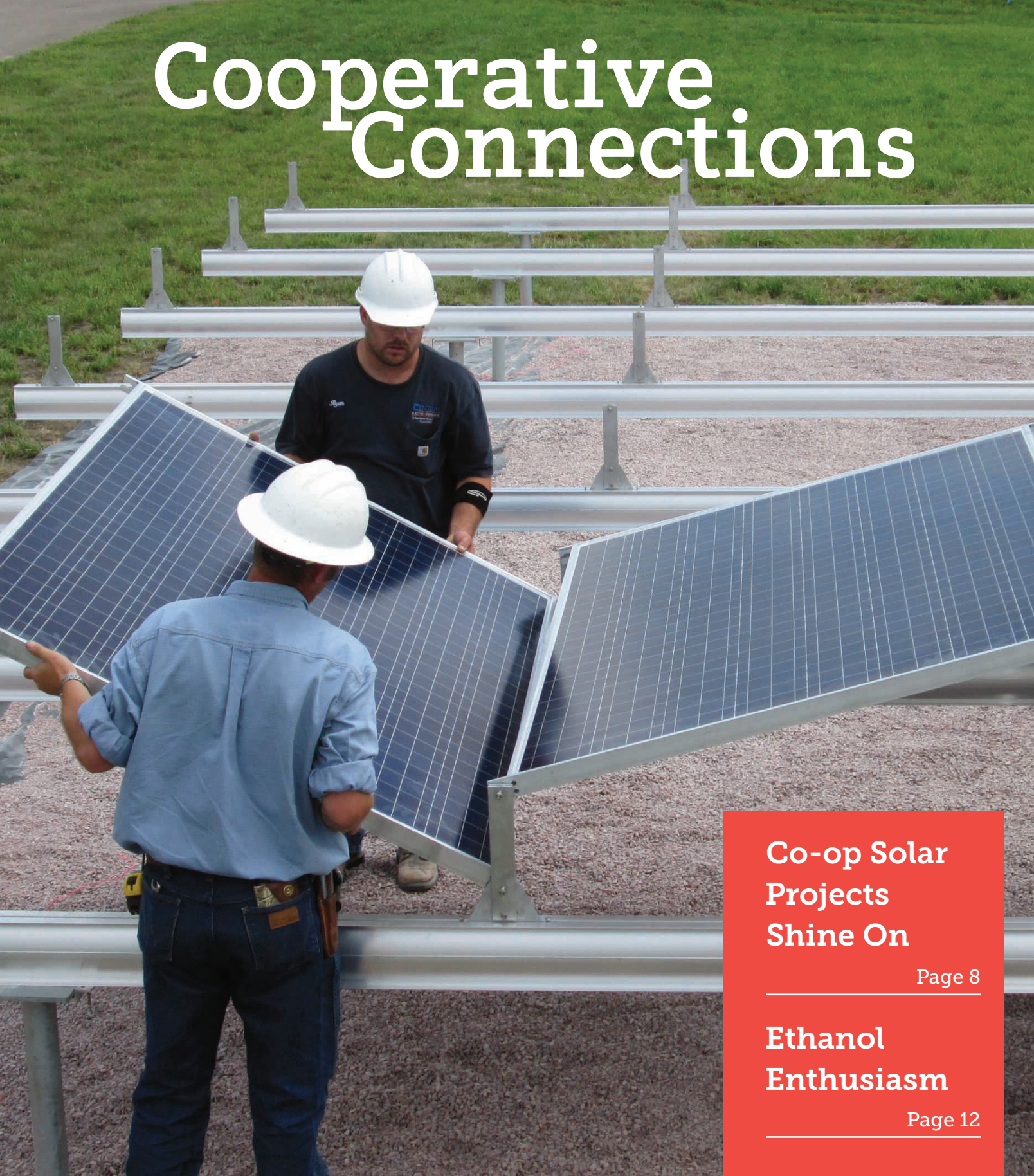


Cooperative Connections



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Projects
Shine On**

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Enthusiasm**

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Back to School

Electric Co-ops Are Continually Learning to Improve Service for Members



John Lee, CEO

jlee@butteelectric.com

Butte Electric is continually learning in order to advance technology that improves electric service, reliability, safety and in turn, enhances quality of life for the members we serve in our local communities.

It's a new school year and kids of all ages are getting ready for a fresh year of learning! From kindergarten through college, students attend school to gain knowledge about a broad variety of subjects and learn new skills that will prepare them for the future. In a similar vein, Butte Electric is continually learning in order to advance technology that improves electric service, reliability, safety and in turn, enhances quality of life for the members we serve in our local communities.

Butte Electric keeps abreast of industry trends because the energy sector is rapidly changing. Innovations in technology and energy types are fueling demand for more options. On the consumer front, people are looking for more ways to manage their energy use with smart technologies. Consumers expect more convenient payment methods – whether through automatic bill pay, pre-pay, online or in person.

We're working to help sift through the options for our members in ways that benefit the greater community. At the same time, we never lose sight of the top priority – providing safe, reliable and affordable electricity.

Technology improves operational efficiency.

For example, automated meter reading (AMR) is the technology of automatically collecting energy consumption data and transferring it from the electric meter to the co-op. Because this information can be collected remotely, it enhances our system's efficiency, helps control costs and improves work processes.

Similar to AMR, there is another technology called advanced metering infrastructure (AMI). This is an integrated system of smart meters, communications networks and data management systems that enables two-way communication between utilities and consumers. In the event of an outage, AMI helps to distinguish between events that impact a single home or multiple outages. This is critical because resolving either issue is a very different process. The two-way communication is integral to AMI because it provides a means to verify that power has been restored after an outage. However, one of the biggest benefits from improved technologies, especially for outages caused by extreme weather, is pinpointing the outage location, which helps to reduce risk for crews out on the road during severe weather events.

In addition to providing essential information during major outages, Butte Electric analyzes AMI data for anomalies including faults, damaged meters or energy theft. Detecting these problems early helps our cooperative save money and improve reliability for the whole community.

Energy for the future.

