A Touchstone Energy® Cooperative

NORTHERN ELECTRIC
SEPTEMBER 2025 VOL. 26 NO. 5

COOPERATIVE CONNECTIONS

Antler Shed Hunting

Photo submitted by Kelly O'Bryan

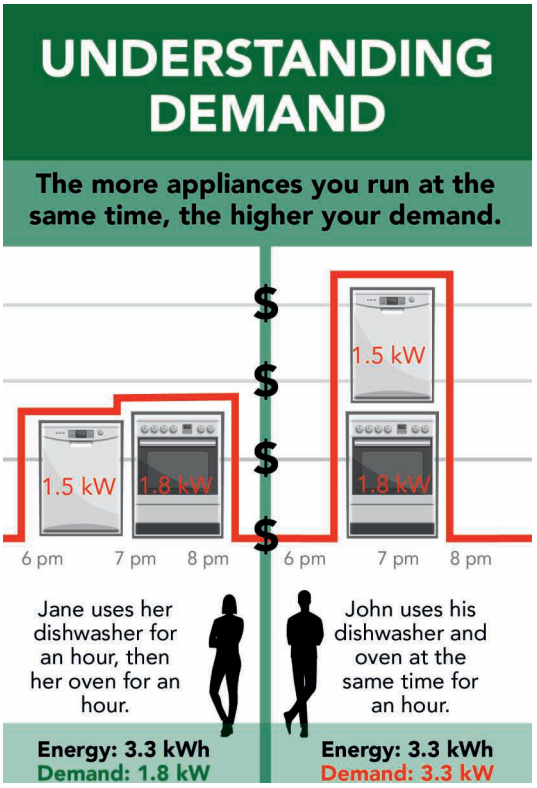
The difference between kW and kWh on your bill

Kathy Haas
Editor

In order for electric providers to get a clear picture of electric usage, we have two key measurements: kilowatts and kilowatt-hours. It's easy to confuse the two. The shorthand for kilowatts is kW, and kWh for kilowatt-hours. Not only do the measurements look similar, but they also measure the same thing, just differently. To help distinguish between the two, kW and kWh are often referred to as demand (kW) and energy (kWh).

Kilowatt (kW) is a measure of electrical power needed at a single moment in time. It is often called "Demand" because it reflects the demand your home, farm, or business places on the power grid. This is a snapshot of your usage.

Kilowatt-hours (kWh) measure your household's total energy consumption. This is usually framed in longer periods of time, such as monthly usage. This is called "Energy" because it is the amount of electricity, aka energy, used during that timeframe.



Take your water heater, for example. If your water heater has a power rating of 4.5 kW, that means it will use 4.5 kilowatts of power while operating. It needs 4.5 kW available to work at any moment.

The energy (kWh) is calculated by mulitplying the kW by the number of hours used. So if you use your 4.5 kW water heater for 2 hours, you'll have used 9 kWh.
Energy (kWh) = Demand (kW) x Hours used.

HOW YOU ARE BILLED

Northern Electric lists both of these values, kW and kWh, on your monthly bill along with a graph comparing your current and previous year's kWh usage. Northern Electric serves a wide range of members and utilizes two separate billing types, in order to best serve high and low demand members. In some form, all members will pay demand and infrastructure costs.

The demand-based members are charged on coincident demand, which is set by our wholesale provider East River Electric. These members are billed based off their demand (kW) for a single 30-minute period during which East River experiences peak demand for the month. If the rate class on your bill ends with a "C" then you are a demand-based member, for example B101**C**.

Northern Electric uses this coincident demand billing structure because nearly half of Northern Electric's monthly power bill from our power provider, East River, is based on the amount of kW Northern Electric contributes to the 30-minute coincident billing peak every month.

Nondemand members are charged based on energy (kWh), similar to being charged for the gallons of water used. Much like your water bill, demand, and capacity are worked into that flat rate.

If you have any questions about your energy usage or bill, please reach out to Northern Electric's Member Services Department at 605-225-0310.

