South Dakota Electric

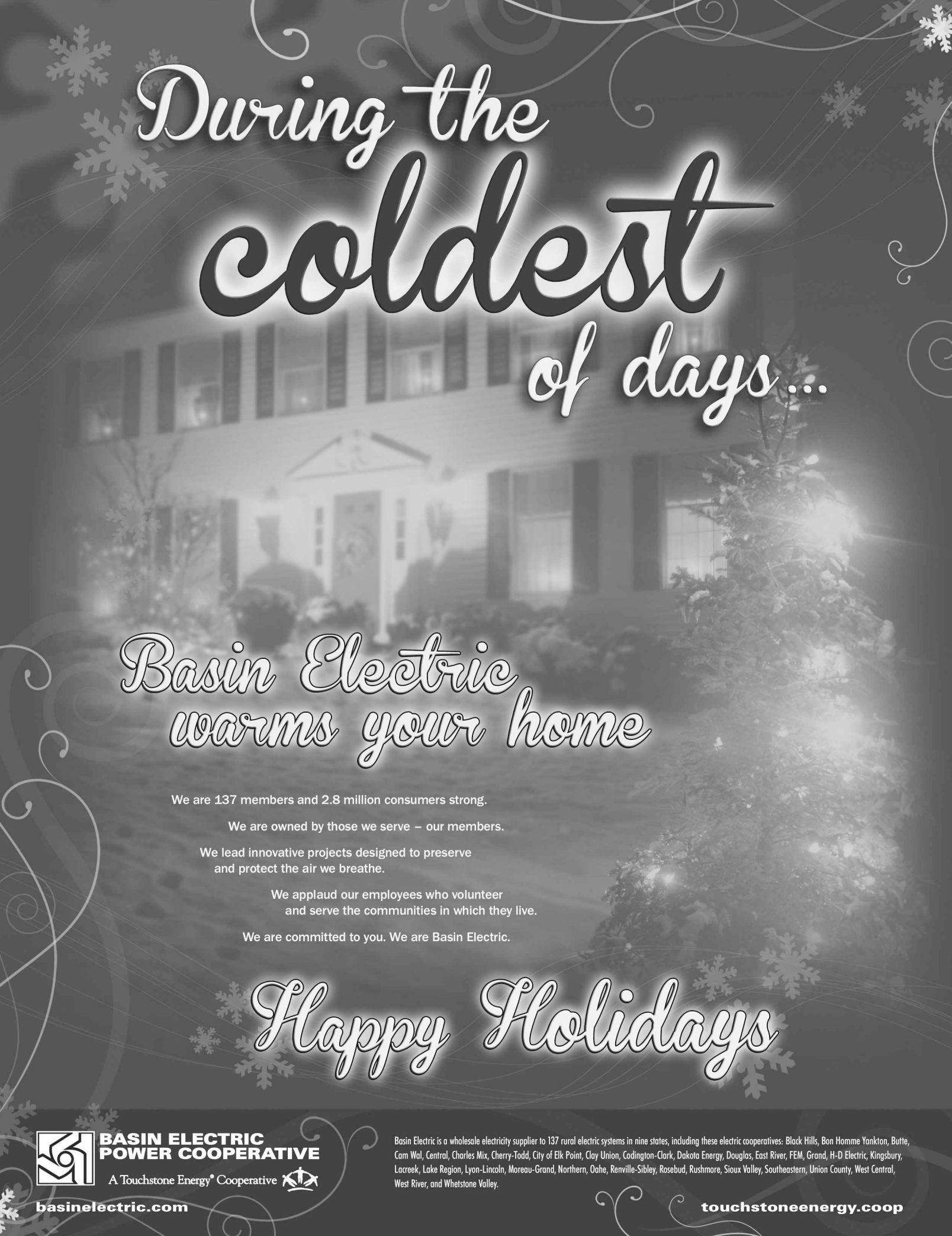
Your Touchstone Energy® Partner

Cooperative Connections

DECEMBER 2014 VOL. 66 NO. 12

SPREADING GOOD CHEER

Pg-8



BASIN ELECTRIC POWER COOPERATIVE

A Touchstone Energy® Cooperative

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Basin Electric is a wholesale electricity supplier to 137 rural electric systems in nine states, including these electric cooperatives: Black Hills, Bon Homme Yankton, Butte, Cam Wal, Central, Charles Mix, Cherry-Todd, City of Elk Point, Clay Union, Codington-Clark, Dakota Energy, Douglas, East River, FEM, Grand, H-D Electric, Kingsbury, Lacreek, Lake Region, Lyon-Lincoln, Moreau-Grand, Northern, Oahe, Renville-Sibley, Rosebud, Rushmore, Sioux Valley, Southeastern, Union County, West Central, West River, and Whetstone Valley.

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South Dakota Electric Cooperative Connections

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Codington-Clark Electric, Watertown, S.D.
Dakota Energy, Huron, S.D.
Douglas Electric, Armour, S.D.
East River Electric, Madison, S.D.
FEM Electric, Ipswich, S.D.
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Northern Electric, Bath, S.D.
Oahe Electric, Blunt, S.D.
Renville-Sibley Co-op Power, Danube, Minn.
Rosebud Electric, Gregory, S.D.
Rushmore Electric, Rapid City, S.D.
Sioux Valley Energy, Colman, S.D.
Southeastern Electric, Marion, S.D.
Traverse Electric, Wheaton, Minn.
Union County Electric, Elk Point, S.D.
West Central Electric, Murdo, S.D.
West River Electric, Wall, S.D
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Brenda Kleinjan, Editor
Dawn Trapp, Communications Specialist
Design assistance by
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Guest **Editorial**

Skin in the Game:
Members' Economic Participation
Cooperative Principle 3

By Adam Schwartz

The following is from the International Cooperative Alliance summary of the third cooperative principle, Members' Economic Participation:

Members contribute equitably to, and democratically control, the capital of their cooperative. At least part of that capital is usually the common property of the cooperative. Members usually receive limited compensation, if any, on capital subscribed as a condition of membership. Members allocate surpluses for any or all of the following purposes: developing their co-operative, possibly by setting up reserves, part of which at least would be indivisible; benefiting members in proportion to their transactions with the cooperative; and supporting other activities approved by the membership.

