "has sparked a passion for the electric cooperative spirit and their focus on local communities." Harvard University recognized Anthos in 2019 as one of 400 experts in agricultural business and presented him with an Alumni Achievement Award for his work in finance and accounting. His new co-workers were "thrilled" to welcome him, according to **Ruth Marks**, the co-op's CEO. "His extensive banking industry experience, combined with his impressive educational background and professional achievements, make him a valuable addition to our MVEA executive team," she said. "Beyond his qualifications, Mike's passion for community service and involvement in charity organizations aligns perfectly with our cooperative principles."

The communication and marketing professionals at Grand Valley Power, Grand Junction, Colorado, had good reason to toot their own horns in their pages of a recent issue of Colorado Country Life, the statewide consumer magazine. The co-op's strategy for rolling out a time-of-use rate change took a Gold Award for Best Total Communication in Spotlight on Excellence competitions sponsored by the Council of Rural Electric Communicators and NRECA. Dana Pogar,

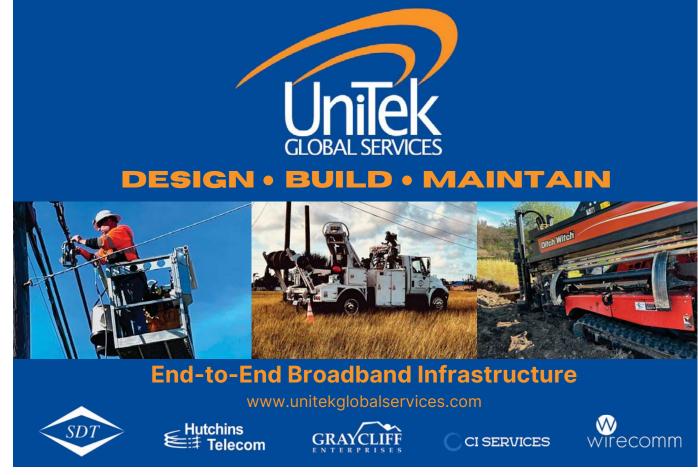
communications specialist, won two Gold Awards for a video and a social media campaign on the same topic, as well as a second-place award for a story in the magazine on mapping outages. **Rita Sanders**, the co-op's director of marketing & communications, took second place in the safety article category with a piece headlined, "Avoid Mom Guilt During Storms." Pogar said the pair was honored to be recognized for doing jobs they enjoy. "Keeping members informed about the work that the cooperative is doing is key to our mission," she said. "It is a joy to tell the stories of our members and co-workers."

Rod Dunker's recent retirement as operations manager at Y-W Electric Association, Akron, Colorado, wrapped up a 45-year career at the co-op marked by a relentless focus on his co-workers' safety. Dunker started out on the co-op's underground crew in 1978, spent some time on its hotline crew and made line superintendent before advancing to operations manager in 2006. He spent many years on the board of directors for the Mesa Hotline School, served on the disaster aid committee at the Colorado Rural Electric Association (statewide), Denver, and offered guidance to the Rural Electric Safety Achievement Program. "One of my career goals has been to do everything I can to have everyone return to their family at the end of the workday," he said in a farewell feature for the

co-op's pages in the statewide consumer magazine. "I would like to remind all linemen that you are your brother's keeper."

A chance encounter at a drive-in restaurant led to a 40-year career for **Alvin Harimon**, who retired recently as general manager at Chimney Rock Public Power District, Bayard, Nebraska. On a spring day in 1983, Harimon and his father were at the Corner Drive Inn chatting with **Jim Reiber**, the district's general manager at the time. Reiber mentioned that a lineworker had quit the previous day and offered Harimon the job. "That was the start of a long career," the district said in its consumer newsletter. "He has always enjoyed his job, but he especially enjoyed running the digger truck and, most of the time, working outside."

Mark Johnson has been named as the new general manager at Elkhorn Rural Public Power District, Battle Creek, Nebraska. He succeeds Tom Rudloff, who retired last spring after 14 years in the post. Johnson comes to Elkhorn RPPD from St. Croix Electric Cooperative, Hammond, Wisconsin, where he was member services manager. Also at the power district, Dawson Kaup and Quinton Ries have signed on as the utility's newest apprentice lineworkers. Kaup is a former intern at Elkhorn RPPD, and Ries previously worked for Loup Valleys Rural Public Power District, Ord, Nebraska.



REGION 8

SONNIER CERTIFIED

Employees and his fellow board members at Beaure-gard Electric Cooperative, DeRidder, Louisiana, congratulated **Doug Sonnier** when he recently received his Credentialed Cooperative Director certificate through the NRECA training and certification program. A member of the co-op's board since 2000, Sonnier is no stranger to community board service; he's also a former member of the boards for the Allen Parish Fair and the Allen Action Agency.

A recent article in SLEMCO Power, the member magazine at Southwest Louisiana Electric Membership Corp., Lafayette, was billed as a "board member spotlight," but **Don "Tuffy" Resweber** chose to shift the focus to the co-op's staff. "I love to find out what's going on at SLEMCO and then think about how to keep our rates as the lowest in the state without sacrificing service," Resweber said. "I feel that is done by making sure employees are happy with their jobs. They are SLEMCO's ambassadors in the field who see and take care of our customers. They are out in weather that no one wants to go out in. They are the ones that make SLEMCO the best company around. I will always support and advocate for SLEMCO employees. They are the best of the best."

A part-time college job in the warehouse at Verdigris Valley Electric Cooperative, Collinsville, Oklahoma, turned into a 46-year career for **Randy Riddle**, who retired recently as the co-op's director of operations, engineering & purchasing. Besides that part-time warehouse work, Riddle's jobs included stints as distribution technician, maintenance superintendent and operations manager before taking his last post in 2019. Riddle led his crews through ice storms, tornados, the Y2K computer fears at the turning of the millennium and the pandemic, but he chose to share the credit. "Every accomplishment has been a team effort," he said, adding one last word of advice for his successors. "Don't forget the meaning of a co-op. Don't lose sight of who we serve."

Byron "Junior" Curtis was looking for work in 1973 and he found it with the right-of-way crew at Se-Ma-No Electric Cooperative, Mansfield, Missouri. "It was a job, and I needed it," Curtis recalled when Rural Missouri, the statewide co-op consumer magazine, reported on his recent retirement. "It wasn't very long our line superintendent told me to go get some hooks and a belt." He picked up a used set for \$20 and launched a career that lasted half a century. Curtis remembers building three-phase lines before bucket trucks became common. "We would go up the pole and stay until lunchtime," he said. "Then we would come down, eat and then go back up." Lineworkers at Se-Ma-No Electric still use belts and hooks when the

terrain gets too rough for a truck, and Curtis's skill became legendary. "When I came here in 2018, he was 68 years old," said **Dan Sisco**, CEO & general manager. "I was told Junior was one of the best climbers we had." Curtis's retirement, coming after **Kevin Finley** called it a career last year, has cost the co-op nearly a century of hard-earned, valuable experience, according

to **Hayden Dennis**, operations manager. "When the lines went out, Junior could tell you pretty much where to start looking.
And where it's at on the system.
And how to get there."

