South Dakota Electric

Your Touchstone Energy® Partner

Cooperative Connections

JULY 2017 VOL. 69 NO. 7

Small Towns Give Unique Twists to

Summer Celebrations

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Be the light.
There are many reasons we reclaim land previously used for mining coal to as good or better than it was before. One, however, has just a little more buzz, and it's a whole lot sweeter. To provide a home for bees.
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South Dakota Electric Cooperative Connections

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Editorial

The Path to Energy Independence

Ed Anderson
General Manager, South Dakota Rural Electric Association

While fireworks and Independence Day parades are synonymous with the Fourth of July, no such fanfare comes to mind when discussing energy efficiency. Perhaps it should. If you think about it, energy efficiency not only benefits individuals and families, but the country as a whole. Energy efficiency combined with energy conservation and advances in technology in the utility industry, ultimately help our country on a path toward greater energy independence. And that's worth celebrating.

Benefits of efficiency

At its essence, greater efficiency means less energy is used for the production of goods and services. For individual consumers, a reduction in energy use usually translates to a tangible financial benefit – more money in your wallet at the end of the month. If your co-op neighbors are also using less energy, collectively, it means the overall cost of providing that electricity could be lower and may result in reduced costs for co-op members. For many, this is reason enough to strive for greater energy efficiency. On a national level, energy efficiency, sometimes called the "fifth fuel," has a more profound impact. It can potentially boost the economy by allowing consumers and businesses to invest in other areas. As importantly, greater energy efficiency may slow the rate at which domestic energy is depleted and therefore, reduce or diminish the need for foreign energy.

Strike up the band

There's no need to wait for the first exploding burst of fireworks in the night sky to start your energy efficiency efforts. Every American can take charge of their own energy use, regardless of the date on the calendar. Small steps can lead to a big difference for you and your neighbors, whether across the road or across the country.

Energy efficiency can generally be achieved two ways. The first is with mechanical change, such as replacing an older HVAC unit or less efficient appliance or with a new ENERGY STAR® model or upgrading to new, insulated windows. Less expensive actions include improving the seal of your home's "envelope" by caulking exterior windows and doors and sealing openings where pipes and ductwork meet the outside. Swapping out the last incandescent bulbs (inside and outside) with LEDs also makes a noticeable difference.

Smart control

The second way to realize energy efficiency is through smarter management of your energy use. Leveraging smart thermostat technology is a good place to start. Most smart thermostats contain an app allowing remote control by mobile phone or tablet. Program your thermostat to reflect your family's schedule. Many thermostat programs allow you to view and edit your thermostat schedule and monitor the amount of energy used. Sometimes, however, energy efficiency is simply a matter of changing old habits such as washing clothes in cold water instead of hot or running the dishwasher during off-peak times.

Regardless of the path you take on the road to energy efficiency and independence, electric cooperatives in South Dakota and western Minnesota can help you on the journey.

For information about energy efficiency programs, contact one of the cooperatives listed at left.

Electrical Safety Tips for the 4th of July

It's finally summer and in just a few days, the biggest holiday of the season arrives: the 4th of July! As you prepare for backyard BBQs and poolside fun, there are some important things to remember to make sure it's a safe holiday.

Whether you are hosting or heading over to a neighbor's or relative's house to celebrate, we have a few safety tips to share with you so that your friends and family enjoy your time together and avoid accidents:

Summer Holiday Poolside Electrical Safety Tips:

Spending time in and around the pool is a big part of summer and celebration during the warmest months of the year. Regardless of whether you are hosting a get-together at your home or someone else's, make sure the chances for accidents are minimal by following these simple safety steps:

- Never run electrical cords over or alongside the pool. Water and electricity don't mix!
- If you are decorating the backyard, string party lights a minimum of three feet away from the pool or any water source.
- Store and activate fireworks as far away from the pool as possible.
- Never use a floatation device to support an electrical appliance (fan, etc.).
- Never cross the pool exit or towel storage area with electrical wires.
- Always use safety caps on electrical outlets near water.
- When possible, use GFCI outlets to protect yourself and your electrical appliances outdoors.

Electrical Power Line Safety Tips:

Power lines run through neighborhoods and can even pass through overgrown trees. They're often the most dangerous when you don't even notice they're there because you either see them all of the time or they are covered by tree canopies. Stay mindful and remember these safety tips when you're spending time in the backyard or outdoor neighborhoods:

- Never let kids (or adults for that matter) climb trees that are near power lines.
- Make sure your trees are trimmed and out of the way of power lines running through your yard or near your home.
- Never attempt to touch a downed power line. If there is one in your yard, call your local electric cooperative immediately. There can still be current running through the line and an active line is highly dangerous.

Source: www.allstarelectrical.com

Beat the Extreme Heat

During periods of extreme heat, hot weather mixed with outdoor activities can lead to dangerous situations. According to the CDC, people can suffer heat-related illness when their bodies are unable to properly cool themselves. During extreme heat, follow these guidelines to protect yourself and your loved ones.

Stay Informed: Check local news for extreme heat alerts.

Stay Cool: If you do not have access to an air-conditioned space, visit a shopping mall or public library for a few hours. Call your local health department to locate heat-relief shelters in your area.

Stay Hydrated: Drink (nonalcoholic) fluids regularly, regardless of your activity level. Wear lightweight, light-colored, loose-fitting clothing.

Don't leave anyone (or pets) in a closed, parked vehicle.

Do check on elderly friends and neighbors.

Heat Stress: Who's at Risk?

Adults over the age of 65, children under the age of 4, individuals with chronic medical conditions such as heart disease and those without access to air conditioning.

Source: Centers for Disease Control and Prevention

Kids' Corner Safety Poster

"Never use a fork to get your toast out of the toaster."

Atoya Howey, 9 years old

Atoya is the daughter of Valerie Howey, Hill City, S.D. She is a member of Black Hills Electric Cooperative, Custer, 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.

Reader **Recipes**

Delectable Desserts

Easy Cake Dessert

1 spice cake mix
1 can apple pie filling
3 eggs
6 T. sugar
2 tsp. cinnamon
1/2 cup chopped nuts

Combine spice cake mix, apple pie filling and eggs. Pour half the batter into a 9x13-inch greased pan. Mix together sugar and cinnamon; sprinkle half over batter. Add remaining batter; top with sugar mixture and nuts. Bake at 350°F. for 30 to 35 minutes. Top with ice cream or whipped cream.

