

COOPERATIVE CONNECTIONS

A person is silhouetted against a bright sunset, holding up a large set of antlers. The sun is low on the horizon, creating a strong backlight effect. The person is wearing a cap and a jacket. The background shows a forest of evergreen trees.

Antler Shed Hunting

**Shed Hunter Kelly
O'Bryan**

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Artificial Intelligence

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*Photo submitted by
Kelly O'Bryan*

THANK YOU
VOLUNTEERS



GREAT PLAINS
FOOD BANK



BASIN ELECTRIC
POWER COOPERATIVE
A Touchstone Energy® Cooperative



BASIN ELECTRIC



COMMUNITY

CREATED FOR COMMUNITIES

Community support is more than a nice idea – it's Basin Electric's culture. Giving back is important to us because charitable programs and non-profit organizations help our communities thrive.

Our communities have supported us throughout the years by providing a strong workforce, and without them, we couldn't provide reliable, affordable electricity across rural America. Now more than ever, community matters.



**BASIN ELECTRIC
POWER COOPERATIVE**

A Touchstone Energy® Cooperative



COOPERATIVE CONNECTIONS

SOUTH DAKOTA ELECTRIC

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Electric Reliability During Peak Demand



Steve Barnett
General Manager

Extreme temperatures, whether during summer or winter months, drive up the demand for electricity as homes and businesses rely on air conditioning or heating to stay safe and comfortable. Every year, the North American Electric Reliability Corporation (NERC), the nation's watchdog for grid reliability, issues two Reliability Assessment reports – one for summer months and one for winter. These bi-annual assessments provide independent views of how prepared the U.S. grid is to meet electricity demand when temperatures soar or dip.

The NERC assessments are critical planning tools for electric utilities as they prepare for peak demand months. The reports provide a comprehensive evaluation of the North American Bulk

Power System and highlight areas of concern regarding reliability.

NERC's 2025 Summer Reliability Assessment, released in May, found that while most areas were prepared for typical summer conditions, some regions of the U.S. could experience elevated risk during periods of extreme heat or when generation resources are limited due to planned or unplanned power outages. A few months ago, Entergy and SWEPSCO customers in Louisiana experienced rolling power outages due to grid capacity constraints.

The electric grid is a vast network comprised of power plants, transmission lines and distribution systems that work together to deliver electricity to homes and businesses. Grid reliability means ensuring enough electricity is always available to meet demand – even on the hottest and coldest days of the year.

According to NERC's most recent assessment, our electric grid is experiencing rapid load growth. Across North America, the total forecasted peak demand for summer months increased by more than 10 gigawatts (GW) since 2024 – more than double the increase seen in 2023. This growth is being driven by continued economic activity, expansion of data centers and industrial facilities, and increasing electrification across many sectors.

At the same time, more than 7.4 GW of generation capacity has retired or gone inactive since last summer. Retirements include natural gas, coal, nuclear and other types of generation, which reduces the availability of dispatchable resources that can operate at any time to help balance the grid. But new resources are becoming available to help meet some of this growing demand. Over 30 GW of new solar capacity and 13 GW of new battery storage are already contributing to increased demand requirements. These resources are especially helpful during peak daylight hours but can create new operational challenges in the evening, when solar generation tapers off and the demand for electricity remains high.

While most regions are prepared to meet demand under normal conditions, the NERC assessment highlights that some areas – including parts of the Midwest, New England and Texas – face elevated risk of supply shortfalls during periods of above-normal demand or low resource availability. These risks may occur during extended periods of extreme temperatures or when generation outages coincide with high loads.

As the electric grid evolves – with changing generation resources, new technologies and growing demand – maintaining reliable service requires careful planning and participation from everyone. NERC will likely release the 2025-2026 Winter Reliability Assessment in November, which will provide South Dakota's electric cooperatives with key insights into winter reliability.

Your electric co-op is working closely with our power supply providers in preparing for peak demand, and your actions to conserve during these times are equally important. By working together, we can help ensure our community continues to receive reliable and affordable electric service throughout periods of high demand.

Emergency Preparedness: Are You Ready for a Disaster?

Source: National Safety Council

National Preparedness Month, sponsored by the Federal Emergency Management Agency and held annually in September, is a good reminder that natural and man-made disasters can strike at any time. It's important to have a planned response when you're at work, on vacation or on the road.

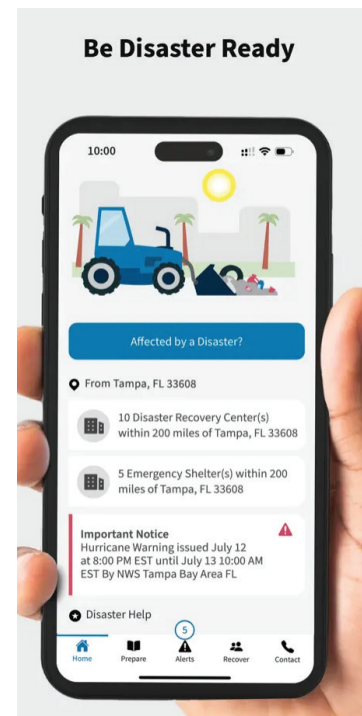
In 2022, 69,473 weather-related events resulted in 813 deaths and 1,718 injuries. Winter weather, heat, floods and hurricanes resulted in the most deaths that year, according to Injury Facts.

