

# Cooperative Connections

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as extreme winter  
weather brings up  
concerns over power  
supply and demand**



## Members Can Expect Stable Bills Despite February Cold

# A Co-op System You Can Count On



Char Hager

info@northernelectric.coop

**Northern Electric members can expect to pay the same rate during and after the energy emergency as they paid before because we have long-term resources to serve our load.**

Sub-zero weather in the middle of February is nothing new to South Dakota. But the frigid weather which stretched across the entire central portion of the United States in the middle of February was unusual and brought an unprecedented chain of events to our service territory.

The energy emergency that was declared by the Southwest Power Pool (SPP) on February 14 was caused by extreme cold, high electric demand, and low supply across 17 states. Unfortunately, that combination of conditions led to outages on three substations within the Northern Electric service territory on February 16. We would like to thank our members for their patience during those outages and for conserving power during the energy emergency to help protect the entire grid against longer and more severe outages.

Our experiences in February demonstrated how critical a stable, reliable, and affordable power supply is to our lives. By now, we have all probably heard the news out of Texas of residents getting monthly residential electric bills of more than \$10,000 because of the February energy emergency. Those astonishing costs are caused by utilities being fully exposed to a volatile energy market and passing the costs along to their customers.

These stories coming out of Texas bring the question: Can that happen to us here?

The short answer is no, and here is the reason:

As a member-owner of our electric cooperative, you belong to a broad cooperative network which helps to prevent the wild swings in energy prices that we saw in other parts of the country where some utilities are fully exposed to the energy market. Those utilities simply buy electricity on the market and do not generate their own power.

The electricity that powers your home begins with Basin Electric Power Cooperative, which owns the power plants and generation facilities that supply our cooperative with a diverse energy mix. East River Electric Power Cooperative is the transmission cooperative in our network that owns and operates more than 3,000 miles of transmission lines and 250 substations across South Dakota and Minnesota. Through that infrastructure, East River safely and reliably delivers wholesale power from Basin Electric and hydro-power from the Western Area Power Administration to Northern Electric Cooperative.

East River and Basin Electric are members of the Southwest Power Pool (SPP). Basin Electric owns generation and transmission resources, and East River owns transmission and substation infrastructure in SPP which allows our cooperative network to sell power on the market when prices are high and buy power on the market when prices are low. Selling excess generation is a hedge against wild swings in the market. It helps Basin Electric, East River, and Northern Electric provide you with stable electric rates all year.

Northern Electric works together with East River and Basin Electric to share risk and avoid the fluctuations in the energy market like we saw in Texas. For-profit energy brokers can be exposed to fluctuations in the markets and consumers pay the price. This is why it is important for a co-op to be part of an organization that owns its own power plants and transmission facilities which can help shield you, our member-owners, against having to pay high market prices.

Northern Electric members can expect to pay the same rate during and after the energy emergency as they paid before because we have long-term resources to serve our load. It is a cooperative system that has provided safe, reliable, and affordable power to our members for decades. It is the power of being a member of our cooperative network.



(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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Northern Electric Cooperative’s regular board meeting was held February 25, 2021, via video conference with all directors present. As the first order of business, the board approved the January 21, 2021, minutes and expenditures. The board then reviewed and accepted monthly reports by management.

East River Director Mark Sumption reported on actions taken by the East River Board at its February 4, 2021, meeting. General Manager Char Hager reported on the East River MAC meeting which was held February 3, 2021. South Dakota Rural Electric Association Director Nolan Wipf reported that the next SDREA board meeting will be held March 25-26, 2021. Director Kirk Schaunaman, General Manager Char Hager, Manager of Member Services Russ Ulmer and Communications Director Ben Dunsmoor reported on the East River Energize Forum, which was held February 3-4, 2021, in Sioux Falls. Directors Nolan Wipf, Donna Sharp, Todd Hettich, General Manager Char Hager, Manager of Information Technology Derek Gorecki and Communications Director Ben Dunsmoor reported on the 2021 NRECA PowerXchange/TechAdvantage Experience events held February 23-25, via virtual event. Director Ronald Kaaz reported on the South Dakota Wind Energy Association meeting held February 1, 2021. General Manager Char Hager and Manager of Member Services Russ Ulmer reported on the Basin Electric Member Manager Conference held February 17-18, 2021, via virtual format.

**Manager’s Report**

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

- Informed directors of the 2021 NRECA PowerXchange and Techadvantage virtual events March 2-4.

- Update on 2021 NRECA Credentialed Cooperative Director (CCD) virtual courses March 9-11.
- Provided information on the 2021 NISC virtual annual meeting on March 11.
- Informed directors of the virtual 2021 NRECA Directors Conference March 23-24.
- Provided information on the online 2021 NRECA Legislative Conference April 19-23.
- Update on Moccasin Creek substation

**Board Report**

The board considered and/or acted upon the following:

1. Approved the date and time of the next regular board meeting for 8:30 A.M. on Thursday, March 18, 2021.
2. Approved payment of legal fees for Harvey Oliver in the amount of \$2,154.50.
3. Approved Work Order Inventory #21-01 for \$903,537.15 to be submitted to Rural Utilities Service (RUS) for reimbursement from loan funds for electric plant construction already completed.
4. Authorized board attendance to the 2021 CFC Forum, June 14-16, in San Antonio, TX.
5. Approved donation of \$2,500.00 for Dakota Events Complex, the new State Fair multi-purpose livestock and equestrian complex.
6. Held Executive Session.

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

Financial Report		January 2021	January 2020
kWh Sales		31,303,063 kWh	33,455,279 kWh
Electric Revenues		\$2,647,552	\$2,751,937
Total Cost of Service		\$2,518,511	\$2,644,768
Operating Margins		\$129,041	\$107,169
Year To Date Margins		\$130,378	\$114,876
Residential Average Monthly Usage and Bill			
January 2021	2,993 kWh	\$261.49	.0874 per kWh
January 2020	3,743 kWh	\$305.58	.0816 per kWh
Wholesale power cost, taxes, interest, and depreciation accounted for 84.0% of NEC's total cost of service.			

