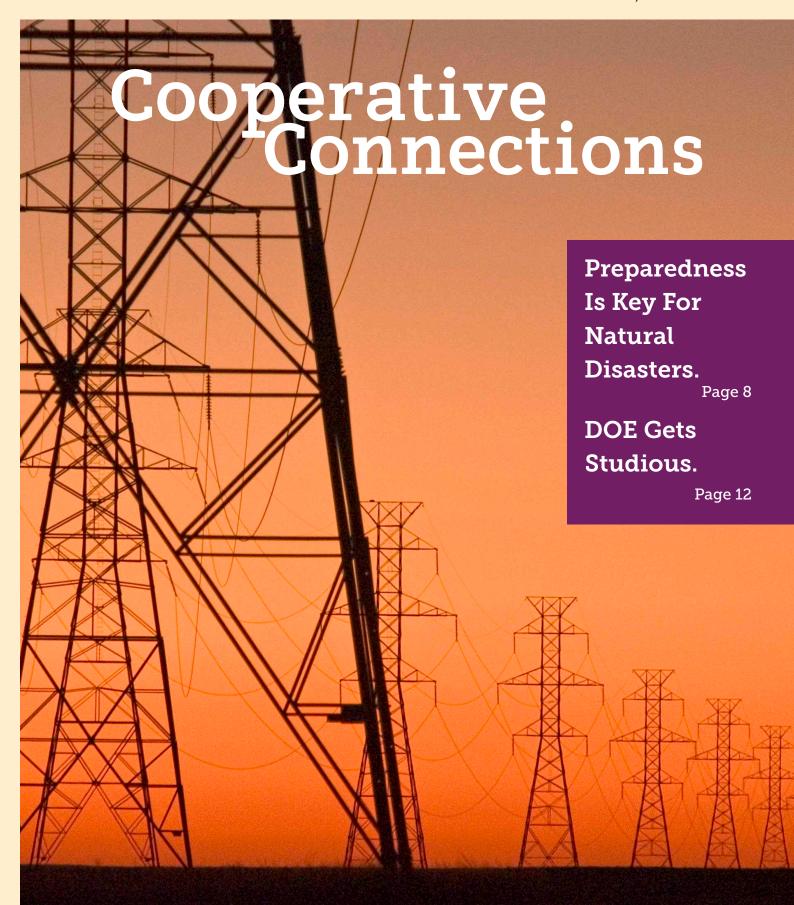
Northern Electric

Your Touchstone Energy" Cooperative

Chad Coppess/SD Tourism

January 2018 Vol. 18 No. 9



New Rate Structure Will Be Implemented In Spring 2018 New Rates Approved For 2018



Char Hager

CEO / General Manage

I assure you that the board and staff used careful consideration over the past several months before making any changes. The Northern Electric Cooperative Board of Directors approved a new rate structure for all co-op members and all rate classes during its regular monthly meeting on November 28. The rate change was officially approved following a rate study that has been ongoing in 2017.

The co-op began examining rates in July of 2016 when Basin Electric Power Cooperative, which supplies a majority of the electricity you use, announced a 13 percent rate increase. At that time, the Northern Electric board and staff began working with the co-op's independent engineering firm to develop a new rate structure that will be fair for the membership. In 2017, Northern Electric increased the power cost adjustment, or PCA, to a full two cents per kilowatt-hour so the co-op could continue to meet its financial obligations while the comprehensive rate study was being conducted.

Beginning March 1, 2018, the newly-approved rates will take effect for a majority of members and at that time the PCA will be reduced to zero. The new rate structure will be set up to offer flexibility to members, so they can use electricity in the most efficient, cost-effective, and responsible manner possible.

The new rate structure will reflect the way Northern Electric is billed by East River Electric Power Cooperative, which is the co-op's wholesale power supplier. Currently, a peak demand component - which was explained in the November 2017 issue of this publication - makes up approximately half of Northern Electric's monthly bill to East River. The new Northern Electric Cooperative rate structure will encourage members to reduce demand during the billing peak which will save both the members and the entire co-op money.

In the coming weeks, Northern Electric plans to directly communicate the specific details of the new rates with all members before they are implemented in March.

While a rate change is never easy, it is necessary to ensure your cooperative meets its financial obligations every month. It is important to remember that Northern Electric is a not-for-profit cooperative and any extra revenue is returned to the membership as capital credits. I assure you that the board and staff used careful consideration over the past several months before making any changes. Please, do not hesitate to contact the Northern Electric offices if you have questions about these rate changes.



(USPS 396-040)

Board President: Donna Sharp

Board of Directors

Randy Kienow - Vice President Glen Larson - Secretary Wayne Holt - Treasurer Fran Esser Victor Fischbach Josh Larson Mark Sumption Nolan Wipf

CEO/General Manager: Char Hager info@northernelectric.coop

Chief Financial Officer: Cathi Podoll

Operations Manager: Mike Kelly

Manager of Member Services: Russel Ulmer

Manager of Information Technology: Derek Gorecki

Communications Director: Ben Dunsmoor

bdunsmoor@northernelectric.coop

Executive Secretary: Kay Albrecht

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.

