

Cooperative Connections

**Preparedness
Is Key For
Natural
Disasters.**

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**DOE Gets
Studious.**

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How Can We Better Serve You in 2018?



Ken Schlimgen

General Manager

Very recently, your cooperative conducted a survey asking members about solar energy. My sincere thanks to all who completed the survey.

It's amazing what we can learn through listening and observation. Listening to our members improves understanding, builds trust, and strengthens relationships. That's why your cooperative employees and directors enjoy visiting with our members. Our District Meetings in January are a great opportunity for you to participate in an informative meeting and an opportunity for us to listen to what you have to say.

Very recently, your cooperative conducted a survey asking members about solar energy. My sincere thanks to all who completed the survey. Solar technology seems to be getting a lot of press these days, and we thought it was important to find out what you thought about solar.

Central Electric joined Bon Homme Yankton Electric of Tabor, Dakota Energy of Huron, and Charles Mix Electric of Lake Andes to conduct the membership survey. A total of 571 members participated in the survey to help us gauge what you know about this technology and how much interest you have in using it.

The survey results reminded us that the majority of our membership is over the age of 45. Why is this important? Statistics show that the older we get, the less likely we are to adopt any new type of technology, especially one like solar where a major investment is needed. The survey indicated that most members believe solar systems need to become more reliable and affordable before they will invest in this technology.

We were also reminded that the majority of our members own their home and that is an advantage when it comes to installing a solar system. About 5% of the survey respondents were very interested in solar technology and believe this technology will be more attractive in the next few years. Our members also felt that their cooperative should be involved by educating the membership with printed materials, workshops or online infor-

mation. Some members even thought their cooperative should consider being involved with installations.

We are still digesting the survey responses and discussing ways we can provide more education for our members. We intend for our information to be unbiased, straight forward and honest to help our members make informed decisions. We will be covering this topic in more detail at the upcoming District Meetings. I encourage you to attend and assure you we will be listening to what you have to say.

Technology is changing how we do business faster than ever. Technologies like smart thermostats, smart appliances, and electric vehicles will be common place in the not so distant future. These technologies are now being referred to as "beneficial electrification" as they help to improve the quality of life just like access to electricity did some 75 years ago.

So, how do we serve you better in 2018? The same way many of us try to better serve community and family each day—by continuing to listen. In our offices, on telephones, through social media exchanges and in our face-to-face meetings, we're ready to listen. I encourage you to call us when you have questions about regarding any of our products or services. When we know just what you want, we're in a better position to deliver successful results. So, drop in and see us. We're always glad to hear from you.

In closing, I am pleased to report that your cooperatives electric rates will not be changing as we welcome in 2018. In addition, your board of directors has authorized a \$500,000 general refund of capital credits which most of you saw on your billing earlier this month. Others will receive their share of the retirement as a check. We hope that spending a little less on your electric bill will allow you to enjoy the Holiday Season a little more. Happy Holidays to you and your family!



(USPS 018-963)

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CENTRAL ELECTRIC COOPERATIVE CONNECTIONS is the monthly publication for the members of Central Electric Cooperative, PO Box 850, Mitchell, SD 57301. Families subscribe to Cooperative Connections as part of their electric cooperative membership. Central Electric Cooperative Connections' purpose is to provide reliable, helpful information to electric cooperative members on matters pertaining to their cooperative and living better with electricity. Also available at www.centralec.coop.

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Postmaster: Please send address changes to Central Electric Cooperative, PO Box 850, Mitchell, SD 57301. Address all other correspondence to: Cooperative Connections, PO Box 850, Mitchell, SD 57301 Telephone: (605)996-7516; Fax: (605) 996-0869; e-mail: cec@centralec.coop; website: www.centralec.coop.