A new editor is at the helm of Rural Missouri, the consumer magazine published by the Association of Missouri Electric Cooperatives (statewide), Jefferson City. **Sara Schafer**, who represented Co-Mo Electric



SARA SCHAFER

Cooperative, Tipton, Missouri, on the Electric Cooperative Youth Tour more than 20 years ago, comes to the magazine after 15 years with Farm Journal and a previous four-year stint in the communications department at Boone Electric Cooperative, Columbia, Missouri. "She believes in the mission of rural electric cooperatives and brings a unique perspective as a former Youth Tour delegate and distribution co-op employee," said Vicki Kemna, Boone Electric's assistant manager. Schafer takes over at Rural Missouri from the publication's longest-serving editor, Jim McCarty, who stays on as the magazine's editor emeritus and manager of special projects for the statewide's communications department. "I have the utmost respect for Sara and the entire staff of Rural Missouri," McCarty said. "I think any changes you see in the magazine's future will all be for the better." Schafer said she was eager to get to work. "This magazine has always been one of my favorites," she said. "I am so honored to follow the legendary Jim McCarty and join the talented team to share the interesting and inspiring stories of our great state." Also on the Rural Missouri staff, **Zach Smith** has been promoted from field editor to the statewide's digital media director, and Angie Jones-Wheeler was promoted from designer to associate editor.

REGION 9

REDMOND'S NEW GIG

Ryan Redmond has been named as the new CEO at Benton Rural Electric Association, Prosser, Washington. "Ryan has been in the electric cooperative family for many years, working at Peninsula Light Company," Gig Harbor, Washington, his interim predecessor, Troy Berglund, wrote in announcing

Redmond's appointment. "I have personally worked with Ryan during his time at Peninsula Light Company as we represented our utilities and our members' interests on legislative matters on the statewide association board. I have seen firsthand Ryan's exceptional knowledge, skills and leadership in action while working together on legislative matters. I truly believe Benton REA's future will be very bright under his leadership." Redmond's arrival, Berglund said, meant a transition for himself as well: "I will step down as the interim CEO and return full time to my responsibilities as vice president of member services. It has truly been an honor to be entrusted by our board of trustees to serve our member owners as the interim CEO."

Parkland Light & Water, Tacoma, Washington, has renamed its scholarship to honor its late board member, Sir **Charles "Chuck" Nelson**. Nelson, the longtime registrar at Pacific Lutheran University, Parkland, earned the Sir title in 2005, when he was knighted by **King Harald V** of Norway for his focus on recruiting students from Scandinavia. He served on the co-op's board from 1990 until his death in early 2019. The newly named Parkland Light & Water/Charles (Chuck) Nelson Scholarship will honor his "mission and passion for education," the co-op said in announcing the change.

Co-op leaders from throughout the West landed top spots on the board of the Northwest Public Power Association (NWPPA, service), Vancouver, Washington, at the association's recent business meeting. Don Smith, general manager at Wheatland Rural Electric Association, Wheatland, Wyoming, was named board president, with **Doug Schmier**, a board member at Fall River Rural Electric Cooperative, Ashton, Idaho, serving as first vice president. Libby Calnon, general manager at Hood River Electric & Internet Cooperative, Odell, Oregon, was appointed NWPPA secretary/treasurer, and Dave Kelsy, a board member at Yellowstone Valley Electric Cooperative, Huntley, Montana, remains in the officer ranks as immediate past president. Association members also elected three co-op leaders to their first three-year board terms: Michael Darrington, general manager, United Electric Cooperative, Heyburn, Idaho; Jessica Matlock, CEO, La Plata Electric Association, Durango, Colorado; and **Rachel Morse**, a board member at Chugach Electric Association, Anchorage, Alaska. The association also presented numerous awards at the meeting. Roman Gillen, president/CEO at Consumers Power, Philomath, Oregon, received the Life Member Award; Fred **Brog**, a board member at Lower Valley Energy, Afton, Wyoming, received the John M. George Public Service Award; and Fall River Rural Electric received the Paul J. Raver Community Service Award.

Curtis Condon is earning global accolades for his first book, published last year shortly after he retired as editor of Ruralite, the consumer magazine published

for co-ops across the country by Pioneer Utility
Resources (service), Hillsboro, Oregon. "Wish Upon
a Crawdad," a novel set in rural Oregon at the dawn
of rural electrification, has won four literary awards,
including the international Next Generation Indie Book
Award for children's and juvenile fiction and the Spur
Award for teen fiction from the Western Writers of
America. "Winning one award is great," Condon said.
"Winning more than one for the same book is fantastic.
With or without the awards, I would keep writing. But
the recognition does put wind in my sail. It's a validation of sorts that tells me maybe I'm not wasting my
time." He told his former magazine that he's mulling
"at least a dozen more children's book ideas and a few
other book projects."

With two blue ribbons and one second-place finish, **Patty Quisno** led the field to become Overall Bread Winner at the recent Montana Seed Show. Quisno, a board member at Big Flat Electric Cooperative, Malta, Montana, took first in white and wheat breads and second in specialty breads. "Patty has spent many years perfecting her bread recipes," her co-op said in its Big Flat News member newsletter. "And it shows."

Reese Stahl has joined the board of trustees at Mid-Yellowstone Electric Cooperative, Hysham, Montana. He was elected at the co-op's recent annual meeting to succeed **Arlo Jensen**, who retired from the board. **Tim Fulton** and **Dick Pinkerton** were re-elected.

Members of Sun River Electric Cooperative, Fairfield, Montana, offered a round of applause when two staffers were recognized for a combined half-century of dedicated service during the co-op's recent annual meeting. The honorees were **Shelley Batson**, 35 years, and **Mike Faith**, 15 years. Board members **Russ Bloom** and **Bob Pasha** were re-elected.

Ryan Hall, communications director at the Montana Electric Cooperatives' Association (statewide), Great Falls, and editor of its Rural Montana consumer magazine, won a Gold Award for best news story in recent communications competitions sponsored by the Council of Rural Electric Communicators and NRECA. Hall's "Proposed Dam Breaching" story appeared in the magazine's February 2022 issue. Hall and his magazine also took Silver Awards for best series of news stories, best special publication and best photo.

REGION 10

A 'TRUE FRIEND' PASSES

Texas co-op leaders joined friends and admirers of **Charlie Stenholm** across the country in mourning the recent passing of the retired congressman and former rural electric general manager who died at his home at the age of 84. Stenholm was a high school agriculture teacher and farmer in central Texas until 1965, when

CO-OP PEOPLE

he became executive vice president of the Rolling Plains Cotton Growers. Two years later, he was named associate general manager at Stamford Electric Cooperative, Stamford, which in a later merger would become Big Country Electric Cooperative, Roby. He rose to the top job at Stamford Electric in 1969 and represented the co-op on the board of Texas Electric Cooperatives (statewide), Austin, serving as its president from 1974 to 1975. He resigned from Stamford Electric in 1977 to focus on his farm but moved on to be elected to the U.S. House of Representatives the following year. Stenholm was re-elected to Congress 12 times, serving as a conservative Democrat and a powerful voice for rural America on the House Agriculture Committee. "He was one of my heroes," said Mike Williams, president & CEO at the Texas statewide. "Former NRECA CEO Glenn English described Charlie as honest, sincere and a true friend. He was a true friend indeed and he understood the challenges facing cooperatives and rural America." The Texas statewide reported Stenholm's passing with a moving obituary in its TEC Report member newsletter: "Before the crowds and the cameras came to tiny Stamford, Stenholm wrote a monthly column in his co-op's Texas Co-op Power pages. He used the platform to encourage members to be active in the management of the co-op and in the direction of rural America. 'The problems of today,' he wrote in 1973, 'are not so large that reasonable and good people cannot overcome them by joining together for a common purpose."

Things just won't be the same at North Plains Electric Cooperative, Perryton, Texas, after **Paula Lehew** retires later this year. Lehew, the co-op's executive secretary, has worked there for 47 years.

A well-seasoned chef is sharing recipes as the new food editor at Texas Co-op Power, the statewide consumer magazine published by Texas Electric Cooperatives (statewide), Austin. Vianney Rodriguez, a lifelong Texan, took over from Megan Myers recently. Rodriguez is a food blogger and author of two books: "Latin Twist," a collection of cocktail recipes, and "The Tex-Mex Slow Cooker."

