

# COOPERATIVE CONNECTIONS



## Building Communities

REED Fund Helps  
Support Local Growth  
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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.



# Space Heaters

## What to Know Before You Plug-In



**Jeff Birkeland**  
CEO

Space Heaters are a portable appliance made to heat relatively small areas. For our purposes, we will only be discussing electric space heaters and what should be considered before using one. There are many safety tips and cost considerations.

The first and main thing to consider is safety. The U.S. Consumer Product Safety Commission estimates that more than 25,000 residential fires every year are associated with the use of space heaters.

When buying or using a space heater, there are safety guidelines to follow:

- Make Sure heater has an Underwriters Lab (UL) label
- Only use a heater with an emergency tip-over shut off switch
- Do not use an extension cord
- Do not use a heater too large (watts), as it will overload home circuitry
- Only use one with a built-in thermostat
- Do not use when asleep or not present
- Make sure there is ample room between heater and combustible or flammable materials (Draperies, blankets, books, paint cans, etc.)
- Do not use where children may contact heater to minimize burn risks

Space heaters are intended for “spot” or “zone” heating, not as the main heat source. When used in this improper way, they can get very expensive to operate. It doesn't matter if it is a \$40, 1500-watt metal heater, or a \$400, 1500-watt heater in a decorative wood box. A watt is a watt. It is a common misconception that running a smaller 1500-watt 120-volt space heater, will save you money verses another electrical heating system (cove heat, baseboard, electric furnace, etc.)

West Central Electric (WCE) has an average cost of 12 cents per kilowatt hour (kWh). For permanently installed 240-volt heating systems, WCE offers a discount of 3.8 cents per kWh, for an average cost of 8.2 cents per kWh. When you run a space heater you can NOT receive the discounted rate. Here is the formula to figure cost of operation:

$$\text{Watts} \times \text{Hours of Use} \div 1000 \times \text{cost per kilowatt hour} =$$
  
Cost of Operation per Day

This means that a 1500-watt heater that runs for 12 hours a day at a rate of 12 cents would cost \$2.16 per day (1500 x 12 ÷ 1000 x .12). A 9' 1500-watt cove heater that runs 12 hours a day would only be \$1.47 per day, if it were a part of West Central's electric heat program. This saves roughly 30% more than the space heater! With this being said, it would cost roughly \$515 to use four, 1500-watt heaters, all day, for an entire month! This is in addition to the regular usage as well.

In review, space heater safety is the most important aspect to consider, so please follow the safety guidelines listed above and always use “common sense”. Electricity is a very efficient form of heating, but only if used for the intended purpose. West Central Electric recommends some form of 240-volt, permanently installed heating.

For more information on our electric heat program contact West Central Electric at 669-8100.



## COOPERATIVE CONNECTIONS

### WEST CENTRAL ELECTRIC

(USPS No. 018-988)

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Design assistance by SDREA



## Attention High School Juniors Win a Trip to Washington, D.C.

West Central Electric will once again sponsor high school juniors on an all-expense-paid trip to Washington, D.C. Each June, over 1,800 high school juniors and seniors travel to Washington, D.C., to participate in the Rural Electric Youth Tour. During the week, they learn about Washington, D.C., government, cooperative philosophy, and rural electrification. The students are selected and sponsored by their local rural electric cooperatives. The South Dakota Rural Electric Association (SDREA) coordinates arrangements for the South Dakota students.

Some of the sites that toured are the Lincoln Memorial, National Cathedral, The White House, Air and Space Museum, Washington Monument, U.S. Capitol, Ford's Theatre, The Kennedy Center, the Metro, Arlington National Cemetery, Mount Vernon, Tomb of the Unknown Soldier, The Smithsonian, Iwo Jima Statue, National Archives, U.S. Supreme Court, and the Vietnam Veterans Memorial. Students will participate in a breakfast briefing with the South Dakota Congressional Delegation.

#### Who is Eligible?

All area high school juniors whose parents are members of West Central Electric.

#### What Does It Cost?

West Central Electric, along with the other local electric cooperatives that

participate in the weeklong event, funds the tour. The funding for the tour provides for each participant's transportation, room and board, entertainment, and sightseeing events. Students are required to provide their spending money (snacks and souvenirs).

#### When is it Held?

The weeklong trip will be held June 15-21, 2025. Participants will meet for an orientation meeting on Sunday, June 15, in Brandon. Then, the group will fly to D.C. on Monday, June 16, and return to South Dakota on Saturday, June 21. A commercial bus will be used for transportation while in D.C.