The National Safety Council offers safety tips specific on preparing for earthquakes, floods, hurricanes and tornadoes, and how to minimize fire risks.

Federal agencies, like Ready.gov and the National Oceanic and Atmospheric Administration also are valuable resources for emergency preparedness. When you face a natural or man-made emergency, try to stay informed through radio, TV or the Internet. In some cases, however, cable, electric and cell phone service will be disabled, making communication nearly impossible. The National Safety Council recommends the following general precautions that apply to many disaster situations:

- Make sure at least one family member knows first aid and CPR.
- Download the FEMA app for resources, weather alerts and safety tips.
- Have a family communication plan in place; all members of the family should review and practice the plan.
- Have all family members' and other important phone numbers written down or memorized.
- Have an emergency kit in your car and at least three days of food and water at home.
- Be sure to store all important documents – birth certificates, insurance policies, etc. – in a fire-proof safe or safety deposit box.
- Know how to shut off utilities.

The official FEMA mobile app offers critical resources and real-time alerts to help you prepare for emergencies, stay safe during disasters, and navigate recovery afterward. With features like customizable emergency checklists, shelter locations, disaster recovery centers, and direct access to emergency alerts, the app is a comprehensive tool for personal and family safety planning.



"Don't drive tractors into power lines."

Darcy Welsh, Age 9

Darcy cautions readers while driving tractors near power lines. Great picture, Darcy! Darcy's parents are Ryan and Rachel Welsh from Oral, S.D.

Kids, send your drawing with an electrical safety tip to your local electric cooperative (address found on Page 3). If your poster is published, you'll receive a prize. All entries must include your name, age, mailing address and the names of your parents. Colored drawings are encouraged.

Fruit SPECIALS

FROZEN FRUIT FIESTA

Ingredients:

1 6-oz. frozen orange juice concentrate
2 10-oz. frozen strawberries
2 cans pineapple with juice (1 tidbits, 1 crushed)
3-4 bananas, sliced
1/4 cup lemon juice
1 cup sugar
1 1/2 cup cold water

Method

Mix all together in a large bowl. Freeze in individual cups. Set out at room temperature for 1-2 hours before serving.

Optional: pour sour or 7-Up on top before serving.

Ginny Jensen
Sioux Valley Energy

PEACH RHUBARB CRISP

Filling:

3/4 cup sugar
3 tbsps. flour
1/2 tsp. nutmeg
1/8 tsp. salt
3 cups rhubarb (sliced, fresh or frozen)
2 1/2 cups chopped fresh or frozen unsweetened peaches

Topping:

1/2 cup flour
1/2 cup oatmeal
1/2 cup brown sugar
3/4 tsp. cinnamon
1/8 tsp. salt
5 tbsps. butter (cold)

Method

Combine the filling ingredients and fruit. Transfer to a greased 11"x7" baking dish. In a small bowl, combine the topping ingredients; cut in butter until mixture resembles coarse crumbs. Sprinkle over fruit. Bake at 375°F for 30 to 35 minutes until bubbly and browned.

*Recipe can be cut in half and bake in 8" x 8" pan.

Sally Florey
Charles Mix Electric

CHERRY ICE CREAM DESSERT

Ingredients:

1 1/2 cup Rice Krispies, crushed
1/4 cup brown sugar
1/4 cup melted butter
1 cup grated coconut
1/4 cup chopped nuts
1-quart vanilla ice cream
1 cup cherry pie mix

Method

1. Melt butter in frying pan. Add coconut and toast, stirring constantly as it burns easily. Cool
2. Add nuts, brown sugar and crushed rice Krispies. Mix together.
3. Press 2/3 of crumb mixture into a buttered 9x9 inch pan.
4. Soften ice cream and spread over crumb mixture then top remaining crumbs.
5. Freeze well. Cut in squares and top with cherry pie mix.
6. Can be served with any other toppings. Serves 6-8.

Rowena A. Wipf
Northern Electric

Please send your favorite recipes to your local electric cooperative (address found on Page 3). Each recipe printed will be entered into a drawing for a prize in December 2025. All entries must include your name, mailing address, phone number and cooperative name.

Find Hidden Energy Users at Home



Miranda Boutelle
Efficiency Services
Group

Out of sight, out of mind. It is easy to overlook the hidden energy users in our homes. Yet, every plugged-in device and ready-to-use appliance can lead to higher electric bills.

Let's see if we can find some hidden energy savings for you.

Your water heater could be using more energy than necessary. Storage water heaters heat water to a preset temperature. When hot water is used, cold water enters the tank, lowering the temperature, and the water is reheated to that preset level. If the water heater is set higher than needed, it wastes energy. Most water heaters are set to 140 degrees at the factory. The U.S. Department of Energy recommends setting the temperature to 120 degrees. This will save energy and reduce the risk of scalding. Do not set it lower than 120 degrees to prevent bacteria development in the tank.

Exterior security lights, porch lights and barn lights can use more energy than needed. If they are on every night, all year long, that adds up to 4,380 hours, or half the hours in a year. If those lights use outdated, inefficient technology, they waste energy. With that many hours, even a slight increase in efficiency can yield big energy savings. Switch to energy efficient LED bulbs. If lights need to stay on, consider upgrading to motion sensor lights so you aren't drawing energy all night.

