



COOPERATIVE CONNECTIONS



Building Communities

REED Fund Helps
Support Local Growth

Pages 8-9

DERs and the
Electrical Grid

Pages 12-13

Dave Eide, right, presents a check to Jason Foster, left, fire chief of Garden City Fire Department. Through the REED fund, the department secured a loan to renovate the fire hall.

Scholarships Available

Application deadline
is January 29, 2025



**HIGH
SCHOOL
SENIORS**

DAKOTA ENERGY HAS SCHOLARSHIPS AVAILABLE TO HIGH SCHOOL SENIORS FOR COLLEGE OR TECHNICAL SCHOOL

Dakota Energy believes strongly in the future of area students and takes pride in helping develop rural leaders. To recognize the achievements of students and future leaders, Dakota Energy is offering \$5,000 in scholarships to qualifying high school seniors.

COOPERATIVE SCHOLARSHIPS:

- \$1,000 for a future line worker attending Mitchell Technical Institute's (MTI) Power Line & Maintenance program
- \$1,000 for a future electrician attending MTI's Electrical Construction and Maintenance program
- \$1,000 Basin Electric/Dakota Energy scholarship for students
- Four \$500 Dakota Energy scholarships for students attending a South Dakota university or technical school

WHO IS ELIGIBLE?

To qualify, an applicant's parent(s) must be a member of Dakota Energy Cooperative.

Applicants must be planning to be enrolled in a full-time undergraduate course of study at an accredited, two- or four-year college, university or vocational/technical school. Scholarship recipients are selected based on academic record, leadership, school and community involvement, an appraisal from a counselor, advisor or instructor who knows the student well, and an essay.

HOW DO I APPLY?

Scholarship applications are available at the local high school guidance office or on the cooperative website by scanning the QR code.



Submit applications to:

Dakota Energy Cooperative
PO Box 830

Huron, SD 57350

Email: dakotaenergy@dakotaenergy.coop

COOPERATIVE CONNECTIONS

DAKOTA ENERGY

(USPS No. 018-949)

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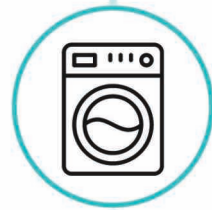
EFFECTIVE WAYS To Lower Home Energy Use

Outside factors can impact electricity prices, such as fuel and equipment costs and extreme weather. But you have the power to control home energy consumption by taking proactive steps to reduce energy use.



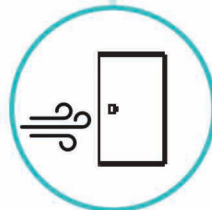
Thermostat Management

The thermostat is one of the best places to lower your energy use because heating and cooling account for a significant portion of home energy consumption. During winter months, adjust your thermostat to the lowest comfortable setting to reduce energy use. The Dept. of Energy recommends 68 degrees or lower.



Utilize Off-Peak Energy Times

Plan energy-intensive chores and tasks during off-peak energy hours, when the demand for electricity is lower. Such as running the dishwasher or washing clothing. Off-peak times are early in the morning or late evenings. By scheduling these activities during off-peak periods, you can help keep rates lower, reduce demand and relieve pressure on the grid.



Seal Your Home

According to ENERGY STAR®, about 20% of heated or cooled air that moves through a home is lost due to lack of proper insulation and air leaks. Ensure your home has sufficient insulation levels and seal air leaks around windows and doors with caulk and weatherstripping. This is a simple, effective way to lower energy use and improve indoor comfort.



Maintain Equipment

The health of your heating and cooling system is essential for comfort and can greatly impact energy bills. Maintain your system by regularly replacing dirty filters and scheduling annual inspections for maintenance and necessary repairs.

Fire Safety

Cooking and heating are the leading causes of home fires and fire injuries, and winter months are the peak time for fire-related deaths.

Minimize Your Risks

The good news: Deaths from home fires in the U.S. have trended downward since the 1970s, according to Injury Facts, but even one death from a preventable fire is too many. While fire doesn't discriminate by age, it is the third leading cause of death for children 1 to 14.

When cooking, make fire safety a priority by keeping these tips in mind:

- Be alert; if you are sleepy or have consumed alcohol, don't use the oven or stovetop
- Stay in the kitchen while you are frying, grilling, boiling or broiling food
- When simmering, baking or roasting, check the food regularly, remain in the kitchen while cooking and use a timer
- Keep anything that can catch fire away from your stovetop

Heating is the second leading cause of home fires.