Folks at Lamar Electric Cooperative, Blossom, Texas, mourned the recent passing of **Don McCaskill**, who retired as the co-op's general manager in 2001 after three years in the post. He'd previously served on the board from 1994 to 1997. A retired IBM executive, the multitalented McCaskill was also an author, artist and woodworker. He was 93.

Mike Faris has retired as manager of accounting, customer service & warehouse at Lea County Electric Cooperative, Lovington, New Mexico, after 41 years on the staff. Denise McDaniel was promoted to take his place, and Nelly Dominguez moved up to supervisor of accounting. RE

NEW EMPLOYEE SPOTLIGHT

A MONTHLY COLUMN TO SHOWCASE A CO-OP NEWCOMER
BY MEGAN NEWTON



Valeri Pearon Associate Editor

Pioneer Utility Resources Hillsboro, Oregon Co-op employee since June 2022

Birthplace: Smithfield, Missouri

Hobby:

I'm an artist. I sketch and paint as much as I possibly can. In the past few years, I've taken up carving ... specifically pumpkin carving.

How did you get into that?

There was a pumpkin carving contest where I had previously worked, and I was "volun-told" to carve a pumpkin. I chose to carve the face of one of my coworkers and fell in love with the process so much that I carved a different coworker every October. I hope to continue that tradition at Pioneer!

Have you always had a creative outlet?

I've been creating since I was 14, and I'm always looking for new mediums.

When did you first discover your artistic side?

I began writing at a young age after coming across a notebook of my mom's poetry. By the time I was going off to college, I'd filled a notebook with poetry of my own.

What were you doing before you joined the co-op?

I spent 11 years at the Jefferson City News Tribune. I made my way up to assistant design editor and, eventually, to design editor of the daily paper.

How did you hear about the job at Pioneer?

I was searching for a new avenue to tell stories, and I found the job online.

What do you like most about working there?

I enjoy working as a team, and being here is all about teamwork.

What else do you like doing in your free time?

I enjoy traveling and the outdoors, which go hand in hand. I have an adventure list, and I can't wait to cross off more destinations.

Something most people don't know about you:

I just added rowing to my fitness routine. I'm currently just on a machine, but I'd absolutely love to someday try it on the water. **RE**

Know someone who could be profiled? Contact Megan Newton at mcatee.megan@gmail.com.



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NRECA MEMBERSHIP

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CLOSING **THOUGHTS**



TONY ANDERSON, PRESIDENT

Trust Equity

When do we cut wood for our winter fires? Obviously. we do this in the fall before winter snow covers the ground.

When do we fill our barns and hay yards with bales for winter feeding? Obviously, we do this in the summer and fall well before the ground is frozen.

At our electric cooperatives, why do we wait until the crisis, storm or rate change is upon us to communicate with our members? Why are we so quiet when times are good? We all know there will be hard times ahead. Yet, so often, we find ourselves scrambling to communicate in the midst of whatever calamity arrives when we have known all along the calamity was coming.

Over and over, I have heard managers refuse to promote their cooperative's service in the community. After all, commitment to community is a cooperative principle. Why should we have to tell our members all the good we are doing? For me the answer is simple: We need to build trust and teach them that they belong to something more than just a utility. When we do this, our members are more likely to be engaged with us instead of against us. Engaged members will participate in our programs and defend us on social media during outages.

Teach your members about equity and cost-of-service issues at your cooperative when the only reason to do so is to educate and inform. Take your members inside your financial system and tell them what keeps you up at night before the sleepless nights arrive for real.

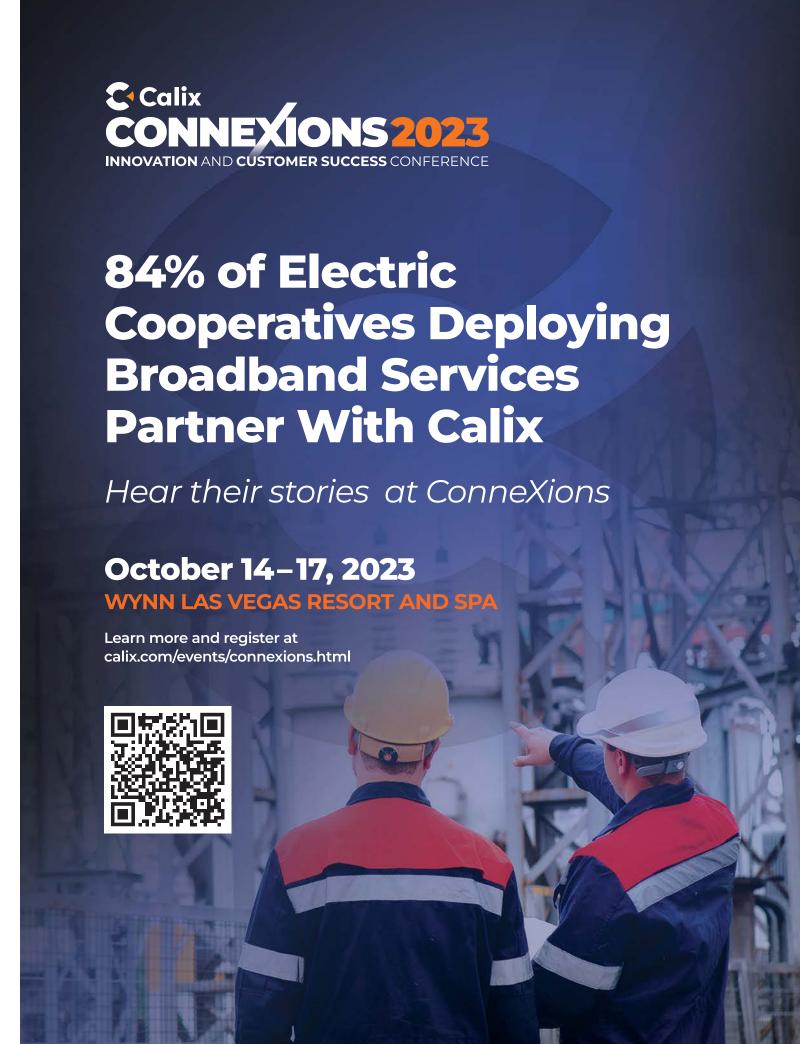
Then, when the rate increase arrives, the members you've engaged will be more likely to defend you at the coffee shop. These will be the members who tell your story in the bleachers on a Friday night.

Where are the weak spots on your distribution system? What are the projects in your construction work plan? Share these stories before the weak spot breaks. Explain to your members the reasoning behind the project before construction ever starts. Then, when you see a member in the grocery store, they will be more likely to thank you. These will be the members who grant you the easements you need to improve vour system.

When people lack information, they tend to create and share a negative scenario. Turn your negative into a positive by communicating early and often on all areas of your cooperative. You will build trust, loyalty and supporters who serve you well when the hard times come.

Chopping wood and baling hay when the sky is blue and the weather is warm are proactive measures. We need to think of our communications at our electric cooperatives in the same way. "Make hay when the sun shines" should be the communication strategy at every electric cooperative. I like to refer to the "hay" or "wood" at an electric cooperative as "trust equity." Each of us should have plenty of it cut and stacked long before it is ever needed. **RE**

> Make hay when the sun shines' should be the communication strategy at every electric cooperative.







JONES-ONSLOW EMC

Join us in a conversation with Jones-Onslow Electric Membership Corporation as they explain how they address challenges today's utilities face.

SCAN HERE











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The drive to close America's digital divide and bring reliable high-speed internet service to the country's unserved and underserved areas is in full swing, and electric cooperatives have emerged as major players in this multi-year national effort.

Massive federal and state spending initiatives have begun disbursing unprecedented levels of grants and loans, and co-ops have been broadly recognized by regulators and lawmakers as ideal partners to accomplish the task of making broadband available to every American. Co-ops are proven good stewards of taxpayer funds and have a history and mandate that makes them a natural fit for delivering new or improved service to remote and rural populations.