So what do those words mean? Let's take a closer look. Chances are when you joined a cooperative you paid a membership fee of anywhere from $5 to $50. That is your part of the equity or your share of ownership (Members contribute equitably to the capital of their cooperative). You also do something else every month that allows your co-op to keep the lights on – you pay your bill!

As a member, you have a say (democratically control) through your elected board of directors. The board sets the strategic direction of the cooperative, then the management and staff put that direction into action through the operations of the co-op.

At the end of the fiscal year, if your co-op has received more money than it needed for the expenses, a portion is set aside for reserves (members allocate surpluses for any or all of the following purposes: … by setting up reserves) which is like a savings account for the co-op. So if a storm or flood comes through, the co-op will have the funds to do the needed repairs. The remaining amount is allocated to each member based on how much electricity they used during the year (benefiting members in proportion to their transactions). This is the amount you will see as a capital credits check or a credit on your bill.

While the safe, reliable and affordable provision of electricity is most important, your co-op does many other things too. Some cooperatives offer broadband, economic development or charitable giving opportunities, others offer wiring departments and other services to their members.

Electric cooperatives in South Dakota and western Minnesota are not some large power company headquartered in a far off state with stockholders from around the world. We are right here, serving in every county in South Dakota. We were formed by neighbors and friends who came together with the goal to improve the quality of our lives through electricity. Our goal is to continue to do that by improving the quality of your life with the same neighborly approach.

Our cooperative principles guide us, and through your economic participation (a.k.a "skin in the game") we make sure our focus is on you, the member-owner.

Adam Schwartz is the founder of The Cooperative Way a consulting firm that helps co-ops succeed. He is an author, speaker and a member-owner of the CDS Consulting Co-op. You can follow him on Twitter @adamcooperative or email him at aschwartz@thecooperativeway.coop.

Preparation is Key To Dealing with Winter Weather

With the winter season approaching, the Federal Emergency Management Agency (FEMA) reminds individuals to be prepared for winter storms and extreme cold. While the danger of severe winter weather varies across the country, everyone can benefit by taking a few easy steps now to prepare for emergencies. A first step, regardless of where you live, is to visit the Ready.gov Web site to find preparedness ideas you can use all year long.

Severe winter weather can include snow or subfreezing temperatures, strong winds and ice or heavy rain storms. An emergency supply kit both at home and in the car will help prepare you and your family for winter power outages and icy or impassable roads.

Both kits should include a battery-powered or hand-crank radio, extra flashlights and batteries. In addition, your home kit should include a three day supply of food and water. Thoroughly check and update your family's emergency supply kit and add the following supplies in preparation for winter weather:

- Rock salt to melt ice on walkways,
- Sand to improve traction on driveways and sidewalks,
- Snow shovels and other snow removal equipment,
- And adequate clothing and blankets to help keep you warm.

When traveling in winter weather conditions, be sure to contact someone both before your departure and when you safely arrive. Always travel with a cell phone and ensure the battery is charged so you can contact someone in the case of a road emergency. If dangerous conditions are forecast, it's often best to delay travel plans.

Finally, make sure to familiarize yourself with the terms that are used to identify a winter storm hazard and discuss with your family what to do if a winter storm watch or warning is issued. Terms used to describe a winter storm hazard include the following:

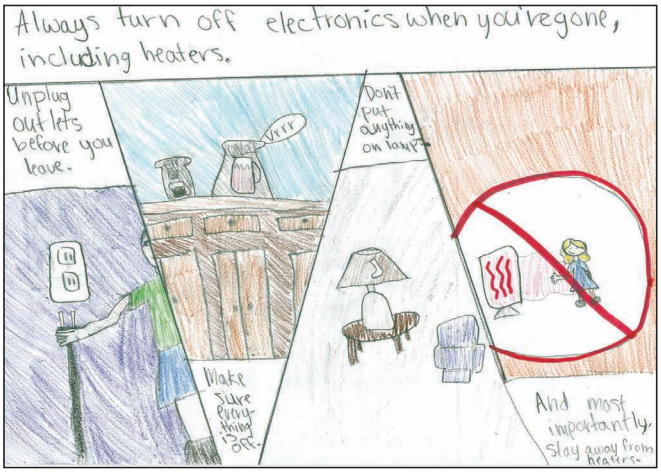
- Freezing Rain creates a coating of ice on roads and walkways.
- Sleet is rain that turns to ice pellets before reaching the ground. Sleet also causes roads to freeze and become slippery.
- Winter Weather Advisory means cold, ice and snow are expected.
- Winter Storm Watch means severe weather such as heavy snow or ice is possible in the next day or two.
- Winter Storm Warning means severe winter conditions have begun or will begin very soon.

For more information and winter preparedness tips, please visit: www.ready.gov/winter-weather or www.nws.noaa.gov/om/winter/ or www.fema.gov/about-region-viii/winter-weather-readiness.

Source: Federal Emergency Management Agency

Kids' Corner Safety Poster

"Always turn off electronics when you're gone, including heaters."



Trista Earley, Tea Area Intermediate School

Trista is the daughter of Tristan and Samantha Earley, Tea, S.D. They are members of Southeastern Electric Cooperative, Marion, 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.

