

Cooperative Connections



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Patriotism In Action



Joel Janorschke, General Manager

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We seek more members participating in the process, because greater numbers reflect a consensus on the direction of the future and the will of the people.

According to Merriam-Webster's dictionary, patriotism is "the love for or devotion to one's country." Perhaps no other day of the year evokes such a sense of patriotism than Independence Day. With flags rippling in the wind – red, white and blue bunting adorning porches and store fronts and local parades and marching bands on display – it's easy to feel a swell of pride for our country.

Arguably, another, perhaps deeper form of patriotism is active engagement in public and civic life. Involvement in your town promotes a richer community life and ensures that institutions thrive and communities remain vibrant and inviting places to live, work and play.

Besides being enjoyable, your participation in community events and activities, together with your friends, neighbors and co-workers, makes a difference. Simple things like supporting a bake sale or attending a local high school event signals to the young people in your community that you care and support them and that the community itself is worth sustaining.

In fact, there are civic engagement opportunities through Traverse Electric. You may recall that one of our most important cooperative principles is that of democratic participation. If you pay your bill, you are a member of the co-op with an opportunity to provide input through voting during our annual meeting.

Traverse Electric, like other types of co-ops, originated to serve a need that was not being met by traditional for-profit electric companies. While providing reliable electricity is our top priority, we are exploring other needs that might not be met otherwise – renewable energy options, like community solar and residential standby generator systems. We make decisions based on long-term thinking – what decisions will benefit the larger community in which we operate? One of the best ways you can engage with your co-op is by casting your vote when it's time to elect board members. These are folks just like you, from our community, who provide guidance to co-op leadership on a myriad of issues and decisions both short term and long term.

Perhaps you haven't voted in the past because you didn't think you were qualified to weigh in on a particular topic or maybe you simply didn't have time to vote. But you do have an opinion on the issues that affect our community and Traverse Electric wants your particular perspective.

Everyone has valuable experience that informs their decision-making process. Diverse perspectives benefit the whole community. You may have a different view than your neighbor, but together, those perspectives provide a more balanced view of the community. You could be bringing new information that hadn't been previously considered. We seek more members participating in the process, because greater numbers reflect a consensus on the direction of the future and the will of the people.

The next opportunity to vote in the board election is at our district meeting held in January of 2019. I would argue that voting, whether in the co-op or in local and national elections is a form of patriotism, as it reflects a devotion to one's community and commitment to ensure that it thrives.

Democracy is not a spectator sport; it takes active civic engagement by citizens to thrive. This Independence Day, I hope you will embrace the local celebrations and actively participate in your community – and vote at every opportunity!

Traverse Electric Mission Statement:

To provide dependable service at the lowest possible rates, consistent with sound business principles.

Traverse Electric Cooperative Connections

(USPS No. 018-903)

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**In case of a power outage call
 1-800-927-5443**

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Design assistance by SDREA.



Update Your Contact Information

In the utility business, we know rough weather will occur and sometimes power outages simply can't be avoided. But did you know there are steps you can take to ensure your electricity is restored as quickly and safely as possible? By keeping your contact information up-to-date, you can take full advantage of the services Traverse Electric offers.



You may have noticed prompts through our billing statements and webpage requesting your updated contact information. If we don't have the correct phone number linked to your home address, it makes it very difficult to contact you during an outage.

Updating your contact information is helpful because it speeds up the power restoration process. With correct information, we can also contact you in advance of planned outages for repairs and maintenance.

Please call 320-563-8616 and make sure you're up to date.

Member Comments

Thank you for your support/donations towards Tiospa Zina 2018 Prom! Tiospa Zina Tribal School, Sisseton, SD

Thank you for "My Favorite Book". We love our books! Thank you so much!
 Mrs. Lanter and students, Pearson Elementary, Wheaton, MN

Thank you for your generous donation.
 Valley Lake Boy's Home, Breckenridge, MN

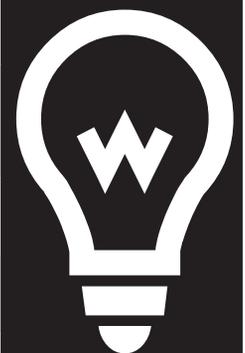
The Junior classes from Wheaton and Herman-Norcross would like to thank you for your generous donation to our post prom activities. Your thoughtfulness was greatly appreciated.
 Junior Classes of Wheaton and Herman-Norcross Schools, Wheaton and Herman, MN