# Home Improvements Don't Have to be Expensive

You don't have to replace your air conditioner with a high-efficiency system or make other major improvements to reduce energy consumption. There are low-cost efficiencies anyone can implement to help reduce energy bills.

- **Mind the thermostat.** You might be able to trim your energy bill by carefully managing the temperature in your home. Consider setting your thermostat to 78 degrees when you're running the air conditioner. If that's not cool enough, use fans to help circulate the air to help you feel cooler.
- **Go programmable.** If you don't always remember to adjust your thermostat manually, you could benefit from a programmable model. In the right situation and set correctly, programmable thermostats can save your household \$150 a year. Some models can be managed from your smartphone or other devices.
- **Stop air leaks.** Small gaps around windows, doors, wiring and plumbing penetrations can be major sources of energy loss. This problem can be alleviated with a little weatherstripping and caulk. A \$10 door draft stopper (also known as a "door snake") is a simple way to block gaps underneath exterior doors. Sealing air leaks around your home could shave up to one-fifth off your heating and cooling bills.
- **Manage your windows and window coverings.** Your windows may be letting heat out during the winter and letting heat in during the summer. Window coverings like medium or heavyweight curtains and thermal blinds can help. During the summer, keep window coverings closed to block the sun and keep it from heating conditioned indoor air. On cooler spring days, turn off your air conditioner, open the windows and enjoy the breeze - and lower electricity bills.
- **Look for energy wasters.** There are small steps you can take every day to reduce your energy use. Water heaters should be kept at the warm setting (120 degrees). Wash dishes and clothes on the most economical settings that will do the job, and always wash full loads. Use the microwave instead of the oven when possible. And unplug phone chargers, electronics and small appliances when not in use.

## A Note of Appreciation for the Service Co-ops Provide

By Mark Peacock, Dupree

Most of us wake up each day with an agenda and a schedule that ensures we do things in pretty much the same way from the moment we open our eyes to the moment we arrive at wherever it is we spend our day working.

But on those rare occasions when I walk through our warm home and turn on the bathroom light, which in our home has an overhead radiant heat lamp, and start the shower, which releases hot water from the water heater nestled in the basement, I sometimes take a brief pause in my routine.

I pause to feel the heat of the water wash over me...if only for a minute or so, to enjoy and appreciate what a wonderful experience having a hot shower in a well-warmed, well-lit bathroom in a very comfortable home represents. It means I live in a country and in a state and in a county that has invested in the infrastructure and made a commitment to allowing normal, everyday Americans the opportunity to enjoy such a treat in the middle of a South Dakota winter.

And I smile, because we may not get all we want in life, but we may, for a brief moment, feel all the warmth it takes to start off the day in a positive way. Thank you and your energy partners for making my day and the days of thousands of others begin just a little better, a little bit warmer, a little bit brighter, and a whole lot more optimistic.

## KIDS CORNER SAFETY POSTER



### Stay Indoors During a Storm

**Celeste Meyer, 6 years old**

Celeste is the daughter of Brice and Sarah Meyer. She is a resident of Trent and a member of Sioux Valley 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.



# Slushes, Punches, Lattes

## Fruit Slush

- |  |   |
|--|---|
| 1 6-oz. can orange juice concentrate       | 1/3 cup halved maraschino cherries with juice |
| 1 6-oz. can lemonade concentrate           | 2 firm bananas, sliced                        |
| 3 or 4 juice cans water                    | 2 10-oz. boxes frozen strawberries, thawed    |
| 2 20-oz. cans crushed pineapple with juice |   |

Stir all ingredients together and freeze in 9 x 13 inch pan or ice cream bucket. Remove from freezer a few minutes before serving. To serve, put scoop of slush in glass and fill glass with 7-Up or Squirt.

Mary Jessen, Holabird

## Banana Slush Punch

- |   |                                 |
|---|---------------------------------|
| 7-8 bananas                               | concentrate                     |
| 2 12-oz. cans of orange juice concentrate | 1 46-oz. can of pineapple juice |
| 1 12-oz. can of lemonade                  |                                 |

Blend bananas with all ingredients above. Bring to boil 6 cups water and 3 cups sugar. Cool. Combine banana mixture with sugar water. Freeze. At the time of serving, mixture should be slushy. Add two 2-liter bottles of Sprite or Fresca to the banana/water mixture and serve.

Julie Hummel, Hawarden, IA

## Seasonal Punch

- |                                |                              |
|--------------------------------|------------------------------|
| 12-oz. can frozen orange juice | 4 quarts water               |
| 12-oz. can Frozen Lemonade     | 3-3/4 cups sugar             |
| 4 pkgs. Koolade, any flavor    | 2 Liters 7-Up (or Diet 7-Up) |

Mix orange juice, lemonade, Koolade, water and sugar, store in fridge to keep cold. Also refrigerate the 2 liters of 7-Up. Prior to serving - pour in the 2 liter of 7-Up and gently stir to mix. You can use any color Koolade, maybe green for Easter, red for 4th of July, Labor Day and Christmas, and orange for Halloween. Refreshing punch goes well with meals or anytime of day.

Pam Conn, Sioux Falls

## Spiced Cocoa Mix

- |                               |                                   |
|-------------------------------|-----------------------------------|
| 1/4 cup cocoa                 | 1/2 cup nondairy powdered creamer |
| 1 cup powdered sugar          | 3/4 tsp. cinnamon                 |
| 2 cups nonfat dry milk powder | 1/2 tsp. nutmeg                   |

Sift powdered sugar and cocoa together. Add remaining ingredients. Mix well. For each serving, use 1/3 cup mix and 3/4 cup boiling water. Stir. May add a teaspoon of coffee crystals, a dollop of whipped cream, or a teaspoon of liquid flavored coffee creamer.