#### How do I Qualify?

Each Entrant must submit an essay, not to exceed 500 words, on the following topic: "If chosen as a youth tour delegate, you will be traveling to Washington, D.C. to experience and learn about America's rich history. What moment in American history do you wish you had been a part of, and what would you have contributed?" All essays must be typed and include a cover sheet that states the title of the essay, the entrant's name and address, name of parent or guardian, and the name of your school.

Information may be picked up from your local school guidance counselor, at www.wce.coop, or from West Central Electric Cooperative, 204 Main Street, Murdo SD 57559. West Central Electric must receive all essays on or before Feb. 21, 2025.

# 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:**

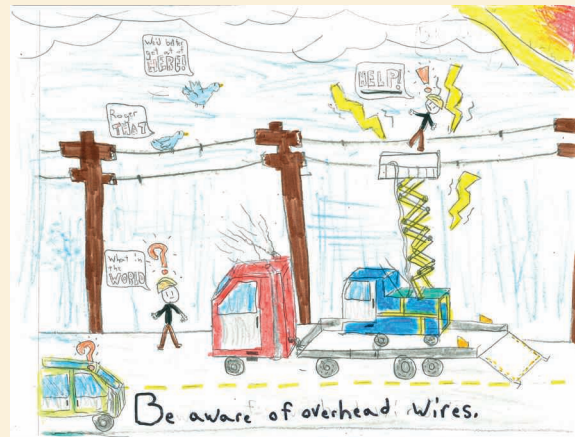
- Institute a "no smoking" policy in the house
- Check all cords and replace any that are frayed or have bare wires
- Switch to flameless candles
- Keep matches and lighters high and out of children's reach in a locked cabinet

### 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.

# Fireplace Efficiency: Maximize Warmth and Minimize Waste



**Miranda Boutelle**  
Efficiency Services  
Group

**Q:** I heard fireplaces can make your home colder. How do I keep my home comfortable while enjoying cozy fires?

**A:** When I was a little girl growing up in North Carolina, I remember my dad telling me that some nights were too cold to have a fire. That always seemed crazy to me, but like many other things he said, he was right.

A heat pump heated our home. We had an open fireplace that was more suited for ambiance than creating heat. When you have a fire, warm air rises and draws the smoke out through the chimney. This also draws the warm air out of the house. This invisible force is called the stack effect.

The impact is exacerbated in drafty homes. When the warm air escapes through the chimney, it is replaced by cool air leaking in through gaps and cracks in the home. The greater the difference between the indoor and outdoor temperatures, the greater the stack effect, hence Dad's rule of no fires on the coldest nights.

Wood fireplaces are not an efficient option to heat your home. Most of the heat goes out of the chimney. If you enjoy the comforting ambiance and curling up in front of the fireplace during the colder months, here are some tips to efficiently operate a fireplace in your home.

Because it is out of sight, it can be easy to forget to close the chimney damper. The damper should be open when you have a fire going or when any hot ashes are in the fireplace to ensure smoke and carbon monoxide don't come into your home. Once the fire and all ashes are fully extinguished, close the damper. Leaving the damper open allows warm air to escape, wasting energy. It's like leaving a window open when your heating system is turned on in the winter.

If your damper doesn't close properly or your chimney doesn't have one, purchase a product

designed for the task. There are a variety of chimney plug sizes and styles available, including inflatable options designed to fit snugly in place. While you are at the hardware store, pick up some caulking and weatherstripping to seal air leaks around windows, doors and pipes along exterior walls.

Fireplaces with gas logs are required to be installed with a mechanism that always keeps the damper open. This safety feature allows gases from the pilot light to escape. Glass doors can reduce the impact of air leakage in the winter and summer months. Consider installing glass doors on open fireplaces and keep them closed to minimize drafts.

Sealed combustion gas fireplaces are fully enclosed systems that draw the air needed for combustion from the outside. When properly installed, you get the benefit of the warmth of the fire without the worry of heat loss from drafts. If you have gas logs and enjoy the ease of a gas fireplace, consider upgrading to a sealed combustion unit.

Turning the pilot light off in the summer can reduce wasted gas. If you plan to turn the pilot light off, follow the instructions in the owner's manual to avoid any potential safety issues.