Thank you for your post prom donations to the Campbell-Tintah Fairmount Prom. Your contributions helped make our prom very memorable and fun. Everyone enjoyed the night! We all are very thankful for the food and prizes we were able to receive because of your donation.
 Campbell-Tintah Junior Class, Campbell, MN



IN CASE OF OUTAGE

- 1ST** Check the fuses or breakers in your home or building in which you do not have power.
- 2ND** Check your breaker below your meter on the yard pole. Some residential members may not have breakers.
- 3RD** If you still do not have power, call your neighbor to check if their electricity is also off.
- 4TH** Call immediately; do not wait for your neighbor to call in the outage.
- 5TH** Call Traverse Electric Cooperative at 1-800-927-5443.



Safety Before and After Storms

Severe storms are more common in the spring and summer, but they can occur any time of year. Be prepared for storms and know how to stay safe.

Before the storm:

- Assemble a kit of essentials, like water, battery-operated flashlights, and radios. Keep a list of emergency phone numbers, including the electric utility.
- If severe weather is on its way, pay attention to local weather reports and recommendations. A tornado or severe storm watch means conditions are favorable for those weather conditions forming. A warning means dangerous weather conditions are imminent.
- Lightning can travel up to 10 miles away from a storm, so seek shelter when you hear thunder.
- Consider installing ground fault circuit interrupters (GFCIs) or purchasing a portable GFCI. GFCIs detect dangerous electrical situations and cut off power before a person can be shocked. These dangerous electrical situations are likely to occur around water, so GFCIs should be installed in bathrooms, laundry rooms, kitchens, basements and outdoors – anywhere water and electricity may meet.
- If power goes out, switch off lights, large electronics and appliances to prevent overloading circuits and damaging appliances when power is restored. Leave one lamp or switch on as a signal for when your power returns.

After the storm:

- When venturing outside, stay away from downed power lines and be alert to the possibility that tree limbs or debris may hide an electrical hazard. Assume any dangling wires you encounter are energized and dangerous. Warn others to stay away and contact the electric utility.
- If you are driving and come upon a downed power line, stay in your vehicle, warn others to stay away and contact emergency personnel or electric utility. Also, when driving, be careful at intersections where traffic lights may be out. Stop at all railroad crossings and treat road intersections with traffic signals as a four-way stop before proceeding with caution.
- Before re-entering storm-damaged buildings or rooms, be sure all electric and gas services are turned off. Never attempt to turn off power at the breaker box if you must stand in water to do so. If you can't reach your breaker box safely, call your electric utility to shut off power at the meter.
- Never step into a flooded basement or other area if water is covering electrical outlets, appliances or cords. Be alert to any electrical equipment that could be energized and in contact with water. Never touch electrical appliances, cords or wires while you are wet or standing in water.
- Do not use water-damaged electric items until a qualified electrician has inspected them and ensured they are safe.
- When using a portable generator, follow all manufacturers' recommendations. Keep the generator dry and never plug it into a wall outlet or directly into the home's wiring. This could inadvertently energize the utility lines and injure yourself or others working to restore power.
- A permanent standby generator should be professionally installed and include a transfer switch to prevent electricity from leaving your generator and going into power lines where it can kill line workers.

Source: safeelectricity.org

CO-OPS VOTE

A PROGRAM OF AMERICA'S
ELECTRIC COOPERATIVES

- ✓ Pledge to be a co-op voter
- ✓ Find key election information
- ✓ Learn about the issues
- ✓ Register to vote



VOTE.COOP

KIDS CORNER SAFETY POSTER



"Don't fly kites near power lines."

Sophia Bad Warrior, Second-grader at
Dupree Public School

Sophia is the daughter of Dugan and Peg Bad Warrior, Dupree, S.D. They are members of Moreau-Grand Electric Cooperative, Timber Lake, S.D.

Kids, send your drawing with an electrical safety tip to your local electric cooperative (address found on Page 3). If your poster is published, you'll receive a prize. All entries must include your name, age, mailing address and the names of your parents. Colored drawings are encouraged.

Delectable Desserts

Rhubarb Dessert

- 1 white cake mix
- 4 cups diced rhubarb
- 1 cup sugar
- 1 (3 oz.) pkg. strawberry jello
- Whipped topping

Prepare cake according to package directions. Spread in a 9x13-inch pan. Layer rhubarb over cake batter. Sprinkle with sugar and dry jello. Bake at 350°F. for 35 to 40 minutes. Serve with Cool Whip.