This is the fourth consecutive *RE Magazine* Advertorial Broadband Insert, and over the past four years, we've seen an explosion in the number of electric cooperatives committing to or investigating broadband for their members and regions, from several dozen to more than 200 co-ops now.

In mid-2022, NRECA created NRECA Broadband, an initiative to provide broadband co-ops and those considering broadband with help navigating the complexities of a competitive communications market, advocacy for co-op broadband priorities with federal agencies and lawmakers and a central place to find resources, tools and networking opportunities. This ambitious endeavor now has almost 100 member co-ops who benefit from the up-to-date information, guidance and training that the NRECA Broadband team has worked so hard to build.

Another key resource for co-ops as they've pursued broadband buildouts is the large and growing stable of vendor-partners whose expertise and experience have been critical to co-op success. In this Broadband Insert, you'll again find useful insights into how co-ops and vendors have worked together to qualify for grants and loans, meet ambitious federal funding deadlines and solve difficult supply challenges.

Each year, the lessons they offer become richer and deeper and add to the wealth of shared information that co-ops can leverage in their broadband journey.

Scot Hoffman Editor, *REMagazine*

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CO-OP BROADBAND CASE STUDY SPONSORS





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CARROLL ELECTRIC MEMBERSHIP COOPERATIVE

WORKING TOWARD 100% BROADBAND COVERAGE SO NO MEMBER IS LEFT BEHIND

COOPERATIVE PROFILE

For years, members of Carroll Electric Membership Cooperative expressed an urgent need for broadband. Many of the cooperative's members live in rural areas of western Georgia that have been underserved or unserved for decades.

The lack of and desire for broadband internet calls to mind Carroll EMC's origins. Founded in 1936 during the time of President Franklin D. Roosevelt's Rural Electrification Administration, the fledgling organization, originally called Carroll Rural Electric Association, was told that bringing electricity to all its members was too difficult and unprofitable. But they prospered, bringing electricity to the first 344 residents in 1937 and eventually rolling out electric service to 100% of the homes, farms and businesses in the seven counties they serve. Now the cooperative serves more than 53,000 electric meters.

BUSINESS DRIVERS

Since those early days, Carroll EMC has been committed to delivering what its members need. Since the early 2000s and into the 2010s, that need was simple: high-speed internet. As Carroll EMC's leaders began to contemplate how to address that need, their vision was as simple and audacious as that of their founders — provide broadband internet service to 100% of their membership.

CHALLENGES AND SURPRISES

The leadership of Carroll EMC knew from the start they wanted to work with a broadband partner that would understand and commit to their vision of 100% coverage. They found a company that matched their vision in SyncGlobal Telecom, a broadband service provider based in Bremen,

Georgia. In 2018, their engineering partner, CHR Solutions, was brought in to conduct a feasibility study.

Tim Martin, president and CEO of Carroll EMC, describes what happened as "a chain of listening." Carroll EMC listened to their members, SyncGlobal listened to Carroll EMC, and CHR Solutions listened to SyncGlobal and then Carroll EMC. The listening and careful consideration was key to the success of the project. Rather than Carroll EMC telling their members, "We can't do that," or SyncGlobal telling Carroll EMC, "That's not doable," or CHR Solutions telling SyncGlobal, "How could we get fiber to such remote locations?" everyone understood the vision of 100% coverage and approached the project with positivity and possibility.

PROJECT OVERVIEW

CHR Solutions used its financial modeling systems to determine expected costs and revenue for extended projects, providing estimates as far as 30 years in the future. That showed what to expect from a partnership between Carroll EMC and SyncGlobal. Satisfied that the bold project was achievable, Carroll EMC, SyncGlobal and CHR Solutions moved forward with the planning and design of Phase 1 of the fiber network project. This phase will eventually bring high-speed connections to up to 10,000 homes and businesses. SyncGlobal, with the backing of Carroll EMC, secured its first federal grant in 2020 and broke ground on the network in 2021.

Built on top of its existing electric infrastructure, Carroll EMC's fiber network will roll out based on the areas served by its substations. Some companies, with profit foremost on their minds, might build their network to the most densely populated areas first. Instead, Carroll EMC decided to extend the fiber network to the customers at the farthest ends of the line first. "Those members had already waited 20 years for service," explains Tim Martin. "And they would have waited another three to five years if we didn't prioritize them."

This unique, need-centered approach means that some members have watched as construction crews passed their homes and service was delivered to residents who lived farther out. "It's the right thing to do, and our members understand that," Martin says. It also means that the process of connecting customers closer to Carroll EMC's substations will be easier in the future, as they branch off from existing fiber lines.

In 2022, SyncGlobal branded the fiber internet service offered to Carroll EMC members as Crossbeam. Crossbeam is now serving hundreds of customers in western Georgia with internet speeds up to 1 gig, with new customers being connected every day.

WHY THIS CASE STUDY IS IMPORTANT

The powerful, ongoing partnership among Carroll EMC, SyncGlobal Telecom and CHR Solutions is an example of what can be accomplished with vision, careful planning and a dedicated team. Crossbeam is changing the lives of residents of western Georgia. What can you do for your members?

COMPANY DESCRIPTION

CHR Solutions specializes in broadband engineering services, billing and business software solutions, cybersecurity and network monitoring services that address the operational and marketplace challenges faced by today's broadband service providers.





THE SATILLA RURAL ELECTRIC MEMBERSHIP CORP.

CO-OP BUILT, PARTNER-FINANCED AND PARTNER-RUN BROADBAND SERVICE

COOPERATIVE PROFILE

Focusing on its strength in delivering safe, reliable and affordable electricity, Georgia's Satilla Rural Electric Membership Corp. has partnered with industry experts to ensure that every one of its rural members has access to fiber-to-the-home broadband.

Satilla REMC serves nine counties spanning just over 4,400 square miles surrounding Alma, Georgia, in the southeastern part of the state. This primarily residential service territory includes small cities and towns as well as farming communities and even more sparsely populated areas. Across this geographic footprint, many of Satilla REMC's nearly 38,000 members have been either unserved or underserved by other high-speed internet providers. Members have been left behind in the global marketplace. Students can't access remote learning opportunities, and family members can't access services or work-from-home options.

BUSINESS DRIVERS

Like other electric distribution cooperatives across the country, Satilla saw the impact this lack of connectivity was having on its members and their communities and decided to step in to fill the service gap.

"When we recognized the problem a few years ago, we waited for someone in that industry to address it," says Romeo Reyes, Satilla's president and CEO. "After years passed with zero advancements, and hearing more and more from members about their needs, we started exploring how we could support broadband expansion in our territory."

Satilla's year-long due diligence focused on two primary objectives: getting high-speed broadband to every one of its members, and not getting into the internet service provider (ISP) business themselves.

PROJECT OVERVIEW

Satilla decided to work with rural fiber broadband entity Conexon and its ISP arm, Conexon Connect, to build and operate a FTTH network delivering 100-megabit, 1-gigabit and 2-gigabit service.

"We knew we didn't have the expertise to build and staff an entire internet company from the ground up, so we looked for a partner who would understand our business model and our strategy," says Reves.

To support the model, Satilla is building a fiber network over five one-year phases that will serve its vast territory. Fiber will be installed at each distribution substation, and from there to individual homes, farms and businesses.

BUSINESS DRIVERS

The cooperative will continue to own the fiber network and provide access to Conexon Connect for a fee. Connect will then serve as the internet service provider moving forward.

"In addition to the access fee, Satilla REMC will receive a small revenue share, and then Connect will handle every aspect of the internet service, from routers and modems to customer service," says Reyes.

