

Cooperative Connections



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challenges
power grid**

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

From My Desk

Cooperative Partnerships Pay Off



Ken Schlimgen

General Manager

Because we are owners of East River Electric Cooperative and Basin Electric Power Cooperative, we avoid the wild fluctuations in the energy market.

The extreme cold we experienced in February brought back memories of growing up on my family's farm near Dimock. I recall helping my father with chores, shivering in the cold while my fingers and toes ached and at times go numb. At the same time, I could not understand how my dad could keep working most times without wearing gloves. I was always amazed at how hard my father worked to fix equipment and care for livestock in the most extreme conditions.

Keep in mind our gloves and shoes were not like the options we have today. Gloves were made of cotton, got wet easily, and I remember a few holes in the fingertips. We would cover our uninsulated shoes with recycled bread sacks to keep them dry inside a 5-buckle rubber boot. It was not uncommon for the rubber boot to have a makeshift patch just to delay the water from getting inside.

As you know, cold weather is hard on equipment and livestock. It can also put lives at risk. We are fortunate to have modern equipment to help us get through these weather events a bit easier than my father's experience. Modern equipment is a lifesaver, but it does cause us to be more reliant on electricity and other forms of energy, especially during extreme weather.

Because of this reliance, it is easy to understand why the possibility of rolling blackouts created a lot of anxiety for all of us. Our employees fielded hundreds of questions from people trying to learn if and when they would be affected. Our employees had the same concerns but those decisions were being made by others at a moment's notice without time for advance notification.

Our power grid was in a fragile state. The need for electricity was pushing the system's ability to provide it. The extreme cold affected all types of generation. Some generation was shut down and some generation was operating on a limited fuel supply. The only option available to keep the grid running was controlled outages. Substations were staged off in a controlled method to keep the system from failing.

Central Electric's membership did not experience a rolling blackout during this weather event. Your cooperative urged voluntary energy conservation and we allowed our load control program to control energy use beyond our normal limits. I apologize if you were inconvenienced as a result of these actions.

I must say thank you to our commercial members, Hutterite colonies, and TransCanada Pipeline. These members stepped up and operated on emergency generators or shut down operations during this event. I am convinced their actions helped prevent rolling outages to the rest of our membership. Truly a testament to the value of working together to accomplish something we cannot accomplish alone.

Now that the power grid is back to normal, the attention is shifted to prevention and how this event has impacted utility bills. As member owners of a cooperative power supply, we are shielded from the huge bills that some consumers are experiencing. Because we are owners of East River Electric Cooperative and Basin Electric Power Cooperative, we avoid the wild fluctuations in the energy market.

The Southwest Power Pool, an entity that oversees electric transmission, has much to learn from the events in February, and there are certainly areas that can be improved upon. You can be sure that your cooperative will work with the other members of the Southwest Power Pool to take the steps needed to prevent this situation in the future.

Some good news to share is the active number of COVID-19 cases has been steadily dropping for the past several weeks. This is great news, but please do not let your guard down. While we wait our turn to be vaccinated, let's keep washing our hands, maintaining social distance and following the appropriate safety protocols for our situations.

Have a happy Easter holiday, and until next month, stay safe!



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(USPS 018-963)

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- Mark Reindl - Treasurer
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- Roger Campbell
- Donita Loudner, SDREA
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Mission Statement

Provide Reliable Energy & Services with a Commitment to Safety and Member Satisfaction

BOARD MEETING

Board Meeting Summary

The board of directors met on Jan. 18, 2021, at the Betts Road Service Center for the regular board meeting.

The board approved the December 2020 meeting minutes and the December safety meeting minutes. The board then reviewed monthly reports by management including details on operations, member services, communications, the service department and financials.

Board Report

Manager Schlimgen updated the board on the following:

- East River report
- Rural Electric Economic Development (REED) Fund
- COVID-19 update and upcoming vaccine availability for critical infrastructure employees
- County District Meeting planning
- Action Committee for Rural Electrification (ACRE) update
- Chamberlain Rural Economic Development Loan application update
- Review of policies 730, 741, 821, 827
- Basin Electric report
- Outpost facilities update
- Surplus equipment update

- Director orientation discussion
- POET energy services update
- NRECA report

Directors in attendance at the East River Energize Forum reported on the event.