Elaine Rowett, Sturgis

## Creamy Hot Chocolate

- |                                     |                   |
|-------------------------------------|-------------------|
| 1/2 cup dry baking cocoa            | 7-1/2 cups water  |
| 14-oz. can sweetened condensed milk | 1-1/2 tsp vanilla |
| 1/8 tsp salt                        |                   |

Mix cocoa, milk, salt into a crock pot. Add water gradually, stirring into smooth. Cover and cook on high 2 hours, or low 4 hours. Stir in vanilla before serving.

Melissa Roerig, Sioux Falls

## Chocolate Latte

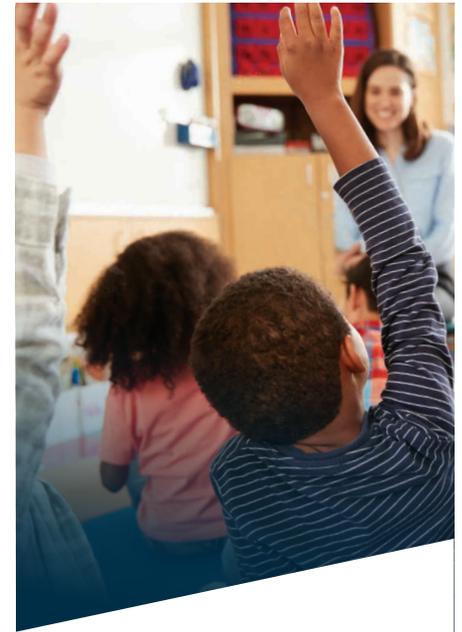
- |  |                        |
|--|------------------------|
| 1/2 cup hot brewed coffee or 2 shots espresso      | 2 teaspoons cocoa nibs |
| 1 Premier Protein 30g High Protein Chocolate Shake |                        |

In large 14-16-oz. mug, prepare espresso or coffee. Pour chocolate shake on top to combine. Top with cocoa nibs.

[www.premierprotein.com](http://www.premierprotein.com)

Please send your favorite casserole 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 2021. All entries must include your name, mailing address, telephone number and cooperative name.

# Lily Tobin Selected As Touchstone Energy Scholar of the Week



## LIGHTING THE WAY

*Educating and empowering the leaders of tomorrow.*

Today's youth are tomorrow's leaders. That's why Touchstone Energy® Cooperatives are lighting their way by teaching, mentoring and providing real-world experiences that help students better understand how the electric industry affects numerous aspects of daily life.

**RE-ENERGIZING THE NEXT GENERATION**



Aberdeen Central High School senior Lily Tobin (left) receives a \$250 check from Northern Electric Cooperative Board President Donna Sharp (right) for being named the Touchstone Energy Scholar of the Week.

Aberdeen Central High School senior Lily Tobin values her education and strives to do her best both inside and outside the classroom.

“I try to take advantage of every opportunity,” Tobin said.

Tobin knows not everyone has access to the educational opportunities she has, which is the reason she studies hard and gets involved with her school and community. Tobin was recognized for the hard work she puts into her education when she was named the Touchstone Energy Scholar of the Week on February 22. Tobin has a 4.23 grade point average at Aberdeen Central High School and is the student body president and the president of the student senate. The high school senior is also involved in Future Business Leaders of America (FBLA), National Honor Society, and a member of the North Dakota Quarter Horse Youth Association.

Tobin has taken several advanced placement (AP) and college-level courses during her time at Aberdeen Central. She estimates that she has already taken enough classes to satisfy half of her first year of college. She plans to attend Northern State University in the fall; however, she is undecided on her major. She is interested in photography, business, and clinical therapy.

Tobin believes students need to take advantage of all the educational opportunities that are available to them to be successful.

“Be involved,” Tobin said. “You meet so many interesting people and discover so many new opportunities.”

Tobin received \$250 from Northern Electric Cooperative for being named the Touchstone Energy Scholar of the Week. She was also featured on Dakota News Now on February 22 for her accomplishments.

# McNeil and Erdmann Awarded Co-op Scholarships

Two area high school students have been awarded two co-op-sponsored scholarships as part of the 2021 scholarship program. Hitchcock-Tulare senior Cullen McNeil has been selected to receive a \$1,000 scholarship from Basin Electric Power Cooperative. Groton senior Tessa Erdmann will receive a \$500 scholarship from Northern Electric Cooperative.

McNeil is the student body president at Hitchcock-Tulare High School, has a 4.133 grade point average, and has been on the honor roll for all four years of high school. McNeil is also a letter winner in football, wrestling, track, cross country, and basketball.

“This scholarship will help me pay for my future education as I attend Black Hills State University next fall. I will be paying for whatever loans and scholarships don’t cover, so receiving this scholarship will help me a lot,” McNeil said.

McNeil plans to pursue a degree in outdoor education at BHSU next fall. He hopes to work for a guide service and take clients on outdoor excursions.

Erdmann plans to pursue a degree in agribusiness at South Dakota State University. The Groton High School senior has been heavily involved with her local 4-H and FFA chapters in the Groton area. In December, she was the winner of the Big Idea competition in the ‘Agriculture Innovation’ category for her business, ‘Erdmann Precision Field Analysis.’ Erdmann said the Northern Electric scholarship will help her pursue her future career.

“I look forward to a career in an ag-related field such as crop insurance, or ag business management,” Erdmann said. “I am focused on a role that allows me to proudly work alongside others within



Cullen McNeil was selected as the winner of the \$1,000 Basin Electric scholarship.



Tessa Erdmann was selected to receive the \$500 Northern Electric scholarship.

South Dakota agriculture and that allows me to influence others in a meaningful way.”