Subscription information: Northern Electric Cooperative members devote 50 cents from their monthly electric payments for a subscription. Non-member subscriptions are available for \$12 annually. Periodicals postage paid at Bath, SD 57427.

Postmaster: Please send address changes to Northern Electric Cooperative Connections, PO Box 457, Bath, SD 57427; telephone (605) 225-0310; fax (605) 225-1684

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Northern Electric Cooperative's regular board meeting was held November 28 at the headquarters in Bath with all directors present. As the first order of business, the board approved the October 19, 2017, minutes and October expenditures. The board reviewed and accepted monthly reports by management including details on financial, operations, member services, safety, communications and IT.

Directors viewed the East River Electric Power Cooperative video report. East River Director Mark Sumption reported on actions taken by the ER Board at the November 2, 2017, meeting. Manager Char Hager also reported on the East River MAC meeting. South Dakota Rural Electric Association Director Nolan Wipf reported that the next SDREA board meeting will be November 30-December 1, 2017, in Pierre. Director Glen Larson reported on the South Dakota Wind Energy meeting which he attended on November 27, 2017. Directors Francis Esser, Glen Larson, Manager Char Hager and Communications Director Ben Dunsmoor reported on the Basin Electric Annual Meeting which they attended November 7-9, 2017, in Bismarck, ND.

Manager's Report

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

- Update and discussion on development projects and activities taking place in the community and our service area.
- Update on Rural Electric Economic Development (REED) revolving loan fund activities.
- Discussion on final plans for the Mid-West Electric Consumers Association Annual Meeting, December 11-14, 2017, in Denver, CO.
- Review of upcoming meetings and events.

NOVEMBER BOARD REPORT

Board Report

The board considered and/or acted upon the following:

- 1. Approved the date and time of the next regular board meeting for 9:00 A.M. on Wednesday, December 20, 2017.
- Approved payment of legal fees for Harvey Oliver in the amount of \$1,443.82.
- 3. Approved Work Order Inventory #17-10 for \$906,721.43 to be submitted to the Rural Utilities Service (RUS) for reimbursement from loan funds for electric plant construction already completed.
- 4. Authorized limited board attendance to the 2018 SDREA Annual Meeting and Legislative Dinner January 11-12 in Pierre. Appointed Director Donna Sharp delegate, Director Nolan Wipf alternate.
- 5. Reappointed Nolan Wipf for the South Dakota Rural Electric Association Board.
- Authorized limited board attendance to the 2018 East River Energize Forum, January 31-February 1, in Sioux Falls.
- Authorized acceptance and execution of arrangement letter offered by Eide Bailly LLP to perform the audits for 2017.
- 8. Approved REED, Inc. Loan Application for KJ Investment, LLC.
- Approved revision to the existing Electric Tariff 3M Rate to be effective January 1, 2018.
- 10. Approved revisions to existing Electric Tariff Rates to be effective March 1, 2018.
- 11. Held Executive Session.

Questions or more details on any of these matters? Please ask your cooperative manager, staff member or director.

Financia	l Report	October 2017	October 2016	
kWh Sales		23,023,093 kWh	25,611,751 kWh	
Electric Revenues		\$2,289,094	\$2,309,618	
Total Cost of Service		\$2,367,562	\$2,202,563	
Operating Margins		(-\$78,469)	\$107,055	
Year To Date Margins		\$295,392	\$718,915	
Residential Average Monthly Usage and Bill				
October 2017	1,809 kWh	\$196.62	\$0.1087 per kWh	
October 2016	2,196 kWh	\$210.05	\$0.0957 per kWh	

Wholesale power cost, taxes, interest, and depreciation accounted for 82.9% of NEC's total cost of service.

<u>SAFETY TIPS</u>

Home Heating Safety Tips

There is something about the winter months and curling up with a good book by the fireplace. But did you know that heating equipment is one of the leading causes of home fire deaths? Half of home heating equipment fires are reported during the months of December, January and February. With a few simple safety tips and precautions, you can prevent most heating fires from happening.

- Keep anything that can burn at least three feet away from heating equipment, like the furnace, fireplace, wood stove or portable space heater.
- Have a three-foot "kid-free zone" around open fires and space heaters.
- Never use your oven to heat your home.
- Have a qualified professional install stationary space heating equipment, water heaters or central heating equipment according to the local codes and manufacturer's instructions.
- Have heating equipment and chimneys cleaned and inspected every year by a gualified professional.
- Remember to turn portable heaters off when leaving the room or going to bed.



- Always use the right kind of fuel, specified by the manufacturer, for fuel burning space heaters.
- Make sure the fireplace has a sturdy screen to stop sparks from flying into the room. Ashes should be cool before putting them in a metal container. Keep the container a safe distance away from your home.
- Test smoke alarms at least once a month.

Heating Equipment Smarts

- Install wood burning stoves following manufacturer's instructions or have a professional do the installation. All fuelburning equipment should be vented to the outside to avoid carbon monoxide (CO) poisoning.
- Install and maintain CO alarms to avoid the risk of CO poisoning. If you smell gas in your gas heater, do not light the appliance. Leave the home immediately and call your local fire department or gas company.