Pam Hofer, Carpenter, SD

Best Ever Chocolate Chip Cookies

- 1 cup white sugar
- 1 cup brown sugar
- 2 cups butter-flavored Crisco
- 2 eggs
- 2 tsp. vanilla
- 2 tsp. baking soda
- 2 tsp. cream of tarter
- 2 tsp. baking powder
- 1 tsp. salt
- 3-1/2 cups flour
- 12 oz. chocolate chips

Cream together the first 5 ingredients; add next 5 ingredients. Stir in chocolate chips. Bake on air bake pan at 350°F. for 10 to 12 minutes. Let set a few minutes before removing from pan.

Sharon Sunvold, Renville, MN

Honey Bun Cake

- 1 yellow cake mix
- 4 eggs
- 2/3 cup vegetable oil
- 1 (8 oz.) container sour cream
- 1 cup brown sugar
- 1 T. cinnamon
- Icing:**
- 1-1/2 cups powdered sugar
- 3 T. butter, melted
- 2 T. milk (or to desired consistency)

Combine cake mix, eggs, oil and sour cream. Pour 1/2 of batter into a greased 9x13-inch pan. Mix together brown sugar and cinnamon; sprinkle over batter in prepared pan. Pour remaining batter over top of cinnamon mixture. Run a butter knife through to marble the batter. Bake at 350°F. for 45 minutes. Let cake set 5 minutes, then frost with icing. For icing, mix together powdered sugar, butter and milk; pour over cake. Let cool at least 30 minutes before serving.

Sheryl Fromm, Hartford, SD

Raspberry Almond Crumb Bars

- 2-1/2 cups flour
- 1/2 cup confectioners' sugar
- 1/2 cup granulated sugar
- 1/2 tsp. baking soda
- 1/2 tsp. salt
- 1 egg
- 1 tsp. McCormick® Pure Almond Extract
- 3/4 cup (1-1/2 sticks) cold butter, cut into chunks
- 1 cup raspberry preserves
- 1/2 cup sliced almonds

Mix flour, sugars, baking soda and salt in food processor until well blended. Add butter; pulse until mixture resembles coarse crumbs. Mix egg and almond extract in small bowl. Add to food processor while pulsing. Reserve 1/3 of crumb mixture for topping. Press remaining crumb mixture into an even layer in foil-lined 9x13-inch baking pan. Spread raspberry preserves over top. Sprinkle clumps of the reserved crumb mixture over preserves. Sprinkle with almonds. Bake at 350°F. 35 to 40 minutes or until edges are lightly browned. Cool in pan on wire rack. Cut into bars. Makes 24 servings.

Nutritional Information Per Serving: Calories 175, Total Fat 7g, Sodium 129mg, Cholesterol 23mg, Carbohydrates 26g, Protein 2g, Dietary Fiber 1g

Pictured, Cooperative Connections

Mother's Day Pie

- 1 cup sugar
- 2 T. all-purpose flour
- 1/4 tsp. salt
- 6 T. butter, melted
- 1 tsp. vanilla extract
- 3 eggs
- 1 (12 oz.) can evaporated milk
- 1 cup shredded coconut

In a medium bowl, combine sugar, flour and salt. Stir in butter and vanilla extract. Add eggs, one at a time, mixing well after each addition. Mix in evaporated milk followed by coconut. Pour into a greased and floured 9-inch pie plate or quiche pan. Bake at 325°F. for 35 to 40 minutes or until custard is nearly set and a knife inserted in center comes out clean. Let cool. Refrigerate before serving.

Joy Hagen, Webster, SD

Please send your favorite salad, garden produce and 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 2018. All entries must include your name, mailing address, telephone number and cooperative name.

Understanding Your Energy Bill



Pat Keegan

Collaborative Efficiency

The first step is to reduce your home's solar gain.