Pools and hot tubs can also be big energy users. Since you don't see the pumps or heaters by design, it's difficult to know when they are operating and consuming energy. Pumps filter water to keep it clean and safe for swimming. Energy Star®-certified pumps run at lower speeds and can be programmed to match your pool's filtering needs, according to the Environmental Protection Agency. They can pay for themselves in two years, are quieter and can prolong the life of your pool's filtering system. Schedule your hot tub to a lower temperature when you're not using it to reduce

energy use. If your electric utility offers time-of-use rates, consider scheduling accordingly.

Plug load is anything in your home that is plugged into an outlet. As we use more and more appliances and technology in our homes, plug load energy use increases. Find what is plugged in around your home. If you aren't using it, unplug it. For computer stations and entertainment centers, consider using smart power strips. These devices sense when energy is being used and turn peripheral devices on or off as needed.

Gaming consoles are another hidden energy user. Gamers often put them in rest mode when not in use. This allows them to complete updates and reduces start-up time for the next session. It also means they are still consuming energy even when not actively used. Powering off between gaming sessions can save energy. Ask the gamers in your life to power off. It may require a bit more time for updates, but every kilowatt-hour counts when it comes to saving energy.

It's easy to make a habit of powering down and unplugging once you identify everything drawing power in your home. For upgrades, reach out to your electric utility about available rebates to help cover costs.

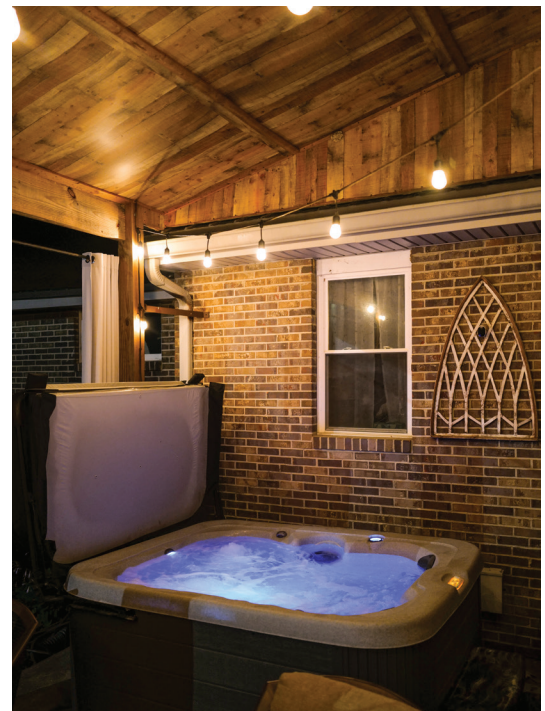




Photo by Mary Howell

SOUTH DAKOTA SUNFLOWERS

Wild Dutchman Seeds a Nationwide Snack

Jacob Boyko

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If you're driving across central South Dakota in the summertime and you pass by a field of tall, bright sunflowers swaying in the breeze, there's a good chance you're a witness to the first step in those seeds' journey to being roasted, seasoned and packed into a bag of Wild Dutchman sunflower seeds.

One sunflower seed grower is Dakota Energy member Greg Bich, who's involved in just about every step from the farm-to-bag process for the iconic South Dakota brand.

Greg is a part owner of Southern Sun, the Huron-based company that processes, roasts and markets Wild Dutchman sunflower seeds for a nationwide audience of sweet-and-salty snackers.

Years ago, as a favor to his friend, local farmer and sunflower processor Danny Dale, Greg hauled loads of sunflower seeds up to Mound City for an up-and-coming operation known as "Wild Dutchman."

During these visits, Greg got to know the company's founders: father and son

duo Wayne and Toby Vanderlaan.

"If you ever talk to the older farmers in this area, a lot of them have nicknames, and that's kind of what they went by," Greg explained. "Wayne Vanderlaan's neighbor was called 'The Crazy Norwegian', while the neighbor called him 'The Wild Dutchman.'"

What started as a part-time snack-making hobby for the Wild Dutchman and Toby had boomed into substantial business – one that was quickly outgrowing their batch-by-batch roasting set-up.

"They had all of these distributors calling them, and they couldn't really get production done, and he just really wanted some help," Greg explained. "I came back, and I talked to my sunflower seed processing plant partner, Danny Dale, and I told him I'd like to invest in this company, and we felt a need for an additional roasting plant and built it."

The rest is history; Greg and Danny took over some of the roasting and helped out Toby and his daughter, Shelby, with new packaging designs, highlighting the Vanderlanns' Dutch heritage with the iconic orange packaging.

With the additional processing capacity, the company continued to expand its growing footprint throughout the Midwest and beyond.

"It's hard for a little two-family-owned company to be competitive in the market, but since we have the seeds from start to finish, it kind of gives us an advantage over everyone else," Greg said.

Starting in December 2024, Greg and Danny took over full production of Wild Dutchman seeds in Huron.

"From that first load that we hauled up there to Mound City to the time we built the roasting plant was probably three years of building a friendship," Greg said. "Small town South Dakota is very different, and we honestly went into wild Dutchman with no contractual agreement besides a shake of a hand and a 'hey, we're in this together.'"