Source: nfpa.org

Rural Infrastructure Issues

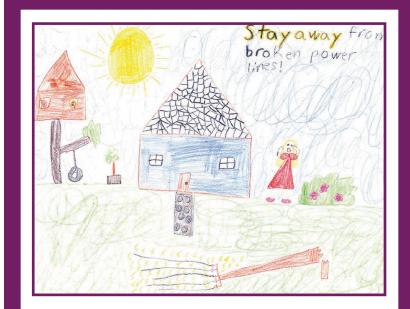
CO-OPS VOTE

Rural America needs more than roads and bridges when it comes to infrastructure. The National Rural Electric Association is working to remind policymakers about the broader infrastructure needs of rural America and the importance of reliable power.

Electric co-ops have three major priorities when it comes to infrastructure:

- Any infrastructure package should recognize the need to maintain and enhance the rural electric grid, which powers 42 million Americans.
- Electric co-ops are also working to ensure more timely permitting decisions to expedite and reduce the costs of critical infrastructure projects. Regulatory review time lines for infrastructure can stretch on for years. These delays present reliability problems, strain existing infrastructure and can force electric co-ops to take drastic measures to keep the lights on.
- Rural broadband deployment also must be an infrastructure priority. Broadband access is limited across much of the nation's rural landscape but is a key ingredient to a healthy 21st century rural economy. Electric co-ops are working to expand rural broadband access and look forward to working with other stakeholders to close the digital divide.

KIDS CORNER SAFETY POSTER



"Stay away from broken power lines!"

Alaina Dekrey, 9 years old

Alaina is the daughter of Don and Cassandra Dekrey, Blunt, S.D. They are members of Oahe Electric Cooperative, Blunt.

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.



Chicken Rice Soup

1 T. oil	1/2 tsp. minced garlic
1 lb. boneless skinless	1/4 tsp. thyme leaves
chicken breasts	2 bay leaves
1 cup chopped onion	1/2 cup sliced carrots
4-1/2 cups water	1/2 cup sliced celery
4 cups reduced-sodium chicken broth	1 package ZATARAIN'S®
chicken broth	Yellow Rice

Heat oil in large saucepot or Dutch oven on medium-high heat. Add chicken; cook 3 minutes per side or until lightly browned. Remove chicken; set aside. Add onion to Dutch oven; cook and stir 3 minutes or until softened. Add water, chicken broth, garlic, thyme and bay leaves. Bring to boil. Add carrot, celery, Rice Mix and chicken. Reduce heat to low; simmer 10 minutes or until chicken is cooked through. Remove chicken; set aside to cool. Cover and simmer soup additional 20 minutes or until rice and vegetables are tender. Shred chicken and add to soup. Remove bay leaves before serving. Makes 10 (1 cup) Servings

Nutritional Information Per Serving: Calories 150, Total Fat 2g, Sodium 636mg, Cholesterol 27mg, Carbohydrates 27g, Protein 13g, Dietary Fiber 1g,

Pictured, Cooperative Connections

Beef and Barley Soup

3 lb. beef roast	1 cup water
32 oz. beef broth	1/8 tsp. thyme
1/2 cup diced celery	Salt and pepper (to taste)
1/2 cup diced carrots	1/2 cup barley (quick)
1 cup peeled and diced	

potatoes

Combine roast, broth and veggies in crock pot and turn on High. In bowl, combine water, thyme, salt and pepper. Pour mixture over roast. After about 6 hours, remove roast from crock pot. Trim fat and shred beef. Place shredded beef back in crock pot. Add barley. You may add more water if desired. Cook an additional hour on High.

Note: If freezing, freeze before adding barley. Barley can be added after soup thaws.

Melanie Eichmann, Canistota

Shamrock Soup

6 celery ribs, chopped 4 medium carrots, sliced	2 cups chopped cooked cabbage
2 cups cubed peeled	1 tsp. dill weed
potatoes	1 tsp. salt
5 cups water	1 tsp. seasoned salt
3 cups diced cooked corned beef	1/2 tsp. pepper

In a large stock pot, bring celery, carrots, potatoes and water to a boil. Reduce heat, cover and simmer until tender, about 20 minutes. Add remaining ingredients. Cover and simmer an additional 15 to 20 minutes.

Patricia Hopkins, Central City, NE

Potato-Sweet Pea Soup

3 lb. bag petite red potatoes, unpeeled and chopped into	1 tsp. Season-All seasoned salt	
1/2-inch to 3/4-inch pieces 1 small onion, chopped	3/4 cup powdered coffee creamer	
1 cup chopped or shredded	3 T. butter	
carrots 1 (13 oz.) bag frozen sweet	1 (12 oz.) can evaporated milk	
garden peas	4 to 5 strips bacon, cooked	
1 tsp. salt	and crumbled	

1/2 tsp. pepper

Boil potatoes, onion and carrots until almost done; add peas and continue boiling until tender. Drain water, reserving 3 cups. Add remaining ingredients except bacon. Reheat to a boil; add bacon.

Frankie Hofer, Rapid City

Please send your favorite bread/breakfast or seafood recipes to your local electric cooperative (address found on Page 3). Each recipe printed will be entered into a drawing for a prize in June 2018. All entries must include your name, mailing address, telephone number and cooperative name.