Office Information

M-F 8:00 a.m. - 4:30 p.m.
 800-477-2892 or
 605-996-7516
www.centralec.coop

**Mission Statement**

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

District Meetings

Meal 6:30 PM**Meeting 7:00 PM**

**\$10 Energy Certificate for
 each member in attendance**

Hanson County

Thursday, January 4
 St. Mary's Catholic Hall
 Alexandria

Aurora County

Tuesday, January 16
 Ag Building
 Plankinton

Davison County

Thursday, January 18
 Davison County 4-H Grounds
 Mitchell

Sanborn County

Monday, January 22
 4-H Building
 Forestburg

Jerauld County

Tuesday, January 23
 Springs Inn
 Wessington Springs

Buffalo County

Thursday, January 25
 Tribal Headquarters Gym
 Ft. Thompson

Miner County

Monday, January 29
 4-H Building
 Howard

Brule County

Tuesday, January 30
 Ag Building
 Pukwana

Employee Years of Service

Mick Poncelet - January 3
 34 Years

Kevin Johnson - January 16
 12 years

Tony Roth - January 3
 12 years

Ken Schlimgen - January 28
 33 years

Thank you for your combined 91 years of service!

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 qualified 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 fuel-burning 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

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.

Kettle Creations

Chicken Rice Soup

1 T. oil	1/2 tsp. minced garlic
1 lb. boneless skinless chicken breasts	1/4 tsp. thyme leaves
1 cup chopped onion	2 bay leaves
4-1/2 cups water	1/2 cup sliced carrots
4 cups reduced-sodium chicken broth	1/2 cup sliced celery
	1 package ZATARAIN'S® 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	2 cups chopped cooked cabbage
4 medium carrots, sliced	1 tsp. dill weed
2 cups cubed peeled 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 1/2-inch to 3/4-inch pieces	1 tsp. Season-All seasoned salt
1 small onion, chopped	3/4 cup powdered coffee creamer
1 cup chopped or shredded carrots	3 T. butter
1 (13 oz.) bag frozen sweet garden peas	1 (12 oz.) can evaporated milk
1 tsp. salt	4 to 5 strips bacon, cooked 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.

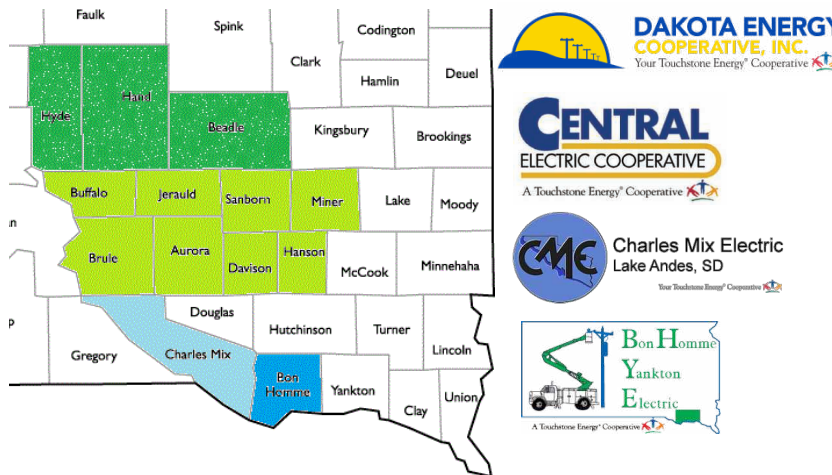
Solar Survey Results

What do our members think about solar?

• RESPONSE RATE OF 35.7%

Surveyed 1600 members from 4 co-ops

Received 131 online responses & 446 paper responses



• 1.23% HAVE ALREADY INSTALLED SOLAR

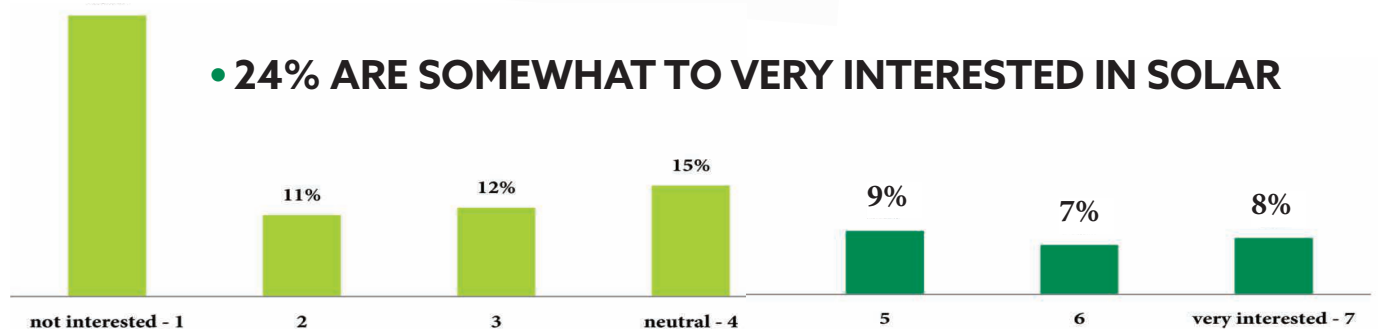
National Average = 4%; Midwest Average = 1%