The internet service is co-branded as "Connect, Powered by Satilla REMC," so the connection is a close one and capitalizes on Satilla's 85 years of providing service in the area. As a safeguard to reduce reputation risk, Satilla is working with Connect to ensure its members are as well-served for their internet service as they are for their electricity.

CHALLENGES AND SURPRISES

Even with a very close and positive relationship, Satilla's fiber network project has not been without challenges that are outside of either partner's control. Not surprisingly, labor, supply chain hurdles and escalating materials costs top the list.

Despite not receiving any grant funds in the first round of government program distributions, Satilla has sufficient financing in place with long-time lender CoBank. It also continues to pursue other grant opportunities and has been awarded funds in the second round of grant distributions.

"CoBank has been a good financial partner for more than a decade, and we're glad to know that we have enough capital to finish this project and offer high-speed internet to every member," says Reyes. "At the same time, any grant funds we can access will

reduce the amount of money we'll need to draw from the loan and that our members will ultimately need to pay back. CoBank understands and supports this approach."

Regardless of the supply chain and other issues, the project remains on schedule in Phase 2 for 2023. It's also gained some attention from competitors, mostly in the cities and suburbs, who fear losing customers as the new network passes by their communities – a network that, in many cases, is far superior to what they're currently being offered.

"Our competitors aren't necessarily interested in building their networks into these remote areas. They just want to hold on to the customers they already have, so they're starting to upgrade their systems and lower their prices," says Reyes. "Competition is good for everyone, and our project is demonstrating that with the right partners, electric distribution cooperatives can be instrumental in getting their members served with broadband internet access, and they don't necessarily have to get into the ISP business themselves to do so."

COMPANY DESCRIPTION

Today, over 75% of electric distribution, transmission and generation cooperatives work with CoBank for their banking and financial needs. We finance projects of all kinds, including traditional electric infrastructure investments, smart grid technology, retail broadband, distributed energy resources (DERs), utility-scale and behind-the-meter renewables, electric vehicles and more.



CoBank.com/GoNR51



CENTRAL GEORGIA ELECTRIC MEMBERSHIP CORP.

NEW BUSINESS MODEL PAVES NEW PATHS TO BROADBAND SUCCESS FOR GEORGIA CO-OPS

COOPERATIVE PROFILE

Central Georgia Electric Membership Corp. (CGEMC) serves 64,000 meters across 14 counties. Its service territory is large and diverse in terms of geography, economics, industry and population density. The co-op's 5,415 miles of electric line stretches from suburban Atlanta down to Macon and from the Flint River east to Lake Oconee.

Before fiber broadband, CGEMC's communities faced a lack of reliable high-speed internet, with thousands of households located in true internet deserts. Just two years ago, about 40% of members were unserved or underserved.

PROJECT OVERVIEW

CGEMC began researching options for high-speed internet in 2019 — before the pandemic boosted

demand. After discussions with eight service providers and a wireless technology pilot that never took off, the decision became obvious — fiber broadband would deliver high-quality service for the long term, and they needed to form partnerships.

BUSINESS DRIVERS

The project accelerated in early 2021 when Monroe County committed public funds to help fast-track broadband deployment. CGEMC and neighboring cooperative Southern Rivers Energy, which also serves portions of Monroe County, joined hands during the request for proposal process and agreed to work together to deliver a comprehensive solution, buoyed by \$1.3 million in county funds.

CGEMC knew fiber broadband was the solution but was not ready to become an internet service provider and undertake the financial and operational responsibilities of network management. Co-op leaders were looking for "more of a true partnership" with a provider. The CGEMC team contacted Conexon and presented a list of what they were seeking in a partner.

"We knew fiber would be the answer moving forward," CGEMC President/CEO George Weaver says. "But we did not feel our co-op had the expertise for the project. That's why we worked with Conexon to develop the model for our cooperative."

Conexon returned to the co-op with the beginning of a new model for building broadband that checked nearly all the boxes to fulfill the role CGEMC wanted. Over the next year, the co-op moved forward, working with Conexon as the Connect model was developed. The model allows rural electric cooperatives to make a capital investment for members to own the fiber network and lease the fiber back to Conexon Connect to operate and manage the network as the internet service provider.

CGEMC and Southern Rivers Energy jointly announced their projects in February 2021, the first Conexon Connect partnerships. Just seven months later, a CGEMC member was the first customer to receive Conexon Connect fiber service.

CHALLENGES AND SURPRISES

Today, CGEMC has over 10,000 customers connected, and take rates are approaching 45%. Over 2,000 miles of the 4,000-mile, \$135 million network have been built in less than two years. "Internet deserts" no longer exist. Less than 15% of members are considered unserved or underserved. and the network is on track to be finished within about three years to reach 100% of members.

"It's been a whirlwind two years," CGEMC Chief Operating Officer Ben Thomason says. "This is a world-class network we're building, and our members have access to broadband service as good as anyone, anywhere."

While CGEMC was the first along the journey, there is now a broadband movement throughout the state, advanced by Conexon's novel model. CGEMC brought together neighboring co-ops to share solutions and facilitate connections.

The benefits to rural Georgia are tremendous. The 10 co-op-owned Connect projects will span 34,520 fiber miles across 68 counties, bringing highspeed access to over 235,000 homes and businesses. To date, more than 8,000 fiber miles have been built that pass over 66,000 active member locations. Conexon

Connect take rates are already as high as 60% in some co-op areas, and the overall take rate is nearly 40%.

"Once we made the decision to undertake broadband, the momentum was strong, and it wasn't just CGEMC," says Sr. VP of Energy Supply and External Services Herschel Arant. "There were a lot of co-ops in the same situation, feeling the same pressures and responsibility to serve the communities where we live, work and play. It was like a wildfire everything just spread like crazy. That's how we've been able to reach so many people and have such an impact in a short time."

WHY THIS CASE STUDY IS IMPORTANT

The benefits go beyond internet access. Fiber broadband enables new applications for smart grid - technology that many of the Georgia co-ops were unable to leverage because of internet insufficiency. Smart grid deployment is now standard for Conexon Connect partners, allowing more efficient electricity delivery, load balancing, and power outage response times.

This case demonstrates the power of collaboration among electric cooperatives. As success soars, more co-ops in Georgia and beyond continue to explore options to join the movement and become the next to transform their communities with fiber broadband.

COMPANY DESCRIPTION

Conexon works with rural electric cooperatives to bring fiber to the home in rural communities. Conexon offers clients end-to-end broadband deployment and operations support, working with them to analyze economic feasibility, secure financing, design the network, manage construction, provide operational support, optimize business performance and determine optimal partnerships.





MIDDLE TENNESSEE ELECTRIC

LARGE CO-OP FINDS PERFECT FIBER PARTNER SERVING THE SAME TERRITORY

COOPERATIVE PROFILE

Founded in 1936, Middle Tennessee Electric (MTE) is the largest electric cooperative in the Tennessee Valley Authority (TVA) region and the second largest in the United States, serving more than 325,000 accounts, with 12,000 miles of electric lines, and covering nearly 2,200 square miles in 11 Middle Tennessee counties, primarily Rutherford, Cannon, Williamson and Wilson. Municipalities served include Murfreesboro, Franklin, Brentwood, Smyrna, La Vergne, Lebanon and Mt. Juliet. MTE employs 520 people in seven local offices and its Murfreesboro corporate headquarters.

PROJECT OVERVIEW

In Tennessee, one out of every four rural households does not have a broadband subscription. In communities with low residential and commercial density, it is financially difficult for any provider to independently absorb the entire cost of network planning, construction and maintenance.

Like many co-ops facing the lack of high-speed internet, MTE needed to evaluate its options to expand broadband services to members. Given MTE's large service area, it needed to understand how the costs would vary across its territory to determine the most effective ways to expand fiber. MTE hired Magellan to conduct a deep engineering analysis, cost estimates and business plan for a fiber-to-the-home deployment to serve its members.