New Look, Same Purpose

Cooperative Connections Rolls Out New Design For 2018

Ben Dunsmoor

bdunsmoor@northernelectric.coop

As the calendar flips over to a new year the electric cooperatives of South Dakota are unveiling a new design for the *Cooperative Connections* publication. This is the first major redesign of the monthly magazine in more than a decade. The last time *Cooperative Connections* unveiled a new design was in the January 2005 issue.

The new look features modern design elements including updated fonts, bold images, and the use of white space to reduce congestion on the pages. The editors from South Dakota Rural Electric Association (SDREA) member cooperatives have been working on the new design over the past year.

"The process of communication is one that is continually evolving and the co-op needs to continue to evolve with it," SDREA Director of Communications and Member Relations Brenda Kleinjan said.

Kleinjan oversees the statewide *Cooperative Connections* publication and has spearheaded the redesign effort. *Cooperative Connections* is one of the largest publications in the state of South Dakota with more than 120,000 copies of the magazine being mailed out to members of 31 electric cooperatives every month. The magazine is a mix of statewide content produced by SDREA and local content produced by the individual cooperatives and tailored to local members.

"About a third of our state's residents receive electricity from electric co-ops so keeping them informed is essential," Kleinjan said.



Northern Electric has been informing members about the operation of the co-op through a monthly mailed publication since the lights first came on in 1947. A four-page newsletter called *Electric* Progress was first mailed to members in March of 1947 when the co-op was known as the James River Valley Electric Cooperative. The first publication included a monthly operations report which informed members that 165 consumers were billed for service in February of 1947 and a total of 18,964 kilowatt-hours were used that month. The average kilowatt-hour use for that month was 114 kWh and the average bill reported in that first publication was \$6.16.

The co-op's official publication soon changed its name to *Northern Lights* in 1948 after the name of the co-op was changed to Northern Electric Coopera"The process of communication is one that is continually evolving and the co-op needs to continue to evolve with it."



tive. The first issue of *Northern Lights* was published in July 1948 and *Northern Lights* remained the official monthly publication of the cooperative for more than 50 years.

In April 2000, the new Cooperative Connections publication was unveiled. *Cooperative Connections* unified the three separate publications electric cooperative members were receiving at that time. Before the publication of Cooperative Connections, a co-op member would receive a newsletter from SDREA called the South Dakota High Liner which informed members about statewide electric co-op news. Members in eastern South Dakota would also receive a newsletter from East River Electric Power Cooperative called the *East River* Guardian which informed members about the operation of the wholesale generation and transmission of electricity in the region. Electric co-op members would also receive their local newsletter, which was the Northern Lights newsletter in the Northern Electric service territory.

'The goal of the new publication is to strengthen the relationship between the member systems and their membership by creating a unified, high-quality publication with individualized cooperative identity,' read an excerpt from the last issue of Northern Lights. "With the seven co-op principles, one of the things we hang our hats on is education and information," Kleinjan said. "Since their inception, co-ops have been engaged in communicating with our members. The members are our owners."

It continues to be crucial to communicate with members about the operation of their co-op so they can remain informed about their representatives on the board of directors and the financial and operational condition of the co-op.

Over the years, electric cooperatives have evolved their publications from being strictly business to offering useful tips, information, and stories about the local communities they serve.

"In our monthly publications we seek to inform and educate but also to entertain," Kleinjan said.

It is the reason SDREA and its member cooperatives have continued to update the monthly publication and are rolling out a new magazine design in 2018. "With the seven co-op principles, one of the things we hang our hats on is education and information. Since their inception, co-ops have been engaged in communicating with our members. The members are our owners."



Every year, the U.S. is hit by many natural disasters, including snow and ice storms, tornadoes, hurricanes and wildfires. Before disaster strikes, familiarize yourself with the types of disasters that are common in your region.

PREPARING FOR DISASTER Planning Ahead Can be Key For Your Family

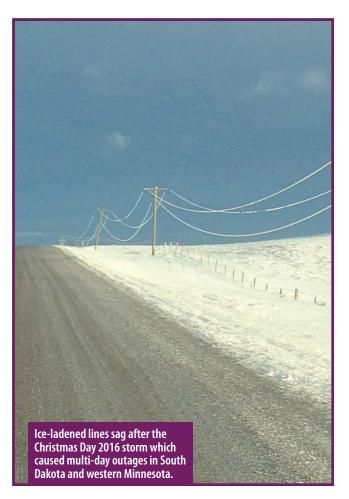
Thomas Kirk

Associate Analyst, NRECA

Every year, the U.S. is hit by many natural disasters, including snow and ice storms, tornadoes, hurricanes and wildfires. These types of disasters pose a significant threat to our communities and homes. The most important step you can take to keep you and your family safe is to prepare beforehand, but knowing what to do during and after the event is crucial as well.

Before disaster strikes, familiarize yourself with the types of disasters that are common in your region, especially if you're new to the area. Many of the specifics depend on what type of disaster you're expecting, but there are several general guidelines to keep in mind as you prepare:

- Water: You will need one gallon per person per day. If you assume your family of four may be stranded for a week, store a minimum of 28 gallons.
- Food: Stock up on non-perishable or long shelf-life items, such as wheat, soybeans, canned fruits, peanut butter, jelly and condensed soups.
- First Aid Kit: Make sure your kit includes adhesive bandages (assorted sizes), antiseptic wipes, aspirin, hydrocortisone ointment, scissors and a thermometer. For a full list of suggested items, visit www.redcross.org.
- Flashlights and candles: Be sure to keep extra batteries and matches (in a waterproof container) on hand.