• 93.47% HAVE NO PLAN TO INSTALL SOLAR

- No Plans - 93.47%
- Already installed solar - 1.23%
- No, but plan to in next year - 1.23%
- No, but plan to in next 2 or more years - 4.06%



• 24% ARE SOMEWHAT TO VERY INTERESTED IN SOLAR



• DEMOGRAPHICS

94.2% own their homes

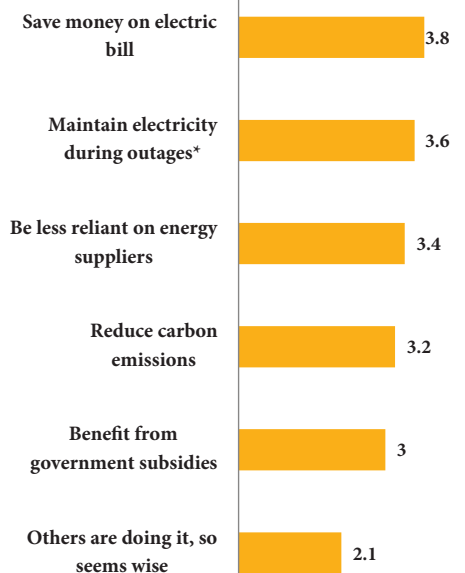
72% are 55+ years old

82% single family homes

74.1% 1-2 people in home

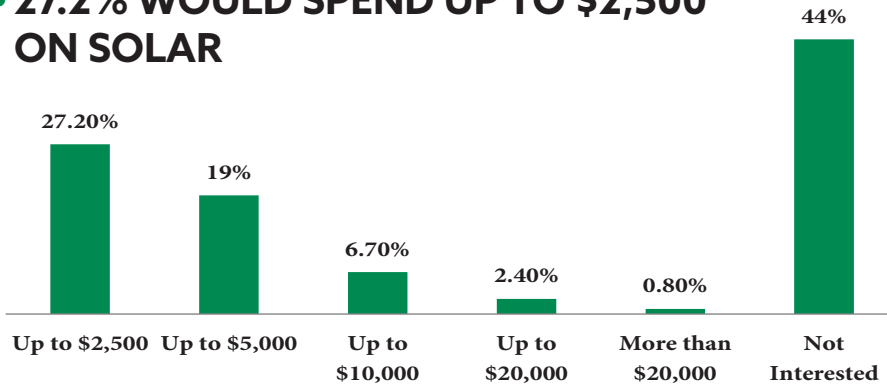
• MEMBER'S TOP INFLUENCES TO USE SOLAR

Importance on Scale of 1-5



*The majority of homes are wired so that if the power goes out, the home loses access to the solar power as well. Contact Central Electric for more information.

• 27.2% WOULD SPEND UP TO \$2,500 ON SOLAR



• WHY HAVEN'T YOU INSTALLED SOLAR?

39.4% too expensive

30.3% concerned with reliability and maintenance

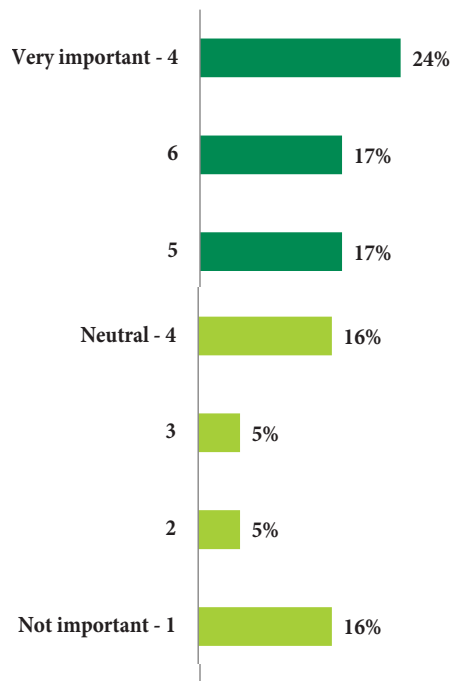
18.9% think energy production will fall short of expectations