Follow these tips:

- Keep all flammables, like paper, clothing, bedding, drapes or rugs, at least three feet from a space heater, stove or fireplace
- Never leave portable heaters and fireplaces unattended; turn off heaters and make sure fireplace embers are extinguished before leaving the room
- If you must use a space heater, place it on a level, nonflammable surface, like ceramic tile, not on a rug or carpet
- Keep children and pets away from space heaters
- When buying a space heater, look for models that shut off automatically if the heater falls over

Other top causes of fire include smoking, electrical problems and candles. To minimize risks:

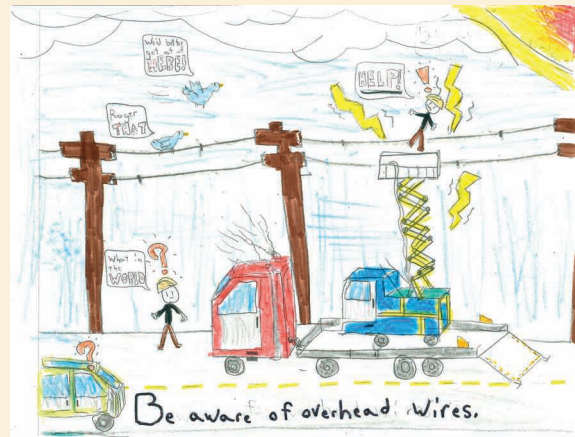
- Institute a "no smoking" policy in the house
- Check all cords and replace any that are frayed or have bare wires
- Switch to flameless candles
- Keep matches and lighters high and out of children's reach in a locked cabinet

Working Smoke Alarms Are a Must

Replacing the Battery on a Smoke Alarm About three out of five fire deaths happen in homes without working smoke alarms. Smoke alarms are a key part of a home fire escape plan providing early warning to reduce your risk of dying in a fire. The National Fire Protection Association recommends you:

- Install smoke alarms on every level of your home, inside bedrooms and outside sleeping areas on the ceiling or high on the wall
- Keep smoke alarms away from the kitchen, at least 10 feet from the stove, to reduce false alarms
- Use special alarms with strobe lights and bed shakers for people who are hard of hearing or deaf
- Test smoke alarms monthly
- Replace batteries in your smoke alarm and carbon monoxide detector annually
- Replace smoke alarms that are 10 or more years old

Source: National Safety Council



"Be aware of overhead wires."

Vance Claeys, Age 11

Vance Claeys cautions readers to be careful when working around power lines. Thank you for your picture, Vance! Vance's parents are Jake and Bridget Claeys, members of Lyon-Lincoln Electric.

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.

SOUP

Sensation

BROCCOLI CHEESE SOUP

Ingredients:

- 1 large pkg. frozen broccoli
- 1/4 cup water
- 3 tbsps. margarine
- 10 oz. package corn
- 1/4 cup chopped carrots
- 1/4 cup chopped onion
- 1/4 tsp. pepper

Cook the above and add
 3 cans cream of potato soup
 3 cups milk
 2 cups shredded Cheddar cheese
 1/2 cup shredded Monterey Jack cheese
 Stir until melted

LaVonne Schmidt
 Sioux Falls, S.D.

NORWEGIAN FRUIT SOUP

Ingredients:

- Bring 1/2 gallon water to a slow boil.
- Add 1 pkg. of sweetened dried cherries, banana chips, apricots, prunes, 2 apples (all cut into pieces)
(Optional to use any dried fruit you wish)
- 1/2 cup golden raisins
- 1/2 cup regular raisins
- 2 whole cloves
- 2 cinnamon sticks
- 1 cup sugar (you can use Splenda)

Method

Boil slowly for one hour add 3 tbsps. tapioca and a large pkg. of cherry jello.
 Refrigerate and serve with whip cream.

Kari Reder
 Warner, S.D.

CABBAGE SOUP

Ingredients:

- 1-2 tbsps. vegetable oil
- 1 pkg. (14 oz.) smoked sausage, sliced 1/4 in. thick
- 1 large yellow onion, chopped
- 1 tbsp. tomato paste
- 1 small green cabbage, cored and shredded (about 8 cups)
- 1 medium carrot, finely chopped
- 1 can (14 1/2 oz.) petite diced tomatoes
- 1 1/2 tsps. salt
- 1/2 tsp. garlic powder
- 1/2 tsp. ground black pepper
- 1/4 tsp. onion powder
- 1/8 tsp. crushed red pepper
- 4 cups chicken stock or broth
- 1 can (15 1/2 oz.) white beans, drained and rinsed
- 1 tbsp. white wine vinegar

Method

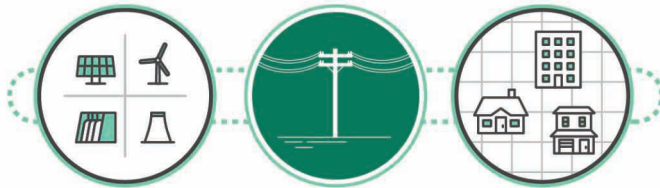
Heat oil and cook sausage, until browned. Remove from skillet. Add onion and tomato paste; cook and stir until onions are slightly softened and tomato paste has darkened. Add cabbage and carrots to stockpot. Cook, stirring frequently, about 30 minutes or until cabbage has softened and begins to caramelize. Stir in tomatoes, salt and spices. Cook 10 minutes longer or until cabbage is very soft. Return sausage to pot. Stir in stock and beans. Bring to boil. Reduce heat and simmer 10 minutes. Stir in vinegar. Serve hot, sprinkled with freshly grated Parmesan cheese, if desired.