Woodstoves and pellet stoves are additional options that provide more heat than wood or gas fireplaces. Federal tax credits are available for high-efficiency biomass stoves. A credit of 30% of the project cost—including the cost of installation up to a maximum of \$2,000—is available for products purchased and installed between Jan. 1, 2023, and Dec. 31, 2032. The unit must have a thermal efficiency rating of 75% or more. Visit [www.energystar.gov](http://www.energystar.gov) for more information.

If you have a woodstove, fireplace or any fuel-burning appliance in your home, be sure to install and maintain smoke and carbon monoxide detectors. Carbon monoxide is an odorless, colorless gas that can be harmful or even deadly if not detected.

Use my dad's sage advice and these tips to keep your home warm while gathering your loved ones around a glowing fire during the winter season.



# When the Lights Turned On

## Lyle Gehm Remembers the Days Before Power

**Jacob Boyko**

[jacob.boyko@sdrea.coop](mailto:jacob.boyko@sdrea.coop)

For many rural farmers in the 1940s, time seemed to stand still.

The technological advancements born from electrification weren't easily accessible for anyone living off of the electric grid. Kingsbury County-native Lyle Gehm's family was no exception.

The Gehm family's farm seemed to share more similarities with Laura Ingalls' nearby 1880s homestead than it did with the houses just up the road in De Smet.

"You didn't want to get too far away from the stove in the wintertime," Gehm said of freezing nights inside the home. "The stove sat in the middle of the house and bedrooms were scattered around. At night, you'd change the covers around on the bed every so often because we'd lay there and our breath would frost on the covers."

Like other farm families before electrification, the Gehms found creative solutions for everyday challenges. Iron bed warmers helped make getting into a cold bed a little more bearable, but the coldest nights were spent huddling by the stove. Butter and cream were stored in the cistern to stay cool in the summer. Windmills assisted some of the more laborious tasks. The house had several small lights, but they were powered by a battery in the basement.

"I remember mom would run her Maytag washing machine with a gas motor, and we had to stick a pipe out the back of the house for the exhaust," Gehm recalled. "And I remember seeing dad standing with the tire pump, filling a tire."

Gehm says at the time, he never really considered how electricity could change how he lived and worked. So far, his only experience with power was when the family would make the trip into town to shop.

Even Gehm's country school was without electricity; Students squinted down at their workbooks on dreary, cloudy days, while in the wintertime, they took turns standing next to the stove.

The family's way of life drastically changed in 1948 when, after several long years of hard work, crews from Kingsbury



Electric Cooperative finally reached the farm south of De Smet as they worked to put the prairie on the grid.

"The folks told us, 'they're working this way and we're gonna have juice,'" he recalled. "We were happy. It was a great experience getting electricity and seeing all it could do for you."

For 13-year-old Gehm, that meant chores were a little simpler, the lights were a bit brighter and the house was much, much warmer.

"For me as a kid, being warm during the wintertime was a big, big change," Gehm said. "After we got power, dad put in a furnace [with a fan] so we got heat in every room. That made a world of difference, and it changed our lives a lot."

Kingsbury Electric crews didn't look much like they do today, Gehm pointed out. On a small budget with limited manpower, the work crew that arrived on Gehm's farm in 1948 was a rag-tag group of guys working with rudimentary equipment. But they didn't let that stop them from seeing to it that Kingsbury County was electrified.

"The equipment that they'd use to put poles in – it wasn't painted white like it is today," Gehm recalled. "It looked like a bunch of stuff the blacksmith shop made. It probably took those guys an hour to put one pole in. Getting electricity was hard work for those guys."

It was Gehm's deep appreciation to the workers' commitment that led him to run for a seat on the co-op's board of directors in 1977, where he served 12 years.

"It's probably one of the best things that ever happened to peoples' lives, getting electricity," he said. "We were able to do things faster, better, cheaper. Once we had electricity, we didn't want to get rid of it."



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

# BUILDING COMMUNITIES

## REED Fund Helps Support Local Growth

**Jacob Boyko**

[jacob.boyko@sdrea.coop](mailto: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."

ONLINE | UNRESERVED

# WEST CENTRAL ELECTRIC COOP

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STARTING AT 9:00 AM<sup>CT</sup>

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# Co-op History: What Happened 30 Years Ago

Published by  
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## High Prairie Lights

Volume 33, No. 2

MURDO, SD 57559

February, 1995

### Storm Devastates West Central Electric System

"I have never seen such wide spread damage in the 34 years that I have worked for the cooperative," stated Norman Payne, West Central Foreman in Philip. "There have been storms where the damage was concentrated in one area but not such a large area. I hope I don't see that type of damage again."