Consumer interest in green energy sources and renewables is at an all-time high. Nationally, the increasing use of solar energy is paving the way for new methods of generating and using electricity. In our region, community solar programs allow co-op members to share in a remote solar array that generates electricity from the sun. U.S. energy experts say we will not be able to meet national energy goals unless we increase our solar energy capacity.

That's why Butte Electric continues to research how best to adjust our energy mix.

Whether it's examining green energy options or exploring how emerging technologies can better serve our members, for Butte Electric, our "school year" is never over. We will continue to learn from our members about their priorities for the future, and we will continue to study and research the issues so that we can better serve you, now and in the future.

Mission Statement

The mission of Butte Electric Cooperative, Inc., is to continually improve customer services; provide safe, reliable and competitively priced electricity; and continue to lead in developing our communities for the benefit of our members.

Butte Electric

Cooperative Connections

(ISSN 1531-1031)

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We Are Prepared For Summer Storms

Summer is here, school is out and families are gearing up for a few months of fun and relaxation. While summer brings much fun in the sun, it can also bring the occasional severe storm. In the event of a power outage, you can trust that Butte Electric is ready to respond.

The major cause of most power outages comes from damage to power lines due to falling trees and branches. We work year-round – through right-of-way clearing – to ensure power lines in our service territory stand little risk of being damaged by trees, branches or other types of vegetation.

Despite our best efforts, during major storms, damage can occur to transmission lines, substations and power lines. When this happens, our first priority is to safely restore power to as many members as possible in the shortest amount of time.

We start by mobilizing our line crews and other critical staff. Every phone line available is utilized to take your outage report calls. The big problems are handled first – like damage to transmission lines. These problems must be corrected before we can focus on other areas where more localized damage may have occurred.

Butte Electric's line crews inspect substations to determine if the problem starts there or if there could be an issue down the line. If the root of the problem is at the substation, power can be restored to most of our members.

Next, line crews check the service lines that deliver power into neighborhoods and communities. Line crews repair the damaged lines, restoring power to our customers. If you continue to experience an outage, there may be damage to a tap line outside of your home or business. Make sure you notify Butte Electric so crews can inspect these lines.

We will do our best to avoid power outages, but sometimes Mother Nature has other plans. Be sure to check Butte Electric's website, Facebook, Twitter, on your smartphone for the latest updates during a power outage.



Brett Fosheim

brett@butteelectric.com

Summer Storm Safety Tip

Strong summer storms can create dangerous situations. Always avoid downed power lines - the wire could be live, which could be deadly for those nearby. Quickly report downed power lines to your local electric cooperative.



Electrical Safety During Disasters

Electricity drives the modern world and we often take it for granted. And if a natural disaster occurs, there's a few things to remember to stay electrically safe during the storm.

- Before the storm hits, make sure to charge all phones and other communication devices. Then, unplug all electronics and move them as high as possible to avoid water damage from flooding.
- Turn off the main power breaker feeding the home to prevent any surges to the wiring and equipment.
- After the storm blows through, and you begin to evaluate the aftermath, it's important to avoid flooded areas as they may be electrified.
- Do not use any electrical equipment or electronics if they've been submerged.
- If flooding has occurred, have the electrical system inspected by a qualified electrical inspector.
- If you're using a generator, ensure a qualified electrician installed it and make sure to use a listed and approved transfer switch and GFCI protection.
- It's a good idea to protect your home with carbon monoxide detectors.
- When venturing outside, be very alert of your surroundings. If you encounter a fallen power line, stay at least 35 feet away. Avoid touching any objects the line may be laying on such as a fence, a car, or a light pole as the object could be energized.
- If others are around, alert them to stay away and call 911.

While storms can be devastating to a community, the aftermath can be challenging. However, could be an opportunity to renovate and upgrade your main power source with renewable energy such as solar.

Floodwaters and heavy winds aren't the only hazards during a storm. That's why it's important to treat electricity with extreme caution.

Source: esfi.org

Come visit your Touchstone Energy® Cooperatives at one of these events!

MINNESOTA

FARMFEST®

Aug. 6-7
Gilfillan Estate
28269 MN-67
Morgan, MN

Aug. 20-22

2300 E Spruce St.
Mitchell, SD

DAKOTAFEST®



Aug. 29-Sept. 2
1060 Third St. SW, Huron, SD

We'll see you there!

KIDS CORNER SAFETY POSTER



"Do not dig up electrical lines."

Luke Kangas, 9 years old

Luke is the son of Andrew and Gail Kangas, Lake Norden, S.D.
They are members of H-D Electric Cooperative, Clear Lake, S.D.

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.



Very Vegetarian

Southwest Brunch Casserole

- | | |
|--|-------------------------------------|
| 2 T. oil | 1 cup shredded Monterey Jack cheese |
| 1 medium onion, chopped | 6 eggs |
| 1 red bell pepper, chopped | 2 cups milk |
| 1 (8 oz.) loaf Italian bread, cut into 1-inch cubes (5 cups) | 1 tsp. chili powder |
| 1 (15 oz.) can black beans, drained and rinsed | 2 tsp. ground oregano |
| 2 cups shredded Cheddar cheese | 1 tsp. ground cumin |
| | 1 tsp. salt |

Heat oil in large skillet on medium heat. Add onion and bell pepper; cook and stir 3 minutes or until softened. Spread 1/2 of the bread cubes in 13x9-inch baking dish. Layer with 1/2 each of the onion mixture, beans, Cheddar cheese and Monterey Jack cheese. Repeat layers. Beat eggs in medium bowl until foamy. Add milk, chili powder, oregano, cumin and salt; beat until well blended. Pour evenly over top. Press bread cubes lightly into egg mixture until completely covered. Let stand 10 minutes. Bake at 350°F. for 40 to 50 minutes or until center is set and top is golden brown. Makes 12 servings.