17.4% don't want to make a long-term commitment to solar

12% my property or roof will not work well with solar

38.7% other:
I am too old
Never thought about it
Didn't know it was an option
Don't know where to start
Not enough information

• 58% SAID IT WOULD BE IMPORTANT TO PURCHASE ROOFTOP SOLAR FROM THE COOPERATIVE



• SUMMARY OF MEMBERSHIP

Solar friendly characteristics:

- 1) long term, loyal members who stay in their homes
- 2) most own their homes
- 3) fairly high solar potential (sun availability)

Non-solar friendly characteristics:

- 1) older age of membership
- 2) overall lack of interest

So What Now?

The purpose of the survey was to gauge what our members know about solar and what they want to see from their cooperative regarding solar technology.

The survey made it clear that our membership needs more information about solar energy. As your electric cooperative, our goal is to provide you with non-biased information that serves your best interests.

In 2018, we plan to roll out more communications on solar technology to educate you and serve as a trusted resource.

If you are considering installing solar, please reach out to your electric cooperative. Currently, our cooperative sells, installs and services solar well pumps. We also have real data from our solar system that we can share. View the current data at www.centralelec.coop.

If you receive a solar installation quote, your cooperative can verify your electric bill and usage are accurately represented on the quote and cost-savings.

We welcome any feedback from our membership on how we can better serve your needs regarding renewable energy or any other concerns.

Contact us at 800-477-2892 or 605-996-7516.

Attend your local District Meeting in January for more detailed information about the survey! Find your meeting's date on pg. 3.

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

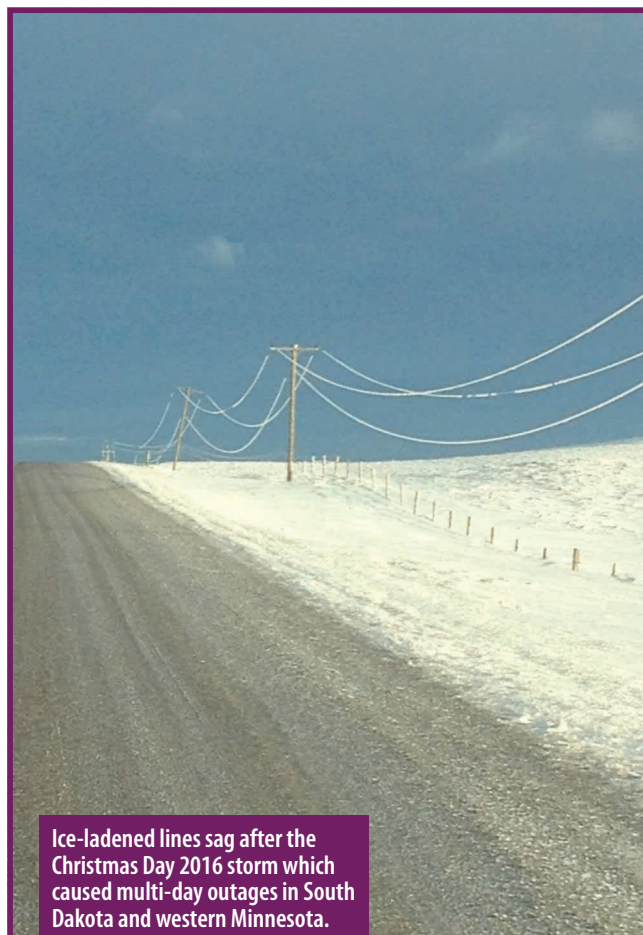
Thomas Kirk

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.



Ice-laden lines sag after the Christmas Day 2016 storm which caused multi-day outages in South Dakota and western Minnesota.

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

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.

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.