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

Footnotes

¹<https://pocketsense.com/analyze-calculate-electric-bill-4848095.html>

²www.mwenergy.com/commercial/payments-billing/understanding-your-bill/glossary

³[www.eia.gov/todayinenergy/detail.php?id=10271&src=%E2%80%B9%20Consumption%20%20%20%20%20%20%20Residential%20Energy%20Consumption%20Survey%20\(RECS\)-f4](http://www.eia.gov/todayinenergy/detail.php?id=10271&src=%E2%80%B9%20Consumption%20%20%20%20%20%20%20%20Residential%20Energy%20Consumption%20Survey%20(RECS)-f4)

⁴www.energystar.gov/index.cfm?c=home_improvement.hm_improvement_index_tools

Dear Pat: Every month, I look over my electric bill, but a lot of it doesn't make sense to me. Is there information included on my bill that can help me save money? – Don

Dear Don: It's always a good idea to understand how you're spending your money. You look over your credit card statement carefully each month, so you should do the same with your utility bills. As you'd suspect, analyzing your bill can help you save energy and money.

If you live in an all-electric home, all of your home energy costs will be on the monthly bill from your electric cooperative. This bill will probably have one or more fixed charges that cover some of the costs your co-op incurs in delivering the power to your home.

Beyond these fixed fees, you will pay for the power you have used that month, which is sold in kilowatt-hour (kWh)¹ units. One kWh is equal to 1,000 watts over a one-hour period. Think of 10 100-watt lights that are used for one hour. Most electric co-ops charge the same rate for a kWh no matter when you use it, but some offer a Time-of-Use rate that is higher during peak energy hours – when the wholesale price of electricity is higher because there's greater demand. Some co-ops have different rates for different use tiers, so the rate could be higher or lower as monthly use increases.² Electric rates can also vary by season and cost more during high-use months.

If you're being charged more for energy use during On-Peak hours, you can often adjust the time you use certain appliances and equipment, like your dishwasher, air conditioner, clothes washer or oven to Off-Peak hours. This won't reduce your electric use, but it can save you money if your co-op offers a Time-of-Use rate.

Most energy bills include a chart that shows your electric use over the past 12 months. If your home is electrically heated, you will see how much your use goes up in the winter. This chart can also show how much your use goes up during the summer when you're running your air conditioner.

Your electric co-op may offer tools on their website to help you track energy use and estimate how much you use for space heating, air conditioning and water heating, which are often the three largest energy uses³. Knowing how much you spend on heating or cooling can help you determine how much you might save by installing a new heat pump or other energy efficiency upgrade.

Some co-ops also offer online energy audit tools that provide ways to reduce energy costs based on a detailed set of questions about your home. If your co-op doesn't offer an online audit tool, or if you want a different perspective, you can try the ENERGYSTAR Home Energy Yardstick.⁴ This resource can give you a good idea of your space heating and cooling use without using an online tool. Just total up your average electricity use for the months when you use the most energy and subtract the average amount you use in "shoulder months"—when you're not cooling or heating your home. The difference is likely the amount you pay each month for heating and cooling.

If someone says switching to a new heating or cooling system could save you 20 percent, they may mean you can save 20 percent on heating or cooling costs. Some homes also have significant uses besides heating and cooling that increase their winter or summer bills, like a well pump, spa or swimming pool.

You may receive a separate monthly bill for natural gas, or for propane or heating oil which might be delivered on an as-needed, keep-filled basis. The Home Energy Yardstick can accommodate any type of fuel you use in your home.

Hopefully this information can help you analyze your energy bill and give you some general ideas on how you might be able to cut your energy expenses. The best way to turn these ideas into specific actions is to conduct an energy audit of your home. Contact your electric co-op to see if they offer free energy audits or if they can recommend a local professional.

Ag's Office Warns of Scam

Attorney General Marty Jackley's Consumer Protection Division is seeing the grandparent scam recirculate.

"As your Attorney General, I continue to make this plea to talk with friends, neighbors and coworkers to make sure they are checking on the seniors they know and care about to discuss this scam," said Marty Jackley. "This is a scam that continues to resurface about every six months so focusing on education and awareness is the key to making sure we do not continue to have victims."

The scam begins with a telephone call from someone claiming to be a grandchild or other family member and requests money for a critical situation such as legal proceedings, theft of their personal belongings or medical conditions.

Consumers need to be aware that the scammers are getting better at targeting their victims by the use of the internet and social media - they are doing their homework to make the call sound more legitimate. Some calls have multiple scammers on the line impersonating the "grandchild's" attorney. The "attorney" indicates that they have already made an agreement with a judge and all they are waiting for are funds to be received in order for the grandchild to be released.

Scammers monitor the weather, when its hot out they know people will be inside and more likely to find seniors at home. It is a scam of opportunity.

