



Cooperative Connections

**Where
Renewable
Energy Gets
Its Power**

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**Sensing
a Healthy
Electric Grid**

Page 12

Democracy is the Co-op Way

The more you put in, the more you get out.



DeeAnne Newville, CEO

dnewville@renville-sibley.coop
Office Phone: 320-826-2593
Direct Line: 320-826-2021

As a member of Renville-Sibley, you can exercise your right to vote every year.

vote by mail in addition to bringing their ballots to the annual meeting. In 2007, members voted to pass a bylaw change that divided the cooperative into three districts rather than the previous nine districts. Each district currently has three directors. Since directors serve a three-year term, each year there is an election for a director position in each district. As a member of Renville-Sibley, you can exercise your right to vote every year. As a result of the district change, member voting participation increased to an average of 26 percent from a previous average of 10 percent.

Increased member voting participation is important when

Every year, Renville-Sibley Cooperative Power Association has an annual meeting. One of the most important activities conducted at this meeting is the election of the board of directors. These are the nine people the membership entrusts to give strategic direction and ensure the co-op has good governance.

In 1844 when the 28 Rochdale pioneers created the modern cooperative movement, they were insistent that all members have the right to vote. Unless consistently reminded about how precious this right to vote truly is, this right can easily be taken for granted.

At Renville-Sibley, we try to make it as convenient as possible for members to participate in the election by allowing members to

presenting a bylaw change as well. The bylaws define how the cooperative operates. Our current bylaws can be viewed on the Renville-Sibley website, www.renville-sibley.coop, under the category labeled "Your Co-op." These by-laws can only be changed by receiving an affirmative vote from the majority of the votes cast, assuming the number of members who vote meets the quorum requirements as defined in the by-laws. In addition to voting for a director, this year members will also cast a vote on proposed bylaw changes. The proposed bylaw changes will be discussed at the Member Informational Meetings. If attending a Member Informational Meeting does not fit in your schedule, please feel free to contact me prior to our Feb. 26 board meeting. I would be happy to discuss the revisions with you. Although the board has reviewed the proposed changes, I will be presenting member comments and concerns to the board prior to taking official action to send the bylaw changes to the membership for a vote. A copy of the proposed changes and an explanation will be in next month's newsletter, included with the ballot mailing and posted on our website in March.

The board of directors of a co-op makes important strategic decisions for the organization, while the operations (day-to-day running of the business) is entrusted to the employees. Renville-Sibley has experienced some challenges over the last several years and expect more changes to come. The directors you elect, along with the leadership team, will be challenged with finding new and creative ways to continue to meet our mission of providing safe and reliable energy and services to our members while mitigating risk and controlling costs. Some of the proposed bylaw changes were discovered when preparing for a strategic session with the board. A few of the key challenges the cooperative faces include the rising cost of wholesale power, the increase in the amount of distributed generation being installed on our system and aging facilities.

As locally owned businesses in the community, electric co-ops have the opportunity to introduce neighbors to neighbors and rekindle that spirit of democracy at the grassroots level. Democracy may not be a perfect form of governing. But, in my opinion, it just happens to be better than any of the others. Maybe if we can practice doing it well at the local level, it will have a positive impact on our democracy as a whole.

The Seven Cooperative Principles

- Voluntary and Open Membership
- Democratic Member Control
- Members' Economic Participation
- Autonomy and Independence
- Education, Training and Information
- Cooperation Among Cooperatives
- Concern for Community

Renville-Sibley

Cooperative Connections

(USPS 019-074)

Board of Directors

Philip Nestande – Chair
 Roger Manthei – Vice Chair
 Alan Neyers – Secretary/Treasurer
 Steve Benson
 Randy Dolezal
 Matt Haubrich
 Whitey Hinderman
 Gary Peterson
 Wayland Zaske

Board of Directors

Gene Alex – Line Superintendent
 Brian Athmann – Journeyman Lineman
 Shawn Beckler – Crew Chief
 Mike Benson – Journeyman Lineman
 Brad Braulick – Crew Chief
 Nick Bruns – Operations Assistant
 Anthony Carruth – Journeyman Lineman
 Amy Ervin – Consumer Accounts Representative
 Rick Ferguson – Warehouseman
 Brayden Fischer – Journeyman Lineman
 Cindy Mertens – Administrative Services Manager
 DeeAnne Newville – CEO
 Brandon Ochs – Journeyman Lineman
 Clint Olson – Journeyman Lineman
 Lenae Wordes – Communications Manager

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Web site: www.renville-sibley.coop

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Renville-Sibley Co-op to Hold Annual Meeting

The 80th annual meeting of Renville-Sibley Co-op Power Association will be held on Thursday, April 5, 2018, at the Island Ballroom in Bird Island. The meeting will begin at 6 p.m. with the dinner immediately following the meeting. The meeting is being called in accordance with the bylaws of the association to transact the following business:

- Report of officers, directors and committees.
- Election of three (3) directors, one (1) from District 1, one (1) from District 2 and one (1) from District 3.
- Any other business which may properly come before the meeting

The annual meeting report will be mailed to all members the third week of March. Members will receive their voting ballots for director election including candidate information, at that time. Also included in the mailing will be a voting ballot for the bylaw changes. If you cannot attend and you wish to mail your ballot, you may do so. However, if mailed, it must be received through the mail by April 5, 2018.

Drawings for the early bird prizes will begin at 5:45 p.m. Drawings will also be held at the close of the annual meeting. Children in attendance will be eligible for prize drawings. A \$10 energy credit attendance prize will be given to members (one credit per member) who attend the annual meeting. All members are encouraged to attend the 80th annual meeting of Renville-Sibley Cooperative Power Association.

Alan Neyers, Secretary

Notice:
 Candidates for the director positions will be listed in the April *Cooperative Connections* and candidate information for each district included with the ballot mailing.