Holiday Favorites

Unbaked Fruit Cake

- 1 (1 lb.) box graham crackers, rolled fine
- 3/4 cup dates, finely cut up
- 1 cup nutmeats, broken
- 1-1/4 cups candied fruits, cherries, pineapple, etc.
- 3/4 cup evaporated milk
- 1-2/3 cups miniature marshmallows
- 1/3 cup orange juice
- 1/2 tsp. cinnamon
- 1/2 tsp. nutmeg
- 1/4 tsp. cloves
- 1-1/2 cups raisins

Put the cracker crumbs, dates, nutmeats and candied fruits in a bowl. Add milk and remaining ingredients; mix well with hands. Press firmly into a 10-inch tube pan or small bread pans lined with foil or waxed paper. Top with extra fruit and nuts. Cover tightly. Chill 2 days before slicing. Keep in refrigerator.

Mary Jessen, Holabird

Milnot Fudge

- 1 cup Milnot evaporated filled milk
- 3 cups sugar
- 1 (7 oz.) jar marshmallow creme
- 1/3 cup butter or margarine
- 1 (12 oz.) pkg. chocolate chips (2 cups)
- 1 cup chopped nuts, optional
- 1 tsp. vanilla, optional

Combine sugar, Milnot, marshmallow creme and butter in a heavy saucepan. Heat slowly to boiling, stirring frequently. When mixture boils vigorously (so that boiling cannot be slowed by stirring), start timing, continue boiling for 4 minutes, stirring constantly. Remove form heat. Stir in chocolate chips until melted; add nuts and vanilla. Pour into a buttered 9x9-inch or larger pan. Cool at room temperature. Variations: Substitute butterscotch or peanut butter chips for chocolate.

Vicky Fitzpatrick, Olivet

Pumpkin Fluff

- 1 (15 oz.) can pumpkin
- 1 small pkg. instant vanilla pudding
- 1 tsp. pumpkin pie spice
- 1 small pkg. instant butterscotch pudding
- 2 cups milk
- 1 (8 oz.) container Cool Whip

Combine all ingredients; chill.

Sandra Jones McCloskey, Rosebud

Sugar Cookie Party Mix

- 6 cups Rice Chex™ cereal
- 1/4 cup butter or margarine
- 1/4 cup granulated sugar
- 2 T. corn syrup
- 2 tsp. pure vanilla
- 1/4 cup powdered sugar
- 1 oz. white baking chocolate or 1/4 cup vanilla milk chips
- 1 to 2 tsp. colored edible glitter or sugar sprinkles

Measure cereal into large microwaveable bowl. Line cookie sheet with waxed paper or foil. In 2-cup microwavable measuring cup, microwave butter uncovered on high 30 seconds or until melted. Add sugar and corn syrup; microwave uncovered on high 30 seconds, until mixture is heated and can be stirred smooth. Stir in vanilla. Pour over cereal, stirring until evenly coated. Microwave uncovered on high 2 minutes, stirring after 1 minute. Sprinkle with powdered sugar; mix well. Spread on waxed paper or foil. Microwave white chocolate on high 30 seconds or until it can be stirred smooth; drizzle over top. Sprinkle with edible glitter or sprinkles. Servings: 14

Nutritional information per serving: calories 120 (calories from fat 35); total fat 4g (saturated fat 2.5g, trans fat 0g); cholesterol 10mg; sodium 140mg; total carbohydrate 20g (dietary fiber 0g, sugars 9g); protein 1g.

Pictured, Cooperative Connections

Frozen Peppermint Delight

- 1 (14 oz.) pkg. Oreo cookies, crushed
- 1/2 cup butter, melted
- 1 gallon peppermint ice cream, slightly softened
- 1 (12 oz.) carton frozen whipped topping, thawed
- 1 (11-3/4 oz.) jar hot fudge ice cream topping, warmed
- Crushed peppermint candy

In a bowl, combine cookie crumbs and butter. Press into an ungreased 13x9x2-inch dish. Spread ice cream over crust; top with whipped topping. Cover and freeze until solid. May be frozen for up to 2 months. Just before serving, drizzle with hot fudge topping and sprinkle with peppermint candy.

Stephanie Fossum, Hudson

Toffee

- 1 3/4 cups butter
- 2 cups sugar
- 1 T. light corn syrup
- 1 cup chopped pecans
- 1 / 4 tsp. salt
- Melting chocolate/candy

Cook first 3 ingredients over medium heat till soft crack stage. Add pecans and salt. Pour into 15x11-inch pan covered in foil that is well-buttered. Let set 5 minutes. Score with knife. When cooled, break apart. Dip into melted candy coating. Dry on waxed paper.

Jan Bentzen, Tabor

Please send your favorite soup, bread, breakfast and seafood recipes to your local electric cooperative (address found on page 3). Each recipe printed will be entered into a drawing for a prize in June 2015. All entries must include your name, mailing address, telephone number and cooperative name.

New Touch-control Faucets Save Water and Energy

Jim Dulley
www.dulley.com

Dear Jim: My kitchen faucet has a very slow drip and the finish is worn. I want to replace it with one that is attractive and convenient to use. I often wash dishes by hand, so what is the most efficient design to purchase? – Pat D.

Dear Pat: Most people think of a kitchen faucet as just a simple valve to turn water on or off and to set the water temperature. But the proper selection of a kitchen faucet has a significant impact on water and energy savings, not to mention convenience, health and kitchen decor.

You should never ignore a dripping faucet, even if it seems to be leaking cold water. The leak may actually be coming from the hot water side, but it feels cold by the time it gets to the faucet and drips out. Even a slow leak from the hot water line can add up to substantial energy costs over time. Keep in mind, heating water is the greatest home energy consumer following general home heating and cooling.

Although you will not see it directly on your electric bill, using cold water consumes energy too. It requires a great deal of energy to purify, pump and treat.

Two primary factors affecting water and energy efficiency of a kitchen faucet are the maximum flow rate and the convenience of controlling the flow and temperature. For many years, two-handle (hot and cold) controls were popular. Today, one-handle kitchen faucets are almost always used. In addition to defining your style and decor, the size and shape of the faucet may impact your overall water consumption.