Director Duane Wolbrink gave a report on the East River board meeting.

Director Donita Loudner gave a report on the SDREA board meeting.

Board Action

The board considered and/or acted upon the following:

1. Reviewed director orientation materials with no changes.
2. Approved 4th quarter manager and director expenses for 2020.
3. Approved 4th quarter legal expenses for 2020.
4. Revised whistleblower Policy 741.
5. Revised station service rate Policy 821.
6. Reviewed PURPA avoided cost rate Policy 827 with no changes.
7. Recommended district meetings be pushed back to June do to COVID-19 concerns.

The next board of directors meeting was scheduled for Feb. 15 at the Howard Hotel and Conference Center.

You may contact the cooperative office to request more information regarding the board meeting.

Financial Report	January 2021	Year-to-Date 2021
Kilowatt Hour (kWh) Sales	34,325,139 kWhs	34,325,139 kWhs
Revenues	\$3,205,450	\$3,205,450
Total Cost of Service	\$3,178,721	\$3,178,721
Operating Margins	\$26,729	\$26,729

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

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.

Three Options for Home Cooling



Pat Keegan

Collaborative Efficiency

Whatever you choose, make sure it is rated for the size of the space you are cooling.

Pat Keegan and Brad Thiessen of Collaborative Efficiency write on energy efficiency topics for the National Rural Electric Cooperative Association, the national trade association representing more than 900 local electric cooperatives. From growing suburbs to remote farming communities, electric co-ops serve as engines of economic development for 42 million Americans across 56% of the nation's landscape. For additional energy tips and information on Collaborative Efficiency visit: www.collaborativeefficiency.com/energytips.

Dear Pat and Brad: My wife and I have been in our 1,500 square-foot home with no air conditioning for 10 years now, and we're tired of it! What options should we look into so we can stay cool this summer? – Kyle

Dear Kyle: It's the right time of year to think about how to stay cool this summer. There are a few low- and no-cost cooling strategies, like using ceiling fans to keep air moving, turning off unused electrical devices and appliances, and blocking direct sunlight with window coverings. If you live in a climate with cool summer evenings, you can let cool air in late at night or early in the morning, then seal up the home to keep that air from leaking out.

If that's not enough, you can install air conditioning (A/C). Below are three common options for home cooling, and we've included approximate cost estimates for each. But please be aware that costs are highly variable.

Window Units/Portable Cooling

Window A/C units or portable A/C units are the lowest cost approach. Portable units can be moved from room to room and come equipped with a length of duct to exhaust hot air out a nearby window. Window units are mounted in a window opening and cool one room. The efficiency of portable and window units has improved over the years, but none of them are as efficient as most central A/C units or a mini-split heat pump.

If you live in a hot, dry climate, you could consider an evaporative cooler for your home (sometimes referred to as a swamp cooler). Window units have been around for a while, but now there are portable options available. Evaporative cooling units can be less expensive than traditional A/C, but don't buy one until you do the research to determine how well evaporative cooling works in your local area. Whatever you choose, make sure it is rated for the size of the space you are cooling.

- Cost: \$149 to \$1,000 per new unit (depending on your climate and how many square feet you're trying to cool)

Ductless Mini-Split Heat Pumps

A ductless mini-split heat pump has a compressor outside the home that's connected to air handler units in as many as four rooms. Each room's temperature can be controlled separately. Ductless mini-splits are an especially good choice for homes without forced air ducting systems or with leaky or undersized ductwork. Heat pumps can also be a supplemental source of heat in the winter months.

- Cost: approximately \$3,000 to \$10,000 (including installation)

Central Cooling

If your home has forced air heating ductwork, it can be used for an A/C or heat pump unit. This is a good option if the ductwork is sized properly and doesn't leak, and if ducts are in unheated attics or crawlspaces that are insulated. In some locations in the U.S., contractors can install evaporative cooling as a whole house system.