Comparative Report			
	Jan. 1, 2017 (through Dec. 31)	Jan. 1, 2016 (through Dec. 31)	Jan. 1, 2007 (through Dec. 31)
Average No. of Consumers	1,885	1,884	1,968
kWhs Purchased	178,285,098	192,883,127	167,635,416
Cost of Purchased Power	\$11,175,509.26	\$10,883,265.84	\$5,276,422.65

Generator Safety

Portable or permanently installed standby generators can come in handy during long-term power outages. However, if you do not know how to use them properly, they can be dangerous. Contact a qualified



vendor or electrician to help you determine what generator is best suited to your needs. Before using, be sure to read and follow manufacturer's instructions.

If you are installing a permanent generator, it must have a transfer switch. The transfer switch prevents energy from leaving your generator and going back onto the utility electrical equipment when it could be dangerous to a lineman or others near downed power lines, a process known as "back feed." A qualified electrician should install your generator and transfer switch.

Safe Electricity has the following tips to use portable generators safely:

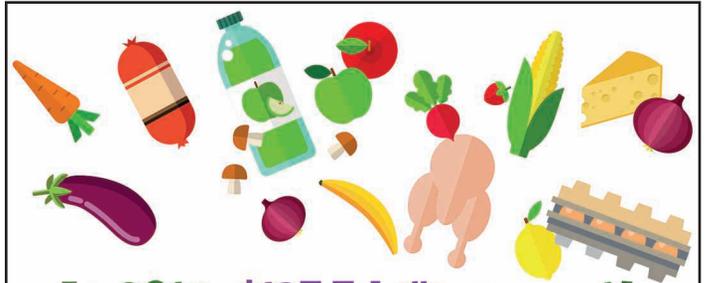
- Operate it outdoors in an area with plenty of ventilation. Never run a generator in a home or garage. Generators give off deadly carbon monoxide.
- Do not plug a generator into the wall to avoid back feed. Use heavy-duty extension cords to connect appliances to the outlets on the generator itself.
- Turn the generator on before plugging appliances to it. Once the generator is running, turn your appliances and lights on one at a time to avoid overloading the unit. Remember, generators are for temporary usage, prioritize your needs.
- Generators pose electrical risks especially when operated in wet conditions. Use a generator only when necessary when the weather creates wet or moist conditions. Protect the generator by operating it under an open, canopy-like structure on a dry surface where water cannot form puddles or drain under it. Always ensure that your hands are dry before touching the generator.
- Be sure the generator is turned off and cool before fueling it.
- Keep children and pets away from portable generators at all times. Many generator components are hot enough to burn you during operation.

Safe Electricity suggests that these safety guidelines as well as basic operating instructions be posted in the home and with the generator.

Source: safeelectricity.org

March 18-24, 2018

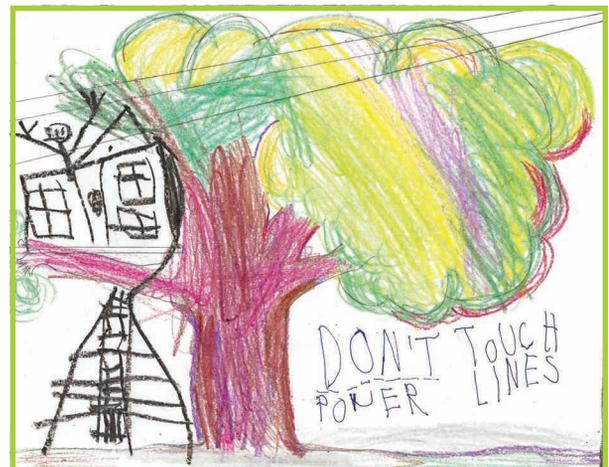
National Ag Week



In 2016, \$135.5 billion worth of American agricultural products were exported around the world.

Each American farmer feeds about 144 people! America needs agriculture...and we need our farmers, who provide Food for Life. This is why we're celebrating all things Ag on National Ag Day, March 20. Find out more: <https://www.agday.org/>

KIDS CORNER SAFETY POSTER



"Don't touch power lines."

Christopher Barranco, 5 years old

Christopher is the son of David and Catherine Barranco, Brandon, S.D. They are members of Sioux Valley Energy, Colman.

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.

Seafood Sensations

Seafood Quiche

- | | |
|---|------------------------|
| 1 (6 oz.) can crab, salmon or tuna, drained | 1 cup milk |
| 1 cup shredded Cheddar cheese | 1/2 tsp. salt |
| Onions | Pepper to taste |
| 4 eggs | Fresh chives, optional |
| | Paprika |

Spray a 10-inch pie plate with vegetable cooking spray. Combine seafood, cheese and onions. Press into bottom and up sides of pie plate. Beat eggs, milk, salt and pepper; pour over all. Sprinkle with paprika, if desired. Bake at 350°F. for about 30 minutes or until eggs are set. Let set a few minutes before cutting.

Elaine Rowett, Sturgis

Broiled Salmon with Lemon

- | | |
|---|--|
| 1 T. extra-virgin olive oil | 4 (6 oz.) center-cut salmon fillets (about 1-inch thick) |
| 1 tsp. grated lemon rind plus 1 T. fresh juice (from 1 lemon) | 1/4 tsp. kosher salt |
| 1 tsp. Worcestershire sauce | 1/4 tsp. black pepper |

Combine oil, rind, juice and Worcestershire sauce in a shallow dish. Place fillets, skin side up, in dish. Let stand 15 minutes. Preheat broiler with oven rack 6 inches from heat. Place fillets, skin side down, on a foil-lined baking sheet. Sprinkle with salt and pepper. Broil to desired degree of doneness, 8 to 10 minutes. Remove fillets from foil using a metal spatula.

Tina Haug, Pierre

Freeze Ahead Crab Appetizers

- | | |
|---------------------------------|------------------------------|
| 1 jar Old English cheese spread | 1/2 tsp. seasoned salt |
| 1/2 c. soft butter | 1 T. mayonnaise |
| 1/4 tsp. garlic salt/powder | 1 (7 oz.) can crab meat |
| | 6 English muffins, separated |

Mix first 5 ingredients together well; stir in crab. Spread on each half muffin. Cut each half muffin into 6 wedges. Place in ziplock bag and freeze. When ready to serve, don't thaw. Bake at 400°F. for 10 minutes.