Nutritional Information Per Serving: Calories 275, Total Fat 15g, Sodium 633mg, Cholesterol 121mg, Carbohydrates 21g, Protein 14g, Fiber 3g

Pictured, Cooperative Connections

Black Bean Burgers

- | | |
|--|---|
| 3 (15 oz.) can black beans, rinsed and drained | 2 T. seeded, minced jalapeno pepper (or pepper of choice) |
| 1-3/4 cups diced onion | 3/4 tsp. salt |
| 1-1/2 cups uncooked regular oats | 2 large eggs, lightly beaten |
| 3/4 cup chopped fresh cilantro | 1/4 cup all-purpose flour |
| | 1/4 cup cornmeal |

In a large bowl, coarsely mash beans with a fork. Add next 6 ingredients; stir well. Shape into 8 patties. Combine flour and cornmeal in a pie plate; stir well. Dredge patties in mixture. Cook patties in a small amount of oil over medium-high heat until lightly browned – about 5 minutes on each side.

Darcy Bracken, Hermosa, SD

Baked Pineapple

- | | |
|--|------------------------------|
| 1 cup sugar | 2 cups grated Cheddar cheese |
| 6 T. flour | 1 stick butter, melted |
| 5 T. pineapple juice | 1/2 cup cornflake crumbs |
| 2 cans pineapple tidbits, drain, reserving juice | |

Mix together sugar, flour and pineapple juice. Add pineapple and cheese. Place in a greased casserole dish. Combine butter and cornflake crumbs; sprinkle over all. Bake at 350°F. until brown and bubbly. Serve hot or cold.

Verna Nelson, Wakonda, SD

Bean 'n' Butter Bread

- | | |
|-----------------------------|--------------------------|
| 1 (15 oz.) can kidney beans | 1 egg, beaten |
| 1/3 vegetable oil | 1 cup hot water |
| 1/3 cup peanut butter | 3 pkgs. yeast |
| 1/3 cup molasses | 4 cups all-purpose flour |
| 3 T. sugar | 1 cup whole wheat flour |
| 1 tsp. salt | Egg white |

Place first 7 ingredients in blender; blend until smooth. Pour into large mixing bowl. Stir in hot water. Combine yeast and 4 cups flour. Add to bean mixture, mixing well. Add wheat flour. Work in to form a stiff dough. Let rise 1-1/2 hours. Punch down and let rise 15 minutes. Shape into 2 loaves, placing on a greased cookie sheet. Mix egg white with 2 T. water for egg wash. Brush on loaves. Make 1/8-inch slash every 2-1/2 inches apart. Bake at 350°F. for 55 minutes. You may use crunchy peanut butter or add sunflower seeds.

Anne Burlison, Lead, SD

Please send your favorite garden produce, pasta and slow cooker 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 2019. All entries must include your name, mailing address, telephone number and cooperative name.

Power Up!

Four Steps to Charging Your EV at Home



Pat Keegan

Collaborative Efficiency

You should talk to your electric co-op before making your EV charging decision.

Dear Pat and Brad: I'm seeing more information about new models of electric vehicles with longer ranges and better prices. Is it worth making the switch from gasoline to electric? And how would I charge the battery at home? – Damien

Dear Damien: You're right! Electric vehicles (EVs) are getting more attention these days. Electricity as a vehicle fuel is typically one-half to one-third the cost of gas or diesel and EV batteries now enable longer ranges. The upfront price of an EV is still higher than its gas-powered cousin, but the cost is coming down.

The Chevy Bolt, for example, has a range of up to 238 miles on a full charge and costs about \$36,000 before incentives. The number of models is also increasing and we could even have an electric pickup truck option in the near future.

It's important to note you may have to pay upfront costs to charge your EV at home, but it depends on which charging option you select. Let's take a look at the important steps.

Step No. 1: Choose your EV.

There are two basic types of EVs: the all-electric vehicle, which is commonly referred to as an AEV or EV and the plug-in hybrid electric vehicle, also known as the PHEV, which can run using an electric motor or a gas engine. Unlike the gas/electric hybrid that started with the Toyota Prius in 2000, where the battery assists the gasoline engine, yet the car is fueled solely by gasoline, the PHEV features a larger battery that fuels an electric motor, which can power the car independently. A PHEV can run solely on electricity for about 15 to 50 miles depending on the model. This electric-only range may be sufficient for running errands or for those with a shorter daily commute.

Step No. 2: Select your charging level.

There are two levels of charging to consider for your home. A Level 1 charging unit is the most basic. It's usually included with the vehicle and plugs into a typical 120-volt outlet, so it is the easiest and cheapest charging solution.

A Level 2 charging unit is more powerful and needs to be purchased separately. It plugs into a 240-volt outlet, the type used for larger appliances (like a clothes dryer), which most of us don't have in our garages or outside our homes, so there's an additional cost to have the outlet installed.

Step No. 3: Know your needs.

Most EVs travel 3 to 4 miles per kilowatt-hour (kWh). Level 1 charging units distribute charge to the battery at 1 to 2 kWh, giving the battery roughly 3 to 8 miles range per hour of charging. So, if you drive your car 40 miles or less during the day and can charge it for 10 hours a night, this will probably be adequate. Level 1 charging makes the most sense for PHEVs and early EVs with smaller batteries and shorter ranges.

Level 2 units typically supply power levels from 6 to 12 kWh, depending on the amperage of the circuit and the power level the EV can accept. This means the Level 2 chargers will provide between 18 and 48 miles of range per hour of charging.

Step No. 4: Count the costs.

A Level 1 charging unit comes with the car and will meet the needs of most PHEVs and early-model, short-range EVs. A Level 2 charging unit can cost \$500 to \$700, with installation between \$500 and \$2,700 depending on how far your electrical panel is from where you will be charging the EV.

Now that you know the basic options, you should talk to your electric co-op before making your EV charging decision. Many electric co-ops offer special incentives for members installing Level 2 chargers or members willing to schedule EV charging during non-peak energy hours. Give them a call to learn more!

This column was co-written by Pat Keegan and Brad Thiessen of Collaborative Efficiency. For more information, please visit: www.collaborativeefficiency.com/energytips.

Interim Study Group to Meet

The South Dakota Legislative Interim Committee formed to “Study Issues Related to Electric Services in an Annexed Area” scheduled the first of its four meetings for 10 a.m. July 25 in Pierre, S.D.