Both Erdmann and McNeil will receive their scholarships when they enroll in school in the fall.



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A peek inside the Southwest Power Pool control room shows system operators working to make sure power supply always matches demand across 14 states on the grid. Photo provided by SPP.

# AN ENERGY EMERGENCY

## Why Did February Outages Happen and Could They Happen Again?

**Billy Gibson**

billy.gibson@sdrea.coop

The national power grid has been hailed as one of the greatest and most complex engineering feats ever achieved. Every second of every day it works to keep electricity flowing freely to homes, schools, farms, hospitals and businesses in every region of the country.

But while it stands as one of mankind's most marvelous inventions, sometimes it's simply no match for Mother Nature.

This electric superhighway was put to the test in mid-February when a bone-chilling air mass swept through large swaths of the country and caused a spike in the demand for power. As the temperatures dropped, millions of Americans attempted to stave off the frigid air by reaching for electric blankets, plugging in space heaters and nudging their thermostats up a few notches. With so many people clamoring to stay warm, the sudden spike in demand for power caused the gatekeepers of the grid to reach their option of last resort: ordering temporary disruptions in service to maintain the delicate balance between demand and supply that's required to keep the network from completely melting down.

The result was several waves of controlled and coordinated rolling blackouts often spanning one hour and isolated incidents of up to three hours for some consumers. The service interruptions impacted nearly one-third of the nation. Industry officials explain that this response to skyrocketing demand was necessary to keep the grid from sustaining extensive damage and causing a repeat of the historic event that occurred in the summer of 2003. The Northeast Blackout extended across the eastern seaboard, through parts of the Midwest and into southern Canada and left approximately 50 million in the dark.

"Controlled outages are necessary to prevent widespread damage to the grid, which could cause a cascade of outages that could potentially be far more devastating," explained Barbara Sugg, CEO of the Southwest Power Pool (SPP). "There's no doubt this would have been a much more significant event if our individual customers and businesses and industries had not all pulled together to reduce the load."

### Air Traffic Controllers for the Grid

Sugg describes her organization as an "air traffic controller" for the grid. In fact, the SPP is what's known in the electric utility industry as a Regional Transmission Organization (RTO). It's one of the four quasi-government entities responsible for maintaining the critical balance between supply and demand along the nation's power grid. While RTOs don't create or generate power, they are charged under the Federal Energy Regulatory Commission (FERC) with the task of making sure the power produced by other utilities flows smoothly across the grid and gets to the places where consumers need it, when they need it.

SPP is the power transmission overseer for 14 states - including South Dakota - and more than 17 million people in the midsection of the U.S. from North Dakota to the Texas Panhandle. Electric co-ops in South Dakota are also part of the Western Area Power Administration (WAPA), a federal agency that markets power produced from hydroelectric dams in the Upper Midwest. It operates the larger bulk transmission facilities in 15 central and western states in its geographical footprint.

Most of the time the high-voltage transmission process operates without a hitch, and electric generation can be moved across the grid when there is high demand in one area and excess generation in another. But when foul weather comes into the picture grid operators focus on activating their emergency response plans. Those plans typically include communicating with generators to coordinate arrangements for assuring that an ample supply of power will be available to meet projected demand when the inclement weather strikes.

Lanny Nickell, operations manager for SPP, points out that while arrangements were in place to face the February cold snap, the winter blast turned out to be an unprecedented event for the organization. As the temperatures dropped, SPP initiated the process of contacting power generators and transmitters to warn that the looming storm may cause the system to be severely strained. Six days later, SPP officials went

through a series of three Energy Emergency Alert levels and eventually declared a Level 3 emergency, which required “controlled interruptions of service,” or rolling blackouts. It was the first time in the SPP’s 80 years that a Level 3 emergency was declared.

“Despite our plans, the severe weather coupled with a limited fuel supply hampered our ability to balance our supply with the demand from end-use consumers,” Nickell said. “So, first we had to go out and ask for a voluntary reduction in energy use. Then, we held off as long as we could to make the call to interrupt service in a controlled fashion, but it was necessary to prevent overloading the system and causing an even bigger problem and much longer outages.”

Nickell explained that without an affordable and viable means of storing high-voltage electricity for future use, power is created in one location and consumed in another location in real time. The balance must be maintained even though both supply and consumption change on a second-by-second basis.

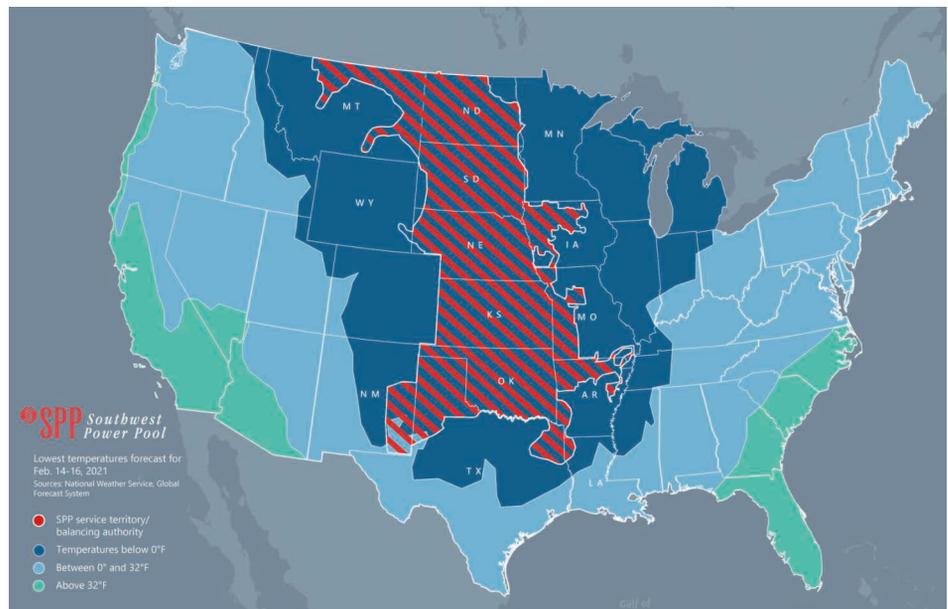
“Once we observe an imbalance, we have to react within seconds to reduce the demand,” Nickell said. “This is why it’s very difficult for us to announce well beforehand when these things will happen because they happen at the speed of light.”