Ginny Jensen, Volga

Spaghetti Squash Shrimp Lo Mein

- | | |
|---|---|
| 1 spaghetti squash, (about 2-1/2 lbs.) | 2 tsp. vegetable oil, divided |
| 1/4 cup reduced sodium soy sauce | 1-1/2 cups matchstick carrots |
| 2 T. honey | 1 medium red bell pepper, thinly sliced |
| 2 tsp. McCormick® Garlic Powder, divided | 1 lb. shrimp, peeled and deveined |
| 1-1/4 tsp. McCormick® Ginger, Ground, divided | 1/4 cup thinly sliced green onions |

Cut spaghetti squash crosswise into 1-inch thick rings. Remove seeds. Place rings on microwavable plate. Pour 1/4 cup water in the plate. Cover with plastic wrap. Microwave on HIGH 7 minutes or until tender. Let stand in microwave 10 minutes. Carefully remove from microwave. Peel the skin off the squash, then shred the flesh, using fingers or a fork, into long thin strands. Place squash noodles in large bowl. Discard the skin. (Should yield about 5 cups of squash noodles.) Meanwhile, mix soy sauce, honey, 1-1/2 tsp. of the garlic powder and 1 tsp. of the ginger in small bowl until well blended. Set aside. Heat 1 T. of the oil in large skillet on medium-high heat. Add carrots and pepper; stir-fry 3 minutes. Add shrimp and sauce mixture; stir-fry 2 minutes or just until shrimp turn pink. Remove shrimp mixture from skillet. Heat remaining 1 T. oil in skillet on medium-high heat. Add squash noodles, remaining 1/2 tsp. garlic powder and 1/4 tsp. ginger; cook and stir gently 1 minute to heat through. Return shrimp mixture to skillet; toss gently with squash noodles. Remove from heat. Sprinkle with green onions. Makes 7 (1 cup) servings

Nutritional Information Per Serving: Calories 165, Total Fat 5g, Saturated Fat 1g, Sodium 479mg, Cholesterol 96mg, Carbohydrates 18g, Protein 12g, Dietary Fiber 3g,

Pictured, Cooperative Connections

Please send your favorite appetizer, beverage and casserole recipes to your local electric cooperative (address found on Page 3).

Each recipe printed will be entered into a drawing for a prize in June 2018.

All entries must include your name, mailing address, telephone number and cooperative name.

Where's the Number?

Last month, Duane Engstrom found his member number in the newsletter. Congratulations! The credit will now start over at a value of \$10. A new number has been hidden somewhere in this newsletter. If you find your number and call the office by March 5, you will receive this credit on your electric statement. Good luck in your search!

Thank you...

Renville-Sibley linemen Brian and Mike thank **Mike and Susie Haubrich** for inviting them in for dinner. The meal was very delicious and much appreciated.

Renville-Sibley linemen Brad and Brayden thank **Robert Sperl** for providing them dinner. It was greatly appreciated.

Mission Statement:

Renville-Sibley Cooperative Power Association will provide efficient, reliable electric energy and services to enhance the quality of rural living.

Energy Efficiency Tip of the Month

In spring and summer months, set your ceiling fans to turn in the counterclockwise direction. This will create a cool breeze.

Remember: Ceiling fans cool people, not rooms. Turn them off when you leave the room.

Source: energy.gov



Make Your Home Workshop Safe

For many DIYers, the workshop is a second home. Make sure it's a safe place to work productively. With so many power tools in one place, take steps to prevent electrical shocks and other hazards:

- Choose electrical outlets equipped with ground fault circuit interrupters (GFCIs). Use portable GFCIs if outlets don't have them.
- Make sure metal workbenches are grounded. Have a professional do that work.
- Check for damaged cords, plugs and signs of wear before using equipment.
- Replace old, worn power tools and cords.
- Use heavy-duty extension cords rated for the tools you plan to use.
- Make sure the area is clean and dry before undertaking any project.
- Store flammable liquids and materials away from the workbench, and where spark-producing tools like grinders and cutters, are used.
- Secure equipment and tools when not in use to prevent them from falling, being damaged or causing injuries.
- Keep children and pets out of the workshop when power tools are used.
- Always stay focused when working with power tools. If you are tired or distracted, wait until another time so you can give the project full concentration and work safely.



Learn more at SafeElectricity.org

Scholars Honored Greenwaldt Named December Scholar

Renville-Sibley Co-op Power congratulates Ellie Greenwaldt on being selected as the December Touchstone Energy® Scholar of the Month. Ellie is a senior at Central Minnesota Christian School. She was nominated because of her involvement in many school activities including band, volleyball, basketball and student council. In addition, Ellie plays piano in praise teams and is involved in the school mentoring program. She is also representing her town as the Raymond Ambassador.

Hoff is January Scholar

We would also like to recognize Sarah Hoff as January's Touchstone Energy Scholar of the Month. Sarah is a senior at Renville County West High School. She was nominated because in the classroom, she is attentive and driven to succeed, often taking a leadership role in group tasks. Outside the classroom, she participated in a youth mission trip demonstrating her caring and compassionate nature to those youth and adults in a community experiencing extreme poverty.

Renville-Sibley Co-op Power salutes Ellie and Sarah as the Touchstone Energy Scholar of the month.

More information on the Scholar of the Month program can be found on our website under the Customer Service tab.



Choose Renewable Energy for Your Home or Business

You can easily purchase renewable energy from your local electric cooperative, Renville-Sibley Co-op Power. Renville-Sibley has Renewable Energy Credits (RECs) available for purchase to offset your current usage with 25%, 50%, 75% and 100% renewable energy options. The price of the RECs will be added to your current electric bill.

The electricity you receive will still be the same reliable, affordable energy you have always received from Renville-Sibley Co-op Power but, by participating in this program, you will be supporting current and future renewable projects in our area.