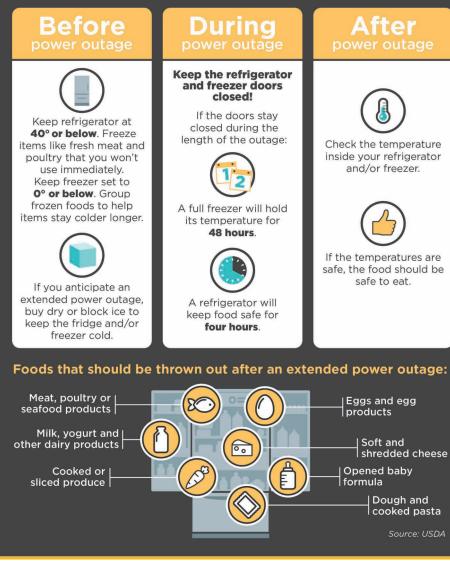
For additional guidance on emergency items to keep around the house, visit www.ready.gov/build-a-kit. Also consider training offered by local emergency management services such as Community Emergency Response Team (CERT) classes.

Some disasters occur suddenly, but many bring advance warnings, like hurricanes and winter storms. Pay special attention during the week leading up to the event for local and state government warnings and evacuation notices. Make sure every family member knows what your emergency plan is: staying or leaving, safe rooms in the house, where supplies are located, what to do if anyone is separated and how to notify loved ones that you're safe after the event. It's also a good idea to know where your home's main water and gas shutoff valves are located.

While the U.S. electric grid is reliable, it is possible to lose power during a storm. The outage could be momentary or last hours or even days. If you live in an area where loss of power after a storm could be dangerous, consider purchasing a backup generator for your home. These can cost anywhere from a few hundred to few thousand dollars, depending on

Keep Food Safe Before, During and After a Power Outage

Unfortunately, power outages do occur from time to time. It's important to know how to keep your food safe during an outage. Use these tips from USDA to help minimize food loss and reduce your risk of illness.



<u>BE PREPARED</u>

your needs. Be sure to test the generator before the disaster to ensure it's operating properly.

If you don't have a backup generator and lose power, don't panic. Most power outages in the U.S. are short and will not last more than a few hours. However, without knowing in advance how long the outage will last, it's wise to assume and act as though it will last for days. Here are a few general tips for wise energy practices during a disaster:

- Consume perishable and refrigerated foods first before they spoil.
- Pack frozen foods close together and consider freezing water bottles to eliminate any air pockets. The frozen water will help keep the food cooler longer.
- Make sure you have alternative lighting sources, like candles and flashlights (with spare batteries) located throughout the home.
- Keep manual tools such as a can opener on hand to replace any electronic gadgets you typically use.
- Similar to filling a bathtub with water before a storm, make sure that all cell phones are fully charged.
- If the disaster involves lightning, unplug all electronic devices to protect against a power surge.

After the storm, be cautious when leaving your home. Listen to government warnings and use common sense when approaching any damaged buildings or fallen trees. If you see a power line that is down, always assume the wires are live and dangerous. If possible, call your local electric cooperative to report the downed power line.

With a little bit of forethought, you're highly likely to make it through a disaster without too many problems. Remember, you and your family's safety should always come first.

For more information on disaster preparedness, visit www.ready.gov.

Thomas Kirk is an associate analyst of distributed energy resources for the Arlington, Va.-based National Rural Electric Cooperative Association's Business & Technology Strategies (BTS) division.

CO-OP NEWS



Northern Electric Member Makes Doll Outfits For Toys for Tots

Handmade Holiday Gifts

Most of the donations collected for Toys for Tots at the Northern Electric office in Bath during the holidays are typically purchased from a store. However, for the past four years, Northern Electric member Betty Schinkel has been dropping off boxes of handmade gifts for the annual toy drive. Schinkel donates sets of doll outfits which she crochets and sews herself to Toys for Tots. Northern Electric is a drop off location for the charity and Schinkel drives up from her home in Ferney to make the donation.

This year, Schinkel donated five Barbie dolls with sets of five to six crocheted outfits for each doll. She also donated two shoe boxes with larger dolls and several sets of hand-sewn outfits for each doll.

"The doll comes with a dress and it's a simple pattern to make out of newspaper," Schinkel said.

Schinkel retired as a bookkeeper from Farmers Union about five years ago and she has been crocheting and sewing the outfits since she retired. She says she can't sit down at home without doing something.

"My hands have to be doing something," Schinkel said.

And so she spends her time crocheting and sewing outfits for dolls for kids in the community who are in need at Christmas.

"I figure it should go to the less fortunate children," Schinkel said.



Schinkel crochets several sets of outfits for each doll she donates.



handmade clothing in shoe boxes for Toys for Tots.



Schinkel donates larger dolls with outfits she sews herself using patterns she makes out of newspaper.

Look Out For Scams

Meghaan Evans

Unfortunately, in today's world, scams are inevitable. Scammers can threaten you with everything from legal action involving the IRS to turning off power to your home.