- Cost: Approximately \$3,000 to \$7,000 (not including repairs to ductwork)

As always, you can save energy and money by purchasing ENERGY STAR®-rated appliances and collecting a few quotes from licensed contractors.

We hope this information on home cooling options will start you on the path to a more comfortable home this summer.

Morrison to Retire from Board in 2021

After farming most of his life and serving 18 years on the Central Electric Cooperative board of directors, Darwin Morrison, or “Butch” as most call him, will officially retire following the annual meeting in September.

“We’re hoping to do more of that,” Butch said, pointing at a motorhome parked in the shed at his home north of Mitchell on the Plano road.

Butch’s journey on the board began in 2003. “He knows so much about the industry,” wife Jean shared. The two began dating in 1964. They were engaged in 1967 and married in 1970. “It was a long engagement,” she recalled, “as Butch was soon to go to basic training and I had just started teaching in Sioux Falls.”

Butch often attended cooperative district and annual meetings before becoming a board member. He was always interested in getting involved as he knew several other directors over the years: Jean’s uncle George Pierson, a relative Russell Tilberg, and friends Jack Bruner and Bob Ruml.

Butch grew up one of 14 kids. His father was originally from Nebraska, but he moved to the Plano area in 1914. He farmed and raised livestock, and Butch continued the tradition, becoming a farmer himself.

From 1968-1972, Butch served in the Air Force as a radar operator and repairman. He achieved the rank of staff sergeant. While many were deployed to Vietnam at that time, Butch’s unit was sent to California. He recalls serving as launch backup when the U.S. sent Apollo 11 to the moon in 1969.

Butch and Jean moved back to the family farm in 1972. He, along with three brothers, started Morrison Implement, an Allis Chalmers dealership, and he farmed. Jean was a teacher, ending her career at Rockport Colony School in 2011.

Times weren’t always easy at the Morrison farm. The couple lost a son, Joey, in a car accident near their home in 1997 when he was driving to school on a foggy morning. “That was a hard time,” Butch said.

The couple had three boys. Son Jeremy, an engineer, and wife Katie, a college professor, live in Mitchell with children Everett and Lyla. Son Terry and wife Erica, both engineers, live in a suburb of Omaha with children Alex and Grace.

Resilience comes naturally for Butch, and not only because of his farming background. Butch lost a brother at a young age, and in 1989, he experienced a stroke. Those events didn’t stop Butch from achieving his goals, including earning a spot on the Central Electric board of directors.

After serving 18 years as a director, Butch has several memories of good times and challenging times at Central Electric. “I remember Basin Electric’s 50th anniversary. It was the biggest sit-down meal Bismarck ever had,” he said.

A challenging time he remembers was in 2005 when a winter storm hit the area, causing extended power outages. “Lots of poles broke and it got cold. We were out of power two or three days, but others were out for much longer,” he said. They had a generator to help them get through, but they were especially thankful for all the work Central Electric did to restore power.

Much has changed over the years, including territory, technology, and member power usage. “Farms are using more power these days,” Butch said.

He has a hand-written electric bill from his family farm dated October 1948 when they used 64 kilowatts of electricity for \$6.57.

Butch is a member of New Home Lutheran Church where he has served on the church council at various times. He is currently commander of the Letcher Post American Legion. Butch also served on the South Dakota Association of Cooperatives (SDAC) board for nine years.

Central Electric Cooperative’s board of directors and staff wish Butch and Jean the absolute best as they look forward to adventures ahead. Butch’s contributions have been instrumental to the success of the cooperative.

Thanks Butch!

Hand-written electric bill for Butch Morrison’s family farm in 1948.