COOPERATIVE
CONNECTIONS
NORTHERN ELECTRIC

(USPS 396-040)

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Northern Electric Cooperative Connections is the monthly publication for the members of Northern Electric Cooperative, PO Box 457, Bath, SD 57427. Families subscribe to Cooperative Connections as part of their electric cooperative membership. The purpose of Northern Electric Cooperative Connections is to provide reliable, helpful information to electric cooperative members on electric cooperative matters and better rural living.
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JULY BOARD REPORT

Northern Electric Cooperative's regular board meeting was held July 28, 2025, at the headquarters in Bath with all directors present. As the first order of business, the board approved the June 23,2025 minutes and June expenditures.
East River Director Kirk Schaunaman reported on actions taken by the East River Board at the July 2 meeting. South Dakota Rural Electric Association Director Nolan Wipf reported on the SDREA Board Meeting held on June 26-27. Director Todd Hettich reported on the CFC Forum held June 30-July 2. Hettich also gave an update on Rural Electric Supply Cooperative (RESCO) activities. South Dakota Renewable Energy Association Director William (B.J.) Hansen reported on the upcoming activities for the association. Directors Thomas Lambert and Bruce Schumacher Jr. reported on the Summer School for Directors held July 11-15, in Colorado Springs.

MANAGER'S REPORT

General Manager Char Hager's report to the board included the following items:

- Update on Rural Electric Economic Development (REED) Board Meeting held on July 9, 2025.
- Report on the East River MAC Meeting held on July 9, 2025.
- Report on the employee meeting on July 8, 2025.
- Informed the board that National Night out will be held on August 5, 6:00-9:00p.m.
- Reminded the board of the statewide Line Patrol Charity Ride that will be held September 5-6 in Yankton.

BOARD REPORT

The board considered and/or acted upon the following:

- Approved the date and time of the next regular board meeting for 8:30 a.m. on Friday, August 22, 2025.
- Approved Work Order Inventories #25-06 for $282,283.02 and #25-06MC $14,342.17 to be submitted to the Rural Utilities Service (RUS) for reimbursement from loan funds for electric plant construction already completed.
- Approved annual general and special capital credit retirements for members age 70 and over. Estimated retirements will total $449,949.57.
- Appointed Director Nolan Wipf authorized representative and Director Kirk Schaunaman alternate representative for the Basin Electric Annual Meeting, August 12-14, 2025, Bismarck, ND.
- Confirmed the 2026 Annual Meeting for June 10, 2026, at the Holum Expo Building at the Brown County Fairgrounds and the Redfield Service Center, registration from 5:00-6:00pm and business meeting at 6:00pm.
- Held Executive Session.

Talk to your director or co-op manager if you have questions on these matters.

FiNANCIAL REPORT

	June-25	June-24
kWh Sales	19,418,875	18,789,639
Electric Revenues	$2,435,289	$2,271,842
Total Cost of Service	$2,490,243	$2,280,985
Operating Margins	($54,954)	($9,143)
Year to Date Margins	$140,147	$57,329

RESIDENTIAL AVERAGE MONTHLY USAGE AND BILL

JUNE 2025	1,234 kwh	$194.31	$0.1575
JUNE 2024	1,314 kwh	$199.01	$0.1515

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.

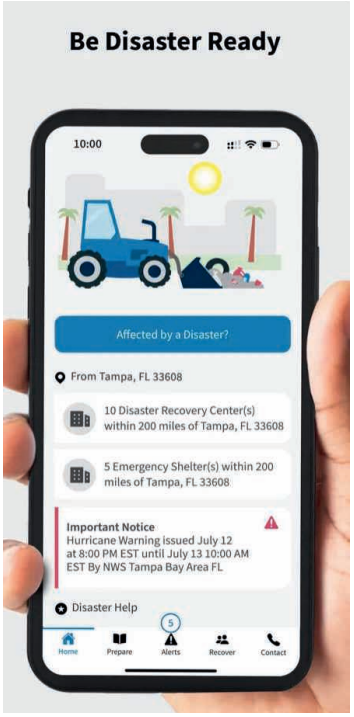
In 2022, 69,473 weather-related events resulted in 813 deaths and 1,718 injuries. Winter weather, heat, floods and hurricanes resulted in the most deaths that year, according to Injury Facts.