McCormick.com

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.

A Balancing Act: ELECTRICITY SUPPLY AND DEMAND

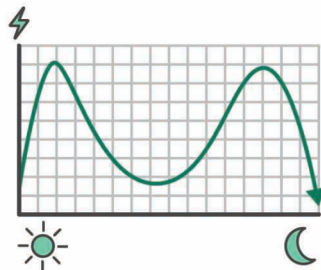
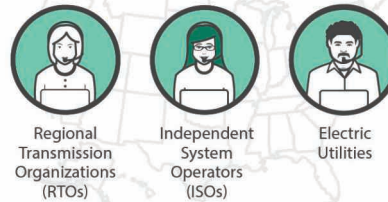
Behind the scenes, a network of people and facilities work together to ensure you have electricity when you flip the switch.



Electricity is generated at a power plant, then sent across the grid to homes, schools and businesses.

The amount of electricity generated and how much is sent to where it's needed are typically coordinated and monitored by regional grid operators that essentially act as energy traffic managers.

Regional Grid Operators



As electricity demand varies throughout the day, grid operators, power plant operators and electric utilities work to forecast, plan and purchase enough electricity for everyone.

Ensuring communities have the exact amount of electricity they need is a challenging task, but behind the scenes, a network of industry experts make it happen every day.



Factors that Impact Electricity Supply and Demand



- Demand Surges
- Extreme Temperatures
- Infrastructure Costs and Availability
- Supply Chain Challenges
- Fuel Costs
- Federal and State Regulations

NOVEMBER 2024

The Board of Directors met on Tuesday, November 26, 2024, with Directors Baruth, Baum, Bonebright, Langbehn, Morford, Nemecek, Raschke, Schaefer, and Wangsness present. Manager Felderman and Employees Decker, Gilbert, Hasart, Picek, Rakness, and Zomer were present.

MANAGER'S REPORT

Manager Felderman reported on the following items:

- Monthly energy sales and revenue
- CRC
- CFC Strategic planning
- Annual meeting expense comparison
- Basin Electric capital credit retirement
- East River purchase power adjustment
- TransCanada/South Bow LP

OFFICE SERVICES REPORT

Manager of Finance and Administration Hasart reported on the following items:

- Financial reports for October
- Year-end preparation
- Audit schedules
- Sales tax exemption forms
- CRC Visit
- NRECA and FEMA training
- WAPA rate letter
- Capital credit general retirement

OPERATIONS REPORT

Manager of Operations Zomer reported on the following items:

- Construction, maintenance and retirement activities
- SCADA has been installed in the Ames substation
- Pole changes

- Installed and cutover underground line south of Vayland
- Tree trimming complete
- Work order inspection
- Ethanol plant
- Planned maintenance of the Yale substation

MEMBER SERVICES REPORT

Manager of Member Services Gilbert reported on the following items:

- Wiring department workload
- Potential hazards
- Load control savings

HUMAN RESOURCES/ COMMUNICATIONS REPORT

Manager of HR/Communications Decker reported on the following items:

- 2025 Group benefits
- Annual health fair
- Youth tour and scholarships

INFORMATION TECHNOLOGY REPORT

Information Technology Administrator Rakness reported on the following items:

- SCADA pilot program
- NRTC conference on field technologies
- NISC webinar on multifactor authentication
- Website/Cybersecurity

BOARD ACTION

The following items were acted upon:

- Accepted the reports presented
- Approved the 2025 general budget
- Appointed Director Nemecek as the voting delegate and Director Langbehn as the alternate for the 2025 SDREA Annual Meeting
- Approved policies and donation

BOARD REPORTS

Director Raschke reported on East River's November 2024 regular board meeting.

Those directors who attended reported on the East River New Director Orientation.

Director Langbehn reported on the Board Leadership Class.

Next monthly board meeting is January 28, 2024 at 10:00 a.m. in the Huron office.

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- Maintenance
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Year-to-Date Financial Report		
	Nov-24	Year-to-Date
Total Revenue	\$2,090,896	\$23,817,586
Cost of Power	\$1,434,831	\$16,999,163
Operating Expenses	\$656,283	\$6,780,097
Total Margins	\$131,598	\$1,314,348
KwH's Purchased	22,766,759	239,098,409
Services in Place		3,630
Miles of Line		2,534
Members per Mile		1.43



Pulse of Life Kids Center in Vermillion, S.D.