Tips to avoid becoming a victim:

- Ask several personal questions including something that only a grandchild would be able to answer like a nickname, name of a family pet or special family tradition. This will help determine if this is a fraud or not.
- Independently contact the grandchild or parent of the grandchild the scam artist is claiming to be at a known phone number.
- Do not fill in the blanks for the caller. If the caller says, "This is your granddaughter," ask "which one?" or "where are you calling from?" The caller is looking for answers that will assist them in the scam.
- Be cautious if the caller asks you to not tell anyone else, like the parents, because he or she will get in trouble. It is all part of the scam.

If you've been victimized by this scam by sending money please contact the Consumer Protection Division at 1-800-300-1986 or by email at consumerhelp@state.sd.us.

Dedication Marks End of Wyoming Integrated Test Center

The dedication of the Wyoming ITC brought together the partners from the various entities: (Clockwise from front) Wyoming Gov. Matt Mead; Paul Sukut, Basin Electric CEO and general manager; Jim Spiers, NRECA senior vice president; Lee Stein, Prize Capital; Marcius Extavour, senior director, NRG COSIA Carbon XPRIZE; Rick Gordon, Tri-State G&T board chairman; Yoshihiro Muzutani, Government of Japan; and Osamu Tsukamoto, Japan Coal Energy Center president.

The Wyoming wind showed up for an exciting day May 16 at Basin Electric's Dry Fork Station.

More than 100 people gathered for the dedication ceremony of the Wyoming Integrated Test Center (ITC) at the plant, north of Gillette, Wyoming.

The ITC is a research test facility that provides space for researchers to test Carbon Capture, Utilization, and Sequestration technologies using 20 megawatts of flue gas from Dry Fork Station. Wyoming Gov. Matt Mead was there, as well as Basin Electric CEO and General Manager Paul Sukut, Tri-State G&T Board Chairman Rick Gordon, NRECA's Jim Spiers, and leaders from the Japanese government and NRG COSIA Carbon XPRIZE.

"This is about making coal viable for America," said Basin Electric CEO and General Manager Paul Sukut. "More than ever, in our time, this is one of the most important projects for America."

Representatives from the five final teams who will be competing for the Carbon XPRIZE at the Wyoming ITC also attended. The teams come from the United States, Canada, India, China, and Scotland.

In addition to the XPRIZE competition, Kawasaki Heavy Industries will be testing their solid sorbent capture technology at the Integrated Test Center.

The state of Wyoming is funding the project with \$15 million, while Tri-State G&T Association contributed \$5 million. The NRECA contributed another \$1 million. Basin Electric, along with hosting the facility through Dry Fork Station, is supplying in-kind expertise with design, engineering, and construction management services of the Integrated Test Center. The Wyoming Infrastructure Authority managed the pre-commissioning phase of the project.



New and emerging technologies are continuously offering innovative ways to effectively manage and reduce energy consumption. Unfortunately, not all technologies can live up to their hype. Your local electric co-op can help you navigate these emerging technologies and provide the most cost-effective and beneficial energy management solutions.



NAVIGATING

Emerging Efficiency Technologies

Kaley Lockwood

National Rural Electric
Cooperative Association

Investing in energy efficient technology is becoming an increasingly attractive way to cut costs for homeowners and renters alike. This rings true especially in the deep heat of summer. Hotter days often result in higher energy bills, partially due to A/C units working overtime to keep homes cooled and comfortable.

New and emerging technologies are continuously offering innovative ways to effectively manage and reduce a home's energy consumption. Smart thermostats, for example, have proven their worth in shaving 10 to 15 percent off an average home's electric bill. These thermostats, in time, will effectively pay for themselves which make them an attractive option to many. Unfortunately, not all technologies can live up to their hype and some even come with side effects that can arguably overshadow their benefits.

The Mistbox Air Conditioner Cooler is one such technology. Mistbox claims to save its customers between 20 to 38 percent on their electricity bills. This technology requires a simple installation to a home's outdoor A/C unit and works by spraying a mist to precool the air around the unit. In using this evaporative cooling method, you're a/c unit theoretically doesn't have to work as hard to pump cool air into your home. This may be beneficial when air temperature is at its highest. In the short term Mistbox may work, but there are some real caveats that need to be considered.

A primary point of concern is that an A/C unit is not designed to be sprayed down with such frequency. Although the Mistbox system comes with a water filter, the company only recommends using its technology if your home's water has a hardness less than 500 parts per million. This automatically rules out anyone who uses well water. Even if you do have a

Electric cooperatives know it's important to help our members navigate these emerging technologies and provide the most cost-effective and beneficial energy management solutions.

home with the required water hardness, the filtration system can't completely prevent your system from rusting. Corrosion will occur resulting in a damaged unit.