INTERCOUNTY ELECTRIC ASSOCIATION, Inc.	
Mitchell, South Dakota	
20th of	Oct. 1948
Present Reading	64
Previous Reading	64
KWH Used	64
Electric Energy	----- \$ 6.44
State Sales Tax	----- \$ 13
Net Amount	----- \$ 6.57
Penalty	----- \$
Other Charges	----- \$
Total Now Due	----- \$ 6.57
KEEP THIS STUB	

Butch and Jean Morrison stand outside their home north of Mitchell.





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.

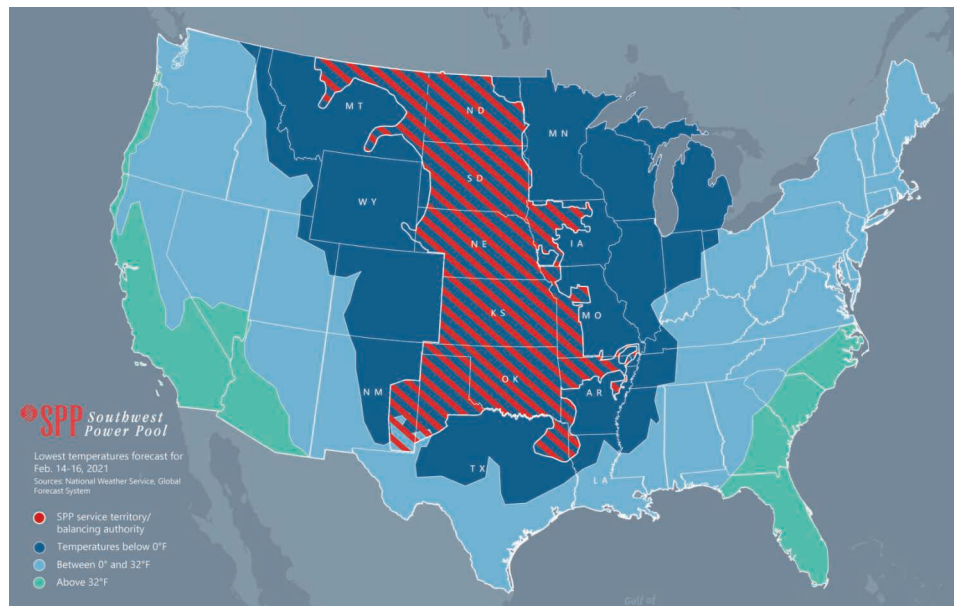
“Once we observe an imbalance, we have to react within seconds to reduce the demand,” Nickell said. “This is why it’s very difficult for us to announce well beforehand when these things will happen because they happen at the speed of light.”

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

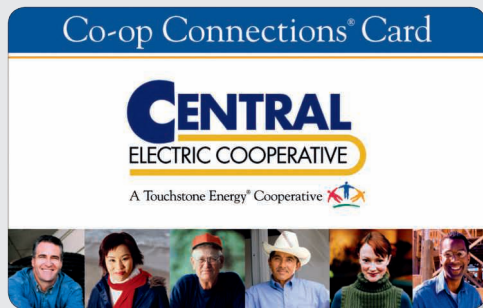
“Once we observe an imbalance, we have to react within seconds to reduce the demand. This is why it’s very difficult for us to announce well beforehand when these things will happen because they happen at the speed of light.”

- 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.”

Local Discounts with your Co-op Connections® Card



Your cooperative membership earns you discounts at local participating businesses. Simply show your Co-op Connections Discount Card and save.

- **Mitchell KOA (Mitchell)**
10% discount May 1 - October 30, excluding holiday weekends.
- **605 Vision (Chamberlain)**
15% off services and materials; Cannot be combined with insurance or other offers.
- **AAA South Dakota (Mitchell Branch)**
Save \$15 on new membership by waiving entrance fee for SD residents only. Free atlas with insurance quote.
- **Aero Dyna Kleen Services (Mitchell)**
\$20 off on furnace/duct cleaning; 10% off carpet cleaning.
- **AmericInn Lodge & Suites (Chamberlain)**
10% off rack rate (not valid with any other offer).
- **America's Mattress (Mitchell)**
Free sheets with qualifying purchase of \$500 or greater (1 set).
- **Blessings Repeated Inc. (Plankinton)**
20% off a purchase of \$10 or more.
- **Buckshots (Letcher)**
\$1 off all Buckshot Burgers.