Your home or business will be joining hundreds of other people from across the nation who are supporting renewable energy. By purchasing RECs, your business could add value to your products or services, promote future regional renewable projects and showcase your support for renewable energy sources.

FAQ's

What is a Renewable Energy Credit (REC)?

- 1 MWh (megawatt hour) produced by a renewable energy source equals 1 REC
- RECs are also called Green Tags
- RECs represent the valuable renewable attributes of wind energy

How much does it cost?

\$1 per MWh. The average Renville-Sibley member uses 1,200 kWh a month. Participating in the REC program would add the following amount to your monthly bill:

100%	=	\$1.20
75%	=	\$0.90
50%	=	\$0.60
25%	=	\$0.30

Do I need to purchase any special equipment?

No. Renville-Sibley will continue to fulfill all your electric needs and you can enjoy the benefits of renewable energy.

Where do the RECs come from?

The RECs come from several wind farms in the region that supply renewable energy to Renville-Sibley Co-op Power. These include, but are not limited to:

- North Dakota: PrairieWinds 1, Wilton 1 & 2, Baldwin Wind Project and Minot Wind Project
- South Dakota: Crow Lake Wind, the Chamberlain turbines, Day County Wind Farm and South Dakota Wind Project



A Touchstone Energy® Cooperative

1.800.826.2593
renville-sibley@renville-sibley.coop



Solar energy generates about 1 percent of the nation's electricity.

WHERE RENEWABLE ENERGY GETS ITS POWER

Here are the basics of a small but fast-growing source of your electricity.

Paul Wesslund

NRECA Contributing Writer

Solar energy and wind power may not seem like a big deal. Unless you're talking about the future. Or maybe even the present.

For all today's talk about renewable energy, it still makes up a pretty small portion of the energy sources that generate our electricity. But it's coming on fast, and it's picking up speed.

Here's your crash course in how wind, the sun and water generate electricity.

Solar energy

Solar energy generates only about 1 percent of the nation's electricity, but that's a stunning increase from just five years ago, when the number was too small to report for the U.S. Department of Energy. Solar growth will continue as costs fall, technology improves and people figure out better ways to use solar energy.

There are lots of ways to use energy from the sun. You can hang your washed clothes outside to dry, and you can open curtains to warm your home on a sunny day. More ambitious projects use the sun to warm pipes full of water that is pumped around a building for heat.

But what most people mean when they talk about solar energy is photovoltaic electricity. When certain materials get hit by sunlight, their atoms spit out an electron, and electricity is just

DID YOU KNOW?

Approximately 15 percent of the nation's electricity is generated from renewable energy sources, like hydro, wind and solar power. That percentage may seem low, but renewable energy generation is gaining momentum and continues to play an important role in reducing greenhouse gas emissions.



6.5%
generated by
hydropower.



5.6%
generated by
wind.



0.9%
generated by
solar.

*Additional sources, like geothermal and biomass, contribute to the 15 percent of renewable energy generation.

Source: Energy Information Administration

a stream of electrons. Over the decades, scientists and engineers experimented with solar-sensitive materials to make them into lighter, longer-lasting and more affordable wafers called photovoltaic cells, which are combined and integrated into solar photovoltaic modules. One of their first uses was space travel, and continued improvements are allowing solar to become a more down-to-earth kind of energy.

One of those improvements is cost. Solar panel prices dropped 85 percent in the past seven years with improvements in materials and larger-scale production methods.

Another technological advance is about to give the industry an

extra boost, says Dale Bradshaw, a technical consultant with the National Rural Electric Cooperative Association (NRECA). He says solar panels can now track the sun as it moves across the sky rather than sitting fixed in place, raising their productivity by collecting more sunlight throughout the day. This year, the U.S. Department of Energy's Energy Information Administration reported that half the large solar installations in the country already use some kind of sun-tracking technology.

It's also worth knowing that the solar industry is maturing with different forms of ownership: utility, industrial, commercial and residential scale, and community solar installations.

Utility scale is what you might expect – large banks of solar panels owned and operated by an electric utility or other large organization, producing many megawatts of solar energy. Industrial and commercial solar installations can range from kilowatts up to multi-megawatts and be placed on rooftops, over parking lots or on land near industrial and commercial enterprises. Industrial and commercial installations are beginning to increase as the price for solar continues to drop. Residential solar installations are also being installed primarily on rooftops, especially in the southwestern United States.

NRECA's Bradshaw says community solar can ease the higher expense of self-owned rooftop solar. With community solar, a utility builds a large solar installation and sells shares in the project to customers interested in an investment in renewable energy. That style of ownership and development is especially suited to consumer-owned electric co-ops, and many are offering solar shares to their members.

“Co-ops are doing a great job of building community-scale solar,” says Bradshaw. “They're going full blast on that.”

Bradshaw also notes that community solar allows a homeowner to avoid both maintenance of their own system, and the hassle of sorting out different offers from rooftop solar vendors.

Wind power

Wind power has increased significantly as costs continue to decrease. Wind power generates nearly 6 percent of the nation's electricity, and it is growing at a pretty good clip, with an increase of about 35 percent during the past four years.

In a way, wind generates electricity the same way as coal, natural gas and nuclear – by spinning a turbine that creates an electricity-producing magnetic field. The huge difference is that the turbine is turned by enormous propeller-like blades designed to catch the wind.

It's the size of those blades, and the height of the turbine towers (as much as 300 feet in the air) that makes the difference, says NRECA's Bradshaw.

“Wind is a really useful renewable, but it has to be utility scale,” he says.

A tall utility-scale tower can capture as much as 50 percent of the wind, but there's not a practical, personal alternative to compare with rooftop solar. A rural residential customer or a rural commercial customer with a 50 to 100-foot tower will probably generate electricity only about 25 percent of the time. “It's really

not cost-effective for small-scale home use when compared to utility scale wind turbines,” says Bradshaw.