Carolyn Saugstad, Alcester

Bourbon Peach Cobbler

2-1/4 cups plus 1 T. flour, divided
2/3 cup plus 1/2 cup sugar, divided
2 (16 oz.) bags frozen peaches, 6 cups
8 T. bourbon, divided
1 T. baking powder
12 T. butter
3/4 cup half-and-half
1 large egg

Butter bottom and sides of 9x13-inch baking dish. Combine 1 T. flour, 2/3 cup sugar, 4 T. bourbon and peaches in a medium bowl. Spread mixture evenly in bottom of baking dish. Whisk together remaining flour, sugar and baking powder. Melt butter in a medium bowl. Mix in half-and-half, egg and remaining bourbon. Stir the butter mixture into the dry mixture (add cinnamon if desired) and whisk until smooth. Drop dollops of batter over peaches evenly. Bake at 375°F. for 50 minutes or until top is golden and toothpick inserted into center comes out clean. Serve with ice cream.

Cortney Reedy, Tea

Raspberry Poke Cake

1 white cake mix
1 (3 oz.) pkg. raspberry jello
1 (8 oz.) container whipped topping
1 cup hot water
1 (3 oz) carton raspberry yogurt
2 (10 oz.) boxes fresh raspberries

Prepare and bake cake according to package directions in a 9x13-inch pan. Remove from oven and poke holes in cake while warm with a wooden spoon handle or knife handle. Mix together jello and water, stirring until jello is dissolved. Pour over holes in cake. Cool. Mix whipped topping and yogurt together until blended; gently fold in raspberries. Spread evenly on cake. Refrigerate.

Barbara Angerhofer, Hendricks, MN

S'mores Pie

Graham Cracker Crust:
1-1/2 cups graham cracker crumbs
7 T. butter, melted
1/3 cup sugar

Filling:
3/4 cup heavy cream
6 oz. semi-sweet chocolate, chopped
2 tsp. McCormick® Ground Cinnamon
1 T. plus 1 tsp. McCormick® Extra Rich Pure Vanilla Extract, divided
1 (7 oz.) jar marshmallow creme
4 oz. (1/2 package) cream cheese, softened
1 (8 oz.) container whipped topping

For the crust, mix all ingredients in medium bowl. Press into bottom and up sides of 9-inch pie plate. Set aside. For the filling, bring cream just to boil in small saucepan. Pour over chocolate in medium heatproof bowl. Let stand 1 minute then stir until smooth. Stir in cinnamon and 1 tsp. of the vanilla. Pour into prepared crust. Refrigerate 30 minutes or until chocolate is firm. (Freeze 15 minutes for faster chilling.) Beat marshmallow creme, cream cheese and remaining 1 T. vanilla in large bowl with electric mixer on medium speed until well blended. Gently stir in whipped topping until well blended. Spread evenly over chocolate layer in crust. Refrigerate at least 2 hours or until ready to serve. Garnish with chocolate curls or toasted marshmallows, if desired. Yield: 8 servings

Nutritional Information Per Serving: Calories 600, Total Fat 36g, Sodium 267mg, Cholesterol 75mg, Carbohydrates 65g, Dietary Fiber 2g, Protein 4g

Pictured, Cooperative Connections

Easy Rhubarb Dessert

1 cake mix (strawberry, white, yellow or lemon)
3 cups sliced rhubarb
1 cup chopped walnuts, divided
3/4 cup brown sugar

Prepare cake mix according to package directions. Fold in rhubarb and 1/2 cup chopped walnuts. Pour into a greased 9x13-inch glass pan. Sprinkle top with brown sugar and remaining walnuts. Bake at 325°F. for 30 to 40 minutes. Serve with lemon sauce, whipped topping or just plain.

Elaine Rowett, Sturgis

French Coconut Pie

4 T. butter
2 eggs
1 T. all-purpose flour
3/4 cup sugar
1 cup milk
1 cup or 3-1/2 oz. can shredded coconut
1 9-inch unbaked pie shell

In a large bowl, combine melted butter, eggs, flour, sugar, milk and coconut. Pour into pie shell. Bake at 400°F. until firm, about 45 to 60 minutes.

Lynn Holzerland, Waubay

Please send your favorite salad, garden produce or pasta recipes to your local electric cooperative (address found on Page 3). Each recipe printed will be entered into a drawing for a prize in December 2017. All entries must include your name, mailing address, telephone number and cooperative name.

Charging Ahead

Why More Americans Are Driving Electric Vehicles

Patrick Keegan
Collaborative Efficiency

Dear Pat: My son and his wife just bought an electric vehicle. I was surprised to learn that the cost of their new electric vehicle was comparable to a gasoline-powered car. I need to replace my car in a few years and would like to learn more about electric vehicles. What are the pros and cons of going electric? **– Jeff**

Dear Jeff: Your son is not alone. The electric vehicle (EV) market is growing rapidly. There are good reasons why EVs are becoming more popular, but there are also a few potential drawbacks.

Let's start with the basics: EVs are vehicles that plug into the electric grid for some or all of their power. There are two primary types of EVs. All-electric EVs – such as the Nissan LEAF – are powered entirely with electricity. Plug-in hybrid EVs – such as the Chevrolet Volt – are dual-fuel cars, meaning both the electric motor and the internal combustion engine can propel the car.

A key benefit of EVs is that a driver's trips to the gas station are either vastly reduced or eliminated altogether. However, in lieu of gas refueling, EVs need to be recharged. At the lowest charging level, called Level 1, an hour of charging typically provides two to five miles of range per hour. Because the average light-duty car is parked for 12 hours per day at a residence, many EV drivers can use Level 1 charging for most of their charging needs. The fastest charging level, called DC Fast-Charging, can provide 60 to 80 miles of range in a 20-minute period.

Charging with electricity is nearly always cheaper than fueling with gasoline. An electric gallon – or "eGallon" – represents the cost of driving an EV the same distance a gasoline-powered vehicle could travel on one gallon of gasoline. On average, an eGallon is about one-third the cost of a gallon of gasoline. Another benefit of charging with electricity is that, throughout many parts of the country, it is a cleaner fuel source than gasoline. Although the exact environmental benefits of driving an EV will vary, one recent study found that two-thirds of Americans live in regions where driving an EV is cleaner than driving a 50 MPG gas-powered car.

Another key reason for the rise in EV ownership is because of recent reductions in the upfront cost of the cars. The batteries used in EVs are the most expensive component of the cars, but thanks to improving production methods, the cost of the batteries has dropped by more than 35 percent since 2010, and costs are expected to keep dropping. Because of these cost reductions and technology improvements, EVs are hitting some major performance and affordability milestones. For example, in late 2016, General Motors released the Chevrolet Bolt – an all-electric EV with an estimated range of 238 miles per charge, costing about $30,000 after rebates.

Although even longer range and more affordable EVs are expected to hit the market soon, one of the key drawbacks of EVs is that most models currently have a range of less than 100 miles per charge. More and more public charging stations are available across the United States, but "range anxiety" is still a concern for many potential buyers. Fortunately, if you are considering an EV, keep in mind that the average American's daily driving patterns are well-suited for EV use. More than half of all U.S. vehicle trips are between one and 10 miles and even in rural areas, the average daily drive distances for typical errands and commutes are well within the range of most currently available EVs.