For a full list of ways to save, visit www.connections.coop.

To request a card or become a participating business, visit www.centralec.coop or call 800-477-2892 or 605-996-7516.



IS YOUR BUSINESS CONNECTED TO CENTRAL ELECTRIC'S 4,800 MEMBERS?



Calling Area Business Owners!

Central Electric Cooperative offers the Co-op Connections® Card to our members, and we want you to be a part of it! All members are eligible to receive a discount card and list of participating businesses at no cost.

The Co-op Connections Card provides an incentive for our rural members to shop at participating local businesses rather than taking their business out of town or online. Participating businesses offer valuable discounts through the card, and in turn, our members are encouraged to patronize these businesses.

By participating in this program, your business will be advertised to approximately 4,800 rural families in our service territory, including Aurora, Brule, Buffalo, Davison, Hanson, Miner and Sanborn counties.

For more information, call the Central Electric office at 605-996-7516. We look forward to promoting your business to our membership!

The Only Cost to Your Business is the Discount You Provide

Three area students recognized for achievements

SCHOLARSHIPS AWARDED



Morgan Hinckley

Ethan High School
\$1,000 Basin Electric Power
Cooperative Scholar



Rylee Schultz

Bridgewater-Emery High School
\$1,000 Jay Headley
Memorial Scholar



Abigail Connor

Howard High School
\$1,000 Jay Headley
Memorial Scholar

Central Electric Cooperative will award \$3,000 in scholarships to three area high school seniors. The scholarships are funded by Basin Electric Power Cooperative of Bismarck, ND, and the family of the late Jay Headley of White Lake, SD.

Morgan Hinckley of Ethan will receive a \$1,000 Basin Electric Power Cooperative Scholarship. Hinckley, a senior at Ethan High School, is the child of Ryan and Devon Hinckley and plans to pursue dental hygiene at University of South Dakota.

Rylee Schultz of Emery is the child of Lynn and Tamee Schultz and a senior at Bridgewater-Emery High School. He will be awarded a \$1,000 Jay Headley Memorial Scholarship. Schultz plans to attend Mitchell Technical College and double major in agronomy and precision ag technology.

Abigail Connor of Winfred is the child of Mike and Becky Connor and a senior at Howard High School. She will be awarded a \$1,000 Jay Headley Memorial Scholarship. Connor plans to study agricultural systems technology at South Dakota State University.

The Basin Electric Cooperative scholarship is open to dependent children of members whose primary residence receives electric service from Central Electric. The Jay Headley Memorial Scholarship is intended for dependent children of members who plan to pursue an agriculture-related degree.

Congratulations to the 2021 scholarship recipients! They will be recognized at Central Electric Cooperative's annual meeting on Tuesday, Sept. 14, 2021, at the Corn Palace in Mitchell.





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

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 yourcooperative.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.

March 19-20

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

March 23-24 CANCELED

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

March 25

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

March 27

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

March 27

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

March 27

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

April 1-3

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

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

April 8

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

April 9-10

Forks, Corks and Kegs Food, Wine and Beer Festival, Main Street, Deadwood, SD
605-578-1876

April 9-18

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

April 17

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

April 20

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

April 22-May 2

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

April 23-24

Junkin' Market Days, W.H. Lyon Fairgrounds Expo Building, Sioux Falls, SD
605-941-4958

April 30-May 2

Radium Girls, Pierre Players Community Theatre, Pierre, SD
605-224-7826

May 8

Davis Flea Market & Artisan Fair, Main Street, Davis, SD
605-940-0069

May 15

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

May 21-23

Annual Sound of Silence Tesla Rally, Downtown, Custer, SD
605-673-2244

May 21-23

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

May 22

Frühlingsfest & Spring Market, Main Street, Rapid City, SD
605-716-7979

June 5-6

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

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.