The Environmental Protection Agency (EPA) has a listing for plumbing products, similar in concept to ENERGY STAR® for appliances, called WaterSense. To qualify for a WaterSense label, the faucet must be 20 percent more efficient than standard products in a category. The industry standard is 2.2 gpm (gallons per minute) maximum water flow rate. Look for the WaterSense label.

The most recent, convenient and efficient feature for kitchen faucets is the touch-control feature. Without having to turn off the water via the handle, the water flow can be controlled with the wave or touch of a hand. By not having to adjust the handle each time, water is not wasted by re-adjusting the temperature.

This provides significant water and energy savings – particularly when rinsing during food preparation and when washing dishes by hand. For most people, using a standard faucet consumes more water and energy when washing dishes by hand than when running a properly loaded efficient dishwasher. With the touch-control feature, careful hand washing can be more efficient than the dishwasher.

Another advantage of this feature is the faucet handle is touched less often with dirty hands, so the attractive finish lasts longer. Also, with all the health concerns today about diseases from cross contamination of foods, touching the handle less is a real plus. Very few people wash the handle each time they have touched it.

Of the two no-hands technologies, I use the type that senses touch from your body (hand, forearm, elbow, etc.). It detects the slight electrical change from your touch to open or close a special valve. For example, when I am rinsing dishes, I can hold several plates in each hand and just tap anywhere on the faucet fixture with my elbow to start the water flow and stop it when they are rinsed.

The other technology has a proximity sensor on the top and in the front of the faucet neck. Waving a hand over the top sensor triggers the solenoid. This does require one free hand. The sensor on the front of the neck senses hands when they are in a typical hand-washing position.

Tall spouts with a pull-down sprayer are convenient to use and also result in savings. They provide a professional look, which is popular in today's kitchens. Depending upon the under-cabinet clearance, select the tallest one you can. Some are as tall as one foot. You will appreciate the height when you have to rinse a large platter or fill a large pot.

The pull-down sprayer increases the functionality of the faucet. If you use the sprayer feature option often, select one with a pause button. This allows you to stop the flow temporarily when moving utensils or rinsing various foods without having to wave over or touch the fixture.

The following companies offer efficient kitchen faucets: American Standard, 800-442-1902, www.americanstandard-us.com; Delta Faucet, 800-345-3358, www.deltafaucet.com; Kohler, 800-456-4537, www.kohler.com; Moen, 800-289-6636, www.moen.com; and Pfister, 800-732-8238, www.pfisterfaucets.com.

Have a question for Jim? Send inquiries to: James Dulley, *Cooperative Connections*, 6906 Royalgreen Dr., Cincinnati, OH 45244 or visit www.dulley.com.

MTI, LATI Receive Grants For Job Training

Two South Dakota technical schools were among 270 community colleges nationwide to share in more than $450 million in job-driven training grants.

Mitchell Technical Institute, Mitchell, S.D., was awarded a $2.47 million federal grant to support efforts in training future technicians for the energy industry. The grant funding, part of the Trade Adjustment Assistance Community College and Career Training (TAACCCT) competitive grant program, is administered by the US Department of Labor and the Department of Education.

The grants will provide community colleges and other eligible institutions of higher education with funds to partner with employers to expand and improve their ability to deliver education and career training programs that will help job seekers get the skills they need for in-demand jobs in industries like information technology, health care, energy and advanced manufacturing.

MTI has received three previous grants from the program supporting various areas including energy, technical education at a distance and health sciences. The new project will build capacity by enhancing and expanding Energy Production and Transmission programs supporting TAA-eligible and low-skilled workers throughout South Dakota. MTI, along with several project partners, will address the increased workforce demand for energy and utility technicians due to high attrition, employee retirements and the expanding industry. Using the three main principles of the Center of Workforce Development's "Get Into Energy Career Pathway," the program will target outreach and support from recruitment through employment; help develop career pathways and competency-based skill assessment; and include employer involvement in all phases of workforce development.

MTI will be partnering with Black Hills Corporation, Montana-Dakota Utilities Company, the South Dakota Rural Electric Association and the South Dakota Department of Labor developing programming to support several certificates in the areas of electricity, propane and natural gas and curriculum enhancements to two existing programs at the school, Electrical Utilities & Substation Technology and Industrial Maintenance Controls Technology, both to be offered for the Associate of Applied Science degree.

Lake Area Technical Institute, Watertown, S.D., received a $2.5 million job-driven training grant.

At Lake Area Tech, grant funds will enhance training initiatives in the electronic systems technology, energy operations, high performance engine machining, precision machining, robotics, and welding programs.

Grants, Loans Available for Energy Efficiency, Renewables

Small businesses and agricultural producers looking to make energy efficiency improvements or invest in renewable energy systems may benefit from the USDA Rural Development's Rural Energy for America Program (REAP).

REAP helps finance the cost of renewable energy systems and energy efficiency improvements for rural small businesses and agricultural producers.

In South Dakota, more than 200 farmers, ranchers and small businesses have already been awarded grants to replace grain dryers, lighting and coolers as well as install on-farm wind turbines and geothermal systems.

A variety of energy projects may qualify for REAP financial assistance to help you purchase, install and construct energy projects:

- Heating and cooling equipment insulation, programmable thermostats and airtight windows, doors and ducts.
- Efficient lighting and equipment with customizable controls. Many newer light systems also generate less heat and reduce cooling costs while improving lighting.
- Wind turbines or solar panels
- Small hydropower systems (less than 30 megawatts) transform the energy of flowing water into electricity.
- Geothermal system
- Anaerobic digester breaks down animal waste such as cow manure and other organic materials into biogas that can fuel vehicles or be used to generate electricity and heat.
- Renewable biomass such as crops, wood and plants, as well as biodegradable wastes such as fats, oils and other materials, can be converted into heat or biofuel.

REAP grants may cover up to 25 percent of a project's eligible costs.

Loan guarantees are also available. With REAP, USDA Rural Development may guarantee up to 85 percent of a commercial loan to help access affordable financing for the energy project. Rates and terms are negotiated between the borrower and their lender, subject to USDA approval.