BUILDING COMMUNITIES

REED Fund Helps Support Local Growth

Jacob Boyko

jacob.boyko@sdrea.coop

Small towns and rural communities are the backbone of electric cooperatives, with many co-op members relying on their small towns for shopping, childcare, entertainment and other basic needs and services.

That’s why co-ops are working to help keep – and expand – services and job opportunities in small towns using the co-ops’ Rural Electric Economic Development Fund, or REED.

REED is a non-profit organization launched by the electric cooperatives in 1996 to finance community-focused projects across small towns in South Dakota and Western Minnesota where affordable financing can be harder to secure.

REED has multiple sources of funding, but one of the main sources of funding over the years has been the United States Department of Agriculture. REED has utilized both the Rural Economic Development Loan and Grant Program (REDLG) and the Intermediary Relending Program (IRP), which together have amounted to more than \$30 million.

Through the REDLG program, REED

can fund eligible projects at a 0% interest rate. Through the IRP program, REED applies for low-interest loans and then re-lends the money at a rate slightly higher than the USDA rate – but still less than traditional lending sources. This adds money to the fund and perpetuates it for future projects.

Since the fund’s inception, it’s been used to support more than 400 community-focused projects.

East River Electric Business Development Director Mike Jaspers says it’s in co-ops’ best interests to make rural living just as feasible as living in a larger city.

“It comes back to our principle of commitment to community,” Jaspers explained. “REED ensures our membership has their vital needs met, and they can enjoy the amenities of life in a rural setting when they’d otherwise have to go to a larger city to access some of those services.”

Eric Fosheim, East River Electric’s economic development director in charge of the REED fund, said the \$130 million lent by REED has impacted more than 10,000 jobs and amounted to over \$1 billion of economic impact throughout

South Dakota and Western Minnesota.

“Our \$1 million investments help spur \$10 million projects, which means for every \$1 REED invests into a project, it roughly has a \$9 or \$10 impact,” he explained.

As a supplemental lender, REED won’t finance a project alone; organizations still must secure funding from other sources. However, REED’s low interest rates and community focus can be just what a project needs to catalyze it over the finish line.

As members of the REED fund, co-ops can impact economic development projects while letting REED take on the financial risk.

“The co-ops aren’t on the hook and aren’t guaranteeing the loans here,” Fosheim explained. “REED is doing that.”

Pulse of Life Kids Center – Vermillion, S.D.

Pastors Glenn and Angela Pulse had a vision and a calling. Pulse of Life Foursquare Church, which they hoped to start on Vermillion’s Main Street inside an old medical clinic, had the ability to serve a greater need in the community, where the wait lists for childcare sometimes exceeded three months. They had the faith — they just needed some resources.

The church council worked with First Bank & Trust to secure a loan to create the Pulse of Life Kids Center, but the bank couldn’t lend them the entire amount they needed.

“New daycare centers have a high rate

of failure, so we couldn't qualify for all of the money that we needed through bank loans," Angela explained. "Instead of saying no, the bank manager suggested we go about it in a different way. That's how the conversation about the REED fund came up."

Clay-Union Electric Manager Chris Larson said supporting the Pulses, who are members of the co-op, made sense for Vermillion, where challenges from workforce shortages and the lack of childcare options are prevalent.

"It fills a need in our community," Larson said.

Fosheim agrees.

"Workforce challenges have really been an issue in recent years and one way we try to help with that is by investing in daycares," he said. "Daycares don't always look that good on paper from a financial standpoint, so a lot of these organizations have a hard time getting adequate financing."

With the REED fund's \$245,000 loan, the Pulses' vision finally took shape and the Kids Center opened in 2023. Today, the center offers faith-based daycare with a capacity for 43 of the community's children.

"It's encouraging because it puts more options on the table to make these new things possible," Angela said. "There's no way we could have done this without the REED fund."

Fire Station – Garden City, S.D.

In Garden City, a small community northwest of Watertown, a dilapidated fire hall sat rotting into its own footprint.

"It was just in a state of disrepair," said Scott Campbell, treasurer at the Garden City Fire Department. "The walls were pushing out and we had to put plastic over the doors. It was cramped and old. The truck was parked over a basement area, and being heavy and full of water it caused some concern."

Options were narrowing; Garden City would have to act fast or lose their fire station and rely on surrounding communities during an emergency.

Codington-Clark Electric Director



Nursing home expansion in Philip, S.D.

Russel Foster, who also volunteers for the fire hall, approached his co-op's manager, Dave Eide, in 2022 about using REED to breathe new life into Garden City's fire hall.

Eide agreed and helped with the application process, championing the fire hall as a vital need for Garden City, the co-op and co-op members.

"Everybody needs fire protection," Eide explained.

Through REED, the fire hall secured a \$230,000 loan. The new hall features a community room, which Scott said filled a desperate need.

"We had no place to vote, no place for birthday parties," Campbell said. "Township meetings were in houses at kitchen tables."