This was the consensus of the linemen after the storm which began on January 14, 1995. Heavy fog along with freezing temperatures caused the ice to build on the power lines. The fog did not lift until Tuesday January 17. As the picture shows the circumference of the ice on the wires on Thursday, January 19 was 1 1/2 inches.

The outage calls began coming into Basin Dispatch on Saturday night the 14th of January. When the crews began working the thought of an extreme storm didn't seem possible. On Monday, one employee entered a members tap to patrol the line. "When I started to patrol the line there were 13 poles broken on the way into his home and on the way out there were 18." A total of 34 poles were lost on this account.

When the reports received in the headquarters office in Murdo got worse the need to call for additional help went into the South Dakota Rural Electric Headquarters in Pierre. A total of 23 additional personnel were called into the Cooperative's territory to aid in regaining power to the members without electricity. In addition to the manpower, 4 digger trucks along with 6 service trucks were brought in. "When the cooperative is in need of additional help due to the severity of a storm such as this, it is nice knowing that you can depend on the fellow cooperatives from within the state to lend aid if called upon," stated Manager Steve Reed. "This is a true showing of the Cooperative spirit."

One of the major losses for the Cooperative was the loss of a 350' radio tower north of Murdo. The White Clay Butte tower is owned by the Cooperative and is used for communications along with Supervisory Control And Data

Acquisition (SCADA). SCADA allows the operation of switches from the Murdo office on several loop feeds. With the loss of the communication tower and SCADA tower a call was placed to Rushmore Electric, in Rapid City SD, to aid in a temporary installation for SCADA equipment.

For communications, the Cooperative operates with four radio channels, one near Reliance, one near Philip, one on Cherry Creek, along with the Murdo tower. When the Murdo tower was lost, a call was made to Western Communication in Pierre. The radio technicians arrived and a temporary tower was erected. During the time of loss of the Murdo tower the remaining 3 towers were used for communication purposes. With a temporary tower at the Murdo site coverage is limited. Plans are to replace the tower in the very near future.

The hardest hit area of the Cooperative was north of Vivian. One consumer member was without electrical energy for 7 days. The total number of broken poles is not known yet at this time, but figures are going to be over 450 poles. On the power line running north

from Vivian to the Lyman/St Stanley County line there were approximately 150 poles broken. In some areas of the system you could drive for two to three miles and not find one pole standing. The direction that the broken poles were lying also varied greatly. You may have two lying to the east with the next two lying to the west. Most times the direction that the poles are lying after they have broken is the same. Along with the broken poles numerous wire breaks were experienced. West Central normally goes into the icing season, which is generally March and April, with a supply of replacement poles. When the storm hit, the Cooperative was very fortunate to have a stock pile of poles on hand, along with 2 additional orders of poles on the road.

West Central Electric's Board of Directors and Employee's would like to thank everyone who was very patient during this storm. Words cannot explain some of the damage experienced by the Cooperative. Many of the members went beyond the call of duty to aid in restoring power to their neighbors. We all would like to say THANK YOU.



WCEC downed tower laying on equipment building, used for communications between crews and for scada switching.





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**

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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

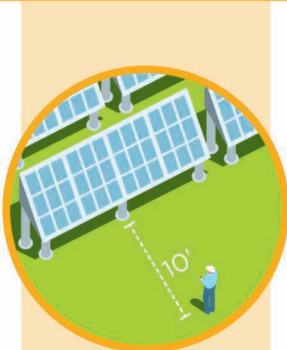
When considering the addition of DERs such as solar panels or an on-site wind turbine, Pierson encouraged members to contact their local electric cooperative to ensure the system is properly sized and safely connected.

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

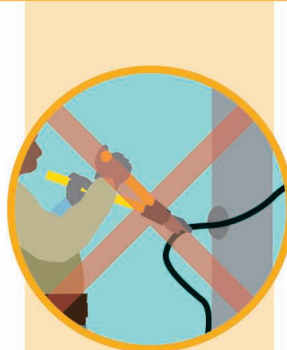
Like any other source of electricity, solar panels can pose potential hazards. Keep these safety tips in mind when you’re near solar panels.



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*



## REGISTER TO WIN!

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Your Phone Number: \_\_\_\_\_

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](http://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](http://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](http://www.junkinmarketdays.com)

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