### A Smorgasbord of Fuel Sources

Interruptions in service are more than minor inconveniences for many co-op members, especially when severe weather conditions are in play. The February storm and the ensuing service outages triggered wide-ranging discussions about the push toward renewable resources to generate electricity.

Supporters of fossil fuels point out that decades-long efforts to curb coal and natural gas played a part in restricting the kinds of available resources that could have prevented widespread outages. Coal has long been a reliable source of “baseload power” requirements, or the amount of power necessary to provide an adequate supply to meet basic needs without interruption. It’s utilized largely because it can be more easily controlled compared to intermittent sources. Advocates emphasize that wind turbines were frozen in place and solar panels were buried in snow and limited by scarce sunlight during this event.

Renewable fuel source proponents echoed SPP officials in noting that the February storm was an historic occurrence. They contend that renewable power promotes a cleaner environment, decreases energy reliance on other countries, adds jobs to the economy and that innovations in the emerging industry



could be effective in responding to any future storms. Presently, roughly 25 percent of South Dakota’s overall energy supply comes from wind turbines. For electric co-ops, that figure is closer to 20 percent. Proponents of wind also point to issues with natural gas delivery and the inability of some fossil fuel plants to produce electricity through the storm. A combination of high demand, lower-than-normal wind resources and natural gas delivery problems all met at the same time to contribute to the energy emergency.

As for those members of RTOs who receive the call to actually implement controlled outages - particularly transmission and distribution cooperatives - there are very few options available when demand begins to significantly outpace supply on the grid.

Chris Studer is chief member and public relations officer for East River Electric, a co-op that provides transmission and substation services for distribution entities in South Dakota and Minnesota. He said the cooperative’s hands are essentially tied when SPP reaches the point of calling for rolling outages.

“The utilities involved in the SPP are required to carry a surplus of generation resources throughout the year over and above their historic peak demand so they are prepared for extreme circumstances. However, when wind resources and other generation are constrained, there is a limited amount of other generation available to serve the region’s recent record demand for electricity,” he said.

Distribution co-ops find they have even less control when RTOs and power marketing agencies restrict the flow of power, but they still find ways to mitigate the situation. Officials at West River Electric based in Wall, implemented

**“Once we observe an imbalance, we have to react within seconds to reduce the demand. This is why it’s very difficult for us to announce well beforehand when these things will happen because they happen at the speed of light.”**

- Lanny Nickell, SPP

the co-op’s load management program after receiving the request for reduced demand hoping it would be enough. But it was not, and some of the co-op’s members were subject to a 50-minute unplanned blackout. CEO Dick Johnson said he had never experienced a similar event in his 27 years in the industry. He added that he hopes the emergency situation prompts discussions centered around policy proposals that will prevent future emergencies.

“I think we should have a national conversation that includes large new baseload generation, whether that be hydroelectric, nuclear or carbon capture on coal plants. We must also have a conversation about building necessary electric and gas transmission infrastructure to allow us to get electricity and gas to the places where it is needed when times like this happen. If not, I am afraid it will happen again in the future, only more frequently.”

# Seasonal Rate Change For Submetered Heating and Cooling Begins April 1

Northern Electric Cooperative is changing its rates for members who have their heating and cooling system on a separate meter. The rates will be adjusted on a seasonal basis starting on April 1, 2021.

Northern Electric members who have a second meter – also known as a submeter – currently pay 4.7 cents per kilowatt hour (kWh) for the energy used exclusively by their heat pump or heating and cooling system. The new rate structure will adjust ‘winter’ rates and ‘summer’ rates for all members who have a submeter. The rate adjustments are being implemented following a cost-of-service study that was recently completed by a third-party independent engineering firm.

The new ‘winter’ rate will remain at 4.7 cents for all members with submetered heating and cooling from November 1 – March 31. The new ‘summer’ rate will be billed at a higher level during the months of April through October.

## Electric Heat and Load-Controlled Air Conditioning

The ‘summer’ rate will be 6.6 cents per kWh from April 1 – October 31 for members who participate in the air conditioning load control program. Those members voluntarily allow Northern Electric to cycle their air conditioning unit on and off at 15-minute intervals when the grid is experiencing high demand during the summer. Members with a load control unit installed on their air conditioning system fall under rate classes BR10, BR11, and BR17. Members can verify their rate class by looking under the ‘rate’ column which is located in the middle of their billing statement near their account number and location number.

## Electric Heat and Uncontrolled Air Conditioning

The new ‘summer’ rate for members who have submetered electric heat but do not participate in the air conditioning load control program will be 9.3 cents per kWh. This is the existing normal kWh rate for all other energy used in the average home. The ‘summer’ months have been adjusted to include April through October. These members will still get the benefit of the 4.7 cents per kWh heat rate from November 1 – March 31 but any heating and cooling costs recorded on the submeter during the rest of the year will be billed at the normal 9.3 cents per kWh level. The co-op rate class for these members is BR12.

## Demand Rate with Electric Heat and Air Conditioning

Members who are billed both a monthly demand charge and an energy charge will also see a change to their seasonal submetered heating and cooling rate. Members who fall into this class will pay the current 4.7 cents per kWh heat rate from November 1 – March 31 and then pay the normal 5.7 cents per kWh energy charge the rest of the year. Members in this rate class already pay 5.7 cents per kWh for all other energy use on their main meter. This change still gives members the benefit of the heat rate in the winter but their submeter will now be billed at the same level as the rest of their energy use from April 1 – October 31. The co-op will still subtract any electric heat use during the months of April and October from a member’s demand charge. The co-op rate class for these members is BR18.