For Eide, the REED fund is just another example of what co-ops are supposed to do – serve communities.

"It's an extension of what co-ops are in the first place," he said. "We sell power to members and that's one way we help and serve our communities. The REED fund is just another extension of that."

Elder Care – Philip, S.D.

In rural Philip, limited options for elder care had some long-time locals facing tough decisions.

"Our nursing home for a lot of years was not big enough," said Cindy Pfeifle, business manager at Philip Health Services. "Members of our community were having to leave the area when they needed nursing home care."

After applying for a REED loan in 2022 through West Central Electric and securing funding from other community sources, Philip Health Systems renovated and expanded the nursing home, increasing occupancy from 30 beds to 42 beds.

West Central Electric CEO Jeff Birkeland said access to the REED fund is essential for rural areas without much population growth.

"We need to keep our people from moving away and keep our businesses local," Birkeland said. "The best way to do that is by giving them access to very low-interest financing. Saving hundreds of thousands of dollars in interest costs makes projects much more feasible."

Pfeifle says the community support was essential to initiate the project and applauds REED for helping bring opportunities back to small towns.

"It sends a message of support and cooperation and that they understand how important it is to keep services in rural areas for people who live here," Pfeifle said.

The nursing home project was the first in West Central Electric's territory to use the REED fund, but Birkeland hopes many more projects are to come.

"We are a cooperative, so job number one is to take care of our members and do everything we can to help our communities," Birkeland continued. "If somebody comes to you or you see a need in our communities, we're all in."

WINTER STORMS

WINTER STORMS CAN MEAN SERVICE DISRUPTIONS

Although we work hard to maintain our equipment, monitor power delivery 24/7, and do all we can to keep the lights on, there are circumstances beyond our control that can interfere with power delivery. Winter storms can impact the distribution of electricity due to ice, heavy winds, sleet, and other extreme conditions.

Along with causing outages, wintery conditions can cause hiccups with power delivery that include blinking lights. Although blinking lights can be a symptom of other problems such as loose wiring connections or overloaded circuits, they can also be caused by extreme weather conditions.

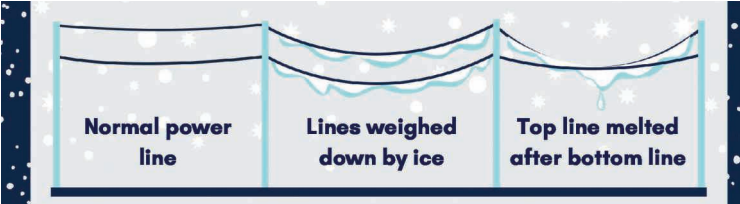
Ice/freezing rain: Ice accumulation on power lines makes them heavy.

Wind: Wind can cause tree branches to brush power lines, which can result in blinking or flickering lights. This is why it's so important for us to keep trees cleared around power lines and poles. In addition, heavy winds (or extreme wind plus ice) can cause lines to move and sway. If they gain enough momentum, they can gallop or jump. This, in turn, can cause disruptions in service since the extreme motion can cause lines to either break or make contact with each other, which they are not meant to do.

Wind or ice + tree branches: In severe or even calm weather condition, tree-related issues cause the most power outages in many service areas. Branches, limbs and even tree trunks can fall into power lines and cause problems. Add wind, freezing rain, or ice to the mix for an increased potential for problems.


Icy Roads: Vehicles sliding on ice or that collide with one another can strike a power pole or pad-mounted transformer, causing an outage or other problems.

Blizzards: Heavy snowfall, icy roads, or reduced visibility can make it difficult for our crews to get out and fix problems, although we do all we can to get out there to address service issues as soon as possible.




Normal power line **Lines weighed down by ice** **Top line melted after bottom line**

ICE ON POWER LINES IS A WEIGHTY SUBJECT



When it comes to getting electricity across power lines and into homes, ice can be a force to be reckoned with.

ICE ON DISTRIBUTION LINES



Ice can quickly lead to broken power poles and other pole equipment. Ice can also make falling tree branches 30x heavier and much more likely to break power lines.

ON A 300-FOOT SPAN OF 1-INCH-THICK POWER LINES


- 1/2 inch of ice adds 281 pounds of weight
- 1 inch of ice adds 749 pounds of weight
- 2 inches of ice adds 2,248 pounds of weight

WHEN ICE MELTS

Melting ice can cause power outages. If ice on the bottom (neutral) line melts before the lines above, it can cause the lines to touch.

OTHER ICE FACTS

- Damage can begin when ice exceeds 1/4 of an inch
- 1/2 inch of ice can cause a line to sag up to 12 inches
- Pressure can also be caused by a broken tree limb
- Both ice and melting ice can cause power outages



Safe Electricity.org®



South Dakota Winters and Power Outages: How to Stay Prepared

There's no mistake that South Dakota winters have the potential to wreak havoc on our power distribution system. It is vital to have a plan in place in case power is interrupted this season due to a weather event. Here are some tips on how you can prepare for winter power outages:

EMERGENCY KIT:

Assemble an emergency kit with flashlights, batteries, a battery-powered or hand-crank radio, first aid supplies, and any necessary medications.