BUSINESS DRIVERS

MTE's goal was to map out an entire broadband business, distinct from the electric business, to inform MTE's leadership of the opportunities, risks and requirements to provide broadband services directly versus partnering with an existing internet service provider (ISP). Magellan, an ENTRUST Solutions Group company, guided MTE's leadership to understand the pros and cons of providing retail broadband versus shifting these responsibilities to a partner, including customer service, billing and network operations. The business plan laid out the key strategies that MTE would follow to achieve its goals in both scenarios, with a real-world assessment of MTE's positioning in both options.

CHALLENGES AND SURPRISES

Magellan and MTE saw an opportunity to partner with United Communications, an ISP covering much of the same geography as MTE, and in 2018, established the partnership. United Communications' roots were established in 1947, providing telephone service in rural markets. Fast forward, and United became one of the first companies in Middle Tennessee to introduce a fiber-to-the-home network. Now MTE's subsidiary, United Communications, has a network spanning more than 1,700 miles of fiber backbone providing high-speed internet and other services to portions of Williamson, Wilson, Rutherford, Marshall, Bedford, Franklin and Davidson counties.

The partnership allows the two organizations to combine their resources and decades of experience to offer affordable, high-speed internet services to members and customers in the coming years and improve the quality of life for those in the areas they serve. Today, they are working to accelerate broadband deployments to Tennesseans across the combined service territory.

WHY THIS CASE STUDY IS IMPORTANT

"We are proud to be the first electric cooperative to pursue a partnership of this kind in Tennessee and answer the calls we have long heard from our members. They want and need access to broadband service," says Chris Jones, president and CEO of MTE.

COMPANY DESCRIPTION

In 2022, ENTRUST Solutions Group acquired FiberRise and Magellan. ENTRUST offers valuable solutions to challenges faced by our clients, restores and expands infrastructures, enhances and streamlines systems, and identifies and records key assets for clients, including gas and electric utilities, telecommunication service providers, pipeline operators and industrial companies.







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SOUTHWEST TENNESSEE ELECTRIC MEMBERSHIP CORP.

DATA-DRIVEN DEPLOYMENT ALLOWS UTILITY TO PIVOT TO GRANT FUNDS

COOPERATIVE PROFILE

Southwest Tennessee Electric Membership Corp. (STEMC) serves 45,000 members across 11 counties. Its 52,000 meters cover urban and rural communities alike, ranging from 30 meters per mile in populated areas down to just five meters per mile in sparse regions and farmlands.

The cooperative has long been technology and communication focused. In 2003, STEMC deployed a 250-mile fiber-optic backbone network to connect its five district offices and 23 substations. In addition to using fiber for interoffice and SCADA communications, STEMC used unallocated fiber for a middle-mile network among neighboring utilities. When the Tennessee legislature passed the Broadband Accessibility Act in 2017, STEMC began to explore full-territory deployment.

BUSINESS DRIVERS

STEMC saw broadband as a win-win for its members and the electrical grid. Its underserved communities would gain high-speed internet access, and the co-op could improve its outage restoration and storm response — all without additional cost to the electric membership.

"We asked ourselves: Can we leverage a smart grid fiber network to communicate to devices deeper in the field and also provide a service that our membership greatly desires," says STEMC Vice President of Technical Operations Billy Gordon. "We'd serve the membership in two ways, and if it would pay for itself with subscriber revenue; everyone wins."

After an initial feasibility study, STEMC continued researching all things broadband, everything from marketing strategies to technical support to installation methods. Armed with this knowledge, STEMC sought a second feasibility study and broadband partner to move forward in 2019.

"We needed a partner to kick things off, one that valued technology and forward-thinking as much as we did," Gordon says. "After a year of communication with different consultants, we saw the greatest value in Irby Utilities' data-driven deployment." Irby helped STEMC develop a five-year project for its internet service provider and independent partner, Aeneas Internet and Telephone. The plans included a paperless construction management approach, a strategy that would become crucial in the near future.

CHALLENGES AND SURPRISES

Aeneas and STEMC hung their first fiber cable in March 2020 — right as a pandemic shut the world down. Along with the global disruption came new opportunities; work and school shifted behind computer screens, and the amplified cries of unconnected Americans prompted the creation of the Coronavirus Aid, Relief and Economic Security (CARES) Act.

Using Irby's digital construction processes, STEMC gained total visibility of its network deployment costs. A real-time geospatial map detailed the materials, crew and capital required for every part of the build, past or future. Using this data, STEMC placed competitive bids for two locations in its service territory and won both.

There was one problem, though. These granteligible areas were 65 miles away from STEMC's current broadband construction and approximately four years out based on the original plan. Now, STEMC had to reach these unconnected pockets in under 12 weeks for reimbursement. The clock was ticking, and accurate data was more important than ever.

"When I talked with the construction crews, they said it would be nearly impossible under normal circumstances," Gordon says. "But using Irby's construction management, materials and logistics, it was absolutely doable." Within two weeks of the bid announcement, STEMC and Irby Utilities shifted the entire contractor force to two new service areas, and crews began construction with minimal prep work. STEMC completed fiber placement, splicing and testing within 10 weeks, two weeks ahead of schedule, and submitted for reimbursement a month later.

PROJECT OVERVIEW

STEMC quickly built out the remaining parts of the network they passed on the way to grant-eligible areas. The cooperative now sits 18 months ahead of schedule on its five-year project — a 30% reduction in the planned construction time.

Between the state of Tennessee, the American Rescue Plan Act of 2021, the Rural Digital Opportunity Fund and the CARES Act, STEMC has received \$32 million in broadband funding, largely due to detailed records and data collected throughout its project. "When performing desktop progress reviews with grant administrators, we could pull up the map and say, 'Where do you want to go? Throw out an address,' and we could show timestamped pictures to prove where and how we spent the funds," says Gordon. "You only get that granularity with an automated process like this, and it's put us in a great position when applying for competitive grants."

WHY THIS CASE STUDY IS IMPORTANT

As state and federal entities disperse the last of the broadband grants, understanding the numbers behind one's project is more important than ever. Precise data gave STEMC two distinctive advantages — the competitive bids to win funding and the flexibility to pivot during deployment. As a result, the cooperative has reduced costs by 20% and is currently a year and a half ahead of its timeline.

COMPANY DESCRIPTION

Irby Utilities partners with electric cooperatives and municipals to deploy and maintain fiber broadband projects. Irby offers a full suite of solutions, including feasibility studies, grant support, material procurement and management, engineering and network design, subscriber management and a local, fully operational call center.





SEQUACHEE VALLEY ELECTRIC COOPERATIVE

LEVERAGING TRUSTED PARTNERSHIPS TO MEET CRITICAL COMMUNITY NEEDS

COOPERATIVE PROFILE

Sequachee Valley Electric Cooperative (SVEC) is an electric distribution cooperative headquartered in South Pittsburg, Tennessee, a community of about 3,100 people located nearly halfway between Chattanooga and Nashville. The co-op maintains more than 3,200 miles of distribution line and serves more than 37,900 meters.

BUSINESS DRIVERS

Nestled in the foothills of the Cumberland Mountains and adjacent to the Tennessee River, the region has plenty going for it in terms of economic development drivers. But one critical component was missing — reliable high-speed internet. So when the Tennessee Broadband Accessibility Act (TBAA) was enacted in 2017 to enable electric cooperatives

to enter the broadband space, SVEC leadership was ready to act.

Encouraged by the high level of trust built with their communities, the cooperative developed a sound business plan and marched forward, despite little available state or federal funding.