If you have any questions about these changes please call the Northern Electric office at 605-225-0310.

## New Seasonal Rate Adjustments

New seasonal rate changes will be implemented for all Northern Electric members with submetered heating and cooling beginning on April 1, 2021.

Members will still pay 4.7 cents per kilowatt-hour (kWh) for electric heat during the winter months, however, adjustments are being made to the rates for the ‘summer’ months.

### Electric Heat and Load-Controlled Air Conditioning (Rate Class BR10, BR11, BR17)

#### ■ ‘Summer’ Submeter Rate

- April 1 - October 31 - .066 cents per kWh

#### ■ ‘Winter’ Submeter Rate

- November 1 - March 31 - .047 cents per kWh

### Electric Heat and Uncontrolled Air Conditioning (Rate Class BR12)

#### ■ ‘Summer’ Submeter Rate

- April 1 - October 31 - .093 cents per kWh

#### ■ ‘Winter’ Submeter Rate

- November 1 - March 31 - .047 cents per kWh

### Demand Rate with Electric Heat (Rate Class BR18)

#### ■ ‘Summer’ Submeter Rate

- April 1 - October 31 - .057 cents per kWh

#### ■ ‘Winter’ Submeter Rate

- November 1 - March 31 - .047 cents per kWh

\*\*\*Electric heat use will still be subtracted from the demand charge for rate class BR18 during the months of April and October.

# April 12 Is Lineworker Appreciation Day

The National Rural Electric Cooperative Association (NRECA) recognizes the second Monday of April every year as National Lineworker Appreciation Day. This year, National Lineworker Appreciation Day is on Monday, April 12.

Lineworkers play a critical role in ensuring members at the end of the line have safe and reliable electricity every day. They also brave inclement conditions to restore power after winter storms or severe weather have damaged infrastructure in the cooperative's service territory. Northern Electric Cooperative employs 16 lineworkers and would like to thank them for their continued service and dedication to the co-op and its members.



**Jerry Weber**  
Operations  
Manager  
38 Years



**Terry Lundberg**  
Line Foreman  
40 Years



**Kenneth Swanson**  
Redfield Line  
Foreman  
34 Years



**Martin Newman**  
Line Foreman  
29 Years



**Tyler Marken**  
Journeyman  
Lineman  
31 Years



**Shawn Evans**  
Journeyman  
Lineman  
21 Years



**Ben Peterson**  
Journeyman  
Lineman  
15 Years



**Chris Piehl**  
Journeyman  
Lineman  
11 Years



**Lance Dennert**  
Journeyman  
Lineman  
9 Years



**Steve Beck**  
Journeyman  
Lineman  
8 Years



**Sean Schwartz**  
Journeyman  
Lineman  
6 Years



**Brian Hansen**  
Journeyman  
Lineman  
5 Years



**Kyle Miller**  
Apprentice  
Lineman  
3 Years



**Nick Dean**  
Apprentice  
Lineman  
2 Years



**Collin Gades**  
Apprentice  
Lineman  
2 Years



**William Torrence**  
Apprentice  
Lineman  
1 Year



**Lineworker Appreciation Day**  
On April 12, remember to  
#ThankALineworker.



This electric vehicle owned by Sioux Valley Energy is used as a fleet vehicle for the cooperative but also serves to educate members about EV technology and performance.

## Electric Vehicles in SD

### Electric Co-ops Working to Build Fast Charging Stations

#### Billy Gibson

[billy.gibson@sdrea.coop](mailto:billy.gibson@sdrea.coop)

General Motors turned a lot of heads earlier this year when the auto industry titan announced its intention to phase out all gas and diesel engines by 2035. GM made sure its message was loud and clear by running ads during the Super Bowl.

Not to be outdone, Ford CEO Jim Farley soon followed suit by announcing the company's plans to invest \$29 billion in the development of autonomous vehicles (AVs) and electric vehicles (EVs) by 2025. And against a backdrop of companies like Tesla and Workhorse seeing triple-digit stock gains, President Joe Biden rolled out plans to turn the entire 650,000-vehicle federal government fleet to all electric.

With a solid upward trend in support of E-mobility and electric vehicles sweeping the globe, electric cooperatives throughout the region are doing their part to provide the power those vehicles will need to carry their passengers from Point A to Point B.

According to Ben Pierson, manager of beneficial electrification at Sioux Valley

Energy, the state's electric cooperatives are facing a chicken-and-egg proposition in deciding whether - and how much - to invest in an industry that's still in its early stages. Pierson has been involved in rallying support for the formation of a DC fast charging network that will make it easy for EV drivers to navigate across and throughout the state. The stations will be placed 75-100 miles apart but will have to be constructed before the demand is fully materialized. He has received interest from groups representing tourism, economic development, transportation and state government.

Pierson has been working with municipal and investor-owned utilities to build out the infrastructure, with an emphasis on making sure there are enough charging stations along I-90 to get travelers from one side of the state to the other with confidence. Stations will also be installed along the I-29 corridor in Brookings and Watertown in Phase 1, with plans to include a station in Vermillion as part of Phase 2. Pierson points out that "range anxiety" is a major obstacle for consumers and early adopters who are considering the purchase of an EV. Presently, EVs

make up less than 1 percent of the total U.S. vehicle fleet while 10 percent of the vehicles sold in Europe last December were pure electric.

A recent study by the Energy Policy Institute at the University of Chicago indicated that EVs are driven about half the distance - an average of 5,300 miles a year - compared to conventional internal combustion engine vehicles. One conclusion taken from the study is that EV owners see those vehicles as complements to their transportation needs instead of a replacement for their conventional cars.