STOCK UP ON ESSENTIALS:

Make certain you have enough non-perishable food and water to last at least three days. Canned goods, dry snacks, and bottled water are ideal. Don't forget a manual can opener!

WARM CLOTHING AND BEDDING:

Gather extra blankets, sleeping bags, and warm clothing. Layering clothes can help retain body heat.

Thermal underwear, wool socks, and hats are particularly useful.

HEATING ALTERNATIVES:

If you have a fireplace or wood stove, confirm you have a good supply of dry firewood and know how to start and maintain a fire safely. Portable space heaters that run on propane or kerosene can be helpful but need proper ventilation to avoid carbon monoxide poisoning. Also, keep them away from flammable materials and never leave them unattended.

POWER SOURCES:

Consider investing in a generator for backup power. Make sure you know how to operate it safely and have enough fuel stored. Solar-powered chargers for phones and other small devices can also be helpful.

STAY INFORMED:

Check weather forecasts and stay informed about the status of the power outage. This information can help you make decisions about your

safety and comfort. To report an outage, contact the Dakota Energy Cooperative emergency line at (800) 353-8591 or (605) 352-8591. For major outages, visit our cooperative Facebook page at www.facebook.com/DakotaEnergy.

COMMUNICATION PLAN:

In times of crisis, staying connected with your loved ones is crucial. Have a plan to communicate with family and friends. Text messages often go through when calls do not. Keep a list of emergency contacts handy. This will help you feel connected and reassured during a power outage.

Our crews are committed to restoring power as safely and quickly as possible during an outage. We understand the challenges a power outage can bring, and we are here to support you. We strongly encourage our members to have a plan should an outage occur, and we want you to know that we are here for you.



The Waxdahl's solar array and hog farm, east of Flandreau. *Submitted Photo*

DISTRIBUTED ENERGY

Understanding the Impact of DERs to the Electrical Grid

Frank Turner
frank.turner@sdrea.coop

Farming has always been a way of life for fourth-generation producers Matt Waxdahl and his brother, Ben. Growing up just outside of Flandreau, the brothers spent their childhood lending a hand on their grandfather's and father's farms.

Over time, Matt and Ben started their own operation. As the market evolved, so did the brothers. In 2009, they expanded into hog farming, building their first barn. Their success led to the addition of two more barns, the most recent constructed in 2022.

According to Matt, raising hogs comes with one major benefit: temperature-controlled barns.

"It's all under one roof, and it doesn't matter if it's 100 degrees outside or -20, it's always T-shirt weather," said Matt.

However, keeping their hogs on a permanent tropical vacation requires a significant amount of energy. During the summers, industrial fans and a stout ventilation system keep the barn cool, while powerful heaters maintain a comfortable environment in the biting South Dakota winters.

Two years ago, the brothers tackled this energy-intensive challenge by installing a 30-kW solar array. With guidance from Sioux Valley Energy, their local electric cooperative, they determined the project would financially benefit their operation due to availability of tax credits and grant funding.

"We saw that the majority of our power usage was always during the day," Matt explained. "We did some number crunching, and it penciled out."

Distributed Energy Resources

The Waxdahl brothers' decision to invest in a solar array reflects how farmers and ranchers across the state are utilizing Distributed Energy Resources (DERs) like solar panels and on-site wind turbines. While some producers use solar panels to power remote water pumps, others invest in larger systems like solar arrays to offset the energy demands of their farms.

According to Ben Pierson, energy services manager at East River Electric, DERs are not common across the state. However, Pierson noted there are situations where DERs make sense: in remote areas where connecting to the electrical grid is too costly, for businesses or individuals looking to leverage tax credits and grant funds, and

for individuals who want to produce their own energy as a personal or environmental choice.

“The most successful applications of DERs that I’ve seen have been for agricultural operations like hog and dairy farms, where the producer has been able to secure both grant funding and tax incentives,” said Pierson. “It makes sense economically because they are using most their energy during the day when solar is producing.”

Even in the best-case scenarios, DERs still face challenges. Without existing tax breaks and grant funds, the energy savings from Waxdahls’ solar array would not have justified the expense. “It wouldn’t be economically efficient at all without the tax credits and grant funding,” Matt said.

The array has also not been as efficient as the Waxdahls had hoped. While the panel installers projected a return on investment within seven to 10 years, the reality after two years of operation suggests it may take closer to 12 to 15 years for the panels to pay for themselves.

Despite the challenges, Matt considers his solar array a successful addition to his hog operation. “If I had another barn the same size, I would make the same decision to add a solar array,” he said.