A Combination Guarantee and Grant: can cover up to 75 percent of eligible project costs.

Eligibility requirements include that participants earn at least 51 percent of their income from farming or ranching or operate a privately owned, for-profit small business located in a rural area or town of 50,000 people or less?

For more information on the program, visit http://www.rurdev.usda.gov/bcp_reap.html. South Dakota residents can contact Darlene Bresson at darlene.bresson@sd.usda.gov. Minnesota residents should contact Ron Omann at Ron.Omann@mn.usda.gov and Nebraskans should contact Kelley Messenger at 308-237-3118.

Spreading Good Cheer

By Brenda Kleinjan

As holiday celebrations across the region enliven communities of all sizes this December, electric cooperatives in many areas will be playing a role.

Whether it is hoisting large street decorations aloft, stringing energy-efficient LED lights on co-op trees or gathering food and clothing for those in need, electric cooperatives are making their communities a bit brighter by spreading some cheer.

Creating a Candy Cane Lane

Large candy-cane shaped decorations are just part of what Clay-Union Electric Corporation workers will be lifting into place above the streets of the communities of Gayville, Volin and Wakonda in southeastern South Dakota.

The tradition spans back at least four decades.

"Clay-Union provides the street lighting in these towns and back when they got their first string of lights to be wrapped around some of the streetlights poles on Main Street, they needed something to plug into," said Mike Kjose, the Vermillion, S.D., cooperative's member services director. "So we wired in some outlets and hung the lights and continue to hang the lights."

Part of the early involvement was due to safety concerns. At the time, the poles had secondary wires that went from light to light," said Kjose. "We felt it was easier for us, we had the truck and safety equipment to do it."

Left: Rosebud Electric Cooperative director James Eastlund and President LeRoy Littau pose with an oversized check and the cereal donated by co-op members to the local food banks in Gregory and Tripp counties in south central South Dakota.
Below: Northern Electric Cooperative employees pose with some of the canned items donated to the Salvation Army in 2013.
Bottom left: Dakota Energy Cooperative's decorated digger truck was voted "Best Lit" in the 2013 Huron Parade of Lights.
Bottom right: Dakota Energy Cooperative employees Tyler Wipf, right, and Jeff Gilbert, left, along with Jeff's children rode in Huron's Parade of Lights in 2013.
Opposite page: For four decades, Clay-Union Electric Corporation has been hanging holiday decorations for the communities of Gayville, Volin and Wakonda.

Visions of Sugar Plums

Since 2003, employees and members of Northern Electric Cooperative in Bath, S.D., have gathered donations of games, toys and money for the area's Toys for Tots program. They additionally gather hundreds of items annually for the local Salvation Army food drive.

To the east, employees and members of both Lake Region Electric Association in Webster, S.D., and Whetstone Valley Electric Cooperative in Milbank, S.D., have also engaged in food drives for local food pantries and similar service organizations.

And, for the past 13 years, members of Rosebud Electric Cooperative in Gregory, S.D., have joined the cooperative in a cereal drive to help stock the food pantries in Gregory and Tripp counties in south central South Dakota. In the program's first 12 years, more than 5,500 boxes of cereal and $11,000 in cash donations have been rased for the cause.

Shining Brightly

When it comes to lighting up the holidays, Dakota Energy Cooperative in Huron, S.D., shines brightly.

The co-op's entry in the 2013 Parade of Lights in Huron was deemed "Best Lit" as hundreds of LED bulbs encased one of the co-op's digger trucks.

Weather permitting, cooperatives in several other communities also participate in holiday parades.

From the holiday table to the holiday parade, the region's electric cooperatives are committed to their communities and proudly participate in community holiday traditions.

Member Driven

Basin Electric Annual Meeting Celebrates Member Ownership

By
Mary Miller

A new CEO. A new Governors Gallery in a new Heritage Center. New technology. New regulations. New power plants and transmission lines.

And time-tested values.

"Member Owned, Member Driven" was the theme for the 2014 Basin Electric annual meeting.

Despite a changing membership, new load growth and regulatory challenges on the horizon, the values that brought co-ops together to form Basin Electric remain today.

Basin Electric's 2014 annual meeting brought in more than 1,000 member co-op employees, directors, public officials and utility representatives and featured several updates on complex issues and developments, but woven throughout the entire two-day meeting was a reminder to all member cooperatives that they own Basin Electric and the co-op's future is in their hands.

"There is no doubt that there are many external factors putting pressure on our family," said Paul Sukut, Basin Electric CEO and general manager, during his Nov. 5 address to the membership. "We are responding, we are changing and we are evolving. But if there is one thing I want to leave you with, it's that your cooperative is strong. We are financially strong, we are managing your assets well, we have excellent people and we are growing in the right way."

Basin Electric board president Wayne Peltier, representing District 9 of Minnesota Valley Cooperative Light and Power, Montevideo, Minn., underscored the importance of holding true to Basin Electric's cooperative roots. "While we have been

Left: Kermit Pearson, vice president of the Basin Electric Power Cooperative board of directors, calls a session of the co-op's annual meeting to order. Pearson represents Lake Region Electric Association on the East River Electric Power Cooperative board of directors and in turn represents East River on both the BEPC and the South Dakota Rural Electric Association boards. Opposite Page: Prior to the meeting was the debut of the Touchstone Energy® Governors Gallery at the North Dakota Heritage Center on the evening of Nov. 4. More than 800 cooperative employees, directors and special guests attended the launch party featuring a mobile gallery telling the story of the impacts cooperatives have made in North Dakota and the pivotal position they hold in our future.

busy with many new projects, I'd like to emphasize the common thread through all our efforts – our cooperative culture. I think embracing our cooperative roots is more critical than ever. As we lose the folks who remembered when the lights came on and as we rebuild Basin Electric's workforce, we must always remain true to the tie that binds us – we're a cooperative."