"Our board of directors said, 'This is the right thing to do,'" says Mike Partin, SVEC president and CEO. "There wasn't an option. We were the ones who had to step up and bring high-speed internet to our members."

PROJECT OVERVIEW

The SVEC board approved plans for the co-op to provide high-speed internet through a not-for-profit fiber broadband company called SVEConnect, and by May 2018, SVEConnect was installing a fiber-to-the-home network.

Calculations showed that a take rate of about 30% would help the project be profitable in the near term. Limited by the Tennessee Broadband Accessibility Act to areas not already served by a telephone cooperative, SVEConnect quickly surpassed the 30% benchmark and currently serves 6,000-plus customers, which equates to a take rate of more than 50%.

"We take pride in our reputation that we're more than just an energy provider. We're a solutions provider," Partin says.

CHALLENGES AND SURPRISES

The electric side of the co-op has been serving its customers' needs since its incorporation in 1939. But the broadband business and many of its business processes, operations and identifying funding opportunities was uncharted territory for SVEC.

The most surprising aspect of the project was an overwhelmingly positive one. SVEC members were more than eager for broadband service.

"The members were all about it, because having reliable service was not something that was common here," says Mike Birdwell, SVEC manager of ancillary services. "But then the challenge was to manage expectations — somebody gets to be first and somebody has to be last."

With two additional internet providers in the area to provide competition, it was also an adjustment switching from the cooperative mindset of the electric utility space to the more competitive nature of broadband services.

"You can't just sit back and say, 'They have to come to us for broadband,' because they don't," Birdwell says. "So that changed our whole perspective, from customer service to sales. And it totally changed our marketing. So yeah, it was a culture shock to go from non-competitive to competitive business mindset."

WHY THIS CASE STUDY IS IMPORTANT

A thread of trusted partnerships is woven throughout SVEC's broadband journey, from project business case, project planning, successful launch and continuing support. Those partnerships include the community they serve and the experienced project partners who helped along the way.

"Find partners that have experience, no matter if it's engineering, consulting or billing systems. Do your homework, and find somebody that's been in the business a while that can guide you," Birdwell says.

SVEC's accounting and customer service staff overlap from the electric side of the business, but they also hired experts from the communications field to help manage the launch of SVEConnect.

Partin also suggested setting realistic expectations. SVEC's projections showed they could be profitable with a 30% take rate, and while they blew that out of the water, it's never a given.

"It's doing the homework, rolling your sleeves up and saying this product is going to make a difference in the lives of our members, and this will be the legacy we'll stand on. So it needs to be done right," Partin says.

COMPANY DESCRIPTION

National Information Solutions Cooperative (NISC) is an industry-leading IT organization that delivers advanced solutions, services and support to more than 940 independent broadband companies, electric cooperatives and other public power entities. NISC's IT solutions include fully integrated financials, service, operations and marketing and additional supporting platforms and business services.





WHITE RIVER VALLEY ELECTRIC COOPERATIVE

FUNDING WAS A CRITICAL FACTOR IN FIBER 'GO OR NO-GO' DECISION

COOPERATIVE PROFILE

White River Valley Electric Cooperative (WRVEC) has been providing power in the Ozark Mountain region of southwest Missouri since 1939. Today, from its headquarters in Branson, the cooperative serves about 47,000 meters over more than 5,300 miles. Covering rocky terrain, WRVEC's customers in five counties enjoy affordable, high-quality electric service, but the co-op had been hesitant to invest in broadband due to the high cost of construction. Other broadband providers also have stayed away. Very few in WRVEC's area have internet service above 25/3 Mbps.

PROJECT OVERVIEW

In early 2024, WRVEC expects to sign its first customers to fiber broadband service after making

the recent decision to commit to a broadband project. It will have the advantage of more than \$47 million in grants awarded by the state of Missouri in February 2023 using support from the federal American Rescue Plan Act (ARPA). WRVEC will begin the project by the summer of 2023.

"We went out on a limb on this, knowing the challenges and risks involved," says Beau Jackson, CEO of White River Connect, WRVEC's new broadband subsidiary. The co-op's board approved the project before knowing whether it would receive any grant support. "The need for broadband was too great and too important to say no, and with that, it was determined that there was a high probability of success. We have more conviction now that we made the right decision. Things are going very well so far," Jackson says.

BUSINESS DRIVERS

WRVEC began investigating the broadband possibilities in 2016 by conducting a feasibility study. "We had enough of our membership inquiring about it that it warranted the need for our first feasibility study," Jackson says. But the results were no surprise. They confirmed that the time was not right.

The situation changed dramatically a few years later during the pandemic. Member demand became emphatic. "Broadband was the most inquired topic at the time," he says. "What are you going do about getting us internet? What is your strategy?" The answer was a second, more thorough feasibility study working with National Rural Telecommunications Cooperative (NRTC). Study results were ready by the board's September 2021 meeting.

Member pressure was high, but the study results suggested that debt from the project would be extremely high unless WRVEC obtained outside support through grant funding programs that were beginning to open. The board left the question open. Application windows for support programs were opening and closing, and by July 2022, it became clear that WRVEC had to decide if the project was a go or a no-go. "Our board and staff decided to have a strategic meeting where we brought in all our stakeholders: executive staff, board members, our auditors, consultants, NRTC and our financial institution representatives," Jackson says. "It was very engaging, and at times emotional."

Following the meeting, the board voted unanimously to build a fiber network throughout the entire service area. The top priority became funding. NRTC helped the cooperative prepare applications for the Missouri Broadband Infrastructure Grant Program, which ran on a point system. The cooperative knew it would score high in the state's point system due to the amount of unserved and underserved homes in the area.

At the same time, community support boosted WRVEC's scores. The co-op's staff expended great effort in getting pledges of millions of dollars in matching funds from county governments. "Years of building community relationships and earning trust has really benefited us with our grant applications," Jackson says.

CHALLENGES AND SURPRISES

"The technology that we're deploying will meet service needs for years to come," Jackson says. WRVEC is building a 10-gigabit passive optical network (XGS-PON) with an eye toward offering a 1-Gbps-symmetrical tier from the beginning. When the demand for bandwidth gets to a point where residential services require above one gig, we'll have the capability to offer that," he says.

WHY THIS CASE STUDY IS IMPORTANT

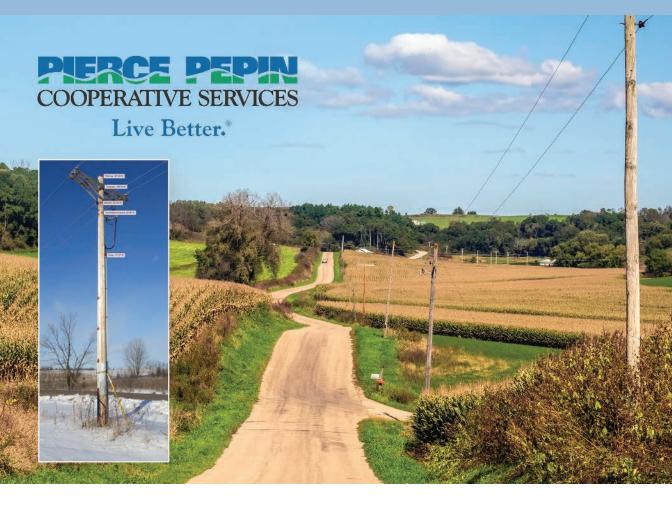
The White River Connect service, when completed, will eliminate the largest area of poor connectivity in the state. The project demonstrates that the economics of broadband are in constant flux. As the economy, supply chain issues and financing availability change, it is worth keeping a watch on events and choosing the right time to enter.

WRVEC also demonstrated how to use the rules of funding projects to an electric cooperative's advantage and make the case that connectivity in rural areas is achievable and necessary sooner rather than later.