Today, as the Wild Dutchman brand continues its remarkable streak of success, Greg is elated seeing how a little small-town friendship, hard work, and faith can achieve so much.

"One of the greatest feelings I've had is being in a faraway place and seeing an empty bag of Wild Dutchman seeds blowing across the baseball field," Greg laughed. "It's those little things that are more satisfying than having a positive balance sheet or a huge profit."



Kelly O'Bryan of Winner shows off his impressive collection of deer and elk sheds alongside his shed-hunting Labrador, Skye. Photos submitted by Kelly O'Bryan

SHED HUNTING

Prairie Miles and Antler Piles

Frank Turner

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Rosebud Electric member Kelly O'Bryan of Winner regularly hikes mile after mile of open prairie in search of the perfect shed. But he isn't looking for a place to store his garden tools or lawnmower – instead, he's after antlers. Each spring, deer and elk naturally shed their antlers, leaving behind prized treasures for shed hunters like O'Bryan to find.

O'Bryan jumped into the shed hunting hobby in 2020, during the social distancing months of the pandemic, after a friend invited him on a shed hunt in Montana. When O'Bryan found his first deer shed, he uncovered more than just a pair of antlers – he discovered a new passion.

"It was during the time when you couldn't go out and do anything, so you just had to make your own fun and find stuff to do," he laughed. "I just fell in love with covering as many miles as I possibly could each season, trying to pinpoint sheds. It's just like an Easter egg hunt."



O'Bryan lifts an elk shed found in Montana. Submitted Photo

Shortly after, O'Bryan fully committed to the hobby and added the ultimate scavenger to his team: a white lab named Skye. According to O'Bryan, it didn't take long for the dog to become an invaluable shed-hunting partner.

"I got Skye as a puppy, and I knew as soon as I got her, I

would train her to be a shed dog,” he said. “I taught her to sit and stay while I hid sheds all around the house. When she found one, I would give her lots of positive reinforcement. She figured it out just like that.”

Since then, O’Bryan and Skye have become seasoned shed hunters. In 2024 alone, the pair found 152 whitetail sheds, 25 mule deer sheds, nine elk sheds and 16 complete skulls – called “dead heads” – which resemble an English-style mount. Many of their best finds come from long days spent in remote country, often covering 10 to 15 miles in a single outing.

O’Bryan’s collection of sheds has grown into an impressive heap of bone and tines that continues to grow each season. Like many in the shed hunting community, he has found creative ways to showcase his finds with his most festive being an antler-adorned Christmas tree.

Others in the shed hunting community use their collection for art projects, crafting everything from knife handles to chandeliers. Some even trade or sell antlers to crafters, collectors, or pet product makers, giving shed hunting both recreational and economic appeal. Although O’Bryan does not sell his finds, he does cut up broken and damaged antlers for dog chews, gifting them to friends, family and his own favorite shed-hunting friend.

O’Bryan also has a few tips for beginners, drawn from miles of experience.

He says spring is the best time to search – antlers are freshly shed, and the grass is still short enough to give hunters a clear view. A good pair of binoculars is another must-have, helping spot antlers from a distance when the terrain allows for a higher vantage point.

And once you’ve found one shed, don’t assume the hunt is over. Whitetail deer are often in groups and antlers are often dropped in pairs so it’s worth taking the time to thoroughly scan the surroundings.

“You aren’t going to be finding many sheds unless you are willing to put on the miles,” he said. “The more you hike, the more you are likely to find sheds.”

More photos of O’Bryan’s collection and other hunting trophies can be found on his Instagram page: @db_huntin.



(Above) O’Bryan praises Skye for a lifetime of discovering antlers.
(Below) O’Bryan and Skye show their white tail antler finds from a winter shed hunt. *Submitted Photo*

Policy Matters

Preparing for the Growing Threat of Wildfire

National Rural Electric Cooperative Association

Across the U.S., the threat of wildfire has increased significantly in recent years. For electric utilities, the danger is all too real, as dry vegetation can easily ignite from power line contact – especially during periods of high winds, which can accelerate the spread of wildfire.

In some cases, electric utilities may be liable for financial responsibilities in the aftermath of a fire linked to utility equipment. Utilities even may be held responsible for the fire, its suppression costs and any natural resource damages when they are not at fault under strict federal liability statutes, even when wildfires result from events beyond their control – such as wind-driven debris igniting fires.

Advocating for Better Processes

Utilities, including electric cooperatives, are advocating for reforms to reduce regulatory barriers that hinder wildfire prevention efforts. One of the biggest challenges is the complex and slow federal permitting process for grid-hardening projects and vegetation management. In some instances, it can take years to gain approval to remove a single hazardous tree, to replace a wooden pole with a metal pole or to underground a line. Even when approved, regulations may require utilities to leave cut trees on the ground, increasing fuel for future fires.

The Fix Our Forests Act, a bipartisan bill currently moving through Congress, aims to streamline these processes. It would expand vegetation clearance zones from 10 feet to 150 feet around power lines and shield utilities from unnecessary lawsuits. Utilities are also establishing forest operating agreements with the U.S. Forest Service to reduce strict liability.

Planning and Mitigation Strategies

As wildfire threats increase, many electric co-ops are creating detailed mitigation plans, which include strategic vegetation management, infrastructure and equipment upgrades and sometimes public safety power shutoffs.