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.

Member Owners Share in Profits Through Capital Credits

Kathy Haas
khaas@northernelectric.coop

There are not many organizations that return the profits or give ownership to their consumers. Northern Electric Cooperative does just that, every year! Applicable members received a message on their July bill, notifying them about their share of the co-op's profits. This is called capital credits.

Anyone who purchases electricity from Northern Electric Cooperative is considered a member owner of the cooperative. Members can help shape Northern's direction by serving on the Board of Directors, which are elected positions only available to current members. Northern Electric is a non-profit business and it's purpose is delivering safe, reliable, and affordable electricity to its members. Therefore, any additional revenue is returned to the members.

While the profits from each year are set aside for members, the funds are not paid back to the members in the same year. Northern Electric uses the money to finance large projects and meet the financial needs of the co-op. Each year, Northern Electric's Board of Directors will vote to pay back (retire) a portion of the capital credits, as financial conditions allow.

This year, Northern Electric will retire capital credits from 1988-1994, and a portion of the profits from 1995. In addition, Northern Electric passes on the credits it gets from the G&Ts to its members. The capital credits for 2002-2003 and a portion of 2004 will be retired as well. Current members who were active during the years being retired will receive a bill credit for a percentage of their share on their September bills. Former members who were active during those years but have since moved will be mailed a check.

FREQUENTLY ASKED QUESTIONS

Q: What are capital credits and how do they work?

A: Capital credits represent a member's portion of the revenues for the cooperative. Consumers are members of an electric cooperative simply by using the services of the co-op. Capital credits consist of any revenues in excess of actual operating costs of the cooperative.

Members are notified every year about their portion – or allocation – of capital credits from the previous year. Over time, a percentage of a member's allocation is paid back – or retired – in the form of a bill credit as the financial condition of the cooperative allows.

Q: When are capital credits returned to members?

A: Capital credits are paid back – or retired – at the direction of the Northern Electric Cooperative Board of Directors. The Board of Directors votes every year to decide if a percentage of the capital credit allocations can be paid back to members. If capital credits are paid back it will appear as a credit on September bills. Former members who have moved off Northern's lines will receive a check.

Q: What should a member do if they move out of the Northern Electric service territory?

A: If a member discontinues service with Northern Electric it is important to notify the co-op of any address changes so capital credit payments can continue to be made to that member in the future. Members will not receive a lump-sum refund check when they discontinue service with Northern Electric but will continue to receive a check based on the annual decisions of the Board of Directors.

Q: What happens to the capital credits of a deceased member?

A: Northern Electric also needs to be notified by a relative or legal representative when a member of the co-op passes away so that the account can be closed or transferred to another name. Northern Electric will refund the deceased member's capital credits to their estate in a lump-sum payment if the account was listed solely in that member's name and is closed. For an estate to receive a refund, a relative or representative must provide the co-op with documentation which designates them as a legal representative of the estate.

For further questions on capital credits please call the Northern Electric office at 605-225-0310.

DON'T PLAY LIMBO WITH POWER LINES

There are a lot of situations in life that you can just eyeball. Adding vanilla to a recipe. Backing up a trailer. Positioning the auger. The consequences are either minor or easily fixed. Power lines are not something to eyeball.

Don't play limbo with power lines! While you may get lucky, you may also end up with severe or deadly injuries. Hitting a line or knocking over a pole can have deadly consequences.

This harvest, take extra precautions to make sure your large equipment can easily pass beneath power lines before attempting it. If you don't know the height of a power line, contact Northern Electric Cooperative to clear up any uncertainty before proceeding. Pay particular attention to the power lines and poles while backing up or towing equipment. Even if the equipment will fit with a little room to spare, remember that uneven ground can make equipment bounce. There might be less safety cushion than you expected.