The committee is chaired by Sen. Alan Solano, R-Rapid City, and the vice chairman is Rep. Thomas Brunner, R-Nisland. Other committee members include Rep. Shawn Bordeaux, D-Mission; Rep. Kirk Chaffee, R-White-wood; Rep. Spencer Gosch, R-Glenham; Rep. Tim Reed, R-Brookings; Sen. Lee Schoenbeck, R-Watertown; Sen. Susan Wismer, D-Britton; and Sen. Jordan Youngberg, R-Madison.

The study was created as a result of Senate Bill 66 passed by the 2019 Legislature.

SB66 outlined that the Legislative Interim Committee shall study and evaluate:

- 1) The option of a municipal electric utility to provide electric service in an annexed area and associated processes;
- 2) Economic development practices of electric utilities as it relates to subdivision (1);
- 3) The history of assigned service territories;
- 4) The process by which electric utilities set rates.



Participants at the 2019 Lignite Energy Council's Teacher Seminar walk on the catwalk of a dragline boom. The booms extend the length of a football field.

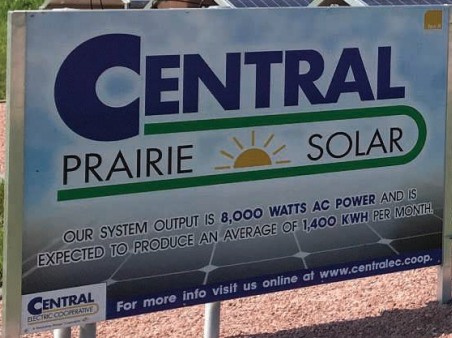
School's in for Summer

Dozens of teachers from the upper Great Plains attended the 2019 Lignite Energy Council (LEC) Teacher Seminar, “Energy, Economics and Environment,” at the Bismarck State College in Bismarck, N.D., June 10-13, 2019. This seminar will provide teachers with the information and educational materials they need to teach their students about how lignite is mined and used to produce electricity for homes, farms and businesses in the Upper Midwest. In addition, the seminar covered lignite’s economic impact on the region, as well as important environmental issues affecting the lignite industry.

The seminar targets three main areas of educators: Fourth through 12th-grade teachers; science, math or social studies teachers and career counselors

In 2019, 17 South Dakota teachers attended the seminar, bringing back lesson plans and firsthand experience to their schools.

Teacher	School, Town
Tandy Reilly	Bowdle School District, Bowdle, SD
Carolyn Ebright	Brandon Valley High School, Brandon, SD
Carol Helms	Camp Crook School Camp, Crook, SD
Wanda Ellefson	Self, Chelsea, SD
Tammi Tate	Colome Consolidated School, Colome, SD
Brian Jorgensen	Corsica Stickney High School, Corsica, SD
Amy Bochman	Windswept Academy, Eagle Butte, SD
Francie Ingerson	Eureka Public School District 44-1, Eureka, SD
Brian Ingerson	Eureka Public School District 44-1, Eureka, SD
Karen Mettler	Eureka Public School District 44-1, Eureka, SD
Steve Volk	Herreid School District, Herreid, SD
Kelly Froning	OAHE Special Education Cooperative, Java, SD
Wendi Hatlewick	Leola Public School District, Leola, SD
Anita Malsam	Leola Public School District, Leola, SD
Heather Collins	Lower Brule Middle/High Schools, Lower Brule, SD
Emily Ver Burg	Oldham-Ramona School, Ramona, SD
Joe Brooks	White River High School, White River, SD



Central Electric's Prairie Solar project can be seen in front of the co-op's office along Betts Road west of Mitchell, S.D. On the Cover: Central Electric employees install the Prairie Solar project in 2015.

BRIGHT LESSONS

Co-op Solar Projects Help Educate, Inform

Brenda Kleinjan

editor@sdrea.coop

Co-op members across the area are able to get firsthand information about solar energy straight from their electric cooperatives.

“There were a number of vendors in the region promoting various technologies. We wanted to provide accurate, real-time information to our members. Our role as a trusted energy expert made us want to educate ourselves on behalf of the members,” said Brian Jeremiason, manager of marketing and external relations at Lyon-Lincoln Electric Cooperative in Tyler, Minn.

So, in late December 2015, Lyon-Lincoln Electric installed its 8.4 kW AC solar system. The small project was designed to match a typical residential load for the southwestern Minnesota cooperative. The project consists of 28, 400 watt panels, each measuring 52.5 inches by 78 inches. The entire array measures 45.5 feet by 28 feet.

“It’s provided information about expected production versus actual production,” said Jeremiason, who noted that actual production for the system’s first three years has been “about 80 percent of what our vendor projected.”

Aside from a few inverters that failed within the system’s first two years, Jeremiason said the system has been mostly maintenance free.

An important lesson learned for the co-op was that companies in the industry tend to go out of business overnight.

“Overall, while the financial payback is long, it’s been a benefit to the cooperative members as an educational tool,” said Jeremiason.

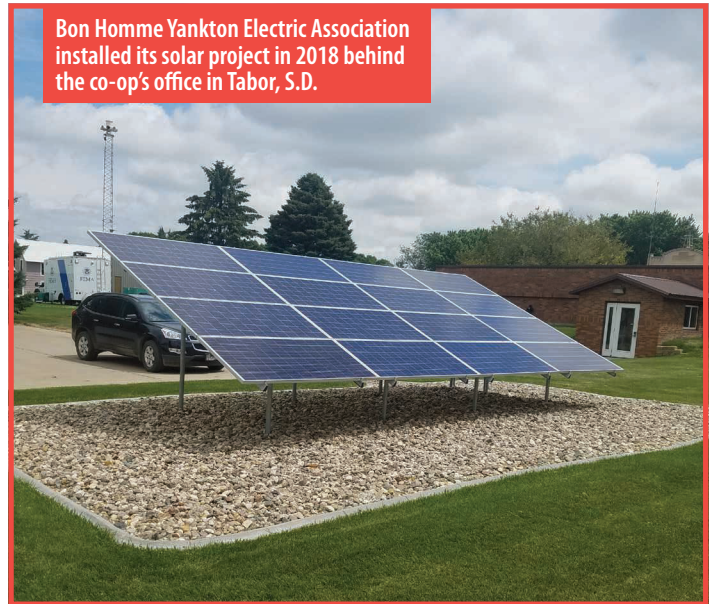


Photo by Bob Felber/Bon Homme-Yankton Electric

Central Electric Cooperative in Mitchell, S.D., also installed a solar project in 2015 to learn firsthand how to plan and construct such a project and also how well it would perform in the area around Mitchell.