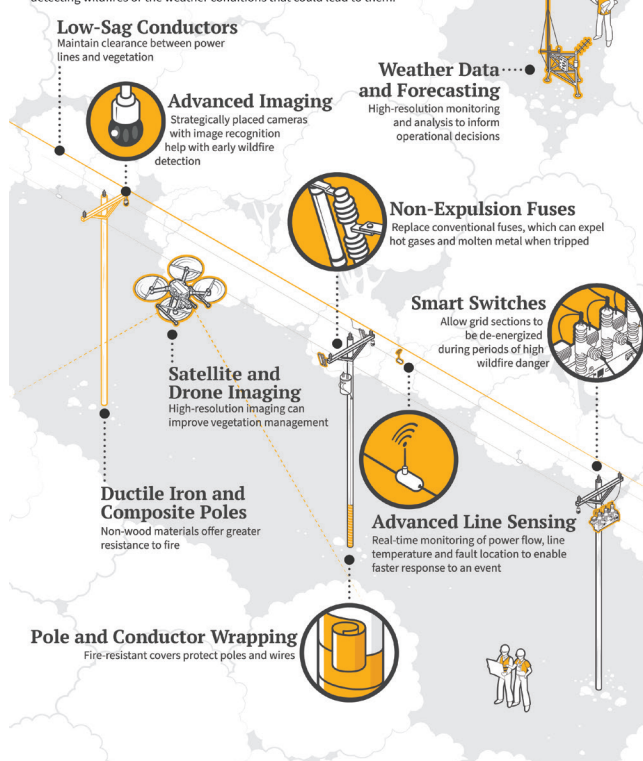
Co-ops are also utilizing new and developing

technologies to safeguard their local grid. Some technologies help reduce the risk of fire and minimize structural damage, such as fire-resistant utility pole covers and non-expulsion fuses, which eliminate the expulsion of gases and molten metal when tripped. Additionally, co-ops are utilizing tools that aid in detecting wildfires or weather conditions that could lead to them. Technologies such as satellite and drone imaging, advanced power line sensors and strategically placed pole cameras are just a few examples of how utilities can keep a closer eye on the local grid and spot potential risks.

In addition to advocacy efforts and technologies to better protect against wildfires, co-ops understand that community collaboration is key. By working with government agencies, local businesses and community groups, co-ops will be better prepared for wildfire prevention and response.

Wildfire Tech

As the threat of wildfire increases nationwide, a number of new devices and technologies are being developed to help electric utilities protect their local grids. Some technologies are meant to resist catching fire or minimize structural damage from fire. Others can aid in detecting wildfires or the weather conditions that could lead to them.



WHAT SETS CO-OPS APART FROM OTHER POWER PROVIDERS

Scott Flood
NRECA

Travel anywhere in the United States, and you'll be able to find a place to plug in your phone charger. Whether you're on the East Coast, in the Pacific Northwest or in a town in the Sonoran Desert, you'll encounter the same wall socket used to access electricity. But while the power charging your phone may be identical, the organizations delivering it through the wires probably are not.

Throughout the U.S., electricity is delivered through three types of power providers: investor-owned utility companies (IOUs), public power systems and electric power cooperatives. Two-thirds of American homes and businesses receive their electricity through an IOU. Public power companies serve 15% and co-ops deliver power to 13% of the nation's consumers.

When business and homeowners talk about their electric service, most simply credit the "power company" that issues the monthly bill for the kilowatt-hours they've used. Although the three types share many characteristics, how they operate – and how that affects the users of the power they deliver – is strikingly different.

The biggest single difference is the profit motive. Public power systems and electric co-ops are not-for-profit organizations. That means their primary motive isn't to make a profit, but to deliver electricity to the homes and businesses they serve at the most reasonable cost. In other words, their first objective is service.

Compare that to investor-owned utilities. As the name implies, IOUs are owned by investors. Those investors hold shares of stock in the utility – each owning some percentage of the utility's assets. The goal of the IOU is to earn profits to raise the value of the stock and provide income to the shareholders in the form of dividends. No matter how much effort an IOU puts

into being a good power provider for its customers, its ultimate goal is to make as much money as possible for its owners.

Public power systems are owned by municipalities and other forms of government, which means they're technically owned by – and accountable to – the taxpayers they serve. The people who run these government units want to keep the taxpayers happy, so their goal is to keep rates as low as possible. Similarly, co-ops are owned by the members they serve, and their primary motivation is to keep the cost of electricity as low as possible.

Decision-making is another differentiator. Investor-owned utilities are large corporations that may be headquartered hundreds of miles away from the folks who pay the bills. If one of those customers has a concern, they'll likely have a difficult time getting the utility's management to listen.

For public power, the same officials elected or hired to manage things like streets and parks oversee operations. A customer can reach out to their government representative if they're unhappy with the service they receive.

Once again, co-ops are different. Their operations are managed by a volunteer board of directors made up of members. Those directors represent their neighbors and have an obligation to consider other members' concerns and preferences. A co-op member who has questions about their rates or concerns about their service can turn to their local director for answers.