The Electrical Grid

While DERs offer renewable energy options at the local level, South Dakota’s electrical grid already incorporates significant contributions from renewable energy sources at a wholesale price.

In fact, Basin Electric Power Cooperative, a generation and transmission cooperative serving South Dakota’s electric cooperatives, began purchasing energy from the Wild Springs Solar Project in 2024. Located near New Underwood, the 128-megawatt facility is the largest solar farm in the state. Basin Electric is set to purchase 114 megawatts of the project’s output, marking its first step into utility-scale solar generation.

The benefits of this project are already underway, said Pierson.

“Building a large-scale solar array is much more economically feasible than

a smaller-scale solar array,” said Pierson. “It lets us implement renewable energy into the portfolio in a cost-effective way.”

According to Pierson, power providers are continually working to implement renewable energy where it makes sense while providing reliable energy at an affordable price.

Connecting to the Grid

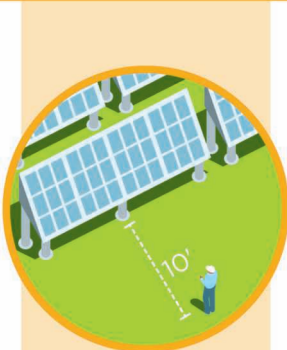
When considering the addition of DERs such as solar panels or an on-site wind turbine, Pierson encouraged members to contact their local electric cooperative to ensure the system is properly sized and safely connected.

When implementing a DER, there are often safety requirements in place to protect both the DER owner and the grid operators.

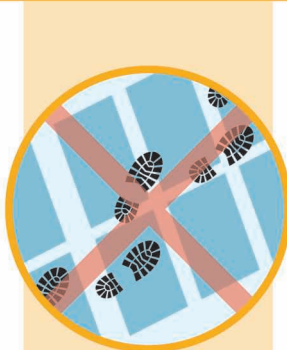
“Especially if you are talking to a third-party vendor, please reach out to your local utility to discuss the pros and cons – and realities – of implementing DERs,” said Pierson. “Utilities can offer unbiased information regarding the expected output and proper sizing of a DER.”

SAFETY NEAR SOLAR

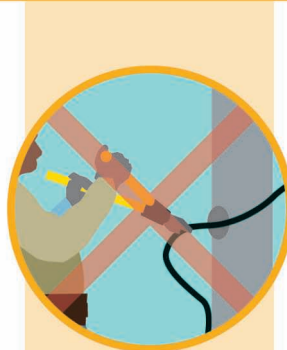
Like any other source of electricity, solar panels can pose potential hazards. Keep these safety tips in mind when you’re near solar panels.



Stay at least 10 feet away from the installation.



Never walk on solar panels.



Never cut any wiring to the solar panels.



Never touch broken or damaged solar panels.



Twin home built in 2022. These handicap accessible units have three bedrooms, two baths and double attached garages. Photo submitted by Dick Werner

COMMUNITY GROWTH

Building a Stronger Community Through Workforce Housing

Jocelyn Johnson
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Supply and demand for workforce housing in South Dakota remains an issue for many smaller communities. Wage and worker demand has outpaced what many rural communities offer in affordable housing supply. Attracting and retaining qualified workers is becoming more of a challenge due to the simple, albeit costly, prerequisite for a place to live.

The need to develop and provide workforce housing at reasonable rates is a trending topic that one community advocate in Herreid, S.D., quickly acted on – resulting in a population increase for the first time since the town’s 1960 census.

Dick Werner, member of Cam Wal Electric and Black Hills Electric, has long championed the development of rural towns as a business owner, economic development consultant,

former state legislator and former county commissioner. He saw a need in his hometown for workforce housing, which he attributed to the dwindling population.

“When we first started tracking our population, we found that the highest number in our population fell into the category of 65 and older,” Werner said, “Next was the workforce group. Our lowest was our youth, which directly correlated with our depleting school enrollment.”

In 2016, Werner and other community leaders found the Herreid Area Housing Development (HAHD), a nonprofit committed to improving the town’s housing stock and ensuring long-term growth. Using this, the group worked quickly – gaining funds to build a place where workforce families would want to live

“It’s been one of the most rewarding challenges you can deal with,” Werner

said. “If you don’t control the dirt, you don’t control the future.”

Werner attributes his community’s growth to working families moving and staying in Herreid as well as welcoming diversity into the community’s workforce.

“It’s not just building homes, but it’s knowing what you have in your community,” Werner said. “We not only needed places for families to live, but we also needed to welcome diversity and make our community family friendly.”

Public facilities were similarly given attention to promote community growth. Playgrounds, sports facilities and the city pool were updated through a combined effort of donations, loans and grants.

Since 2017, five speculative homes have attracted 25 new residents to Herreid. The HAHD also purchased a remodeled eightplex apartment, a fourplex built in 2009, and two new twin homes – all full with a waiting list.