If your equipment does make contact with a power line, remain calm and follow these important safety instructions.

1. CALL 911 AND STAY PUT

DO NOT EXIT the cab of your vehicle! It might be tempting to get out and assess the situation, but you must remain in the cab and call 911. Explain what has happened and share your location with the emergency response dispatcher. You should also contact Northern Electric Cooperative at 605-225-0310 to inform us of the situation. Stay where you are until local authorities have declared the situation safe and provided you with clearance.

Stay safe this harvest by staying aware of power lines and ensuring equipment can pass easily beneath the lines.

2. DON'T CLIMB - JUMP

If you must leave the cab due to fire or other safety concerns, keep your arms close to your body and jump with your feet together as far away from the equipment as possible. Always scan the entire area below for downed power lines, debris and flames before jumping. It is critical that you do not make simultaneous contact with the ground and your equipment in a circumstance such as this.

3. HOP TO SAFETY

You probably haven't hopped from point A to point B since grade school, but this is an additional safety instruction you must follow when your equipment has made contact with a power line. Hop with both feet together — this prevents one foot from entering a higher-voltage zone before the other and reduces your risk of electrocution — until you are at least 40 feet away from the equipment in question. If you haven't done so already, call 911 and keep others from approaching the equipment.

WHAT TO DO IF YOU HIT A POWER LINE

Remain calm and follow these important safety instructions:

1. Do not exit the cab.
2. Call 911.
3. Call Northern Electric.
4. Wait until authorities have declared it safe to exit.

If you must leave the cab due to fire or other safety concerns:
1. Jump, not step, out of the cab.
2. Land with you feet together.
3. Hop, both feet together, at least 40 feet away.

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

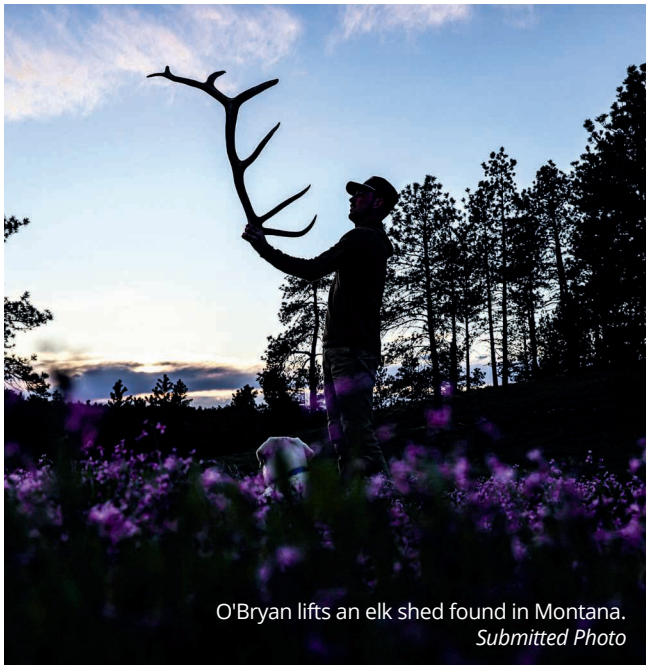
Prairie Miles and Antler Piles

Frank Turner
frank.turner@sdrea.coop

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*

Plowing IN on fall projects

Major upgrades planned to be completed by November

Jerry Weber
Operations Manager

Northern Electric has a bevy of upcoming projects. Members will see their lineman busy digging in line and tearing out poles this fall as they complete upgrades to the systems.

This fall, in additional to a few other projects, Northern Electric Cooperative crew will be putting in:

- Three miles of underground near Richmond Lake.
- Three miles of underground west of the Mansfield substation
- 12 miles of underground along Highway 281 North of Aberdeen.
- Two miles of underground on the west circuit of the Ashton Substation.