Highlights:

• Prior to the meeting was the debut of the Touchstone Energy® Governors Gallery at the North Dakota Heritage Center on the evening of Nov. 4. More than 800 cooperative employees, directors and special guests attended the launch party featuring a mobile gallery telling the story of the impacts cooperatives have made in North Dakota and the pivotal position they hold in our future. Basin Electric, NISC, Minnkota Electric Power Cooperative, Great River Energy and the North Dakota Association of Rural Electric Cooperatives are sponsors of this gallery.

• Preconference sessions surrounding the latest developments in EPA regulations and distributed generation kicked off the meeting. EPA's latest regulation surrounding carbon dioxide emissions, Section 111(d) of the Clean Air Act, has tremendous implications for the Basin Electric membership. The proposed rule, introduced June 2, 2014, is currently in a comment period until Dec. 1, with the final rule planned for June of 2015.

Additionally, as consumer preference grows, states are seeing an increased interest in consumer-owned distributed generation. The second preconference session addressed challenges and opportunities associated with solar generation.

• Senior staff provided reports on Basin Electric's load growth, construction activities, planned generation, financial status and regulatory/legislative updates. The cooperative is seeing tremendous growth within its membership, with more than 1,800 megawatts (MW) growth by 2035 projected. Of that, more than 1,600 MW is in the Williston Basin alone. Basin Electric is responding to this growth with additional generation and transmission.

"Our membership is growing, and in some areas, more than others," Peltier said. "Our members are serving new loads – some residential, some large commercial and some mega-industrial. While it's sometimes hard to realize the benefit of this growth when you're several states away, the board recognizes that the growth of Basin Electric overall is a positive thing for all of us. We must always be supportive and remember that this is a part of being a cooperative – for better or for worse, we're in this together."

"The single most important transmission project in Basin Electric's recent history just received final approval and construction is under way on the AVS to Neset line," said Sukut. "This project will change the face of power delivery in North Dakota. It will facilitate delivery of power from the Antelope Valley Station to the Williston Basin. Not only are we meeting this load growth with significant natural gas peeking generation, but this project allows continual base-load power to flow to the area, while strengthening the grid in that area."

• Peter Zeihan, geopolitical strategist and forecaster, provided the keynote address on Nov. 5. Zeihan combines topography, economics, demographics, history and culture to craft the future. During his presentation, Zeihan provided a national and global overview touching on topics of rail, shale development, finance and energy.

"Most Americans are convinced this is the final generation of American power," Zeihan said. "But what most Americans don't realize is we've been thinking this now for 140 years. The truth is, we're going to be fine."

• The membership also heard reports from U.S. Sen. Heidi Heitkamp, D-N.D., U.S. Sen. John Hoeven, R-N.D., and U.S. Rep. Kevin Cramer, R-N.D. All three shared reactions to Tuesday's election results, discussed plans for the lame duck session and predictions for 2015.

• Jasper Schneider, acting RUS Administrator, and Mark Gabriel, Western Area Power Administration's administrator and CEO, provided updates the morning of Nov. 6.

• Four directors were reelected to the Basin Electric board: Gary Drost, District 2, L&O Power Cooperative; Don Applegate, District 4, Northwest Iowa Power Cooperative; Roberta Rohrer, District 6, Central Montana Power Cooperative; and Paul Baker, District 10, Powder River Energy Corp.

Building Block No. 2
Dispatching More Natural Gas

By Brenda Kleinjan

EPA's second building block, at first blush, seems straight-forward and simple: use more of one type of fuel (natural gas) and less of a second type (coal). However, the rule is anything but that simple, especially in South Dakota.

First, the state has only two plants that would be impacted by this rule: the Big Stone Power Plant at Milbank (which was discussed last month) and Deer Creek Station, a natural gas peaking plant located between Elkton and White, S.D., in eastern South Dakota.

Each plant has separate owners. Big Stone is owned by a group of investor-owned utilities, with OtterTail Power being the managing owner. Deer Creek is owned by Basin Electric Power Cooperative in Bismarck, N.D., and its member cooperatives in nine states, including cooperatives in South Dakota, Minnesota and Nebraska.

The only thing linking the two plants is that they are both located in South Dakota.

The coal plant is owned by one group of utilities. The gas plant is owned by a separate group – electric cooperatives. There is no known model that allows for an inter-company, inter-regional transmission organization dispatch.

The output of the plants was designed to serve different customer/member bases. There is no financial agreement between the two nor any contractual connection. Therefore, reducing production at one plant would decrease the amount of electric-

The Deer Creek Station, located between White, S.D., and Elkton, S.D., is the only combined cycle natural gas plant in the state that would be affected by the EPA's proposed rule.

ity available to those who use the power. Increasing production at the other would not benefit those who lost the power.

Second, and possibly a fundamental flaw, in the assumptions is the targets set. The EPA chose 2012 as its benchmark year. It noted that Deer Creek was underperforming and should be able to produce more electricity. Problem is that Deer Creek was under construction in 2012 and didn't become operational until the very end of the year. In fact, the plant only ran 190 hours that first year. This caused the unrepresentative 1 percent capacity factor. In 2013, the plant had 2,421 run hours, doing exactly what it was designed to do.

(South Dakota was the only state that had a natural gas capacity factor of less than 10 percent.)

Deer Creek is a combined-cycle power plant. It was designed to run as a peaking plant, operating 12 to 16 hours a day, five days a week. The EPA's goal of having the plant operating 70 percent of the time exceeds what the plant was designed and built to do.

The operators of the Big Stone power plant noted that the EPA's goal of 23 percent capcity factor is below the coal plant's minimum operating load. To achieve the EPA goal, the plant would have to be shut down for at least half the year, even though energy is needed from the plant year-round.