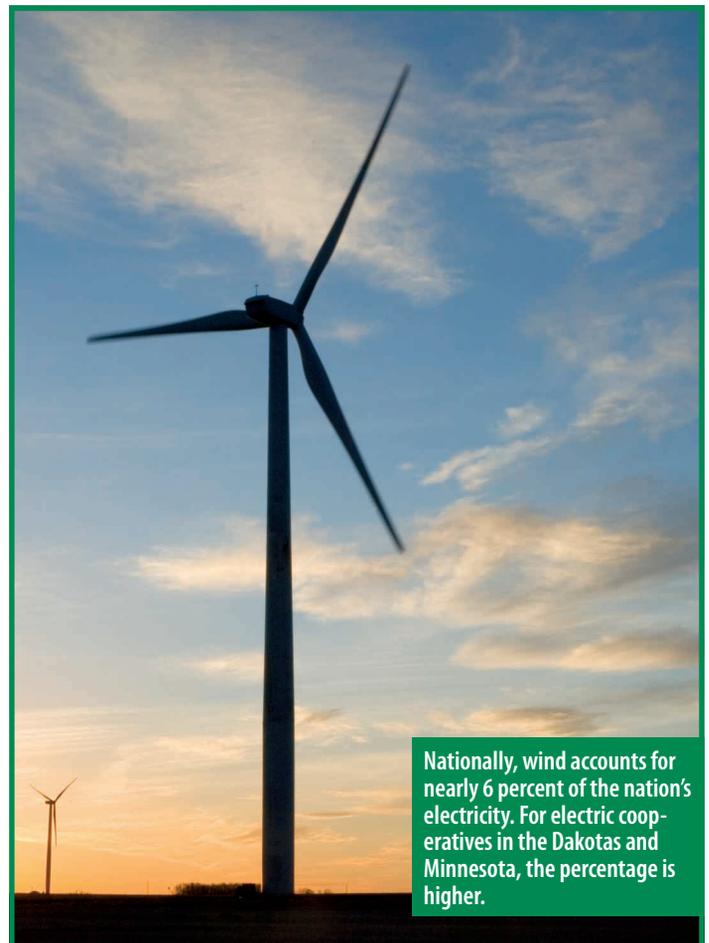
Hydroelectric power

Another way to turn an electricity-generating turbine is to store water behind a dam then harness its power as it flows from the reservoir to the river below.

Specialists disagree on whether to count hydroelectric power as renewable energy. On the one hand, it doesn't create greenhouse gas or other chemical pollutants by burning fossil fuel. On the other hand, large-scale hydro typically calls for building a permanent dam across a river valley and flooding the area behind it. Another option is to put hydroelectric generators directly in rapidly flowing rivers to capture power, but this is a significantly more expensive option than using hydroelectric power from water stored behind a permanent dam. Then there's the question of whether you consider flowing water renewable, or something that can be used up.

Hydroelectric power generates nearly 7 percent of the electricity in the United States. Although that number changes a bit during times of drought or heavy rain, the amount of electricity produced by hydro power has been relatively stable during the past several years.

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.



Nationally, wind accounts for nearly 6 percent of the nation's electricity. For electric cooperatives in the Dakotas and Minnesota, the percentage is higher.

January Board Meeting Highlights

The January board meeting was held on Monday, Jan. 26, at 9 a.m. All board members were present. Others present were CEO DeeAnne Newville, Lenae Wordes, Cindy Mertens, Gene Alex and attorney Jeff Whitmore. 858700

The following items were reviewed and approved by the board:

- Minutes of the December board meeting
- Operating and disbursement reports for the month of December
- Capital credits to estates
- Safety report for January
- Depreciation Resolution
- Revised Schedule A – Standard Pricing Guide
- Revised Policy 105 – Expense Reim-

bursement for Directors

- Revised Policy 516 – Alcohol and Controlled Substance (Drug) Testing
- Revised Policy 523 – Safety Program (AWAIR)
- Average Retail Cooperative Energy Rate (ARCER)
- CFC Annual Meeting voting delegate
- NRECA Annual Meeting voting delegate

The board reviewed:

- List of new members and capital credits transferred
- Reports from staff members as to the activities in their department. Items in the reports include:
 - High level Statement of Operations

review – YTD through December 2017 (unaudited)

- Organization activities
- East River update
- NRECA update
- MREA update
- Line crew work in progress and pending work
- Accounts receivable
- Scholarship Program
- Youth Tour
- 80th annual meeting
- Upcoming meetings were discussed.

Please contact the Renville-Sibley office if you would like more information regarding the board meeting.

Notice:

The February board meeting will be held on Monday, Feb. 26, 2018, at 9 am.
The March board meeting will be held on Monday, March 26, 2018, at 8 am.

FREE Want Ad Service

Members can submit ads for the following categories: Giveaway, For Sale, For Rent and Wanted. Ads should be or are limited to no more than 15 words and must be received by the first of the month to be included in the following month's newsletter. Renville-Sibley reserves the right to edit content or exclude ads due to space restrictions. Ads will be run one time only unless resubmitted. Please complete the following information and mail to the Renville-Sibley Cooperative Power, PO Box 68, Danube, MN 56230.

Name: _____

Address: _____

Phone number: _____

Ad to be placed (limit of 15 words per ad)