The Richmond Lake project was prompted by the replacement of the Richmond Lake dam. Currently, the Northern Electric poles go over the dam. Those lines will have to be removed before the project begins in 2026. Since the two-stage construction is expected to close the roadway for over a year, it makes more sense to bury the line than set temporary poles.

The line that previously crossed the dam will be buried just east of the dam and will continue north before heading west for one mile. Since we have to bury a mile anyway, we are going to put in two more miles so we can tie to the west side of the lake.

The plan is to keep burying line, heading north and west around Richmond, before eventually boring under the lake and connecting to the lines on the west side. This will greatly improve service for members on the west side of the lake. Currently, that side of the lake is only fed by one line. If that line is damaged, then everyone on the west side loses power. By connecting the east side line to the west side under the lake, it creates a loop circuit around the lake, allowing energy to flow from multiple directions.

The Mansfield and Ashton projects, as well as eight miles near Bath are funded by Federal Emergency Management Agency

Cable is fed from the spool on the front of the machine to the plow, which places the cable in the ground at the required depth.

(FEMA). Now that the projects were approved, Northern lineman will have to work to beat the completion due date. Some of these projects have been waiting for approval for five years and now need to be done within a year.

In order to comply with FEMA requirements, and therefore receive funding, the lines must be buried as part of disaster prevention. Underground lines are less likely to have an outage during a blizzard, high winds, or tornado. FEMA does not provide the funds until the projects are completed. Until then, Northern will have to fit the projects costs into the workplan budget.

THE PROCESS

During the projects, members on the lines being upgraded shouldn't have much disruption in service. The active overhead lines won't be switched over to the new underground cable until the very end of the project. Switching over should only take an hour or so per service and members will be alerted beforehand with an estimated timeframe.

Although it takes time, the process is fairly straightforward. First, Northern Electric will have route flagged and marked. Then the huge spools of line are loaded onto specialized equipment that has a narrow plow head. The cable is fed automatically into the ground. Each spool is one mile of cable. Once everything is ready, it's simply a matter of plowing in the cable.

After the energy is switched over, the overhead lines will be dismantled and the poles removed. The crew will clean up the area as much as possible, then move on to the next project in Northern's workplan.

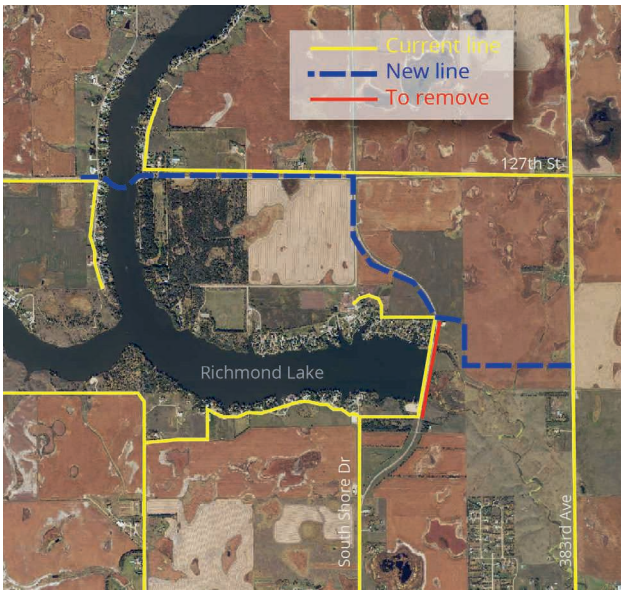
OVERHEAD VS UNDERGROUND

While these projects are all burying line, Northern Electric tries to keep a balance between overhead and underground line. Each type of infrastructure has its purpose, and neither is necessarily better or more economical. Each has its tradeoffs.

While underground is considered more reliable, the outages tend to be longer. It's harder to pinpoint where the fault is. There might be a tiny pinhole in a cable that's several miles long. By having a loop feed, such as what will be installed around Richmond Lake, the faulted cable can be isolated and energized from different direction until the cable is repaired.