“That’s where we worked with the South Dakota Housing Opportunity Fund,” Werner said. “It gave us half the money to build and it’s forgivable after 20 years.”

South Dakota Housing is a self-supporting, nonprofit entity that

provides financing solutions such as housing bonds, tax credits and other federal and state resources to fund housing programs. This funding provides housing construction and rehabilitation, rental assistance, educational opportunities and more. One program offered is the South Dakota Housing Opportunity Fund.

Amy Eldridge, Rental Housing Development Director for South Dakota Housing, highlighted the financial virtues of the program.

“Local economic development groups and any property developer may apply for the funding,” said Eldridge. “It’s about the attractive financing that the program offers at 0% interest. With today’s interest rates, it’s hard to develop a property if you have to pay 7% interest while trying to construct it.”

Working with \$3 million annually, the South Dakota Housing Opportunity Fund has a competitive application process. New construction as well as building acquisition and rehabilitation qualify.

South Dakota Housing also offers infrastructure funding through the Housing Infrastructure Financing Program. John Curry and partner Chris Dunham of Elk Point Investments were recent recipients of these funds. They are currently developing land in Elk Point, S.D., where more than 150

homes have been built over the past 27 years.

“We’re the land developers, so we do the dirt work and civil engineering, and we sell to home builders,” said Curry. “The South Dakota Infrastructure Fund was something I had read about. . . We were in a good position to apply, and it provided 1/3 of the development costs if you met the criteria. With this funding, we are targeting to sell 56 lots beginning the spring of 2025.”

South Dakota Housing was allocated \$200 million by the state in 2023 to provide loans and grants for the development of housing infrastructure through the Housing Infrastructure Financing Program. Any for-profit or non-profit entity, tribal government, housing authority, political subdivision or agency of South Dakota is eligible to apply for funding.

“There is a shortage for housing,” said Curry. “I think you’re going to see a nice boom in workforce housing throughout the state because of this funding.”

(Right) Elk Point development. *Photo submitted by John Curry*

(Below) The pool project included a new bath house, new step-in pool with water features and existing main pool enhancements. The total project cost was \$1,132,000, with HAHD raising \$800,000 through grants and fund raising activities.

Photo submitted by Dick Werner



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Your E-mail Address: _____



To have your event listed on this page, send complete information, including date, event, place and contact to your local electric cooperative. Include your name, address and daytime telephone number. Information must be submitted at least eight weeks prior to your event. Please call ahead to confirm date, time and location of event.

FEB. 1
James River Gobblers Wild Turkey Banquet
5 p.m.
Highland Conference Center
Mitchell, SD
605-999-3208

FEB. 2
Hot Dish Competition Lake County Museum Fundraiser
11 a.m.-1 p.m.
St. Thomas School Gym
Madison, SD
605-256-5308

FEB. 8
Polar Bear Chili Cook-Off
11 a.m.-2 p.m.
Main Street
Hill City, SD

FEB. 8
Dad & Daughter Dance
6-8 p.m.
Joy Ranch
Florence, SD
www.joyranchofsd.com

FEB. 8
ALL Ability Skate Day
Disability Awareness & Accessibility Committee
1-3 p.m.
Main Street Square
Rapid City, SD
605-390-4434

FEB. 14-17
11th Annual Frost Fest
9 a.m.-3 p.m.
Brookings, SD
605-692-7444

FEB. 15
Sioux Empire On Tap
Sioux Falls Convention Center
Tickets available online
www.siouxempireontap.com

FEB. 22
Knights of Columbus Ice Fishing Derby
Waubay Lake
Registration 9-10 a.m.
605-881-5075

FEB. 22
Bellator Titans Charter Casino Night Fundraiser
6-11 p.m.
316 2nd St.
Aberdeen, SD

FEB. 28-MARCH 1
Mardi Gras Weekend
8 p.m. Fri.-10 p.m. Sat.
Main Street
Deadwood, SD
605-578-1876

MARCH 8-9
Philip Area Annual Gun Show
Sat. 9 a.m.-5 p.m.
Sun. 9 a.m.-3 p.m.
American Legion Hall
Philip, SD
605-859-2135

MARCH 14-15
Badlands Quilter Weekend Getaway
Fri. 5 p.m.
Sat. 8 a.m.
Community Center
Wall, SD
605-685-5718

APRIL 4-5
Annual Schmeckfest
German Heritage Celebration
748 S Main St
Freeman, SD
605-925-4237

APRIL 11-12
Junkin' Market Days Spring Market
Fri. 4-7 p.m.
Sat. 9 a.m.-4 p.m.
\$5 Admission
W.H. Lyon Fairgrounds
Sioux Falls, SD
www.junkinmarketdays.com

Note: Please make sure to call ahead to verify the event is still being held.