Infrastructure needs represent another key difference. Public power providers and IOUs tend to serve areas like cities, suburbs and larger towns that have higher population densities. Most co-op service areas are in more rural areas and smaller communities, where members are more widespread. As a result, co-ops average just 7.98 members for each mile of power lines,

compared to 32.4 customers per mile for the other types of power providers. Co-ops earn an average of \$2,390 in annual revenue from members, compared to \$2,585 for the other types. That means co-ops have to manage significantly more infrastructure for the number of homes and businesses they serve, although they receive less money than the other types of power providers.

Because co-ops are inherently focused on the needs of their members, they center their planning and operations around the places they operate. Unlike IOUs that usually offer the same services everywhere they do business, co-ops can quickly adapt to changing community needs. They also play active roles in building the economic strength of the places they serve through community support, economic development initiatives, by employing more than 73,000 Americans, and by paying \$1.5 billion in state and local taxes annually.

IOUs generally have little direct competition in the areas they serve, but they compete with other public companies and IOUs for attention from investors and Wall Street, making them less eager to share ideas and innovations. In comparison, electric cooperatives work closely with neighboring co-ops and their counterparts across the U.S. That's because they're committed to the seven cooperative principles, one of which calls for cooperation among co-ops. Whether that involves a joint investment in generation assets like solar farms, sharing resources to eliminate duplication, or being co-owners of a generation and transmission cooperative, these close relationships improve all co-ops' ability to serve their members.

Finally, while the three types of power providers are structured and do business in different ways, it's important to remember that all are highly regulated by multiple state and federal agencies. Unlike other industries in which companies can raise prices or build facilities whenever they want, power companies normally have to earn regulators' permission before they can take actions that will affect the services they provide and what they charge.



HARNESSING AI

Electric Cooperatives Explore What's Next for AI

Frank Turner

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Artificial intelligence (AI) is becoming an increasingly popular tool for many industries and even in our daily lives. It has the potential to bring many opportunities, and a few challenges, to electric cooperatives. But machine learning takes time, and cooperatives are still in the process of determining how AI can be effectively used.

Like any new technology, AI brings with it a mix of potential and uncertainty. It's a hot topic — sometimes exciting, sometimes a little intimidating. But for electric cooperatives, the focus isn't on the buzz. It's on the basics: What problems can it solve? What efficiencies can it create? And how do cooperatives make sure they are using it safely?

That measured, practical approach is what's guiding East River Electric Power

Cooperative, a wholesale power supply cooperative which serves 25-member distribution systems in eastern South Dakota and western Minnesota, as it explores how AI might support the operations of its member cooperatives now and into the future.

Right now, most electric cooperatives in South Dakota have not yet integrated artificial intelligence into their operations or systems. But that doesn't mean the technology is being ignored. Across the state, many co-ops are watching AI developments closely, asking questions, and exploring how these tools might be used in the future. The focus remains on learning first — before implementing anything that could affect system reliability or member service.

At East River Electric Power Cooperative, that learning process is already well underway. According to Jeff May, chief information officer with East River Elec-

tric, the co-op has spent the past several years researching what AI has to offer. Their approach has been to identify practical, secure applications that could help improve efficiency, support employees in their day-to-day work, and ultimately benefit members.

“With the explosion of AI applications and models for both personal and professional uses, we've been exploring ways that East River Electric and our members can harness the power of AI while making sure that our data is secure from a cybersecurity perspective,” said May.

Because AI technology has the potential to interact with both internal systems and external networks, cybersecurity is a top priority. As South Dakota rural electric cooperatives look to adopt tools powered by AI and other tech, they will ensure their systems are safe from potential cyber threats. Strong digital defenses are essential for the safe use of any new technology.

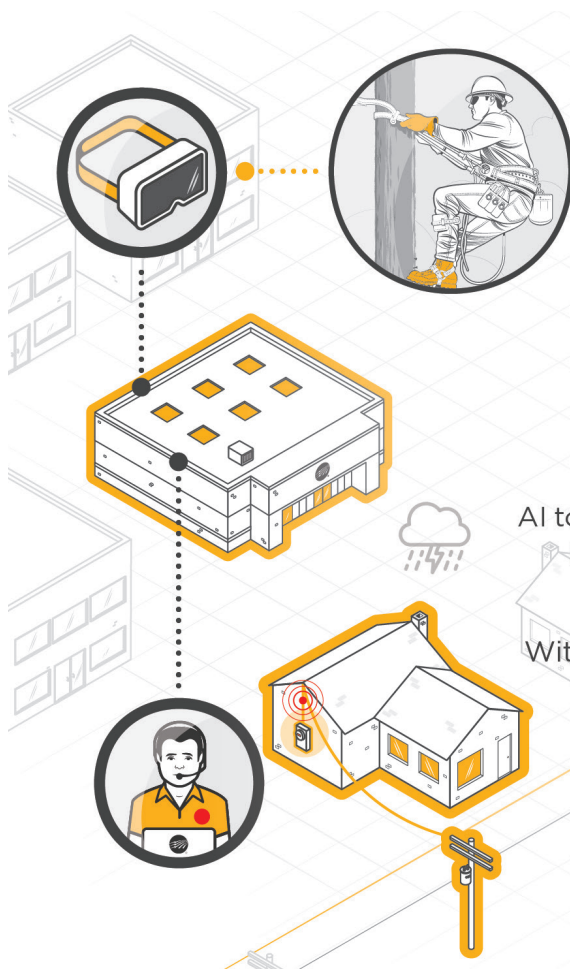
With safety in mind, May said East River Electric is actively partnering with Dakota State University graduate students to see how AI can be safely utilized by electric cooperatives. Together, East River Electric is working with the school to build an AI model that can predict electricity usage based on weather conditions and other factors to support the cooperative's load forecasting and rate forecasting capabilities. Although the technology is still in its infancy, May said he expects that someday AI will play a significant role in an electric cooperative's daily operations, including load forecasting, outage response and maintenance planning.