"When industry giants like Ford and GM are making a commitment to electric vehicles, that's a huge indicator that EVs are more than just a passing fad and are something we should invest in," Pierson said. "But like any industry transformation, it can be a frightening proposition for people to experience a paradigm shift like this. With our members in mind, we're committed to staying out ahead of the wave and doing what we can to make sure the power delivery infrastructure is in place when the other pieces and parts of the total picture emerge."

# DC Fast Charging Infrastructure Plan



Utilities are in the process of conducting siting plans and ordering equipment needed to install the network of charging stations. In the state Legislature, lawmakers favored a \$50 annual fee on electric vehicles which don't contribute the gas tax revenue that goes toward construction and maintenance of road and highway infrastructure. Presently, there are roughly 400 EVs on South Dakota roadways.

"We're just tremendously excited to be a part of this project," Pierson said. "Our goal is to help our members in any way we can and we want to be there on the ground floor as the industry continues to expand."

Collaborating with Pierson is Robert Raker, manager of public relations at West River Electric. They are working with utilities throughout South Dakota

and Minnesota to build out the DC fast charging infrastructure. The plan is to initially focus on major highways and interstates and then branch out from there.

The way Raker sees it, getting involved in constructing a charging station network is a sound investment in the economic growth and development of cooperative communities. He said cooperatives are leading the way by purchasing EVs of their own as demonstration models for their members and also as part of the cooperative's fleet. West River Electric's Nissan Leaf is used for business purposes throughout the day and is quite the attraction at community events on the weekends. He noted that co-ops have a long history of innovation and progress.

"Many co-ops are formulating plans to

migrate their light-duty service vehicles to EV," Raker said. "Co-ops have always been at the tip of the innovation spear. We were the first to bring power to rural South Dakota and we made sure people had access to power in order to run their farms, homes and appliances...things that would make their lives easier while allowing their communities to prosper."

Part of West River's overall EV strategy, Raker said, is to address the issue of whether the escalating number of EVs will increase stress on the electric power grid.

"EVs make the perfect load for co-ops," he said. "They can be charged during off-peak hours so they are not detrimental to the grid. Like it or not, EVs are coming. We can't change the wind so we'll have to adjust our sails."

## Visit Co-op Connections Plus

Take a moment to visit our new online companion to *Cooperative Connections*. Co-op Connections Plus is a YouTube channel that features a more in-depth treatment of stories appearing in this publication as well as other subjects of interest to rural South Dakotans.

Search for "Co-op Connections Plus" and you'll find videos on human trafficking, support programs for veterans, grain bin safety, the Co-ops Vote campaign and more. Be sure to "like" and "subscribe."



# Bright Futures Virtual Career Fair Showcases Rural, Agri-Business Job Opportunities

Shayla Ebsen

Grow a rewarding and challenging career right here at home. That was the overarching theme of the Bright Futures virtual career fair that was hosted on Feb. 24 by the region's Touchstone Energy Cooperatives. South Dakota and western Minnesota high school and post-secondary students, educational advisers, teachers, and parents from across the region attended the free virtual career event that highlighted rural-based careers and explored industries like finance, precision ag and agricultural trades.

"Our cooperative family is committed to enhancing the communities we serve," said Jennifer Gross, education and outreach coordinator at East River Electric Power Cooperative, one of the Touchstone Energy Cooperatives that hosted the event.

**Attendees were able to connect with each other, respond to survey questions, post their own comments and photos, and participate in real-time Q&A sessions with presenters.**

"We hosted this unique event to inspire our youth with local stories emphasizing job opportunities, career development, personal fulfillment and financial advancement. There are hidden career gems throughout South Dakota and Minnesota. This event shined a light on all the ways our rural areas offer a bright future!"

The five-hour virtual event featured a blend of keynote speakers and breakout



sessions. Attendees were able to connect with each other, respond to survey questions, post their own comments and photos, and participate in real-time Q&A sessions with presenters.

South Dakota Representative Dusty Johnson opened the event with a timely discussion about politics, agriculture and our region's future. Johnson also discussed how decisions made in Washington, D.C., have a big impact on what happens in our region and why it's important for citizens to remain engaged. A few of the many companies featured during the career fair included Farm Credit Services of America, C&B Operations, Raven Industries, Midwest Vet Services, Salem Vet Clinic and Pipestone System. A panel discussion led by East River Electric Business Development Director Mike Jaspers explored opportunities that are on the horizon for the next generation of farmers, ranchers and rural social media influencers. South Dakota Ag and Rural Leadership Foundation CEO Don Norton provided the event's closing remarks.

"The nature of work in rural America is changing. Growing industries such as precision agriculture, livestock development, food processing, manufacturing, energy, communications and more require different skills, as well as an entrepre-



East River Education and Outreach Coordinator Jennifer Gross interviewed Matt Leighton from Titan Machinery.

neurial spirit," said Gross. "This is truly a great time to be starting your career in our region and our goal was to highlight those awesome opportunities for our next generation of leaders."

Recorded videos from the event will be available free for viewing at [yourcoop-power.com/futures](http://yourcoop-power.com/futures). Additionally, the webpage will include information on internships and job opportunities at many of the employers that were featured in the event.

# POWER GRID GLOSSARY

## Learn More About the Power Grid by Knowing These Terms

**Billy Gibson**

billy.gibson@sdrea.coop

Power grids are essential in moving electricity from its source to the places where it's needed, but they are often overlooked and rarely mentioned - that is until a major storm strikes and the juice ceases to flow. Here is a glossary of terms that will help cooperative consumers learn more about how power moves across long distances to their homes and businesses.

**BASELOAD POWER PLANT** - A large, efficient generating station, typically with a capacity factor of at least 65 percent, that provides dependable power year-round at a low cost. Coal-fired, nuclear, hydro and large natural gas-fired power plants make up most baseload generation, although smaller-scale biomass facilities and geothermal power systems, if properly operated, can also produce baseload power in much smaller quantities.