EVs are also well-suited for many commercial applications. For example, EVs are now being used as part of ridesharing services like Uber, where average trip distances are between just five and seven miles. Companies like Frito-Lay and FedEx are also introducing EVs into their delivery fleets and a growing number of municipalities are buying electric buses. One of the primary draws of EVs for commercial use is their minimal maintenance requirements.

If you are interested in learning more about EVs, contact a local car dealer to schedule a test drive. Many curious drivers are impressed by the performance of EVs, especially the instant torque provided by the electric motor.

Your electric co-op can also be a great resource. More and more co-ops own EVs as part of their fleets and may offer "ride and drive" events. Dozens of co-ops also offer reduced electricity rates for "off peak" EV charging, which can help you save even more money on fueling.

This column was co-written by Pat Keegan and Christine Grant of Collaborative Efficiency. For more information on how to consider energy efficiency when purchasing electric vehicles, please visit: www.collaborativeefficiency.com/energytips.

NRECA Statement on Trump's Paris Decision

ARLINGTON, Va. – On June 1, the National Rural Electric Cooperative Association issued the following statement regarding President Trump's decision to leave the Paris accord.

"Electric co-ops are committed to a healthy environment and vibrant rural communities. We can, and should, have both," said NRECA CEO Jim Matheson. "Co-ops are taking aggressive steps to reduce our carbon footprint while protecting the diverse energy portfolio that's needed to preserve the reliability and affordability of the co-op power supply. That's why co-ops have invested billions of dollars in renewable technology and energy efficiency advances and millions of dollars in XPRIZE carbon capture research.

"American consumers, including co-op members, are asking for more from their electricity providers. As member-owned, not-for-profit organizations, electric cooperatives are driven by a desire to meet and exceed their members' expectations. That's why co-ops are implementing energy efficiency programs to lower costs, deploying smart meters to give members better insight into their usage and bringing more renewable technology online every month.

"Co-ops remain focused on putting the needs of their members first. We look forward to continuing to work with the president and other stakeholders on solutions that protect our environment and the diversity of our electric generating portfolio while also bolstering the rural American economy."

Since 2010, co-op renewable energy capacity has more than doubled from 4 gigawatts to 8.5 gigawatts – a 112 percent increase. Co-ops purchase another 10 gigawatts of hydropower from the federal power marketing administrations.

The National Rural Electric Cooperative Association is the national service organization that represents the nation's more than 900 private, not-for-profit, consumer-owned electric cooperatives, which provide service to 42 million people in 47 states.

Basin Electric Responds to U.S. Withdrawal from Paris Agreement

U.S. President Donald Trump announced June 1 the U.S. will withdraw from the Paris Agreement, a global initiative that aims to strengthen the world's response to the threat of climate change.

The central goal of the agreement is to "keep a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels."

Basin Electric CEO and General Manager Paul Sukut said in a statement that he doesn't foresee Trump's announcement immediately altering the cooperative's path toward continued operation in a carbon-constrained future.

"We are actively seeking solutions that reduce our carbon footprint while keeping coal as part of our energy portfolio, preserving both the reliability and cost competitiveness of our members' energy supply," Sukut said. "Our focus has always been on fair, reasonable regulations that support a national energy policy where we have certainty for developing and operating our members' resources, without risk of stranding them.

Dakota Gasification Company's Great Plains Synfuels Plant is home to North America's largest carbon capture and sequestration project.

"In addition to our wind and natural gas investments, we are actively working to advance clean coal technology. Examples include hosting the Integrated Test Center at our Dry Fork Station, Gillette, Wyo., and our investments in research, most recently in the development of a high-efficiency power generation technology that generates high quality carbon dioxide (CO_2) as a product stream, along with participation in DOE's (U.S. Department of Energy) CarbonSAFE program to further the science of CO_2 sequestration in saline aquifers" Sukut continued.

"Over the last decade, Basin Electric and our membership have taken a leadership role in the development of renewable generation. We've added more than 1,500 megawatts of wind generation to our system (which represents approximately 23 percent of our generation capacity), invested more than $1 billion in natural gas generation resources and have invested more than $1.6 billion in emissions control technology to make our already clean generation fleet even cleaner.

"Even more, our Dakota Gasification Company's Great Plains Synfuels Plant is home to North America's largest carbon capture and sequestration project – capturing 34 million tons of CO_2. Our most recent project to add urea production to the Synfuels Plant continues that tradition by capturing CO_2 to make urea and a liquid CO_2 product. It's important to note that the CPP (Clean Power Plan), as proposed, did not allow Basin Electric credit for our current investments in natural gas generation or renewables, nor our carbon sequestration efforts through Dakota Gas," Sukut concluded.

Unique Celebrations

Brenda Kleinjan

Summer brings a variety hometown celebrations to many Main Streets in South Dakota and western Minnesota.

Some celebrate heritage and culture such as wacipis in many western South Dakota communities to those celebrating ethnic groups such as Czech Days (Tabor, S.D.), Danish Days (Viborg, S.D.) and Æbleskiver Days (Tyler, Minn.)

And then there's the celebrations that just seem truly unique.

In South Central South Dakota, the community of Burke opens its streets for a cattle drive of long-horned bovines as it kicks off its annual Burke Stampede and Rodeo July 14-16. In addition to rodeo performances, the celebration features a trail ride and cowboy cookout. Find out more at http://www.burkestampederodeo.com/home.html

The town of Custer in western South Dakota taps into its historical roots when it hosts Gold Discovery Days each July.

The 2017 Gold Discovery Days, set for July 21 to 23 includes a Gold Nugget hunt for kids, the area's annual bed races and also daily balloon rallies.

For more information, go to www.visitcuster.com/chamber/events/custergolddiscoverydays/

Head north and east of Custer a few hours on July 23 and you'll encounter the 41st running of the Reva Turtle Races.

The races featuring the hard shell contestants bring dozens of people to the unincorporated town

PHOTOS BY CHAD COPPESS/SOUTH DAKOTA TOURISM

Left: Potato Wrestling is part of Clark's Potato Days celebration. Below: Custer's Gold Discovery Days feature bed races. Bottom: A variety of old tractors can be seen in use during the Twin Rivers Old Iron Festival in Delmont in September. Opposite page: Lawn mower races are featured in several communities. Cover: Longhorn cattle make their way into town for the Burke Stampede.

in eastern Harding County.

Be sure to check the event's Facebook page at https://www.facebook.com/Reva-Turtle-Races-124003867629956/ for more information.

In western Minnesota, the town of Tyler, Minn., proudly boosts its Danish heritage with Æbleskiver Days.