Once the damage has been isolated, there is still a delay before lineman can start digging. A call has to be made to 811. The area has to be marked or flagged by other utility companies, so the crew doesn't accidentally damage the other buried lines. That can take over two hours. Then crew still need to dig up the line, splice and rebury it before power can be restored.

Because the overhead lines are exposed to the elements and wildlife, outages happen more frequently but are shorter and generally easier to fix. An outage on an overhead line usually only lasts an hour or two. It's easier to drive out, look up, and see the problem. Once the problem is identified, crews can start working right away.



Overhead also has the advantage of easier upgrades. Since Northern Electric has been upgrading the class of poles used, installing an additional line is easy as adding another set of arms to the pole. With underground, additional cable would have to be installed next to the already buried line, without damaging it.

EASEMENTS

Members with land along these routes may have gotten a call recently from Northern Electric enquiring about easements. Plowing the lines on private property can save money for the cooperative. It's generally faster installation and there are fewer issues later on. We really appreciate people giving us easements so we can keep these projects moving.

If we're on private land, and there's nothing else in the way, contractors can plow a mile in an hour. They just take off and go!

The ditch is public property and shared by many different utilities. Whenever Northern's line crosses another line, such as gas or internet, the crew has to stop and assess. Northerns lines are buried at least four feet deep. If the other lines impede that depth, crew have to dig a hole big enough for a lineman to either splice or feed cable below those other lines.

Anecdotally, untilled soil seems to have more pocket gophers than private property. Pocket gophers can damage underground cables by chewing on the cable, causing outages.

Another concern using public land is changes to the public right of way. If Northern's line is in the ditch and the county or state decide to widen or do road work that involves the ditch, Northern has to fund relocating the line. Lines on private land are moved at the expense of the state or county.

If you have a question about a Northern Electric Cooperative project happening in your area, please call me at 605-225-0310.

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 Electric, 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."