(In September, the EPA extended its public comment period on its proposed "Clean Power Plan" rule under section 111(d) of the Clean Air Act that will require CO_2 emissions reductions from existing power plants in 49 states [Vermont and the District of Columbia are not covered because they have no fossil-fuel based generation.] The rule was announced June 2, 2014. The EPA intends to issue a final rule in June of 2015 and states will then have one year to develop implementation plans or if they collaborate on multi-state or regional plans, they are allowed two years to develop their plan. Case by case, states can seek a one-year extension from the EPA. Therefore, in some states it may take until June of 2018 to fully understand what compliance with this proposal will mean.)

Basin Electric is advocating for utility-based plans that allow the utilities to move mega-watthours and associated emission rates generated by their facilities between states. The cooperative notes that it located its facilities where the best resources were located, not limited by state boundaries.

NRECA maintains that the proposed EPA rules are complex with unintended consequences and that the EPA is overreaching its legal authority.

For co-op members, the additional costs hit member-owners hardest. The not-for-profit co-op business model forces any costs from upgrades or shuttered power plants to be borne directly by co-op members.

According to the American Coalition for Clean Coal Electricity, the EPA's proposed rule – encompassing its four building blocks – could have annual costs of $13 billion to $17 billion. ACCCE further estimates that the plan would force the retirement of 30,000 megawatts to 80,000 megawatts of coal-based generation and could cause more than 200,000 jobs to be lost in 2020.

The projected global climate benefits are a less than 1 percent reduction in CO2 concentrations, a reduction in global average temperature of 0.016 degree and a reduction in sea level rise of 1/100th of an inch.

Electric cooperatives, through the Cooperative Action Network, are in the midst of gathering public comments to submit to the EPA during the agency's comment period on the proposed rule. Go to www.action.coop to learn more and send your message.

Editor's Note: *This is the third of a five-part series that will explore each of the EPA's Building Blocks. The four building blocks are: (1) making coal plants more efficient; (2) displacing existing coal with existing natural gas plants; (3) increasing the use of nuclear and renewable energy; and (4) decreasing electricity consumption by increasing end-user energy efficiency.*

Coal Plant Efficiency

Make physical and operational changes at existing coal-based power plants to improve heat-rate efficiency by 6 percent, which reduces the amount of coal needed per MWh of generation, thereby reducing CO_2 emissions.

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Natural Gas

Existing natural gas combined-cycle plants are used more or less frequently, depending upon a variety of factors. EPA's CO_2 reduction goals are based on dispatching those natural gas plants more frequently (up to 70 percent capacity factor) while closing or curtailing existing coal-based generation sources.

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Renewable and Nuclear Power

Nuclear power and renewable resources like hydro, wind and solar power do not have direct CO_2 emissions. EPA's goals are based on keeping some existing nuclear power plants (that are at risk of closing) operating, ensuring that new nuclear plants under construction get finalized, and that more sources of renewable energy are developed.

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Consumer Energy Efficiency

Improving energy efficiency by consumers reduces the need for power generation. EPA's CO_2 reduction goals envision all states increasing energy efficiency programs to result in the avoidance of 1.5 percent of energy demand per year.

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State Carbon Intensity Goal

State	2012 Emissions Rate (lbs/MWh)	Final Goal (2030 & After)	Final Reduction	Final Percent Reduction
Iowa	1,552	1,301	-251	-16.2%
Minnesota	1,470	873	-597	-40.6%
Montana	2,246	1,771	-475	-21.1%
Nebraska	2,009	1,479	-530	-26.4%
N. Dakota	1,994	1,783	-211	-10.6%
S. Dakota	1,135	741	-394	-34.7%
Wyoming	2,115	1,714	-401	-19.0%

Lighting Up the Night

Efficiency Shines as LEDs Light Up Lots

By Brenda Kleinjan

Areas in South Dakota and western Minnesota shine a bit brighter – and with more focus – thanks to recent upgrades in outdoor lighting.

Lyon-Lincoln Electric Cooperative in Tyler, Minn., has been involved in several projects helping area towns, businesses and members upgrade lighting to more efficient light emitting diode (LED) models.

The cooperative received $8,600 from the Southwest CERT (Clean Energy Resource Teams) to implement an LED lighting project in three southwestern Minnesota communities.

Through funding provided by the Minnesota Department of Commerce's Division of Energy Resources, CERT awarded $20,000 worth of seed grants, catalyzing energy efficiency and renewable energy projects across the region.

Lyon-Lincoln's award, the City of Russell LED Lighting Project, allowed the cooperative to replace several existing mercury vapor and high pressure sodium street lights with LED lights to reduce energy use by the cities of Russell, Arco and Lynd, Minnesota. Lyon-Lincoln Electric Cooperative will study the results of the project and share that information with its nearly 4,000 utility members and through energy education programs at area schools.

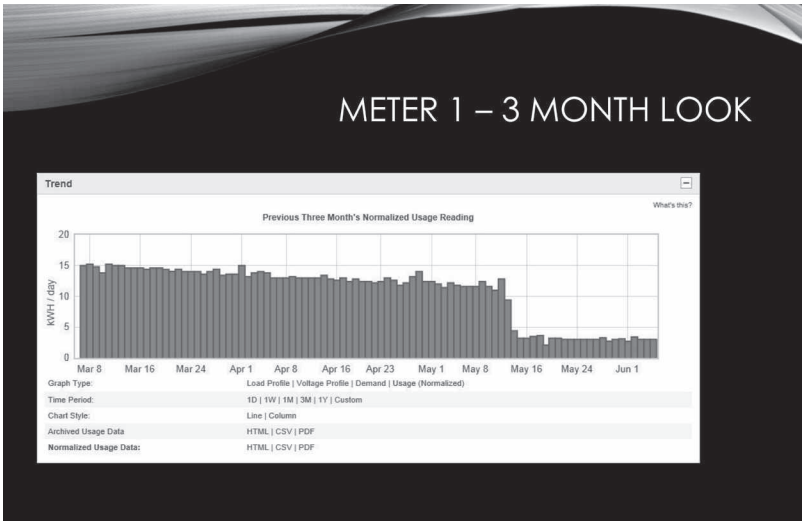
The City of Russell's lights were switched in May 2014.