The town celebrates the little sphere-shaped Danish pancakes with three shifts of volunteers cooking up the treats throughout the event. The celebration will also include a kickball tournament on July 22 and also a Cruise-In Car Show during Æbleskiver Days from 11 a.m.-2 p.m. at the fairgrounds in Tyler.

A new addition to the town celebration this year is Rainbow Country Trolley. The 30-foot long trolley will be pulled by two Belgian draft horses. The owner/driver Gerry Buse will entertain with singing and music during the ride. The trolley will be available to ride from 10 a.m. to 3 p.m. The pick up and drop off sites are: the fairgrounds, the band shell, and Danebod. It will take roughly 30 minutes to go from the Fairgrounds to the Danebod, so please plan accordingly.

To learn more about the event, go to https://www.facebook.com/aebleskiverdays

The revving of lawn mower engines can be heard at celebrations across south central South Dakota as drivers in the Pukwana Mower Races make appearances at events in South Dakota from April through October.

Find out more about the schedule at http://www.pukwanamowerracing.com/race-schedule.html

According to the Clark Potato Days site, "the potato is king in Clark, S.D., where local farmers grow bushels of the tasty tuber. That's why, each year, the town throws a party in honor of its favorite over-used, under-appreciated starch."

The site goes on to promote the eastern South Dakota's annual event by pointing out, "Mr. Potato Head is proud of Clark's celebration, and will be making an appearance at this year's festivities. The locals vie for top honors in a Best Decorated Potato Contest. Past winners included an astronaut, farmer, race cars, and tooth. The Potato Dish Cooking Contests always bring out the best cooks in the county. And, the highlight of the celebration involves grown adults wrestling each other in mashed potatoes!

"Besides all the potato stuff, the event features those small-town festival activities that keep families and regular folks coming back year after year," the site continues.

Among the events during the celebration is Mashed Potato Wrestling, which starts this year at 11:30 a.m. on Aug. 17.

On Sept. 9-10, the community of Delmont, S.D., will host its Kuchen Festival and the Twin Rivers Old Iron Festival. The German dessert festival, which was first held in 1997, will be held Sept. 9 while the farm equipment festival is both days.

Find out more http://www.delmontsd.org/kuchen_festival_and_twin_rivers.htm

Be sure to check out other happenings in communities near you on the back page of this magazine.

Electrical Safety:
Think Outside the Home

Electrical hazards are not only present indoors, but can also occur outside. Follow this guide to help prevent common outdoor electrical hazards.

POWER LINES

Before planting trees near a power line, conduct research or speak with a professional to ensure there's enough space for it to grow. If you suspect that a tree is too close to power lines, report it to your local utility.

Always keep yourself and equipment at least **10 Ft.** away from power lines. Electricity can jump to nearby objects!

Power lines are also underground. Call **811** before you dig.

OUTDOOR OUTLETS

Have **Ground Fault Circuit Interrupters (GFCIs)** installed, which automatically cut power when a plugged in item comes in contact with water or begins to "leak" electricity."

Install **weatherproof** boxes or covers on outdoor outlets.

GENERATORS

Between 1999 and 2012, **79%** of the 931 **carbon monoxide (CO) fatalities** were associated with generators.

24% of CO fatalities involving generators occurred when used inside an attached **garage or shed**.

Make sure your home is properly equipped with carbon monoxide alarms and **test them monthly**.

When in use, position generators outside and **away from doors, windows and vents**.

Do not plug generators directly into a home outlet without a transfer switch to **prevent backfeed** which could harm utility line workers making repairs.

Make sure your generator is **properly grounded**.

EXTENSION CORDS

Extension cords provide a **temporary solution** and should not be used long-term or permanently.

Never use an indoor extension cord outdoors. Outdoor cords will be labeled "**For Outdoor Use**" and are often orange.

Never attempt to extend the length of an extension cord by connecting it to another extension cord.

Be sure the **amperage rating** for the extension cord is higher than amperage of the electrical product being used.

Only use extension cords that have the mark of a **nationally recognized testing laboratory** such as UL, Intertek or CSA.

ADDITIONAL TIPS

Store fuel in **approved containers** and away from any **potential heat sources**, like a furnace, space heater, or even direct sunlight.

When storing electrical products in your garage, **use containers** to prevent exposure to water or damage caused by animals.

Have an electrician **inspect** your swimming pool, spa or hot tub to ensure it complies with applicable local codes, such as the **National Electrical Code®**.

Top 10 Reasons To Consider A Co-Op Career

Justin LaBerge
NRECA

There are many ways to earn a paycheck, but some are more rewarding than others. Here are 10 reasons to consider joining the electric cooperative family.

10. Tech-focused: The electricity industry is at the leading edge of a global energy revolution. Rapid advances in renewable generation, energy storage and smart grid technologies will change the way we use electricity. If you work at an electric cooperative, you can be part of this once-in-a-lifetime industry transformation.

9. Business on a human scale: Cooperatives hold themselves to the highest standards of professionalism and integrity while still maintaining a close-knit, family-friendly working environment. Decisions are made locally by managers who know employees by name, not halfway across the country in some corporate headquarters. Their smaller size and local control also gives co-ops more flexibility to innovate and try new ideas to improve the service they provide.

8. Support a clean environment: Electricity is one of our cleanest energy sources and as technology improves, electric cars, next-generation heating and cooling systems, home automation and other forms of environmentally beneficial electrification will reduce our reliance less on efficient forms of energy.

7. Retirement security: It might seem a long way off today, but we all need to plan for retirement. Co-op employees deliver a valuable service to their communities and they're rewarded for that dedication with outstanding retirement benefits. Many co-ops offer both a 401(k) plan and a defined-benefit pension plan.

6. National reach: America's 900-plus electric cooperatives serve 47 states and 56 percent of our nation's landmass. So whether you want to stay in your hometown or explore another part of the country, odds are good that there will be an electric cooperative nearby.

5. Stability: There are no guarantees in life, but some bets are safer than others. Electronics play a critical and growing role in our daily lives and as our reliance on technology increases, so too will our demand for electricity. As long as we need electricity, we'll need workers to ensure it is safe, reliable and affordable.

4. Principles, not profit: When you work for an electric cooperative, you're not helping some Wall Street elite get richer. You're working to serve your friends, family and neighbors who collectively own the cooperative.

3. Join a global movement: As a member of the co-op family, you're part of something much larger than yourself. The cooperative movement represents a human-centered, ethically driven way of doing business. More than 250 million people around the world earn their living working in cooperatives and the cooperative economy generates approximately $2.5 trillion in global economic activity each year.

2. Competitive pay: You won't get rich working for your local electric co-op, but you'll enjoy excellent pay and benefits that can help you and the people you love achieve the American dream.

1. Build a stronger community: Safe, reliable and affordable energy is critical to the health and prosperity of a community. Electric cooperatives power our homes, schools, farms and businesses and keep rural America connected to the global economy.