Similar to Lyon-Lincoln’s experience, the vendor the co-op used went out of business shortly after installation.

Fortunately, there has been little maintenance or upkeep needed for the system.

“The solar industry is still in its infancy and experiencing growth and change,” said Central Electric General Manager Ken Schlimgen. “As a result, the names in the industry come and go and the solar equipment you see today will be obsolete in a few years.”

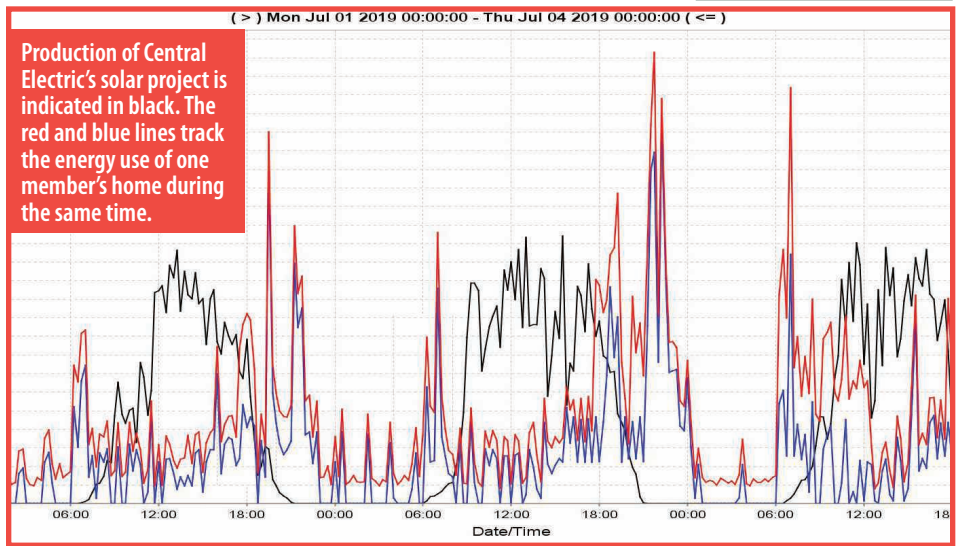
One lesson the co-op learned was to double check with building requirements in your county. The ground-mounted system they installed required a Davison County building permit.

A second lesson learned was the impact of cloud cover on the system.

“Any type of cloud cover reduces the kilowatt hour production of the system,” said Schlimgen.

“I believe the project has helped our employees better understand the equipment used in solar projects. We can also compare the production of our solar project and overlay that information onto a members actual consumption. This allows the member to better understand when a solar system would be offsetting their purchases and when they would still need to make purchases of electricity. Our solar project also helps to provide sizing information to members who are asking questions about installing solar,” said Schlimgen.

Central Electric’s Manager of Marketing and Member Services Patrick Soukup noted, “One of the biggest lessons that I had to learn is about time of use versus time of production. Once we overlaid the graphs together, it’s apparent how



solar works in our typical day and how important sizing the system to your needs would be.”

While the co-op invested more than \$32,000 in the system, the returns on the investment from an educational perspective have been worthwhile.

“The investment we had and the data collected is just priceless,” Soukup said.

Sioux Valley Energy in Colman, S.D., has the largest of the solar demonstration projects installed at its Brandon, S.D., service center. The cooperative constructed its 24.8-kilowatt project in April 2015 and had it operational by May 1 of that year. The project’s 80 panels were faced south, southwest and west, which allowed the co-op to examine how the orientations affected production.

“The output is very close to what was

planned. The difference in the output from facing the panels three different directions has allowed us to learn about which orientation will better match up with a member’s usage patterns. The project was fairly easy to assemble,” said Ted Smith, Sioux Valley Energy’s director of engineering and operations.

The entire array was installed for about \$3 per watt. In the project’s first four years, it produced 126,201 kilowatt hours, with a projected payback of 16 to 20 years. (The estimated life of the array is between 30 and 50 years.)

The new kid on the co-op solar block is Bon Homme Yankton Electric Association in Tabor, S.D, which installed its 5kw system in July 2018. The co-op publishes the project’s output each month in their magazine.



Solar panels at Lyon-Lincoln Electric Cooperative in Tyler, Minn., have helped the co-op answer members’ questions about the resource.

Photo by Brian Jeremiason/Lyon-Lincoln Electric

Photo by Central Electric

Help us Find These People

The following members were unable to receive their capital credit checks. If you know the current address or phone number of anyone listed here, please contact Butte Electric Cooperative at 605-456-2494, 1-800-928-8839 or email butte@buttelectric.com. Thank you for your help.

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Burke, Mike	Harberts, Jack	Kluck, Kenneth	Muniz, Gloria	Sayler, Robert	Weidensee, Dave
Burnette, Clifford	Harris, Reed	Kokal, Thomas E	Ness, David	Scheckel, Francis	Wild West Gourmet
Busch, Doyce C	Harris, Richard	Kopecky, Jim	Nighbert, Michael	Scheckla, Jim	Wilson, Jerry
Calhoon, Tom	Harris, Shirley	Krause, Roger	Northern Hills Inc	Schrader, Tom	Wolff, Mike
Carlson, Ed	Harrity, Mary	Krueger, Jack	Northpark Racquet Club	Scoreboard Inc	Wood, Kelsey
Carlson, Joyce		Kusser, Pat	Nuzum, Elliot	Seip, James	Wood, Richard
Ceretto, Tom			Odle, Ronald G	Semones, Elizabeth A	Worden, Thomas
Chaulk, Dan			Oedekoven, Daniel		Young, Robert J

Non-discrimination Statement

This institution is an equal opportunity provider and employer.