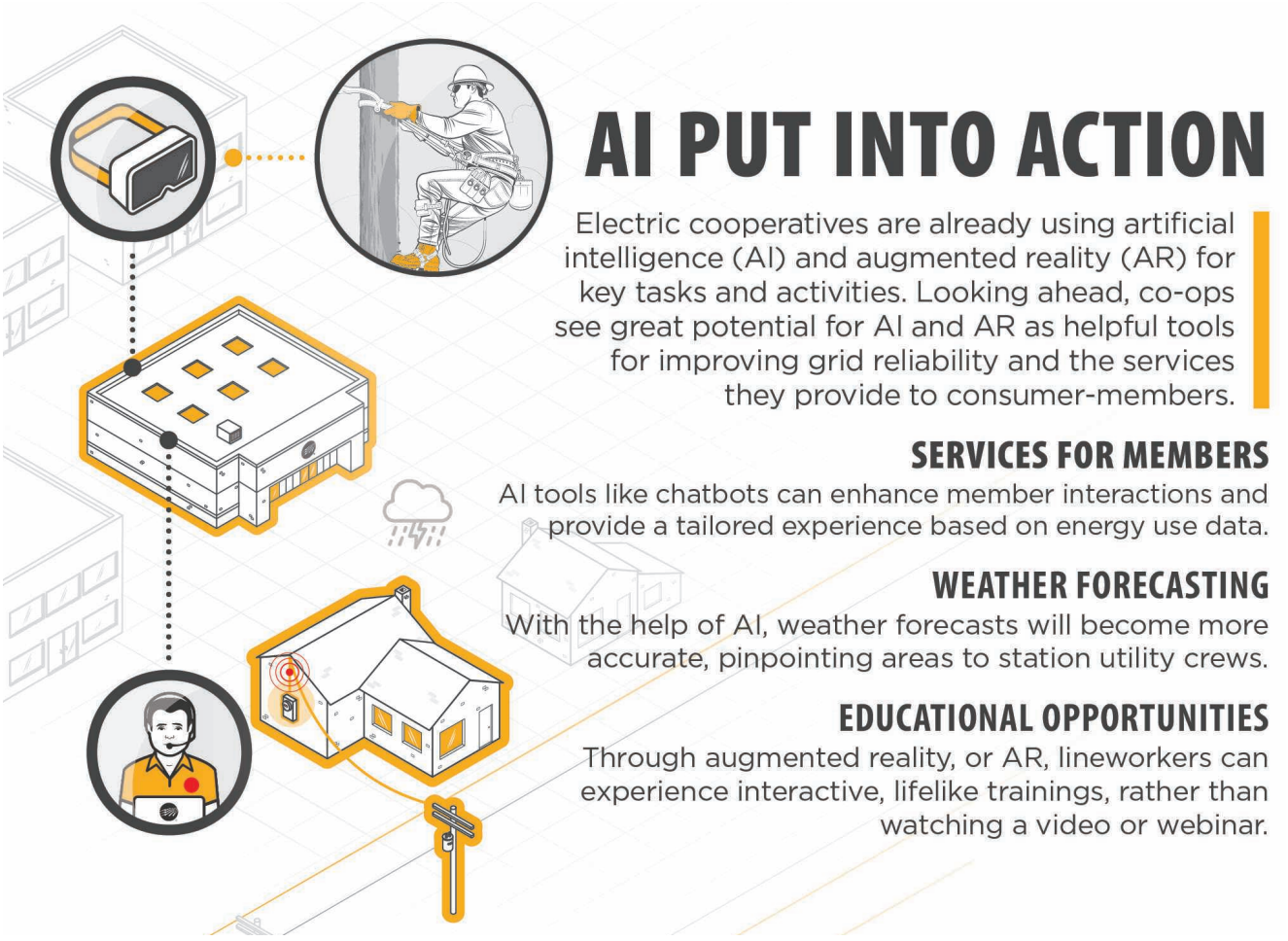

Photo by Jessie Tucker

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.

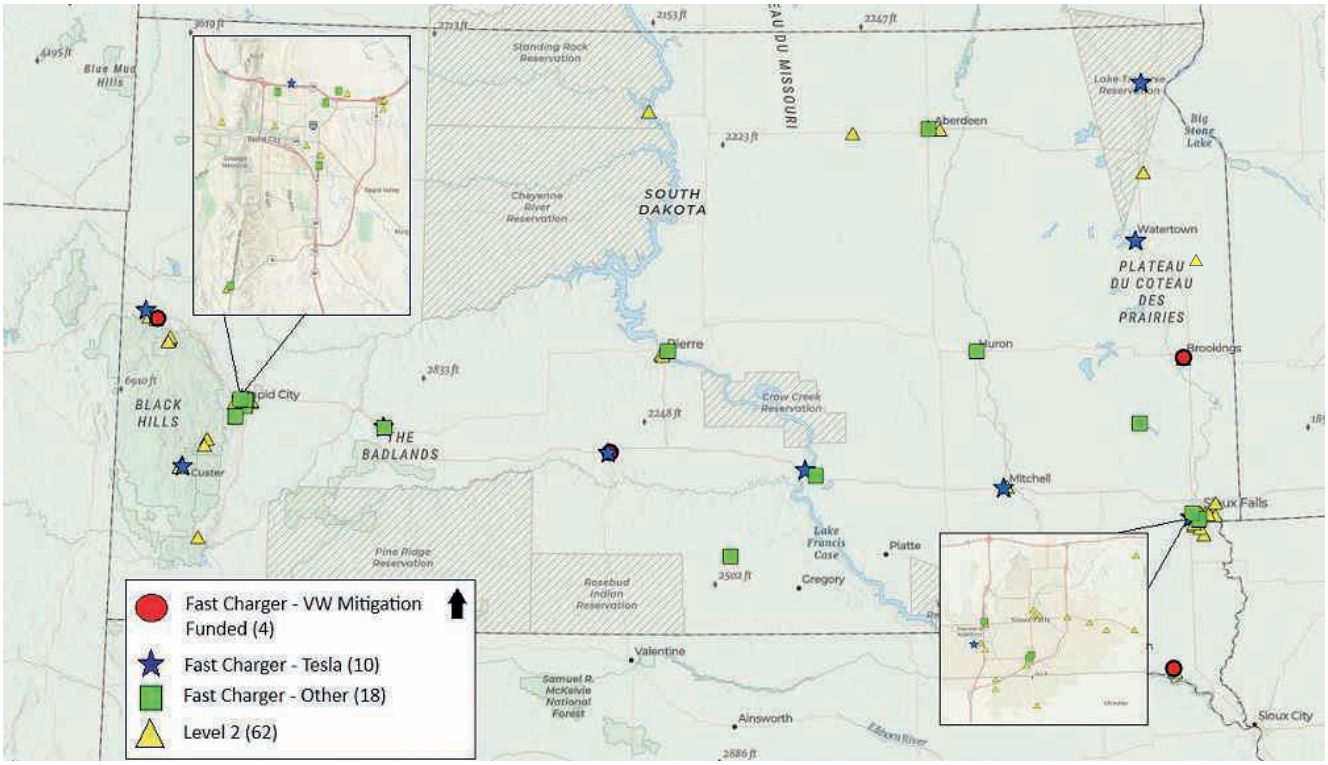
South Dakota's weather makes planning a trip in an electric vehicle a little more hands-on. Temperature, wind speeds, climate control and headlights all affect how frequently you have to stop to add some joules.