Utility scams often involve an individual or group posing as an employee of your electric cooperative. The scammer may use threatening language in order to frighten you into offering your credit card or bank

Northern Electric Cooperative wants to make sure you avoid any and all types of scams that could put you or your financial information in jeopardy. account information. Don't fall victim to these types of scams. Understand the threats posed and your best course of action:

- If someone calls your home or cell phone demanding you pay your electric bill immediately, gather as much information as you can from that individual, hang-up the phone and contact your co-op directly. Scammers often use threats and urgency to pressure you into giving them your bank account number or loading a pre-paid credit or debit card. If you have any doubts about your utility bill, contact our offices either in person, or over the phone at 605-225-0310.
- If someone comes to your home claiming to be an employee of Northern Electric Cooperative that needs to collect money or inspect parts of your property, call us to verify they are, in fact, an employee. If they are not, call local authorities for assistance and do not let the individual into your home.

There are other types of scams consumers should watch out for:

- Government agencies like the IRS will never call to inform you that you have unpaid taxes or other liens against you. You will always receive this type of information in the mail. If someone calls claiming to be the IRS, hang-up immediately.
- If you receive an email from an unknown sender; an email riddled with spelling errors and typos; or an email threatening action unless a sum of money is paid, do not click any links provided within the email, and do not respond to the email. Simply delete the email, or send it to your spam folder.
- If someone calls your home claiming to have discovered a virus on your computer, hang-up. This caller's intent is to access personal information you may be keeping on your computer.

Northern Electric Cooperative wants to make sure you avoid any and all types of scams that could put you or your financial information in jeopardy. If you have any questions or would like more information about how you can protect yourself from scammers, call us at 605-225-0310.



The Low -Income Energy Assistance Program (LIEAP) helps eligible South Dakotans pay for home heating costs. Energy assistance may not pay for all your home heating costs but it will help ease the strain of the heating season. Energy assistance is available from October 1 - May 15.

Eligibility for the program is based on:

- -Number of people in household
- -Gross income of everyone in household
- -Type of heating for the home
- -Geographic area you live in

Applications can be obtained by calling 1-800-233-8503, online at http://dss.sd.gov/economicassistance/energyassistance/lowincome.aspx , at the local Department of Social Services office or from the Northern Electric office in Bath, SD.

The Encyclopedia of Modern Electricity

DOE study describes how coal plants and solar cells can share the same power lines – and more.

By Paul Wesslund

NRECA

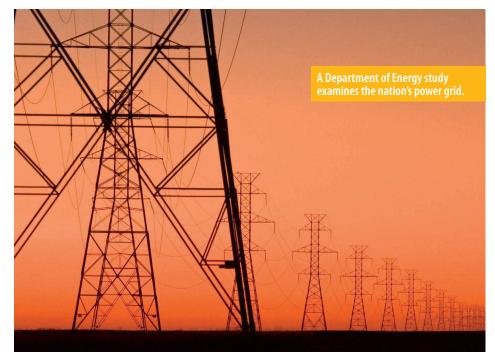
Coal-fired power plants are closing. Homeowners with rooftop solar panels are selling unused electricity back to their utility. Windfarms are springing up across the Great Plains. Fracking and other drilling techniques have cut the cost of natural gas by more than half since 2002 and doubled the amount of electricity generated by natural gas.

What does all this mean for the nation's network of wires and power plants otherwise known as the electric grid? The answer lies within a new report from the U.S. Department of Energy, says Pam Silberstein, senior director of power supply for the National Rural Electric Cooperative Association.

"It's incredibly well-written, well-researched, very thorough, very comprehensive," says Silberstein. "It's a well put-together compilation of the state of the grid."

The study is a quick turnaround response to an April 14 memo from Department of Energy Secretary Rick Perry

DOE's August 2017 Staff Report to the Secretary on Electric Markets and Reliability describes the complex state of the electric grid and goes into great detail on how utility trends might affect the price and availability of electricity. It highlights



the importance of retraining coal and nuclear power workers and the effects that renewable energy has on the stability and reliability of the existing electric utility system.

Better reliability

Another way to describe the report: If someone decided that every high school student should understand how the nation's system of electric wires and power plants works, this study would make a good textbook.

Silberstein sees the grid study as a report that puts in one place all the changes affecting utilities and what those changes might mean. She says, "We're asking our utility systems to meet a lot of demands they haven't been asked to do before." The study is a quick-turnaround response to an April 14 memo from Energy Secretary Rick Perry to DOE's chief of staff to "explore critical issues central to protecting the long-term reliability of the electric grid."

Plenty has changed for electric utilities over the past 20 years and this DOE study describes that new landscape with enough detail to satisfy the most hard-core energy nerd:

About 15 percent of the nation's power plants have been retired since 2002, mainly coal and nuclear plants. That trend is expected to continue due to low natural gas prices, slower growth in demand for electricity, environmental regulations and more solar and wind power. While new generating capacity from sources including natural gas and renewable energy has amounted to about three times the plant retirements, that radical change in the energy mix requires new ways of managing the flow of electricity from the power plants where it is made, to the homes and businesses where it is used.