To learn more about a cooperative career, contact your local electric co-op.

Justin LaBerge writes on consumer and cooperative affairs 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.

America's electric cooperatives are using more renewable energy, utilizing cutting-edge technologies and strengthening communities here at home and across the globe. Interested in joining the co-op family? Contact your local electric cooperative.

Engineering Early Electrification

Retired REA Engineer Honored By South Dakota Governor

Ben Dunsmoor

THERE AREN'T MANY PEOPLE LEFT WHO REMEMBER what life was like in rural South Dakota in the late 1940s when the countryside was first electrified by cooperatives. However, Jim Duvall, who turned 100 years old on May 29, 2017, is the exception.

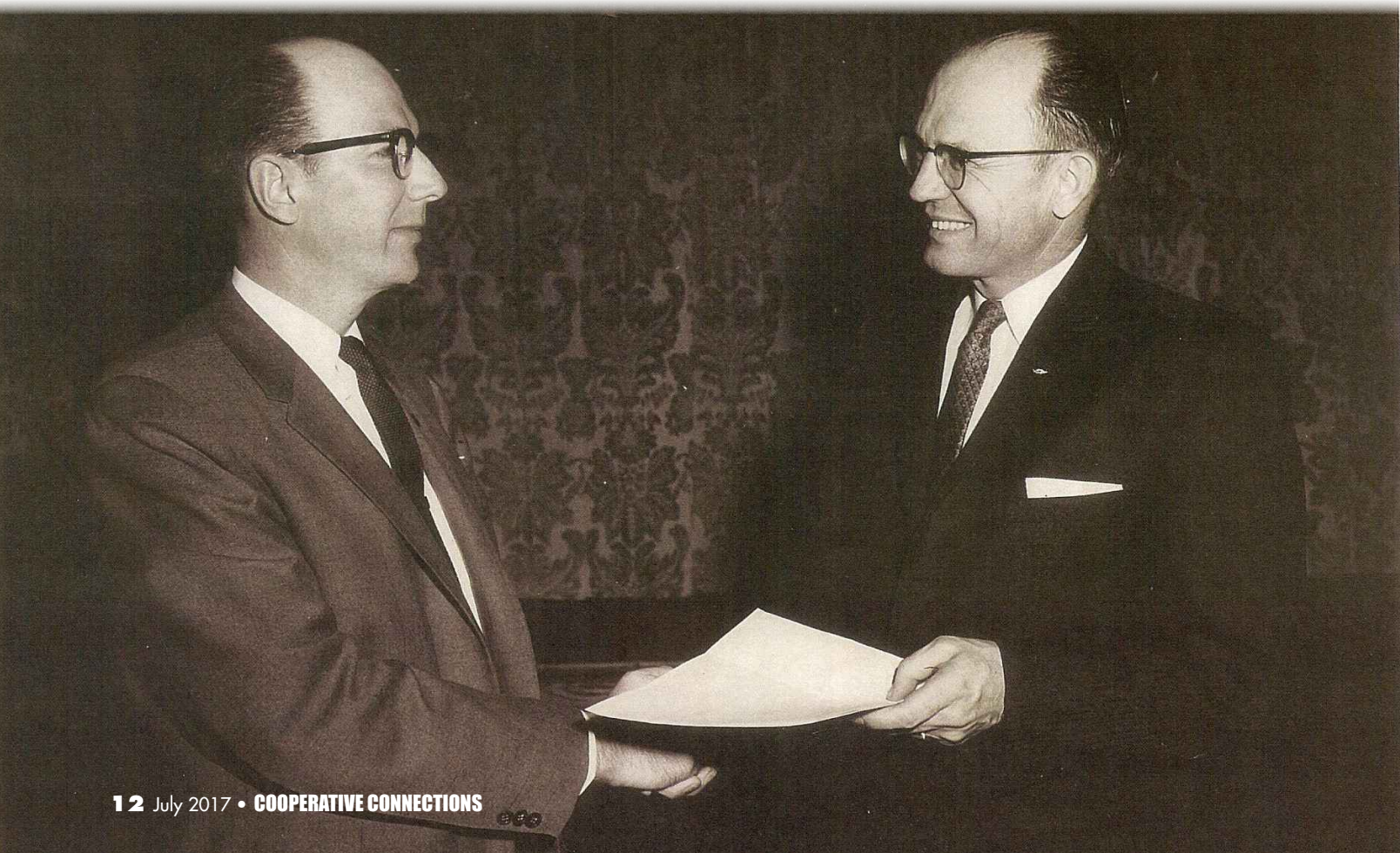
"I was one of the pioneers out there," Duvall recalled during a phone conversation in May from his Virginia home just days before his 100th birthday.

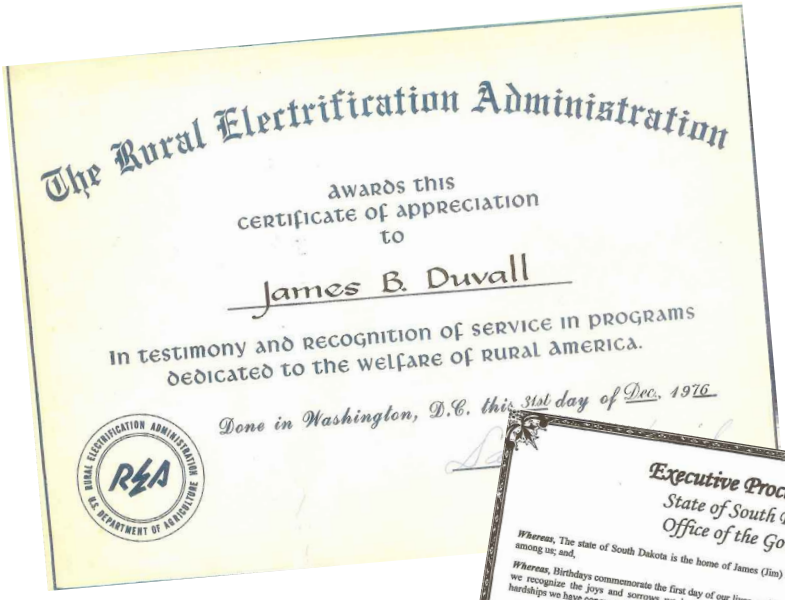
Duvall grew up in McIntosh, S.D., but moved away for college and later a job with the Signal Corps in Chicago, Ill., inspecting radar equipment for bombers during World War II.

After the war was over, Duvall started working as an engineer for the U.S. Department of Agriculture and the Rural Electrification Administration. The centenarian knows the exact day he started his job with REA; he reported to the St. Louis, Mo., office on Nov. 19, 1945.