Type of ad: Giveaway For Sale For Rent Wanted

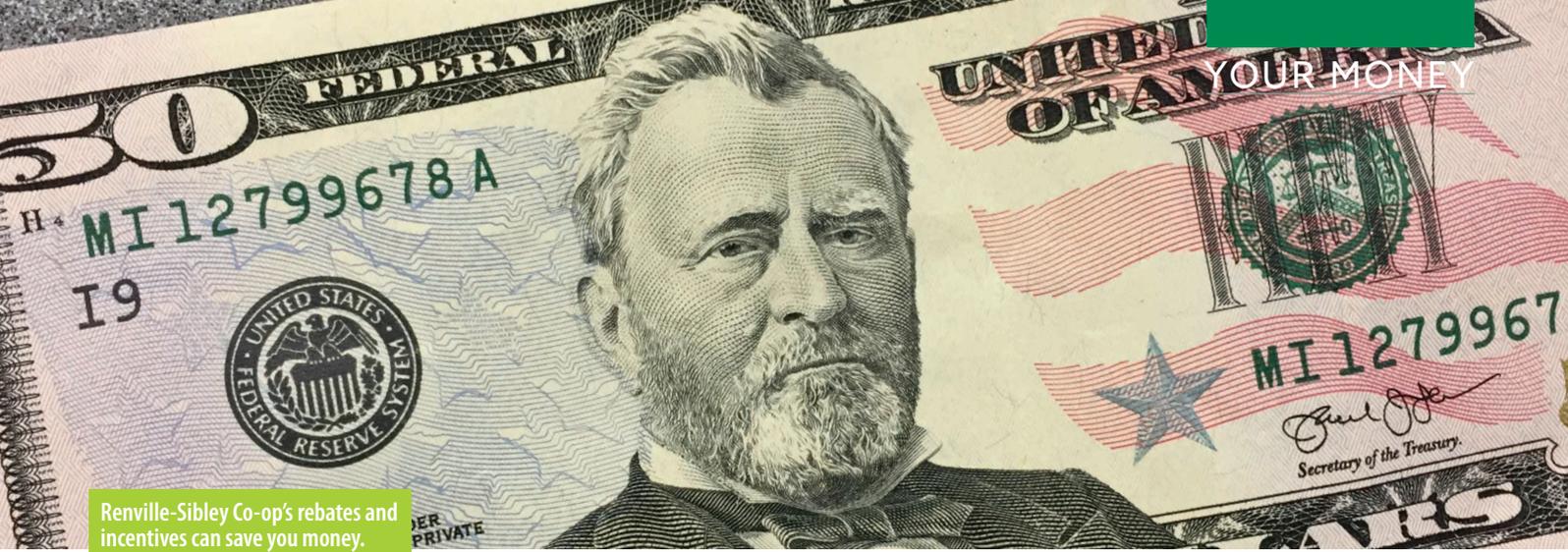
811 Know what's below. Call before you dig.

(651)454-0002 -or- (800)252-1166

GSOC

CONTACT US BEFORE YOU DIG!

www.gopherstateonecall.org



Renville-Sibley Co-op Power Rebates and Incentives

Incentives:

- 5 percent interest loans available for equipment, service upgrade and installation of qualified heat systems (up to \$15,000 for up to five years with approval)
- Minimum qualifications must be met for all marketing programs

Non Commercial Electric Heat Rebates:

(replacement incentive offered after 10 years)

- \$800 Geothermal Heat Pump
- \$800 Air-to-Air Heat Pump
- \$200 Mini-Split/Ductless Heat Pump (must be ENERGY STAR®-certified)
- \$400 Non ENERGY STAR® Heat Pump

To qualify for the geothermal and air-to-air heat pump, equipment must be new, at least two ton and a HSPF greater than or equal to 8.5. Contact the office for commercial, industrial or agricultural rebate information:

Special Discount Rates:

Separately metered electric heat and controlled A/C is only 5.4 cents/kWh!

Contact the office for details. – There is a \$2 per month charge for all discount meters.

Electric Water Heater Rebates:

(replacement incentive offered after 10 years)

- \$6/gallon – Marathon® Lifetime Warranty Units
- \$100 bonus rebate for new home or fossil fuel conversion
- \$6.50 monthly credit for controlled electric water heater



Water heaters available from Renville-Sibley in the sizes of 50-gallon, 85-gallon and 105-gallons. Please call the office for more details on this program.

Nonresidential Efficient Lighting Replacement Program:

Renville-Sibley offers a rebate of \$.30/watt saved for the replacement of inefficient lighting systems in nonresidential installation. The maximum rebate amount is \$1,000 per member per calendar year and a maximum of up to 50 percent of the total project cost. The minimum rebate is \$50.

Energy Star® Rebates:

- \$100 – Refrigerator (requires proof of disposal of existing unit)
- \$200 – Central Air-Conditioner
- \$50 – Dishwasher
- \$50 – Clothes Washer
- \$50 – Clothes Dryer
- \$100 – Freezer
- \$25 – Dehumidifier
- \$25 – Room Air-Conditioner
- \$5 – LED Light Bulb (bulb must be a minimum of 8 watts, maximum of 20 bulbs per location)
- \$35 – Disposal rebate for refrigerator or freezer currently in service (requires proof of disposal)

(ENERGY STAR® Rebates are capped annually; contact the office to verify status of program.)



All rebate forms can be found at www.renville-sibley.coop
For more information, please contact us at 800-826-2593 or 320-826-2593.

Robots and Sensors

Electric co-ops use innovative technologies for real-time feedback on the health of the grid.

Thomas Kirk

NRECA Associate Analyst

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Electric grids are immense machines that span counties, and often entire states, bringing power to many homes and businesses. So how do the electric companies know what's happening on their lines? How much power is being delivered? What equipment needs to be replaced? These are important questions that electric cooperatives spend a lot of time and money to answer.

For many years, electric co-ops relied entirely on in-person inspections to determine asset conditions and calls from members to discover power outages. During and after storms, this could mean lengthy recovery times as supervisors evaluated the available information and decided where to send line crews, who then searched for damaged lines in order to make repairs and restore electric service. Even normal operations required personnel to be sent into the field constantly to perform manual inspections. Today, electric co-ops may choose from a wide array of technologies that give them near real-time feedback on the health of the grid. Monitoring and automation tech-



Electric cooperatives maintain 2.5 million miles of power lines across the United States. In South Dakota alone, electric cooperatives have more than 65,000 miles of distribution power lines.

nologies are becoming more affordable and gaining more functionality leading to greater use in the field.

Two of the most common technologies in this space are Supervisory Control and Data Acquisition (SCADA) and

Automated Meter Infrastructure (AMI).

SCADA systems have greatly evolved since their original development in the 1920s. Modern systems take advantage of communication, monitoring and automation technologies to give utilities a



Electric cooperatives are exploring a host of innovative technologies, such as smart meters and special sensors placed on power lines for niche applications, including fault location, power theft detection and asset management.

real-time picture of how substations are performing and make changes as needed. At the end of the line, AMI, also known as smart meters, report back to the utility how much energy consumers use, often on a 15-minute basis. Utilities can “ping” these meters to determine if they’re still receiving power during storms or other types of outages.