- People are demanding better reliability in their electricity; enough that utilities have supplemented their goals of reliability with a new term, "resilience." Basically that means being able to get the lights back on faster after a natural disaster. That has utilities experimenting with things like utility-scale storage batteries and more precise targeting of which customers should get power restored first.
- A lot of states are passing Renewable Portfolio Standards that mandate levels of green energy, creating a patchwork of requirements in the national grid.
- New and growing additions to the electric grid are changing the way it needs to be managed. Those new power sources include rooftop solar panels that sell electricity back to the utility, natural gas plants that require new pipelines, solar and wind farms in remote areas that need to be connected with new transmission lines and "demand response programs" in which utilities can turn off home water heaters and air conditioners for short periods during times of peak demand.

Recommendations from the study include:

- Updating the pricing arrangements that govern the buying and selling of electricity.
- Improving disaster preparedness.
- Reviewing regulations that limit the growth of power generation, especially for coal, nuclear, and hydroelectricity.
- Focusing on workforce development as energy workers face a changing energy marketplace.
- Modernizing the software that manages electricity transmission.
- Coordinating with Canada and Mexico to enhance electric reliability across all of North America.

The study also notes the importance of cybersecurity to the electric grid, but said that would be addressed in an upcoming joint report from the Department of Energy and the Department of Homeland Security.

Paul Wesslund writes on cooperative issues for the National Rural Electric Cooperative Association, the Arlington, Va.-based service arm of the nation's 900-plus consumer-owned, not-for-profit electric cooperatives.

THE EVER-CHANGING ELECTRIC GRID

A recent DOE report on the nation's electric grid tells the story of an extreme makeover that is impacting the price and availability of electricity. Let's take a look at some of those changes and how they impact utilities:

Less Coal and Nuclear:

About 15 percent of the nation's power plants have been retired since 2002, while new generating capacity from sources like natural gas and renewable energy has amounted to about three times the plant retirements. This radical change to our energy mix means utilities must find new ways to manage the flow of electricity.





More Renewables:

Over the last year, renewable energy generation increased from 7 percent to 10 percent. These new and growing additions to the electric grid are changing the way it needs to be managed.

Green States: 29 states and the District of Columbia have adopted Renewable Portfolio Standards, which require a certain amount of electricity to be produced from renewable energy. This means utilities have to manage a patchwork of different requirements.



Storm Recovery:

People want electricity all the time. In addition to reliability, utilities are exploring a goal of resilience, which means faster recovery and restoration after major storms and natural disasters.

SOURCE: DEPARTMENT OF ENERGY (DOE)

YOUTH NEWS



Students Can Apply For \$1,000 and \$500 Scholarships

2018 Scholarship Applications Being Accepted

Northern Electric Cooperative and North Dakota-based power supplier Basin Electric Power Cooperative are offering two scholarships in 2018 to help co-op families with the cost of college.

"Supporting students who are part of the cooperative family is an important component of our culture," Northern Electric CEO and General Manager Char Hager said. "We are pleased to present two scholarships to students in our service territory every year."

In 2017, Brigham Young University Sophomore Roman Orr was awarded the \$1,000 scholarship from Basin Electric and South Dakota School of Mines and Technology Sophomore Lily Cutler was awarded the \$500 scholarship from Northern Electric. The parents of both students are members of Northern Electric Cooperative and live within the service territory.

"Having the scholarship will help me focus more on academics and on my grades instead of being stretched too thin," Orr said about receiving the \$1,000 scholarship that was applied toward his tuition at BYU this fall.

To be eligible for the scholarships parents of the students must be current consumers of Northern Electric Cooperative. The scholarship application process includes a short essay and documentation of academic and extracurricular activities. Applications and instructions on how to apply have been sent to high school counselors throughout Brown and Spink counties and the Northern Electric service territory. Information about the scholarship and an application can also be found at <u>www.northernelectric.coop/scholarships.</u>

Students should fill out the Basin Electric scholarship application and mail or hand deliver the application to one of the Northern Electric offices in Bath or Redfield by February 16, 2018. Two students will be selected from the pool of applicants for the scholarships. One student will receive the \$1,000 scholarship and the other student will receive \$500.

How to Apply

- Scholarship Eligibility Applicants must be U.S. citizens, under the age of 25, and natural or adopted children of Northern Electric Cooperative consumers/ members. Any applicant must be a student who is enrolled, or planning to enroll in, a full-time graduate or undergraduate course of study at an accredited two-year or four-year college, university, or vocational/technical school.
- How the Selection Process
 Works

All applications are critically evaluated using a combination of several criteria including: SAT/ ACT scores, grade-point average, work experience, participation in school and community activities, a statement by the student explaining his/her educational and career goals, financial need, and a written recommendation by a third party.

A committee of cooperative employees will evaluate the applications and submit the entry to Basin Electric for scholarship distribution and select the winning entry for the Northern Electric scholarship.

Application

Applications are available from local high school guidance counselors, on the Northern Electric Cooperative website at <u>www.northernelectric.coop/</u> <u>scholarships</u>, or directly from the Northern Electric offices in Bath or Redfield.