**FOSSIL FUELS** - Hydrocarbon-based material such as coal, oil, or natural gas found within the top layer of Earth's crust and used

to produce heat or power; also called conventional fuels. These materials were formed in the ground hundreds of millions of years ago from plant and animal remains.

**GRID** - A network of interconnected high-voltage transmission lines and power generating facilities that allows utilities and other suppliers to share resources on a regional basis. The North American Electric Reliability Corp. oversees reliability of the electric grid covering the U.S. and most of Canada.

**REGIONAL TRANSMISSION ORGANIZATION** - A power transmission system operator that coordinates, controls, and monitors a multi-state electric grid. The transfer of electricity between states is considered interstate commerce, and electric grids spanning multiple states are therefore regulated by the Federal Energy Regulatory Commission.

**PEAK DEMAND** - The industry's equivalent of rush-hour traffic, when power costs run the highest. It's the greatest demand placed on an electric system, measured in kilowatts or megawatts; also, the time of day or season of the year when that demand occurs.

**PEAK LOAD** - The amount of power required by a consumer or utility system during times when electric consumption reaches its highest point; measured in kilowatts or megawatts.

**POWER MARKETING ADMINISTRATION** - A federal agency within the DOE responsible for marketing hydropower, primarily from multiple-purpose water projects operated by the Bureau of Reclamation, the Army Corps of Engineers, and the International Boundary and Water Commission.

**RENEWABLES** - Sources of energy generation that are naturally replenishable, including wind, solar, biomass, geothermal, hydro, and hydrokinetic (ocean wave and tidal) power.

**ROLLING BLACKOUTS** - Controlled power outages designed to lessen the threat of a major cascading outage, caused by short supply and high demand for power affecting major transmission systems. Rolling blackouts are scheduled for predetermined sectors of the transmission grid at timed intervals.

**SOUTHWEST POWER POOL** - An entity that manages the electric grid and wholesale power market for the central U.S. As a regional transmission organization, the non-profit corporation is mandated by the Federal Energy Regulatory Commission to ensure reliable supplies of power, adequate transmission infrastructure and competitive wholesale electricity prices.

**WESTERN AREA POWER ADMINISTRATION** - Markets and delivers hydroelectric power and related services within a 15-state region of the central and western U.S. One of four power marketing administrations within the U.S. DOE having the role to market and transmit electricity from multi-use water projects to retail power distribution companies and public authorities.

### Sensible Solutions for Our Energy Future



South Dakota's electric cooperatives support reasonable strategies for our energy future that make sense for our members:

- Renewable energy solutions that are both productive and practical
- Rate structures that take affordability into account
- Balanced strategies centered on the best interests of co-op consumers
- Technology-based policies that promote economic development

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

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**March 19-20**

Sioux Empire Arts & Crafts Show, W.H. Lyon Fairgrounds Expo Building, Sioux Falls, SD  
605-332-6000

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**March 23-24 CANCELED**

Shen Yun, Rushmore Plaza Civic Center Fine Arts Theatre, Rapid City, SD  
605-394-4115

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**March 25**

A Lakota View of the Dead Hills, Homestake Adams Research and Cultural Center, Deadwood, SD  
605-722-4800

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**March 27**

Hill City Community Easter Egg Hunt, Hill City Area Chamber of Commerce, Hill City, SD  
605-574-2368

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**March 27**

Lion's Club Easter Egg Hunt, City Park, Groton, SD  
605-846-7607

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**March 27**

SD State High School All-State Band Concert, Mitchell Fine Arts Center, Mitchell, SD

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**April 1-3**

ACL Regional #6 Cornhole Tournament, Corn Palace, Mitchell, SD  
605-996-5567

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**April 3**

Spring Fling Fun & Glow Egg Hunt, Rush Mountain Adventure Park, Keystone, SD  
605-255-4384



Spring Fling Fun & Glow Egg Hunt, April 3, 2021

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**April 8**

The Wildest Banquet Auction in the Midwest, Sioux Falls Arena/Virtual, Sioux Falls, SD  
605-339-1203

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**April 9-18**

Four Weddings & An Elvis, Mitchell Area Community Theatre, Mitchell, SD  
605-996-9137

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**April 10**

Dueling Pianos Baseball Fundraiser, American Legion Post #39, Groton, SD  
605-397-8422

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**April 17**

Winefest Renaissance, Boys and Girls Club of Aberdeen Area, Aberdeen, SD  
605-225-8714

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**April 20**

All-State Chorus & Orchestra Concert, Denny Sanford PREMIER Center, Sioux Falls, SD

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**April 22-May 2**

Beauty and the Beast, Sioux Empire Community Theatre, Sioux Falls, SD  
605-367-6000

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**April 24**

Firemen's Spring Social, Fire Station, Groton, SD  
605-397-8422

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**April 25**

Father/Daughter Dance, Groton High School, Groton, SD  
605-397-8422

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**May 1**

Lions Club Spring Rummage Sale, City-wide, Groton, SD  
605-397-8422

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**May 15**

Red Dirt Music Festival featuring Casey Donahew, Ian Munsick and Randy Burghardt Deadwood Mountain Grand, Deadwood, SD  
605-559-0386

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**May 21-23**

State Parks Open House and Free Fishing Weekend, All State Parks and Recreation Areas, SD  
605-773-3391

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**May 31**

Groton Legion Memorial Day Services, American Legion Post #39, Groton, SD  
605-397-8422

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**June 5-6**

18th Annual Wessington Springs Foothills Rodeo, Wessington Springs Rodeo Grounds, Wessington Springs, SD  
605-770-5720

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**June 7-9**

Vacation Bible School, St. John's Lutheran Church, Groton, SD  
605-397-2386

**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.**