COMPANY DESCRIPTION

NRTC provides solutions to help its 1,500 electric and telephone members bring all the advantages of today's evolving technologies to rural America. NRTC's products and services meet the needs of rural utilities and telephone companies with broadband infrastructure, smart grid solutions, managed network services and wireless technologies.





PIERCE PEPIN COOPERATIVE SERVICES

EXPEDITING BROADBAND BUILD-OUT WITH POLE MAKE-READY SERVICE

COOPERATIVE PROFILE

Wisconsin is the heart of America's dairyland, but the long, picturesque stretches of pasture and hayfields that come with dairy farms pose big challenges for public utilities. For Ellsworth, Wisconsin-based Pierce Pepin Cooperative Services (PPCS), this rural issue became a reality when COVID hit, and a lot of the co-op's customers needed high-speed internet to work remotely. The lack of viable internet connection in the region became a real hardship.

As the region's energy supplier, PPCS owned the pole infrastructure for bringing this vital technology to its rural customers. In a recent member survey, PPCS learned that 87% of the area's population thought broadband access was necessary for the region's prosperity. Recognizing this consumer

demand and that the co-op was in the best position to fulfill it, PPCS President and CEO Nate Boettcher says they started applying for federal and state broadband implementation grants.

BUSINESS DRIVER

When PPCS won the grants, it hired a utility contractor and launched phase I of its implementation in the fall of 2021. The effort stalled when contracted crews were relocated to Louisiana to address damage from Hurricane Ida. They did not return as the winter season descended on the Wisconsin landscape. With grant deadlines looming for phase I and plans for phase II to launch in February of 2022, PPCS reached out to Osmose.

PROJECT OVERVIEW

Osmose placed engineers on the ground in Wisconsin within days of approval from PPCS, making special provisions for the late-winter snow drifts so common in Wisconsin. One legacy of early 20th century rural electrification in the region is the placement of power poles across private property lines. To avoid any misunderstanding, Osmose worked closely with the co-op to keep members aware of upcoming work near their properties.

CHALLENGES AND SURPRISES

Osmose experts assessed the areas of PPCS power system that were earmarked for a fiber-to-the-home deployment to determine if any make-ready work was needed to accommodate the fiber. Osmose crews analyzed each power pole in the scope of the project to determine whether there would be clearance violations or overloading of poles if the fiber was attached. In cases where a violation or overloading would occur, Osmose provided engineering services and recommendations such as pole replacements, power rearrangements or communication re-arrangements to avoid the problem.

"By going through this process of building fiber on our power poles and inspecting each one of the poles, we have actually improved the strength of our electric distribution network," says Boettcher. "Since fiber is this generation's version of rural electrification, it is allowing us to rebuild and replace some initial structures that have been in place since the 1930s and 1940s."

WHY THIS CASE STUDY IS IMPORTANT

In June of 2022, PPCS's broadband subsidiary signed its 100th customer, less than a year after the operation's launch. The phase II rollout to the region continued to move forward ahead of schedule, and Wisconsin's Public Service Commission awarded PPCS an additional \$5.94 million to continue its work in bringing high-speed internet to its members throughout the region. Osmose has been retained by PPCS for this phase III make-ready engineering work.

"The project management and the communication with Osmose was just phenomenal," Boettcher says. "We probably did close to twice the mileage in half the time."

Innovation continues to set rural electric cooperatives apart. For example, PPCS helped create CHARGE EV, a coalition of co-ops offering EV charging stations to members who are traveling outside their home region. And Osmose also continues to find innovative solutions to support its co-op customers.

COMPANY DESCRIPTION

Osmose provides life-extension services designed to build resiliency into transmission and distribution infrastructure. Osmose products and services preserve, protect and restore in-service utility structures from structure top to below grade. Osmose has the tools and expertise to help relieve the strain on your resources created by the increase in broadband construction initiatives.



osmose.com



ROANOKE CONNECT

FIBER BUILDOUT REQUIRES AN EXPERIENCED TEAM

COOPERATIVE PROFILE

In 2016, Roanoke Electric (now Roanoke Cooperative) launched Roanoke Connect in an effort to deliver quality broadband services to rural North Carolina. Today, Roanoke Connect provides fiber-to-the-premise throughout the rural northeastern region of North Carolina, including Bertie, Chowan, Gates, Halifax, Hertford, Northampton and Perquimans counties, servicing more than 20,000 residences and businesses.

Roanoke Connect currently has plans in place to serve more than 25,000 residences in the region by the end of 2023, expanding to nearly 65,000 residences and businesses passed by 2025.

BUSINESS DRIVERS

In 2016, leadership at Roanoke Electric determined there was a critical need for reliable and affordable internet service in the economically challenged region of northeastern North Carolina. In terms of broadband, major portions of its population were either underserved or completely unserved, leading Roanoke Connect to take on the task of providing fixed wireless service to the region.

While this was a meaningful and expedient solution at the time, it soon became clear that stronger, more reliable technologies were going to be needed. And then the COVID-19 pandemic hit.

PROJECT OVERVIEW

In 2020, Roanoke Connect, like the rest of the world, was struggling with the changes brought about by COVID and adapting quickly in an effort to make learning and working from home, as well as engaging in telehealth services, possible. Furthermore, many businesses made it clear that they were unwilling to move into the region until a broadband infrastructure robust enough to support them was in place. It was time for a change.

Roanoke Connect decided to move forward with a new fiber-to-the-home solution, scouting and hiring a new leadership team to help with the transition — a team with years of experience in the telecommunications industry. They hired a new chief operating officer, along with three new directors and additional staff.

"People often talk about closing the digital divide," says Angela Gordon, director of marketing and sales for Roanoke Connect. "Well, the digital divide was HUGE in northeastern North Carolina, and we're well on target to closing that gap today."

CHALLENGES AND SURPRISES

Initially, obtaining grant funding proved to be a hurdle, one that was overcome when North Carolina's Department of Information Technology's Broadband Infrastructure Office awarded Roanoke Connect sizable grants from the Growing Rural Economies with Access to Technology (GREAT) Program. This was quickly followed by a handful of smaller grants from the Epic Foundation in partnership with Truist Bank and the Internet Society, and others.

Greater difficulties arose when pandemic-related supply chain issues started to impact timelines and construction. This was where having experienced leadership truly paid off. The newly assembled team was able to act quickly in anticipating upcoming needs, allowing them to stay ahead of the curve by being nimbler and more responsive.

WHY THIS CASE STUDY IS IMPORTANT

Electric co-ops often have a great deal of experience within their field, but little or no experience with fiber and telecommunications. Understanding fiber broadband isn't rocket science, but it is significantly different from electric. And this is where many electric co-ops struggle.

The top three tips that Roanoke Connect offers to electric co-ops seeking to deploy a broadband network are:

- Make sure you have a solid business plan.
- Make sure you have a team that understands fiber and telecommunications.
- Make sure you have good funding and grantwriting experts on your team.

Or find a good partner that you can trust who can help you get where you need to go. Since 2021, Roanoke Connect has built out more than 520 miles of fiber, and they continue to construct at the rate of 25 miles of fiber per week.

In the meantime, numerous businesses have reached out to Roanoke Connect to initiate discussions about creating partnerships for fiber deployment. Gordon says, "These types of partnerships are very attractive to us, and we welcome any opportunity to talk with co-ops throughout the state who are interested in bringing fiber broadband to their underserved areas."

COMPANY DESCRIPTION

Pivot is the leading marketing and member experience agency for cooperatives doing meaningful work in the communities they serve. They accomplish this through these core offerings: marketing, branding, member experience, research, website development and employee training programs.





- Fiber/Wireless Deployment Feasability Study & Analysis
- · Co-op Financial Modeling
- Grant/Loan and Regulatory Assistance
- ROI Forecast

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