Beyond AMI and SCADA, utilities are exploring a host of other sensor technologies for niche applications including fault location, power theft detection and asset management. These applications are being enabled by a new wave of inexpensive sensors that cost one-tenth of what they did a decade ago. When a fault occurs on a transmission line (the large power lines that carry power from plants to substations), they create transient waves on the lines. By placing special sensors on transmission lines and measuring the time that a wave reaches two of these sensors, the location of a fault can be accurately and quickly determined. This lets the utility know exactly where to send repair crews.

Across the whole U.S. electric industry, roughly \$6 billion worth of electricity is stolen annually, which leads to higher prices for everyone. Traditionally, one of the best tools for identifying power theft

For members, these technologies provide three primary benefits: increased reliability, reduced outage times and lower prices.

is visual inspection of meters for signs of tampering, but with AMI systems, utility personnel aren’t visiting meters in-person as often. Load-monitoring sensors – often called current transformers (CTs) or current sensors – can be placed on distri-

bution power lines to help catch significant losses along a line, from theft or for other reasons. Data gathered by CTs can be reconciled with meter readings to investigate discrepancies between the electricity passed through the line and the electricity measured by the meters. CT devices are also valuable for diagnosing excessive line loss due to other problems, such as conductor damage or aging transformers.

For members, these technologies provide three primary benefits: increased reliability, reduced outage times and lower prices as the utility manages employee time and resources more efficiently. As sensors continue to improve and drop in price, expect to see more real-time grid monitoring.

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.



Dakota Gasification Company's Great Plains Synfuels Plant is located near Beulah, N.D., and is adjacent to Basin Electric's Antelope Valley Station.

VALUE OF AN ASSET

Why Basin Electric will continue to operate Dakota Gasification Company

Tracie Bettenhausen

Basin Electric Senior Editor

Here is a high-level look at why the decision to continue to operate Dakota Gas makes sense for Basin Electric's members.

Spend a bit of time thinking about your hardest business decision.

Was it always clear it was the right thing to do? What about the moments you questioned yourself, or outside forces made the decision seem foolish? Did you stick it out? Has it paid off?

The nature of the business surrounding Dakota Gasification Company's Great Plains Synfuels Plant is based on commodity prices. The price of oil and natural gas, the prices that crops are selling for, the price of fertilizer and, though less so, the price of other products like carbon dioxide.

When commodity prices were higher, profits meant Basin Electric was able to return a lot of money to its members. The Great Plains Synfuels Plant has served as a \$1.4 billion benefit to its members since 1988, and continues to provide benefits.

However, the most recent 10-year financial forecast shows losses every year.

Basin Electric directors and senior staff have decided the cooperative needs to hang steady with Dakota Gasification Company while maintaining its focus on strategic cost management and continuing to look at other options.

The decision was explained to Basin Electric members during a Members Strategic Direction Meeting in November.

"We wanted to be able to have an open dialogue with our

members, where they could ask specific questions we just can't answer in an open meeting," says Paul Sukut, Basin Electric CEO and general manager. "We were pleased with how that meeting turned out. It was very well attended, and we took as much time as everyone needed to get questions answered. There is still work to do on this, but I know by going to our cooperative roots, using the business model's best attributes of transparency and democracy, we are making the best decisions we can."

Here is a high-level look at why this decision makes sense for Basin Electric's members.

History of the purchase

Basin Electric bought the Great Plains Synfuels Plant from the U.S. Department of Energy (DOE) as a way to salvage the synergies that had been built between the Synfuels Plant and Antelope Valley Station. The DOE had acquired the plant after the original owners failed.

"At the time the DOE announced its intent to close the plant, Basin Electric was under a great deal of financial stress," says Mark Foss, Basin Electric senior vice president and general counsel. "The load growth the cooperative had forecasted was not materializing, and Basin Electric had about 2,000 megawatts (MW) of generation. Our peak loads were only at 1,000 MW."

Basin Electric formed two subsidiaries to make the deal: Dakota Coal Company paid \$69 million for the coal rights, Dakota Gas paid \$16 million for the natural gas pipeline that reaches to the Northern Border Pipeline, and Basin Electric paid \$0. As part of the deal, Basin Electric agreed to forgo production tax credits and go through with a profit-sharing agreement for 15 years.

Basin Electric had interest in keeping the plant operating for several reasons, including those related to member rates. The Synfuels Plant used about 90 MW of electricity when operating at full load. If the plant had closed down at that time, Basin Electric would have had to increase rates by 14 percent, Foss says.

From 1988-2014, Dakota Gas invested \$845 million into the plant in capital improvements, all funded with self-generated cash, including the proceeds from a legal settlement concerning the gas pipeline, according to Foss.

Bottom line impacts

While the decision to buy the Synfuels Plant paid off initially, the benefits proved themselves year after year when commodity prices were high.

Of the \$1.4 billion in benefit Dakota Gas has had to Basin Electric since 1988, \$300 million has been through dividends and bill credits paid to members, and \$1.1 billion is in synergies in operations between the various facilities, according to Susan Sorensen, Basin Electric vice president and treasurer.

Sorensen explains that the shared coal supply keeps costs down for other Basin Electric facilities. If the Synfuels Plant would be shut down, the cost of mining coal would need to be absorbed by other users. A shutdown of the Synfuels Plant would increase coal prices for Leland Olds Station and Antelope Valley Station, coal-based power plants near Stanton, N.D., and Beulah, N.D., respectively.

Also, because the Synfuels Plant shares water and rail services with Antelope Valley Station, those benefits would be shifted over to the power plant.

“Dakota Gas currently pays about 30 percent of the overhead costs at Basin Electric Headquarters,” Sorensen says. “That percentage that is already netted down when considering some costs, like a haul road or computer mainframe, cannot be reduced by selling the asset.”