Before power outage



Keep refrigerator at **40° or below**. Freeze items like fresh meat and poultry that you won't use immediately. Keep freezer set to **0° or below**. Group frozen foods to help items stay colder longer.



If you anticipate an extended power outage, buy dry or block ice to keep the fridge and/or freezer cold.

During power outage

Keep the refrigerator and freezer doors closed!

If the doors stay closed during the length of the outage:



A full freezer will hold its temperature for **48 hours**.



A refrigerator will keep food safe for **four hours**.

After power outage

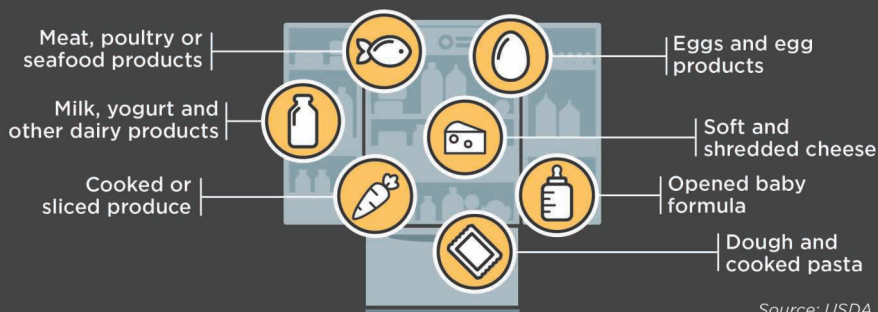


Check the temperature inside your refrigerator and/or freezer.



If the temperatures are safe, the food should be safe to eat.

Foods that should be thrown out after an extended power outage:



Source: USDA

Scholarships



Deadline: February 1, 2018

Central Electric Cooperative offers up to three \$1,000 scholarships sponsored by Basin Electric Power Cooperative and the family of the late Jay Headley.

Basin Electric Power Cooperative Scholarship

One scholarship in the amount of \$1,000 will be awarded.

To be eligible, a student must be

- a dependent of a member whose primary residence receives electric service from Central Electric
- enrolled or planning to enroll in a full time graduate or undergraduate course of study
- a U.S. citizen

Jay Headley Memorial Scholarship

In honor of the late Jay Headley, the family will award two scholarships in the amount of \$1,000.

To be eligible, a student must be

- a dependent of a member whose primary residence receives electric service from Central Electric
- pursuing a bachelor's of science degree in an agricultural related field
- a U.S. citizen

Apply online at www.centralec.coop.

Youth Tour



Deadline: March 1, 2018

Central Electric will sponsor up to eight high school juniors to participate in the Rural Electric Youth Tour on June 7-14, 2018. Youth Tour includes a full expenses paid trip to Washington, D.C.

To be eligible, you must be a high school junior who permanently resides within Aurora, Brule, Buffalo, Jerauld, Sanborn, Miner, Davison, or Hanson counties or be the dependent of a Central Electric member.

Submit an essay, not to exceed 1,000 words on the following topic:

"As a member-owned, not-for-profit utility, Central Electric Cooperative strives to improve the quality of life for our members. Discuss the benefits of your cooperative membership."

Essays must be typed and include a cover sheet that states the essay title, entrant's name, email address, and phone numbers as well as the parent's/guardian's name, address, email address, and phone numbers and the school they attend. Winners will be asked to submit a digital photo for use in cooperative publications and also give a brief presentation on their trip at the following district meeting in their director district.

Send your essay to "Washington Youth Tour Contest", Central Electric Cooperative, PO Box 850, Mitchell SD 57301 by March 1, 2018. All essays remain the property of Central Electric Cooperative.

For more information, visit www.centralec.coop

Merry Christmas & Happy New Year From Central Electric Cooperative!