Completed applications MUST BE RETURNED BY FEBRUARY 16, 2018 to:

Northern Electric Cooperative ATTN: Kay Albrecht PO Box 457 Bath, SD 57427

For more information contact Kay Albrecht at: **605-225-0310**

YOUTH NEWS



Hitchcock Tulare senior Baylee Enander receives a \$100 check from Northern Electric District 9 Director Nolan Wipf for being named the Scholar of the Week on December 4.

Baylee Enander Receives Recognition for Achievements

Hitchcock-Tulare Senior Named Scholar of the Week

Hitchcock-Tulare High School senior Baylee Enander was surprised and honored to be named the Touchstone Energy Scholar of the Week on December 4. Enander is one of nearly three dozen students who will be recognized for their academic and extra-curricular achievements this school year.

"It's pretty exciting. I did not expect it," Enander said.

Enander is the first student in the Northern Electric service territory to receive the honor for the 2017-2018 school year. She excels in the classroom with a 4.07 grade point average at Hitchcock-Tulare High School. Enander is also involved in several activities outside the classroom including volleyball, basketball, track, FFA, Family Career and Community Leaders of America (FCCLA), and a member of the science quiz bowl team.

"It takes a lot of time management, but the

school is pretty relaxed and allows us to be involved," Enander said about balancing her school work and extra-curricular activities.

Enander plans to attend the University of South Dakota when she graduates in the spring. She wants to pursue a special education degree and hopes to work at a school or as a behavioral specialist someday.

"I want to work with younger kids," Enander said.

Enander was featured on KSFY-TV on December 4 for being named the Touchstone Energy Scholar of the Week. The Hitchcock-Tulare senior also received a \$100 check from Northern Electric Cooperative for her accomplishments. Enander will also be eligible for a \$1,000 or \$500 scholarship during the Touchstone Energy Scholar of the Year banquet in the spring.

RECIPES NEEDED FOR

间 Country Cookín' Cookbook

Your recipe could be featured in the 34th volume of East River Electric's Country Cookin' cookbook!

Help us create another great cookbook by submitting your favorite recipes as well as recipes for the cookbook's "Light Side" section.

Submit recipes via email to kstone@eastriver.coop, fax to 605-256-8057, or contact your local cooperative for more information.

Submission deadline is Monday, January 29, 2018.



December 15-March 31

South Dakota snowmobile trails season, Lead, SD, 605-584-3896

December 23 Skates and a Movie, Rapid City, SD, 605-716-7979

December 31 Make-A-Wish New Year's Eve Dance, Ramkota Hotel and Convention Center, Aberdeen, SD, 605-370-4588

December 31 HOT 93.1 Downtown Countdown, Rapid City, SD, 605-716-7979

January 6 Cyanotype Photography Process, Spearfish, SD, 605-642-7973

January 11-13 Ice Fishing Tournament and Expo, Mobridge, SD, 605-845-2500

January 12-13 Red Dirt Festival, Deadwood, SD, 605-559-0386

January 13 Christmas with the Animals, Sioux Falls, SD, 605-367-7003

January 17-25 Winter Art Show, Spearfish, SD, 605-642-7973

January 19 Portland Cello Project Concert, Spearfish, SD, 605-642-7973

January 19-20 Media One Funski, Sioux Falls, SD, 605-339-0000

January 19-20 ISOC Deadwood SnoCross Showdown, Deadwood, SD, 605-578-1876



January 9 South Dakota Legislature Convenes, Pierre, SD February 20 Minnesota Legislature Convenes, St. Paul, MN

January 20 Bark Beetle Blues, Custer, SD, 605-440-1405

January 21 REO Speedwagon, Deadwood, SD, 605-559-0386

January 26-February 4 Annual Black Hills Stock Show and Rodeo, Rapid City, SD, 605-355-3861

January 27 Sioux Empire on Tap, Sioux Falls, SD, 605-367-7288

February 3 Tomahawk Snow Jam, Deadwood, SD, 605-569-2871

February 6-10 Winter Farm Show, Watertown, SD, 605-886-5814

February 9-10 Mardi Gras Weekend, Main Street, Deadwood, SD, 605-578-1876

February 15-17 Sno Jam Comedy Festival, Sioux Falls, SD, siouxfallssnojamcomedyfest@gmail.com

February 16-18

2018 National Pheasant Fest and Quail Classic, Sioux Falls, SD, 651-209-4933

February 16-18 Annual Frost Fest, Brookings, SD, 605-692-6125

February 24 Snow Jam, Lead, SD, 605-569-2871

February 24 Annual Outhouse Races and

Chili Cook-off Contest, Nemo, SD, 605-578-2708

March 3-6 2018 Summit League Basketball Championship, Sioux Falls, SD, 605-367-7288

March 10-11

2018 Gun Show, American Legion Hall, Saturday 9 a.m. to 5 p.m., Sunday 9 a.m. to 3 p.m. MST, Philip, SD, 605-859-2280 or 605-441-8466

March 16-17

28 Below Fatbike Race, Lead, SD, 605-584-3435

March 16-17, 23-24 60th Annual Schmeckfest, Freeman, SD, 605-925-4237

March 17 Annual Ag Day at the Washington Pavilion, Sioux Falls, SD, 605-367-6000

March 27 Socks in the Frying Pan Concert, Spearfish, SD, 605-642-7973

March 31 Eggstravaganza, Rapid City, SD, 605-716-7979

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.