If you wish to file a Civil Rights program complaint of discrimination, complete the USDA Program Discrimination Complaint Form, found online at http://www.ascr.usda.gov/complaint_filing_cust.html or at any USDA office, or call 866-632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Ave., S.W., Washington D.C. 20250-9410, by fax 202-690-7442 or email at program.itake@usda.gov

See Ewe at the County Fair!



Join us on Thursday, Aug. 1, from 5 to 6 p.m. at the Butte/Lawrence County Fair in Nisland, S.D., for the free BBQ sponsored by Butte Electric Cooperative and West River Cooperative Telephone Co.

The steps to restoring power

Step 1. Transmission towers and lines supply power to one or more transmission substations. These lines seldom fail, but they can be damaged by a hurricane or tornado. Tens of thousands of people could be served by one high-voltage transmission line, so if there is damage here it gets attention first.

Step 2. A co-op may have several local distribution substations, each serving thousands of consumers. When a major outage occurs, the local distribution substations are checked first. A problem here could be caused by failure in the transmission system supplying the substation. If the problem can be corrected at the substation level, power may be restored to a large number of people.

Step 3. Main distribution supply lines are checked next if the problem cannot be isolated at the substation. These supply lines carry electricity away from the substation to a group of consumers, such as a town or housing development. When power is restored at this stage, all consumers served by this supply line could see the lights come on, as long as there is no problem farther down the line.

Hurricanes and ice storms. Tornadoes and blizzards. Electric cooperative members have seen them all. And with such severe weather comes power outages. Restoring power after a major outage is a big job that involves much more than simply throwing a switch or removing a tree from a line.

The main goal is to restore power safely to the greatest number of members in the shortest time possible. The major cause of outages is damage caused by fallen trees. That's why your electric cooperative has an ongoing right-of-way maintenance program. This illustration explains how power typically is restored after a major disaster.

Area enlarged: Consumers themselves (not the co-op) are responsible for damage to the service installation on the building. Your co-op can't fix anything beyond this point. Call a licensed electrician.

Step 5. Sometimes, damage will occur on the service line between your house and the transformer on the nearby pole. This can explain why you have no power when your neighbor does. Your co-op needs to know you have an outage here, so a service crew can repair it.

During a major outage, other cooperatives send line crews to assist with restoring power. These additional crews, as well as communications, equipment and supplies, are coordinated through the cooperatives' statewide organization.

Report your outage to the cooperative office. Employees or response services use every available phone line to receive your outage reports. Remember that a major outage can affect thousands of other members. Your cooperative appreciates your patience.

Individual households may receive special attention if loss of electricity affects life support systems or poses another immediate danger. If you or a family member depend on life support, call your cooperative before an emergency arises.

DANGER! Stay clear of fallen lines

Reprinted from Carolina Country, the monthly magazine for North Carolina's Touchstone Energy cooperatives

Ethanol in South Dakota

Courtney Deinert

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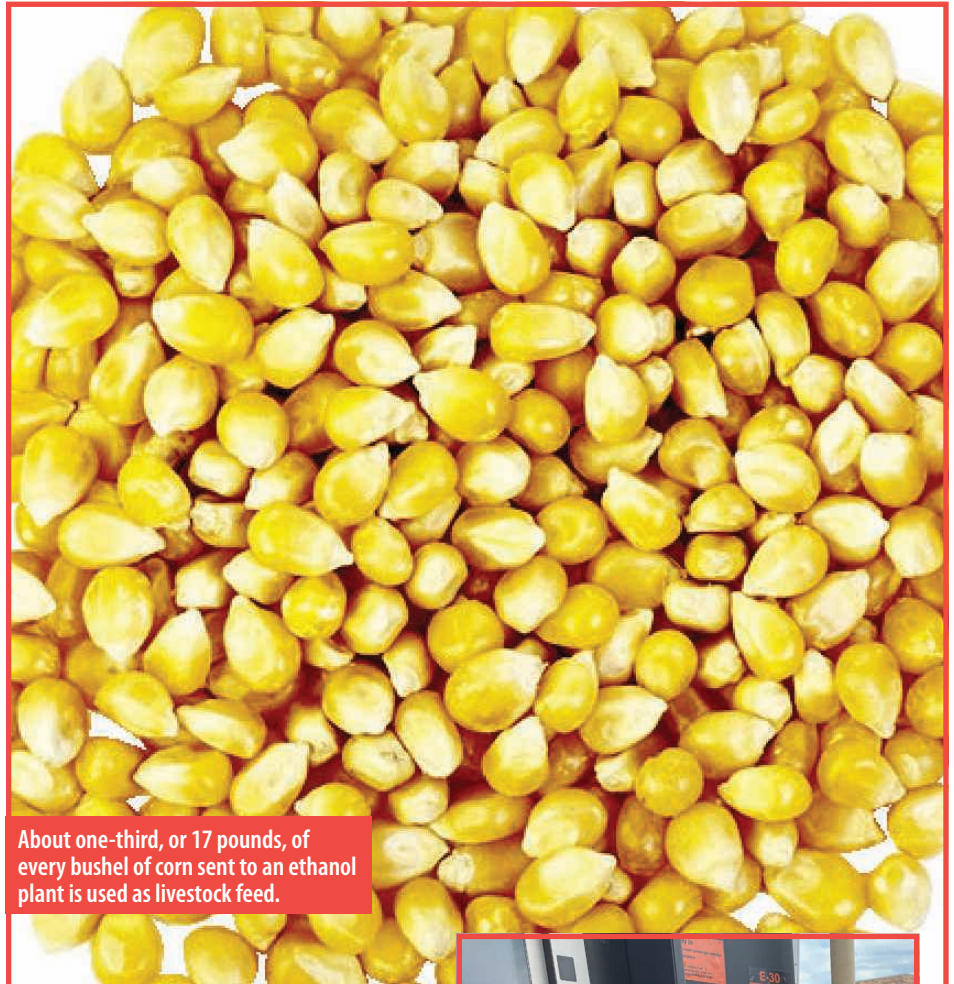
Ethanol production continues to increase with a new large facility added every other year or so.