Pictured front row, L-R: Patrick Soukup, Ryan Mueller, Teresa Sprinkel, Geoff Byrd, Dustin Weier, Scott Kroger, Rodney Weber, Kevin Johnson, Mick Poncelet, Tim Johnson, Lindsey Wilson, Lincoln Feistner, Jesse Baker, Andrew Baier, Tony Roth, Cody Poppen, Cody Riggs, Curt Guindon, John Vetch, Paul Koch, Ryan Bigge, Donn Koster, Jon Reichert, Dusty Roskens, Brian Bultje, Aaron Punt, DuWayne Moore, Tim Harrington, Courtney Deinert, Don Patton
Middle: Wade Brozik, Al Spader, Doug Schley, DeEtte Bohr, Heather Wiczorek, Gene Gaikowski, Daren Hoffer, Bruce Sparks
Top: Ken Schlingens, Norton Truman, Tim Neises

Open House

December 18 - 22, 2017

**Stop in for coffee & cookies at
the main office this week!**

Office Closings

December 25 - Christmas

January 1 - New Year's Day



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

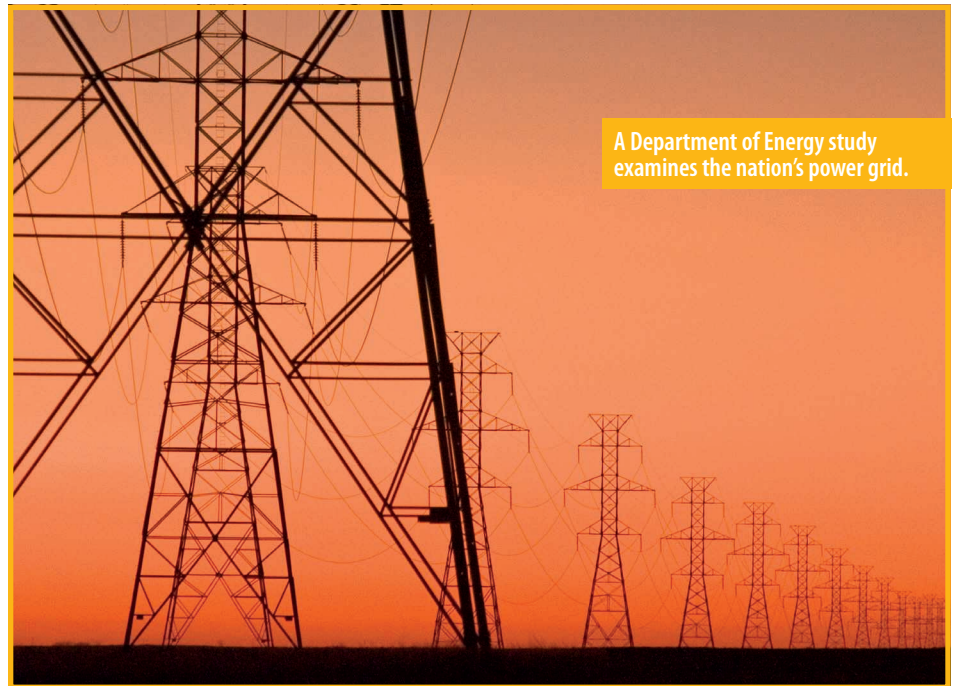
Coal-fired power plants are closing. Homeowners with rooftop solar panels are selling unused electricity back to their utility. Windfarms are springing up across the Great Plains. Fracking and other drilling techniques have cut the cost of natural gas by more than half since 2002 and doubled the amount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



A Department of Energy study examines the nation's power grid.

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.

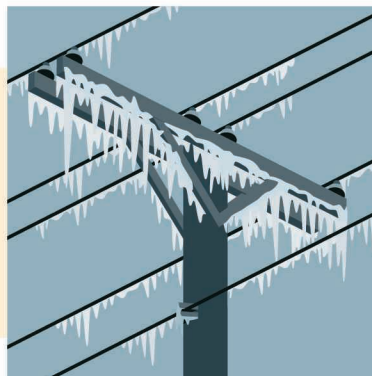


More Renewables:

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)



Turning your thermostat back can save you money.

WAYS TO SAVE ENERGY THIS WINTER

U.S. Department of Energy

<https://energy.gov/energysaver/fall-and-winter-energy-saving-tips>

The strategies below will help you save energy, save money, and stay comfortable during the cold winter months. Some of the tips below are free and can be used on a daily basis to increase your savings; others are simple and inexpensive actions you can take to ensure maximum savings through the winter.

If you haven't already, conduct an energy audit to find out where you can save the most, and consider making a larger investment for long-term energy savings.