After spending a few months in St. Louis, Duvall was moved to Washington, D.C., and in 1947 he requested a transfer to South Dakota. He spent 13 years stationed in Aberdeen as a REA field engineer where he inspected new co-op lines that were being constructed and energized for the very first time following the war.

"The transformers and wire and everything became available and lines could be staked out and construction could start again (after the war)," Duvall said. "Everything is flat (on the Great Plains) and there aren't a lot of obstructions and a contractor could get a





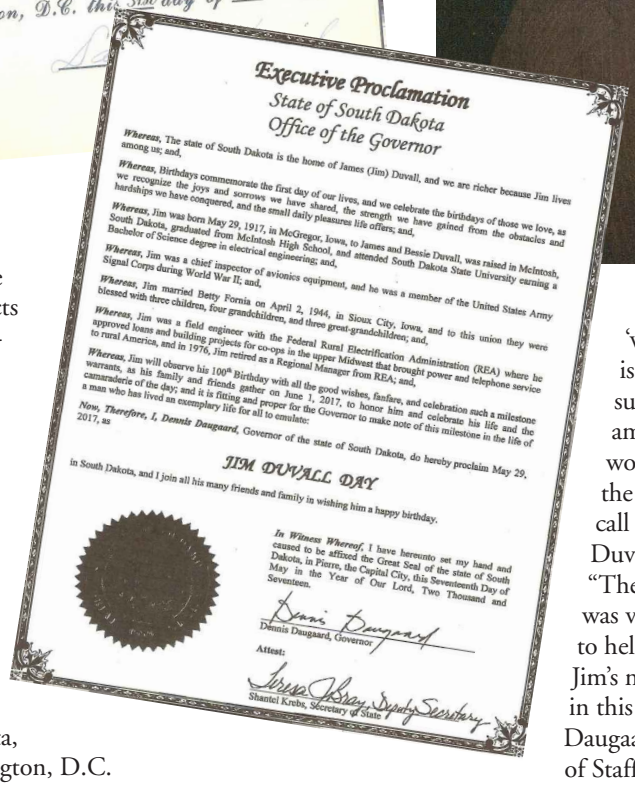
The Rural Electrification Administration

awards this
certificate of appreciation
to

James B. Duvall

In testimony and recognition of service in programs dedicated to the welfare of rural America.

Done in Washington, D.C. this 31st day of Dec. 1976



Executive Proclamation
State of South Dakota
Office of the Governor

Whereas, The state of South Dakota is the home of James (Jim) Duvall, and we are richer because Jim lives among us; and,

Whereas, Birthdays commemorate the first day of our lives, and we celebrate the birthdays of those we love, as we recognize the joys and sorrows we have shared, the strength we have gained from the obstacles and hardships we have conquered, and the small daily pleasures life offers; and,

Whereas, Jim was born May 29, 1917, in McGregor, Iowa, to James and Bessie Duvall, was raised in McIntosh, South Dakota, graduated from McIntosh High School, and attended South Dakota State University earning a Bachelor of Science degree in electrical engineering; and,

Whereas, Jim was a chief inspector of avionics equipment, and he was a member of the United States Army Signal Corps during World War II; and,

Whereas, Jim married Betty Fornia on April 2, 1944, in Sioux City, Iowa, and to this union they were blessed with three children, four grandchildren, and three great-grandchildren; and,

Whereas, Jim was a field engineer with the Federal Rural Electrification Administration (REA) where he approved loans and building projects for co-ops in the upper Midwest that brought power and telephone service to rural America, and in 1976, Jim retired as a Regional Manager from REA; and,

Whereas, Jim will observe his 100th Birthday with all the good wishes, fanfare, and celebration such a milestone warrants, as his family and friends gather on June 1, 2017, to honor him and celebrate his life and the camaraderie of the day; and it is fitting and proper for the Governor to make note of this milestone in the life of a man who has lived an exemplary life for all to emulate:

Now, Therefore, I, Dennis Daugaard, Governor of the state of South Dakota, do hereby proclaim May 29, 2017, as

JIM DUVALL DAY

in South Dakota, and I join all his many friends and family in wishing him a happy birthday.

In Witness Whereof, I have hereunto set my hand and caused to be affixed the Great Seal of the state of South Dakota, in Pierre, the Capital City, this Seventeenth Day of May in the Year of Our Lord, Two Thousand and Seventeen.

Dennis Daugaard, Governor

Attest:

Shantel Krebs, Secretary of State

lot done in a day, so it kept me busy."

During his time in Aberdeen, Duvall oversaw electric and telephone line construction loans and building projects in North Dakota, South Dakota, Minnesota, Illinois, Iowa and Wisconsin. He very likely inspected Northern Electric Cooperative lines as the first poles, wires and meters were energized starting in 1945 with construction continuing through the late 1940s and into the 1950s.

"A big part of my job was to make the final inspection and to make any modifications before the lines were energized and before the contractors got paid," Duvall said.

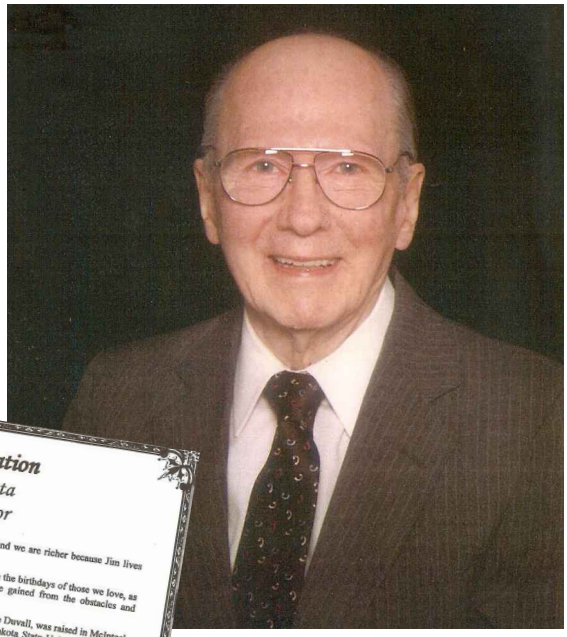
Following his work in South Dakota, Duvall was transferred back to Washington, D.C. where he became the REA Chief Engineer for the southwest and western regions. In 1959, he was given a Meritorious Service Award for his 13 years of service in Aberdeen. Duvall was also honored in 1958 and 1959 as 'Engineer of the Year' for the REA.

This spring, South Dakota Gov. Dennis Daugaard also honored Duvall for his role in electrifying rural America when he issued an Executive Proclamation proclaiming that May 29, 2017, Duvall's 100th birthday, be known as Jim Duvall Day in the state of South Dakota.

"It was really a terrific surprise and I felt so honored," Duvall said.