"It's difficult to predict how AI can be used for different types of jobs, but it will certainly become common throughout the organization as we learn all of the things AI can do," he said. "If it can be used to make our employees more productive and have a positive impact on the organization and our members, we will consider it. In some areas it could become commonplace within the next year, but throughout the cooperative it could take 3 to 5 years or more to be fully integrated in a safe and secure way."

Beyond grid operations, East River Electric is also trying out Microsoft CoPilot, an AI-powered assistant built into programs like Word, Excel, Outlook and Teams. A few employees are currently testing it to see how it might improve productivity and workflow, especially in communications and marketing departments.

Ultimately, if AI can streamline a process, predict an issue or improve service for electric cooperative members, May said it's worth considering. AI can be another tool in the cooperative tool belt that can make energy more reliable, services faster and operations more efficient.

"Over the next 5 to 10 years, AI's role in electric cooperatives is poised to grow significantly, driven by the need for efficiency, grid reliability and sustainability amid rising energy demands and technological advancements," said May. "Just the advancements that have been made in the last three years have been astounding to watch, and as more and more data centers and large language models are built in the coming years, it will become something that cooperatives likely use on a daily basis."



AI PUT INTO ACTION

Electric cooperatives are already using artificial intelligence (AI) and augmented reality (AR) for key tasks and activities. Looking ahead, co-ops see great potential for AI and AR as helpful tools for improving grid reliability and the services they provide to consumer-members.

SERVICES FOR MEMBERS

AI tools like chatbots can enhance member interactions and provide a tailored experience based on energy use data.

WEATHER FORECASTING

With the help of AI, weather forecasts will become more accurate, pinpointing areas to station utility crews.

EDUCATIONAL OPPORTUNITIES

Through augmented reality, or AR, lineworkers can experience interactive, lifelike trainings, rather than watching a video or webinar.



ELECTRIC VEHICLES

Is an EV Right for Your Needs?

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As electric vehicle infrastructure improves in South Dakota, you may be wondering: is it finally time to jump on board the EV bandwagon?

EVs offer many lucrative benefits to their owners. They mark an end to the tedious oil changes, and you're likely to take on fewer expenses to maintain the vehicle — and that's all while you're getting the combustion engine-equivalent of 100 miles to the gallon.

It's a deal lucrative enough that EV registration has surged in the U.S. to more than four million vehicles on the road in 2024, with that number expected to grow exponentially over the next decade. Florida, Texas and Washington each already have more than 100,000 EVs registered, and California reports more than one million.

Meanwhile in South Dakota, it's still fairly irregular that you'll see an electric vehicle (with in-state plates) driving around your community. In fact, the South Dakota Department of Transportation records only about 1,400 fully-electric vehicles on the road, even as charging infrastructure increases.

"You do have range anxiety — that is something that happens," said Matt Hotzler, manager of H-D Electric Cooperative in Clear Lake, who regularly takes the co-op's Tesla Model 3 on business trips across the state.

South Dakota's weather makes planning a trip in an electric vehicle a little more hands-on. Temperature, wind speeds, climate control and headlights all affect how frequently you have to stop to add some joules.