Take Advantage of Heat from the Sun

- Open curtains on your south-facing windows during the day to allow sunlight to naturally heat your home, and close them at night to reduce the chill you may feel from cold windows.

Cover Drafty Windows

- Use a heavy-duty, clear plastic sheet on a frame or tape clear plastic film to the inside of your window frames during the cold winter months. Make sure the plastic is

sealed tightly to the frame to help reduce infiltration.

- Install tight-fitting, insulating drapes or shades on windows that feel drafty after weatherizing.
- Find out about other window treatments and coverings that can improve energy efficiency.

Adjust the Temperature

- When you are home and awake, set your thermostat as low as is comfortable.
- When you are asleep or out of the house, turn your thermostat back 10° to 15° for eight hours and save around 10 percent a year on your heating and cooling bills. A smart or programmable thermostat can make it easy to set back your temperature.
- If you have a heat pump, maintain a moderate setting or use a programmable thermostat specially designed for use with heat pumps.

Find and Seal Leaks

- Seal the air leaks around utility cut-throughs for pipes ("plumbing penetrations"), gaps around chimneys and recessed lights in insulated ceilings, and unfinished spaces behind cupboards and closets.

- Find out how to detect air leaks.
- Learn more about air sealing new and existing homes.
- Add caulk or weatherstripping to seal air leaks around leaky doors and windows.
- Find out how to select and apply the appropriate caulk and weatherstripping.

Maintain Your Heating Systems

- Schedule service for your heating system.
- **Furnaces and heat pumps:** Replace your filter once a month or as needed. Find out more about maintaining furnaces or boilers and heat pumps.
- **Wood- and Pellet-Burning Heaters:** Clean the flue vent regularly and clean the inside of the appliance with a wire brush periodically to ensure that your home is heated efficiently. Find other maintenance recommendations for wood- and pellet-burning appliances.

Reduce Heat Loss from the Fireplace

- Keep your fireplace damper closed unless a fire is burning. Keeping the damper open is like keeping a window wide open during the winter; it allows warm air to go right up the chimney.
- When you use the fireplace, reduce heat loss by opening dampers in the bottom of the firebox (if provided) or open the nearest window slightly – approximately 1 inch – and close doors leading into the room. Lower the thermostat setting to between 50° and 55°F.
- If you never use your fireplace, plug and seal the chimney flue.
- If you do use the fireplace, install tempered glass doors and a heat-air exchange system that blows warmed air back into the room.
- Check the seal on the fireplace flue damper and make it as snug as possible.
- Purchase grates made of C-shaped metal tubes to draw cool room air into the fireplace and circulate warm air back into the room.
- Add caulking around the fireplace hearth. Find out more techniques to improve your fireplace or wood-burning appliance's efficiency. Learn tips for safe and efficient fireplace installation and wood burning.

Lower Your Water Heating Costs

Turn down the temperature of your water heater to the warm setting (120°F). You'll not only save energy, you'll avoid scalding your hands.

5 Ways to Save Energy this Winter

Energy efficiency projects to reduce winter bills at home add up to good dollars and cents, and the payoffs continue throughout the year. Here are five tips to jumpstart energy savings:

1 BUTTON UP

Caulk, weather stripping and insulation help seal gaps, keeping heated air in.

2 SWITCH OFF

Power strips are ideal for spaces tied to occasional use. Electronics in workshops, craft nooks, game rooms, home offices and guestrooms are great for a one-touch switch off power strip.

3 CHECK THE OVER/UNDER

One of your best bets for saving is a full ductwork inspection under floors and over ceilings. Collapsed connections, tears, animal damage and register gaps can leak conditioned air into unused spaces.

4 LEAD WITH LEDS

The more use a kitchen gets, the greater the potential savings with new generation LEDs. Replacing every bulb with new generation bulbs is a bright idea for winter that will also keep your cooking space cooler in summer.

5 LEGACY LOSERS

More than 60 million refrigerators in the U.S. are at least 10 years old, costing consumers more than \$4 billion a year in energy expenses. Replacing that old family-sized fridge with a smaller EnergyStar model will save money for years to come.



Source: U.S. Dept. of Energy

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 Funkski, 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, siouxfallssno-jamcomedyfest@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.