The proclamation was issued after Jim Duvall's son, Don Duvall, called the offices of governors in the states his dad worked in during his career. Don Duvall asked the offices for a signed picture for his dad's birthday. Governor Daugaard's office instead reached out to Don Duvall and said they would like to issue a proclamation.

Opposite Page: In this January 1959 photo, Dave Hamil, administrator of the Rural Electrification Administration, presents Jim Duvall a Meritorious Service Award for his 13 years as an REA field engineer. Duvall would later become the REA's chief engineer. COURTESY PHOTO



"I said, 'wow, this is a super surprise – I'm amazed you would pick up the phone and call me,'" Don Duvall said. "The Governor was very pleased to help celebrate Jim's milestone in this way," Gov. Daugaard's Chief of Staff Tony VenHuizen said. "As the proclamation said, South Dakota is a strong state today because of the contributions of people like Jim Duvall. It's hard to understate the transformative impact that rural electrification had on South Dakota."

Duvall says his greatest memories and accomplishments came during his time as a field engineer in South Dakota.

Don Duvall said his dad enjoyed working for REA and took pride in overseeing early line construction for electric and telephone co-ops in rural South Dakota. Duvall said his dad would even point out his work during family vacations.

"Whenever we were in a rural area, he would pull over and say that's a REA line over there," Don Duvall said.

Jim Duvall retired from the U.S. Department of Agriculture in 1976 as a REA regional manager stationed in Washington, D.C., but he says his greatest memories and accomplishments came during his time as a field engineer in South Dakota.

"My best days were actually in the field. I felt like I was doing something. I had my hands on," Duvall said.

And, as Duvall celebrates his 100th birthday at his home in Virginia, that is what he will remember about a career that helped electrify and connect the countryside.

"It was interesting work and I enjoyed it."

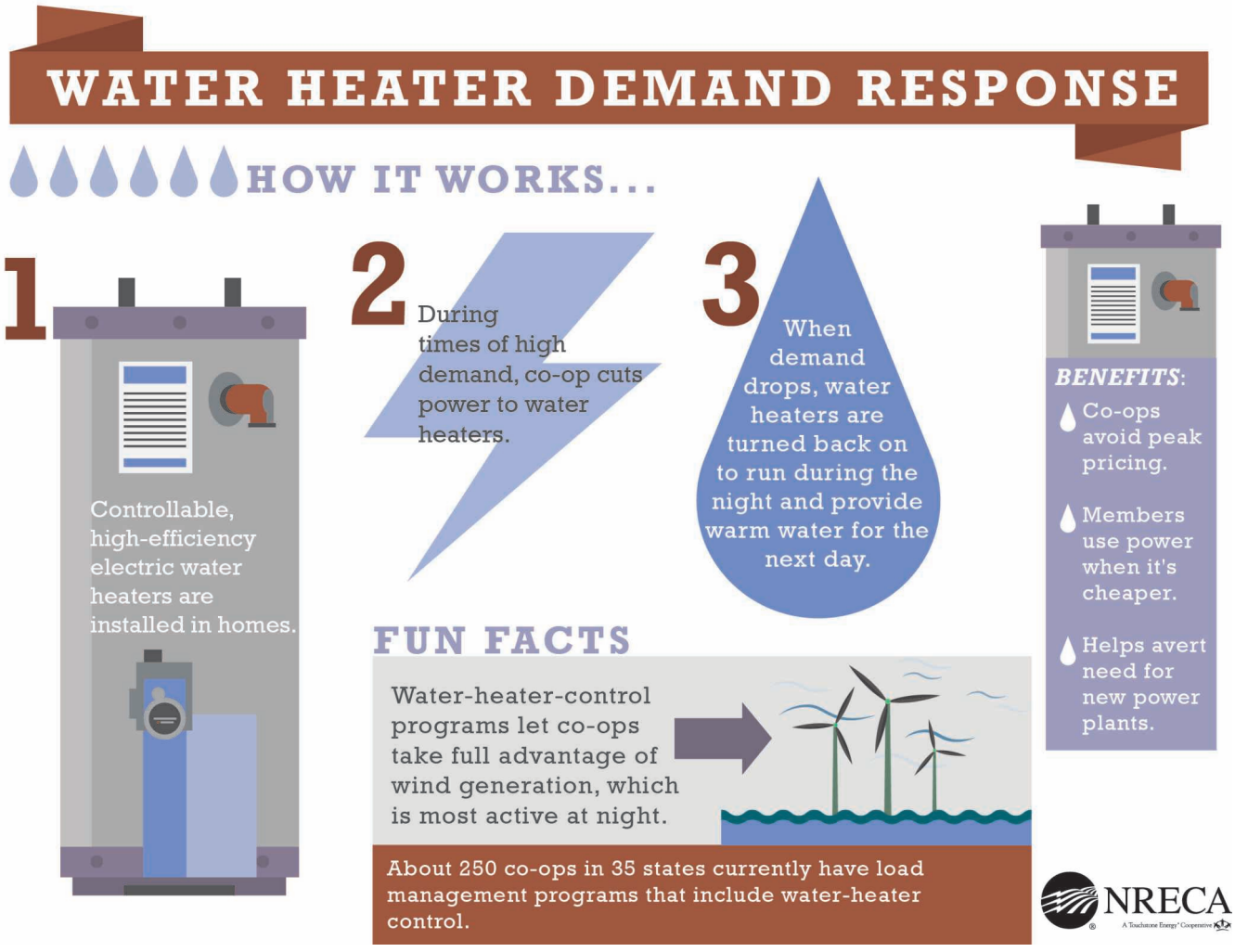
Balancing the Grid with Demand Response

By Scott Gates

KEEPING THE LIGHTS ON ISN'T A CAKEWALK. Electricity, unlike other commodities, must be consumed on the spot – technology that will store it for future use, especially on any large scale, is still largely under development. And if the electricity being produced can't keep up with what's needed in real-time, brownouts or blackouts will follow.

Many electric utilities work to avoid such problems through energy efficiency initiatives most often called load management or demand response. These programs allow the utility to reduce power consumption–and keep the lid on wholesale generation costs – by controlling when electricity gets used.

On the residential side, utilities can interrupt electric service to water heaters, air conditioners, electric thermal storage units, and other specialized appliances in the homes of volunteer consumers. On the commercial and industrial side, service gets cut off to irrigation pumps, manufacturing equipment, and even entire businesses, some of whom



have installed backup generation.

In most cases, control takes place for a brief period (typically just a few hours) during times of peak demand – the electric utility industry's equivalent of rush-hour traffic. It's then that demand is at its highest, and power costs skyrocket because natural gas and other pricey standby generators are used.

"Nationally, electric co-ops are leaders in demand response," says Ed Torrero, executive director of the Cooperative Research Network, a division of Arlington, Va.-based National Rural Electric Cooperative Association. "Roughly 37 percent of all co-op systems can direct-control appliances, chiefly electric water heaters and air conditioners. Overall, co-ops can control 6 percent of their peak load; some can control more than 25 percent."