The ethanol industry in South Dakota began a little more than 30 years ago when Jeff Broin and his family purchased a foreclosed ethanol plant in 1988 near Scotland, S.D.

The Broin family had been distilling ethanol as a way to make a little extra money on the farm after the 1970s, when corn production cost more than producers could sell it for. By purchasing the plant, the family had an opportunity to expand their process. This initial plant near Scotland became the pilot for POET Biorefining and is currently one of 15 operating plants in the state.

Last year, South Dakota ranked 6th nationally in ethanol production capacity and provided 7 percent of the nation's total ethanol production.

Rural South Dakotans know that in addition to providing an alternative fuel source, ethanol provides an additional market for corn producers. From 2002 to 2012, gross corn use for ethanol production increased from less than 10 percent to more than 40 percent (and the production process does kick back distiller grain to alleviate the need for corn and soybean meal for livestock). The same study claims for every 10 percent increase in ethanol production (or 1 billion gallons), average



About one-third, or 17 pounds, of every bushel of corn sent to an ethanol plant is used as livestock feed.

long-run corn prices increase by 2 percent to 3 percent (based on production from 2008-2013).

Impact on Electric Cooperatives

Ethanol has also impacted local electric cooperatives. East River Electric Power Cooperative, a generation and transmission cooperative headquartered in Madison, S.D., includes a number of ethanol plants located within its system, and more than 11 percent of East River kilowatt hour (kWh) sales go to large ethanol production plants.

“Ethanol production continues to increase – with a new large facility added every other year or so over the last 15 years,” says Michael Volker, manager of rates and treasury at East



Blender pumps at South Dakota gas stations offer drivers a variety of choices of ethanol blends.

Ethanol Plants in South Dakota

Company	City	Production Capacity MGY (million gallons/year)	Operating Production	Under Expansion MGY (million gallons/year)
ABE South Dakota LLC	Aberdeen	53	53	
ABE South Dakota LLC	Huron	32	32	
Dakota Ethanol LLC	Wentworth	48	48	
Glacial Lakes Energy LLC	Mina	100	100	
Glacial Lakes Energy LLC	Watertown	120	120	
NuGen Energy LLC	Marion	130	130	
POET Biorefining – Big Stone LLC	Big Stone City	79	79	
POET Biorefining – Chancellor LLC	Chancellor	110	110	
POET Biorefining – Groton LLC	Groton	53	53	
POET Biorefining – Hudson LLC	Hudson	56	56	
POET Biorefining – Mitchell LLC	Mitchell	68	68	
POET Research Center	Scotland	11	11	
Red River Energy LLC	Rosholt	25	25	
Redfield Energy LLC	Redfield	60	60	
Ringneck Energy & Feed LLC	Onida	-	-	80
Valero Renewable Fuels Co. LLC	Aurora	135	135	

River. Currently, there are new plants being constructed near Onida and Yankton, S.D.

The plants specifically served by East River and its member cooperatives can produce more than 500 million gallons of ethanol per year and consume approximately 200 million bushels of locally grown corn.

Flex Fuels

South Dakota is a national leader in its use of ethanol in the state vehicle fleet. In 2017, South Dakota ranked third nationally in the gallons of E85 consumed by state fleet (behind No. 1 Texas and No. 2 Maryland).

Of the state fleet, approximately 65 percent use a blend of ethanol, from E15 to E85. In early 2019, Gov. Kristi Noem announced her intent to transition the state fleet to E30.

For the public, there are 87 stations in South Dakota that offer E85 (ethanol-gasoline blends containing 51 percent to 83 percent ethanol). Of the stations, 41 include some mid-level blend such as E15 or E30.

While E85 can only be used in flex fuel vehicles (FFVs), the EPA approved the use of E15 (gasoline blended with up to 15 percent ethanol) in model year 2001 and newer cars, light-duty trucks, medium-duty passenger vehicles (SUVs) and all FFVs. This includes approximately nine out of 10 of the vehicles on the road today.

On May 31, 2019, the EPA signed into action the rule allowing E15 to be sold

year-round, including the summer months and peak driving season, rather than eight months out of the year.

“For the ethanol industry and farmers, this means greater market access – more ethanol demand over the long term as additional retailers begin offering E15,” Brian Jennings, CEO of the American Coalition for Ethanol, responded after the EPA announcement.

Consumers will also see E15 marketed as “Unleaded 88” at the gas pumps.

For the ethanol industry and farmers, this means greater market access – more ethanol demand over the long term as additional retailers begin offering E15.

Byproducts

According to ACE, about one third, or 17 pounds, of every bushel of corn sent to an ethanol plant is used as livestock feed. The kernels of corn are made of starch, protein and fiber. The protein stays in the food supply in the form of a high-quality feed called DDGS (Dry Distillers Grains with Solubles.) The concentrated corn protein is a high-value feed product for cattle, hogs and poultry. The ethanol production process uses only the corn’s starch (carbohydrates.)

Know what's below Call **811** before you dig.



AUGUST 11

Date Reminds Everyone to Call Before You Dig

Brenda Kleinjan

editor@sdrea.coop

Three simple numbers on the phone – 8-1-1 – or a few keystrokes on a computer to www.SD811.com can potentially save your life – or your wallet - if you're planning any digging project.

The call, or click, takes you to the 811 One Call locate program to determine if any underground utilities are in close proximity to your project. Not only is it a good idea, it's also the law.

"You've got the dangerous ones – digging into power or gas can be quite dangerous," said Larry Janes, executive director of the South Dakota 8-1-1, explaining the importance of always calling before one digs.

"Then fiber can be expensive if you cut a fiber line," said Janes. He also noted that one should never look into the ends of a fiber line as the laser going through the fiber can burn one's retina.

Each year, 150,000 locates are requested in South Dakota, which result in more than 800,000 locates being done.