The Synfuels Plant uses a large amount of electricity, which supports Basin Electric’s margins. Also, the Freedom Mine, which supplies coal to the North Dakota facilities, is a large electricity consumer of Roughrider Electric Cooperative, a Basin Electric Class C member.

Rates and projects

The urea production facility at the Synfuels Plant has had financial challenges for some of the membership. The budget increased over the course of construction due to increases in quantity of materials and costs of labor required to build the facility. The project was further challenged by the quality and timeliness of engineering, and

ultimately, staff released the general contractor for sustained poor performance. Once those issues were resolved, the project has consistently met its targets and is set to go into production by the end of January 2018.

Despite those struggles, recent rate increases can’t be attributed to the construction project’s budget.

“Basin Electric’s average member rate went up through 2016 due to several factors,” says Dave Raatz, senior vice president of Resource Planning. “Member growth was increasing across the entire membership, and we were building infrastructure to support that. Especially in the Bakken oil region of western North Dakota and eastern Montana, the growth meant Basin Electric was building generation and transmission to support the reliability of the transmission system.”

The plant will produce 360,000 tons of urea each year. According to Ken Rutter, Basin Electric senior vice president of Marketing and Asset Management, there is 2.2 million tons of demand each year within a 200-mile radius of the plant.

Backing up the decision

While these factors may be enough on their own for Basin Electric to keep the Synfuels Plant operating, staff knows more action needs to be taken.

Through September 2017, Dakota Gas employees have been able to find ways to reduce expenses by \$24.5 million.

Once the urea production facility is operating, the Synfuels Plant will need 160 MW of electricity, and is expected to run at a 93-percent capacity factor, according to Dave Sauer, Dakota Gas senior vice president and chief operating officer.

A creative tactic would change the way the power contract between Dakota Gas and Basin Electric is written. Currently, the Synfuels Plant pays a higher-than-market rate. Having the plant pay market rates wouldn’t impact Basin Electric. Also, a plant write-down is being considered, which wouldn’t affect operation of the plant.

Employees of Dakota Gas and Basin Electric continue to search for ways to reduce costs and operate the plant more efficiently. Normal staff attrition has helped reduce the workforce as employees leave due to retirement and other opportunities.

On the Basin Electric side, directors are looking at a revenue deferral plan, which would allow for financial flexibility for future instances like what is happening today. Staff is working to optimize the generation fleet, focus on market exposure, and work on a coal asset strategy.

Urea Plant Starts Up

North Dakota’s first urea fertilizer production facility, located at Dakota Gasification Company’s Great Plains Synfuels Plant near Beulah, N.D., is successfully making product and was declared commercial Feb. 1.

Urea is a dry, granular fertilizer commonly used in agricultural applications, and has the highest nitrogen content of all solid fertilizers. The facility produced urea for the first time Jan. 19. Employees are currently working toward the goal of producing up to 1,100 tons of product per day.

“I want to thank the employees of Dakota Gasification Company and Basin Electric for working safely and efficiently to achieve this major milestone,” said Paul Sukut, Basin Electric CEO and general manager. “Hard work and innovation are hallmarks of America’s Heartland, and I’m proud that the completion of this project carries on that tradition.

The plant has the ability to shift a portion of the urea production to produce diesel exhaust fluid, used to reduce emissions of nitrogen oxides from diesel engines. Additionally, the new facility has the capability of producing liquefied carbon dioxide, which is expected to be used in the oil production industry. The products bring the Synfuels Plants total product count to 13.

Construction on the project started in July 2014.

March 3-6

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

March 9-10

Holiday Arts Spring Craft Show, Masonic Temple, Mitchell, SD, 605-359-2049

March 10

Farm and Home Show, 10 a.m. to 5 p.m., Auditorium, Gregory, SD, 605-830-9778

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 15-17

South Dakota High School State B Boys Basketball Tournament, Barnett Center, Aberdeen, SD

March 15-17

South Dakota High School State A Boys Basketball Tournament, Rushmore Plaza Civic Center, Rapid City, SD

March 15-17

South Dakota High School State AA Boys Basketball Tournament, Premier Center, Sioux Falls, SD

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 24

Spring Craft Fair/Flea Market, American Legion Hall, Wagner, SD, 605-384-3543



February 24: Annual Outhouse Races and Chili Cook-off Contest, Nemo, SD, 605-578-2708

Photo courtesy: travelid.com

March 24

Milltones Spring Show, 7 p.m., High School Theatre, Milbank, SD

April 5

McCrossan's Wildest Banquet Auction in the Midwest featuring A Night Out with the PBR, 5:30 p.m., Arena, Sioux Falls, SD, Tickets: \$75 each, 605-339-1203, www.mccrossan.org

April 6

SPURS Spring Dance, Dakota Events Center, Aberdeen, SD, Tickets available at the Hitch 'N Post or by calling 605-226-1099

April 6-7

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

April 6-8

Professional Bull Riders Built Ford Tough Series, Sioux Falls, SD, 605-367-7288

April 7-8

Hats Off to the Artists Art Show, Faulkton, SD, 605-598-4160

April 25-29

Black Hills Film Festival, Hill City, SD, 605-574-9454

April 28-29

Bike Show, Ramkota Convention Center, Aberdeen, SD, 605-290-0908

May 10

Chris Young, Don Barnett Arena, Rushmore Plaza Civic Center, Rapid City, SD, 605-394-4115

May 13

1880 Train Mother's Day Express, Hill City, SD, 605-574-2222

May 18

Turkey Races, Huron, SD, 605-352-0000

May 18-19

Sioux Empire Film Festival, Sioux Falls, SD, 605-367-6000

May 18-20

State Parks Open House and Free Fishing Weekend, Pierre, SD, 605-773-3391

May 18-20

Tesla Road Trip Rally, Custer, SD, 605-673-2244

July 7

Hedahls Auto Value Car Show, Hav-A-Rest Campground, Redfield, SD, 605-380-9985

July 10-15

4th Annual 3 Wheeler Rally, Deadwood, SD, 605-717-7174, www.d3wr.com

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.