An industrial consumer of Bluebonnet Electric Cooperative, Inc., based in central Texas, recently signed up to be a part of a demand response program called "Load Acting as Resource." In short, if more power is needed system-wide, the participating consumer will go without for the greater good.

The participant – an oil field owner – foots a massive 25 MW power bill to keep pumps productive. When the amount of available electricity dips into the danger zone, Bluebonnet gets a call from its wholesale power supplier to free up megawatts, and word trickles down from there.

"We give the participating consumer a courtesy call, and just say we're shutting down," explains Eric Kocian, Bluebonnet manager of engineering. "From the time of the order, there's 10 minutes before we actually trip the breaker that serves them."

As technology moves forward, more finesse can be employed in trimming consumer loads. Advanced, or "smart," meters may make it possible to offer lower electric rates when power is abundant, such as later in the evening. With incentives like this, consumers could shift electricity use in simple ways to cut their monthly bill, such as washing clothes before bed instead of after work.

In conjunction with smart meters, "smart" appliances could detect when the electric grid becomes stressed and reduce energy use – a clothes dryer could shut off its heater while continuing to tumble, for example.

Cooperatives in eastern South Dakota and western Minnesota have had a load management program for decades which has saved members more than $188 million dollars.

The website, www.easyenergywins.com explains the benefit of the program:

"Think supply and demand: When demand for a product is high, prices rise. The same is true for electricity. On hot summer afternoons or cold winter nights, your home is using a lot of electricity. When everyone's air conditioners or furnaces are on at the same time, demand for electricity is high. Your electric cooperative purchases wholesale power based on how high that demand is," the site reads.

Load management helps keep rates affordable by shifting select electricity usage from peak times to lower-demand times.

Load management is a means of controlling the amount of electricity being used during times of peak demand. Peak demand is the greatest amount of electricity used at one time by an electric system, normally when a large number of customers are using appliances at the same time. These peaks determine how much we must pay for power. When periods of peak demand occur, load management reduces the demand and lowers the cost to all members.

Load management program has saved co-op members more than $188 million in avoided wholesale power costs since it launched in 1985. More than 75,500 electric loads in homes, farms and businesses of member consumers throughout eastern South Dakota and western Minnesota currently participate in the program. These loads include electric water heaters, air conditioners, irrigation systems and other big energy users.

Special switches are attached to the loads when a member enters into the program. Our dispatch center sends a radio signal to the switching units and shuts off power to the connected units for short periods during our peak demand. Typically, this happens on hot summer and cold winter days. The co-op cycles off appliances in such a way that reduces the chance of inconveniencing the participating members.

Contact your local Touchstone Energy® Cooperative to find out if they have a load control or demand response program and which electric equipment or appliances ("loads") you can enroll . At home, that could mean water heaters and air conditioners. On the farm or at work, that could mean larger systems like irrigation units, bin fans and other industrial processes.

After you enroll, the electricity to the equipment will be remotely managed by your co-op to make efficient use of electricity during peak times to keep costs low.

Load control typically happens on hot summer days and cold winter days. Loads are cycled off in such a way that reduces inconveniences.

More than 70,000 member homes, farms and businesses are already enrolled in the program and are saving money and energy right now. The more members who sign up, the more everyone saves.

THREE REASONS

To Look At Your Cooperative's Load Control/Demand Response Program

Reason 1
Lower wholesale power costs for your electric cooperative — savings passed on to you.

Reason 2
Reduced energy use is not only budget friendly — it's environmentally friendly, too.

Reason 3
Special rebates on select new equipment — including electric water heaters.

Regional Dateline

June 23
148th Annual Midsummer Festival, Dalesburg Lutheran Church, Vermillion, SD 605-253-2575

June 23-24
Senior Games, Mitchell, SD Contact Howard Bich at 605-275-6891

June 23-25
Badlands Astronomy Festival Interior, SD, 605-433-5243

June 23-25
Black Hills Bluegrass Festival Sturgis, SD, 605-348-1198

June 24
Growing Berries and Growing Hops, Wagner and Armour SD, 605-254-5640 www.sdspecialtyproducers.org

June 24-25
Kite & Bike Festival Brookings, SD

June 30
Naja Shrine Circus Bowman, ND, 605-342-3402

June 30-July 2
Sisseton Wahpeton Oyate 150th Annual Wacipi Agency Village, SD 605-698-8284

June 30-July 4
98th Annual Black Hills Round-up, Belle Fourche, SD 605-723-2010

July 1
Naja Shrine Circus Deadwood, SD, 605-342-3402

PHOTO COURTESY OF CHAD COPPESS, S.D. TOURISM

Events of Special Note

July 3-5
Frontier Days Rodeo Interior, SD, 605-455-1000

July 14-16
Burke Stampede Rodeo Burke, SD, 605-830-5540

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.

July 1-2
Prairie Village Railroad Days Madison, SD, 605-256-3644

July 2
Naja Shrine Circus Phillip, SD, 605-342-3402

July 3
Naja Shrine Circus Lemmon, SD, 605-342-3402

July 6-9
22nd Annual Hot Harley Nights, Sioux Falls, SD 605-334-2721

July 7-8
Senior Games, Madison, SD Bernie Schuurmans at 605-270-3327

July 7-9, 14-16, 21-23
Laura Ingalls Wilder Pageant, "Little Town on the Prairie" De Smet, SD, 605-203-0216

July 8-9
Summer Arts Festival Brookings, SD, 605-692-2787

July 9
Cruiser Car Show & Street Fair Rapid City, SD, 605-716-7979

July 11-16
3-Wheeler Rally Deadwood, SD, 605-717-7174

July 13-15
Black Hills Corvette Classic Spearfish, SD

July 14-15
Senior Games, Aberdeen, SD 605-216-2822

July 15
Growing in Greenhouses and Selling in Boxes, Midland, SD 605-254-5640

July 19-22
Senior Games, Rapid City, SD Contact Kristi Lintz at 605-394-4168

July 21-22
Senior Games, Brookings, SD Contact Traci Saugstad at 605-692-4492

July 22
Holy Smoke Car Show O'Gorman High School Sioux Falls, SD www.holysmokecarshow.org

August 10
Meat Goats and Growing Tomatoes in a Greenhouse Custer, SD, 605-254-5640 www.sdspecialtyproducers.org

August 11-12
Senior Games, Huron, SD Contact LaRon Clock at 605-353-8533 or Howard Bich at 605-275-6891

August 11-13
27th Annual Old Fashioned Threshing Show, Bahnson Farm, Humboldt, SD 605-526-3459 or 605-251-9974

August 13
Czech Heritage Festival Bechyn, MN, 320-522-1218 www.BechynCzechFest.org