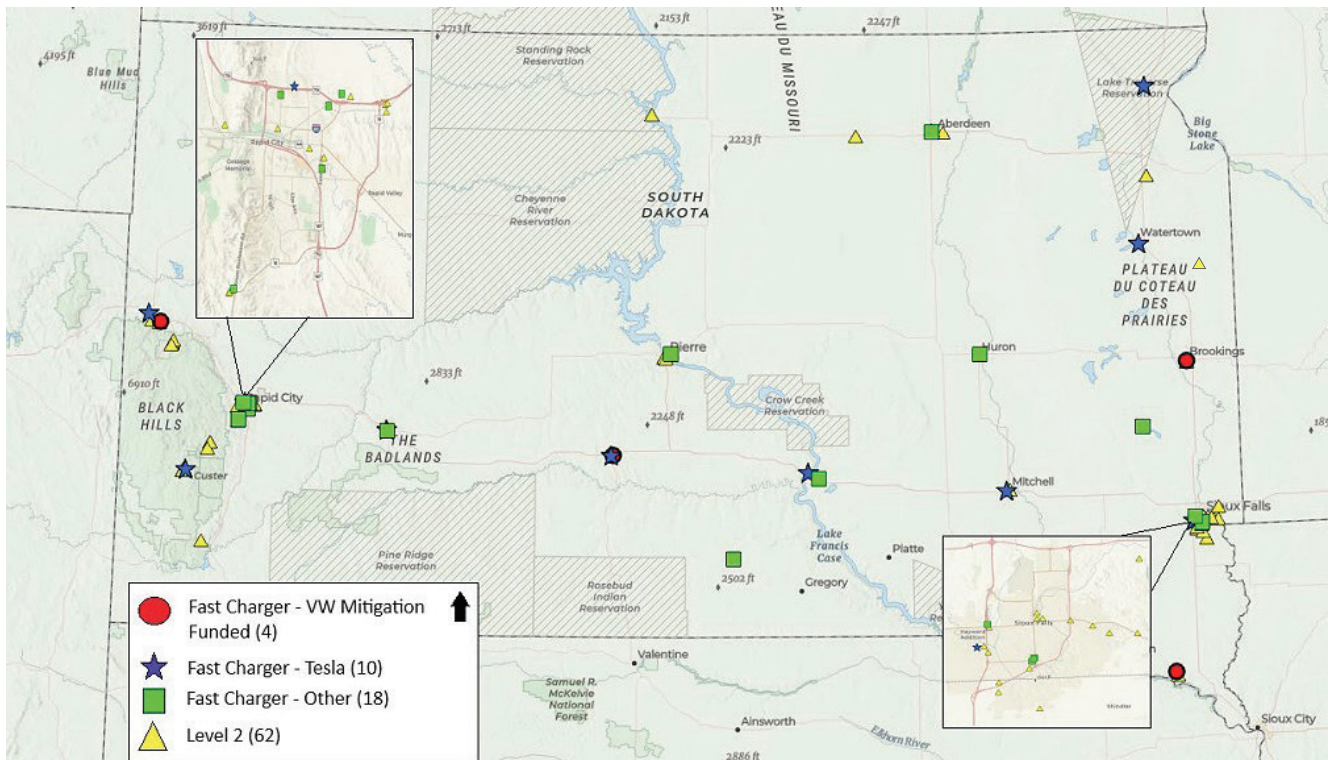
Luckily, the stops aren't usually long, Hotzler said, with his Tesla planning several

stops along a route to do partial charges — about ten minutes at a time — before hitting the road again.

While the public charging stations are convenient for out-of-town travels, it's where one giant plus to owning an EV — low operating costs — begins to erode.

Jessie Tucker, manager of member services at West Central Electric Cooperative in Murdo, recalls his surprise on a trip last winter to Rapid City when he stopped to charge the co-op's Ford F-150 Lightning and discovered his charging rate was nearly 68¢ per kWh — more than five times what it would cost to charge at home. Driving 80 mph in the winter weather and averaging about 1.3 miles per kWh, Tucker calculated the combustion engine-equivalent would be about \$9.41 per gallon.

"It would be tough for me to own one (personally) at this point," Tucker said. "If you're a daily commuter and you're getting home every night, then owning an EV does make sense. If you can charge overnight at your own house, it is still approximately half the cost of \$2.85 fuel."



Electric Vehicle charging stations in South Dakota.
Graphic courtesy of South Dakota Department of Agriculture and Natural Resources.

In western South Dakota, West River Electric Association offers members an EV charging incentive — with some stipulations.

“It’s like the old cell phone plans where they would have unlimited nights and weekends,” joked Adam Daigle, manager of communications and public relations at West River Electric in Wall.

“Members with an electric vehicle can pay \$33 per month for unlimited charging on nights (9 p.m.- 7 a.m.) and on weekends. So in a sense, you can drive all month for \$33.”

The incentive is designed to encourage charging during off-peak times when there is less strain on the electric grid while also helping members interested in electric vehicles make the switch.

“I think EVs are great cars for commuting,” Daigle said. “If you stay within range of that battery, where you don’t have to hit a level three charger, they’re fantastic.”

Another factor to consider if you’re thinking about an electric vehicle: you’ll need somewhere indoors to charge it.

The lithium-ion batteries found in EVs will not charge as quickly in cold weather.

Though many EVs have systems to warm the battery before charging, a heated garage is still the most convenient and efficient way to charge, and can prevent cold-weather charging degradation on your battery.

“When I drive my Tesla to work and it sits out in the really cold weather for a big part of the day – 8 to 10 hours – I do see some battery used during that time to keep things warm,” H-D Electric’s Hotzler added. “You have to be careful of the batteries getting so cold.”

Another necessity: a 240-volt plug for level 2 charging. While you can charge an electric vehicle with a standard 120-volt outlet, it could take more than a day to reach a full charge.

After five years of driving the Tesla Model 3, Hotzler is a fan of the technology, and recommends it as a daily driver.

“I’d recommend an EV for a household using it for a back and forth commute – just not any extremely long trips,” Hotzler said. “For an everyday driver, it works really well. They drive fast, they’re zippy, there’s hardly any maintenance. I’ve just had a really positive experience.”

EV Charging Explained

Level 1 charging uses a standard 120-volt outlet. Level 1 charging is the slowest charging speed, adding about 3-5 miles of range per hour. This is not recommended, and is typically used in residential settings.

Level 2 charging uses a 240-volt outlet – the same as your stove or dryer. This is the more practical solution, adding about 12-30 miles of range per hour and is enough to charge many EVs overnight. This is recommended for residential settings. Many public charging stations also feature level 2 chargers.

Level 3 charging, or DC fast chargers, are the quickest way to charge, taking just a half hour to charge the battery to 80%. Using these chargers can cost as much or more than a tank of gas. Speeds range from 50 KW to 350 KW. These stations are placed along major highways, including I-29 and I-90.

Source: driveelectricsd.com, How-To Geek

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