Janes said that each locate request typically

Half of All Damages Occur in Summer

50 percent of reported damages occurred between June and September in 2017.



2017 DIRT Report • CommonGroundAlliance.com/DIRT

will generate locates for water, electrical and natural gas. Add in communications, and other facilities, and the number of locates generated by just one request expands.

“I’ve seen as many as 14 utilities on one locate ticket in Sioux Falls,” Janes said.

However, Janes notes, not all facilities are located.

“Only those utilities that are registered are located,” he said, noting that services entering the public right-of-way should be registered. However, sometimes private agriculture services such as drain tile aren’t always registered (but should be.)

Registering the facilities is also a good financial idea.

“If it’s not registered, then the digger isn’t liable,” said Janes.

Private home owners’ lines – whether electrical from the meter to buildings or propane lines or even water between the water meter and the buildings - are not located by the One Call ticket. Home-owners are responsible for getting those lines marked.

When planning a digging project, the request for a locate needs to be made at least two business before the digging is planned to be started. So, a project to start on a Monday morning would need to be called in by Wednesday night.

More than 60 percent of all locate requests are done online at www.811.com, Janes said.

Once the locates are done, those digging need to hand-dig in the area 18 inches (in Minnesota the distance is 24 inches) from the mark.

“The tolerance zone is there to protect the person doing the work,” Janes said

“If they’re working anywhere near markers on the ground, they should hand dig over those marks to expose those facilities.

While all instances of digging need to be called in for a locate, there are some that are more worrisome for Janes.

“If someone’s putting in a culvert or drain tile that can go five to six feet deep – that really worries me. It would be very easy to get into something,” Janes said.

EVERY DIG COUNTS!

Fewer than half of Americans believe they need to call 811 before simple projects like:

- Installing deck or patio
- Planting trees, bushes and shrubs
- Installing a mailbox

2018 CGA Awareness Research

CommonGroundAlliance.com

One misconception he’s encountered is that people will see markers in road ditches indicating that water lines or gas pipelines are in the area.

“Don’t rely on eyeballing those markers,” Janes said. “They are not locates – they’re just saying that something is in the general vicinity.”









Even smaller jobs need to be located.

“I’ll get calls in the spring from homeowners wanting to put in a garden wondering if they need to call for a locate. I say it’s a good idea to call. It’s free to the homeowner to have the locate,” Janes said.

“Its always better to be safe rather than wishing it had been done,” said Janes.

The bottom line is pretty clear-cut for Janes: “Be safe. Know what’s below and call before you dig.”

UNIFORM COLOR CODE
FOR MARKING UNDERGROUND UTILITY LINES

	PROPOSED EXCAVATION
	ELECTRIC POWER LINES, CABLES, CONDUIT AND LIGHTING CABLES
	GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS
	COMMUNICATION, ALARM OR SIGNAL LINES, CABLES OR CONDUIT
	POTABLE WATER
	RECLAIMED WATER, IRRIGATION AND SLURRY LINES
	SEWERS AND DRAIN LINES
	TEMPORARY SURVEY MARKINGS

CALL BEFORE YOU DIG!

July Tuesdays and Thursdays

Spirit of the American Cowboy Supper and Show, 5:30 p.m. Supper, 6:15 p.m. Show, Tickets: Supper and Show: Adults: \$30/Kids under 12: \$15, Show only: \$15, High Plains Western Heritage Center, Spearfish, SD, Reservations Required, Eventbrite or 605-642-9378 info@westernheritagecenter.com

July 18-20

Senior Center Rummage Sale, Thursday 8 a.m. to 3 p.m., Friday 8 a.m. to 3 p.m., Saturday 8 a.m. to Noon, Spearfish, SD, 605-642-2827

July 19-21

Stampede Rodeo, Burke, SD, 605-830-0304

July 19-21

Annual Festival in the Park, Spearfish, SD, 605-642-7973

July 20-11

Hills Alive, Rapid City, SD, 605-342-6822

July 20-21

JazzFest, Sioux Falls, SD, 605-335-6101

July 23-27

Days of '76 Rodeo and Parades, Deadwood, SD, 605-578-1876

July 24-27

Senior Games, Rapid City, SD, Contact Kristi Lintz at 605-394-4268

July 26 -27

Meade County Fair and 4-H Achievement Days, Meade County Fair Barn and Sturgis Brown High School, Activities both days for all ages, Sturgis, SD, 605-347-2436, Meadecountyfairsd.com



Photo courtesy: travelsouthdakota.com

July 27

Senior Citizen Center Fundraising Breakfast, 7:30 to 10 a.m., Pancakes with sausage or biscuits with sausage gravy will be offered with juice and coffee or tea, Donation of \$5, Spearfish, SD, 605-642-2827

July 26-27

Rock-N-Rumble Motorcycle Rally, Yankton, SD, 605-665-3636

July 26-28

Annual Bruce Honey Days, Bruce, SD, 605-627-5671

July 27

Folk Off & Rib Challenge, Renner, SD, 605-543-5071

July 27

Miner Music Festival, Hill City, SD, 605-574-2886

July 27

South Dakota Chislic Festival, Freeman, SD, 605-925-4444

August 1

Spirit of the American Cowboy Supper and Show, 5:30 p.m. Supper, 6:15 p.m. Show, Tickets: Supper and Show: Adults: \$30/Kids under 12: \$15, Show only: \$15, High Plains Western Heritage Center, Spearfish, SD, Reservations Required, Eventbrite or 605-642-9378 info@westernheritagecenter.com

August 2-10

Sioux Empire Fair, Sioux Falls, SD, 605-367-7178

August 2-11

Sturgis Motorcycle Rally, Sturgis, SD, 605-720-0800

August 10-11

Threshing Show, Twin Brooks, SD, 605-432-9487

August 16-25

Central States Fair & Rodeo, Rapid City, SD, 605-355-3861

August 20-22

Dakotafest, Mitchell, SD, 800-827-8007

August 21-25

Corn Palace Festival, Mitchell, SD, 605-995-8430

August 22-25

Prairie Village Annual Steam Threshing Jamboree, Madison, SD, 605-256-3644

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.