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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SEPT. 4-6
DKG Used Book Sale
Wylie Park Pavilion
Aberdeen, SD

SEPT. 5-7
James Valley Threshing Show & Tractor Club
Threshermen's Park
Andover, SD
www.jamesvalleythreshers.com

SEPT. 5-7
EurekaFest
Eureka, SD
209-728-5744

WEEKENDS SEPT. 6-OCT. 26
The Back Forty Corn Maze
42242 134 St.
Pierpoint, SD
www.backfortybeef.com/cornmaze

SEPT. 6
Lion's Club Fall Citywide Rummage Sale
8 a.m.-3 p.m.
Groton, SD

SEPT. 7
Farmer Tractor Parade
1 p.m.
Tractors, Cars & Food
Farmer, SD

SEPT. 8
Sip & Shop
5-8 p.m.
Redfield, SD
605-472-0965

SEPT. 13-14
Prairie Pickers Harvest Fest
10 a.m.-3 p.m.
Tulure, SD
605-450-0263

SEPT. 13-14
Harvest & Kuchen Festival
Delmont, SD
www.twinriversoldiron.org

SEPT. 13-14
South Dakota Senior Softball Tournament
Huron, SD
605-295-2039
www.southdakotaseniorgames.org

SEPT. 19
Veterans Stand Down
SD Military Alliance
8:30-11:30 a.m.
Sioux Falls, SD

SEPT. 19
Homecoming Parade
2 p.m.-3 p.m.
Groton, SD

SEPT. 19-20
SiouxperCon Annual Convention
Benefits Make-A-Wish, REACH Literacy, JY6 Foundation
Sioux Falls Convention Center
Sioux Falls, SD

SEPT. 26-28
Coal Springs Threshing Bee Featuring Horse-Drawn Equipment
Meadow, SD
605-788-2229

SEPT. 27
Your Race, Your Pace
9:30 a.m.
Wylie Park
Aberdeen, SD
yourraceaberdeensd@gmail.com

SEPT. 27
Wheelin' To Wall
Wall, SD
www.wheelintowall.com

SEPT. 27
Harvest Pumpkin Fest
3-7 p.m.
Eureka City Park
Eureka, SD
605-230-1777

OCT. 4
Harvest Fest
11 a.m.-4 p.m.
Redfield, SD
605-472-0965

Note: We publish contact information as provided. If no phone number is given, none will be listed. Please call ahead to verify the event is still being held.