Before the retrofit, the project included 72 mercury vapor lights of 175 watts each, 23 high pressure sodium lights of 100 watts each and seven 400-watt street lights. The lights used about 80,000 kWh annually and cost more than $9,600 a year to light.

As part of the retrofit, 104 48-watt Type III 5,700 K lights were purchased and installed.

The project is estimated to save more than 61,600 kWhs a year and reduce lighting expenses by $5,570.

The cooperative also offers lighting rebates to its members to assist with retrofitting indoor lighting set ups. The retrofit systems must result in a net load reduction in kW from that of the existing lighting system. Retrofit rebate applies to indoor



programs only, rebates will not be given for outdoor lighting. Rebates will be given directly to the members and will not be given to lighting suppliers or contractors. The minimum rebate application is $50 and the maximum rebate amount is $2,000 per customer per calendar year and is limited to up to 50 percent of the project costs. Annual funds are limited. Rebate programs, qualifications, and amount are subject to change at any time. The member is responsible for checking with Lyon-Lincoln Electric Cooperative to determine whether the program is still in effect.

The cooperative was also secured a $300,000 USDA Rural Development Grant for the Southwest Regional Development Commission to establish a pilot program for energy efficiency projects.

The Property Assessed Clean Energy funding is an innovative method of financing energy efficiency and renewable energy improvements for commercial, agricultural, not-for-profit and public properties. The PACE funding binds the debt for the improvements to the property rather than the owner, allowing repayment of an annual increment that is billed with the property's tax bill and can be transferred from owner to owner. The key is that funding is based on the utility cost offset by the improvements and must have a positive cash-flow. PACE helps businesses retrofit their buildings with more energy-efficient HVAC systems, lighting and other energy-consuming devices. The project is expected to create 11 jobs.

In southeastern South Dakota, the Coffee Cup Fuel Stop at the Vermillion, S.D., exit on Interstate 29 has a new glow after the property owner had Clay Union Electric Corporation replace older parking lot lights with newer, efficient LED lights.

A dozen of the lights were replaced, illuminating the area around the truck stop with more focused lighting. The cost savings for the project are still being determined, but the efficiency of the lighting is sure to reduce the property's outdoor lighting bill.

Left: Lyon-Lincoln Electric Cooperative workers work on installing new LED street lights in three communities in southwestern Minnesota as part of a $8,600 Southwest CERT grant.

Top: This chart shows a signficant drop in energy used at one meter point after the new lights were installed.

Top right: A street in the project before the retrofit.

Bottom right: The same street after the retrofit.

Regional Dateline

November 25-December 27
Christmas at the Capitol
Pierre, SD, 605-773-4010
www.sd.gov/christmas2014

November 28-29,
December 13, 20-21, 23
1880 Train Holiday Express
Hill City, SD, 605-574-2222
www.1880train.com

November 29
Platte Area Seed Stock Pen
Expo & Cattle Dog Trial
Platte, SD, 605-337-2275
www.plattesd.org

November 29
Greater Madison Chamber
Show and Sell
Madison, SD, 605-256-2454
www.chamberofmadisonsd.com

November 29
December 6, 13, 20
James Valley Model Railroad
Open House, Aberdeen, SD
605-226-2139

November 29-January 2
Festival of Trees
Brookings, SD, 605-692-4177
www.brookingsartscouncil.org

November 29-30, December
5-7, 12-14, 19-21, 26-28
Winter Wonderland
Watertown, SD, 605-881-1348
www.visitwatertownsd.com

December 4
19th Annual Festival of
Lights Parade, Brookings, SD
605-692-6125

PHOTO COURTESY OF CHAD COPPESS/S.D. DEPT. OF TOURISM

Events of Special Note

December 1-March 15
East River Snowmobile
Trails Season
Pierre, SD, 605-773-3391
www.gfp.sd.gov

December 15-March 31, 2015
Black Hills Snowmobile
Trails Season
Lead, SD, 605-584-3896
www.gfp.sd.gov

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.

December 4-7, 11-14
Miracle on 34th Street
Yankton, SD, 605-665-4711
www.lewisandclarktheatre.org

December 5-6
Parade of Lights and Santa
Land, Mobridge, SD
605-845-2387

December 6
Homespun Holiday Celebration
Aberdeen, SD, 605-626-7117
dacotahprairiemuseum.com

December 6
Christmas at the Redlin Art
Center, Watertown, SD
605-882-3877
www.redlinart.com

December 6
Holiday Gift and Craft Fair
Festival of Trees
Custer, SD, 605-673-5134

December 6-7
Aberdeen Area Living
Christmas Tree
Aberdeen, SD, 605-626-7015

December 6-7
11th Annual Fezziwig Festival
at Prairie Berry Winery
Hill City, SD, 605-574-3898

December 11-13
SHCT Presents
"It's a Wonderful Life"
Hot Springs, SD, 605-745-4140

December 12
Herman's Hermits
Christmas Show
Deadwood, SD, 605-559-1187

December 12-13
Sharpshooter Classic
Winner, SD, 605-842-1533

December 14
Christmas Tour of Lights
Wessington Springs, SD
605-539-1929

January 3
Annual Pigeon Show
Watertown, SD, 605-520-1053

January 10
Health and Safety Fair
Watertown, SD, 605-882-1734

January 10
Frosty Frolics – Family
Snowshoeing 101
Sioux Falls, SD, 605-367-4414

January 21
36th Annual Ranchers Workshop
9 a.m. to 3:15 p.m. CT
Community Events Center
White River, SD
605-259-3252 ext. 3

March 14-15
2015 Gun Show
American Legion Hall
Saturday 9 a.m. to 5 p.m.
Sunday 9 a.m. to 3 p.m. MST
Philip, SD, 605-859-2635
605-859-2280, 605-859-2892
or 605-859-2219