Electric cooperatives know it's important to help our members navigate these emerging technologies and provide the most cost-effective and beneficial energy management solutions. If you're interested in taking steps to become more energy efficient, we recommend these tried and true tips:

- Clean and change the filters on your HVAC system regularly to make your unit run more efficiently, keeping your house cooler in the summer and warmer in the winter.
- In spring and summer months, set your ceiling fans to turn in the counterclockwise direction to create a cool breeze. In autumn and winter months, set your fan to turn in the clockwise direction. This will redistribute warm air throughout the room.
- Add caulk or weather stripping to seal air leaks around leaky doors and windows.
- Insulation is important. Properly insulating your home reduces heating and cooling costs, and improves comfort.
- Remember, there are easy steps you can take now to improve the energy efficiency of your home. To learn about additional ways to save, contact the energy experts at your local electric cooperative.

Kaley Lockwood writes on consumer and cooperative affairs for the National Rural

Electric Cooperative Association, the national trade association representing more than 900 local electric cooperatives. From growing suburbs to remote farming communities, electric co-ops serve as engines of economic development for 42 million Americans across 56 percent of the nation's landscape.

Rescue Training Held

Traverse Electric's linemen recently participated in pole top and bucket rescue training. As line workers, they are skilled in pole climbing and working from a bucket truck with power lines.

Pole top and bucket rescue training teaches the skills necessary to save another person's life in case of electrical contact or other aerial hazards. The rigging, lifting and lowering techniques learned and practiced prepares line workers for any emergency situation.



Anderson Achieves Journeyman Status

Traverse Electric would like to recognize and congratulate Calvin Anderson for reaching the status of journeyman line worker.

Line workers go through an apprenticeship program that requires 7,500 hours of on-the-job training and 40 written tests.

Congratulations, Calvin!



Energy Efficiency Tip of the Month

Here's a cool tip for your fridge! Cover liquids and wrap foods stored in your refrigerator. Uncovered foods release moisture, causing the compressor to work harder.

Source: energy.gov



By Derrill Holly

Shining Light on Energy Savings

With LEDs, the Future of Bulbs is Bright

When it comes to lighting, the potential for energy efficiency is just too great to ignore. Around the home, changing bulbs can change your electric bills and the monthly savings can add up quickly.

“Lighting efficiency upgrades have long been the poster child of energy efficiency,” said Alan Shedd, director of energy solutions for Touchstone Energy® Cooperatives.

That’s because consumers regularly use dozens of bulbs in fixtures out of necessity and convenience. According to the U.S. Department of Energy’s Energy Information Administration, nearly 130 billion kilowatt hours of electricity are consumed by residential lighting each year, representing about 9 percent of all home energy use.

As light emitting diode (LED) design options increase, prices are coming down and more consumers see LEDs as an alternative to carbon filament incandescent bulbs first popularized by Thomas Edison in the 1880s.

“The economics make sense,” said Shedd. “When LED lamp products were \$20, it was a tough sell, now for a couple of bucks you can get a lamp that saves energy and lasts 10 times longer.”

To get an idea of your potential for energy savings, complete a home inventory. Don’t just count fixtures – count bulbs, checking wattage and whether they are dimmable, three-way or require special bases. Also note the type of bulb now in use: incandescent, halogen, compact fluorescent lights or straight or circular fluorescent tubes.

There’s a good chance your total bulb count for the average single-family home will be between 50 and 75, including hallways, garages and storage areas.

Savings add up

In 2009, 58 percent of U.S. households had

at least one energy-efficient bulb indoors. By the spring of 2016, 86 percent of all households used at least one CFL or LED bulb and nearly 20 percent of all households had completely abandoned incandescent bulb use.

Since passage of the Energy Independence Act of 2007, electric cooperatives and public power districts, including Traverse Electric, have promoted energy efficiency in lighting by sharing information on potential savings.

The federal law mandating a 25 percent increase in lighting efficiency led many U.S. manufacturers to phase out incandescent bulbs of 100 watts or more.

Halogen varieties available for residential applications can produce excessive heat. That becomes more of a consideration during cooling season, when HVAC systems can get their most use.

In recent years, manufacturers have focused more research on lighting efficacy, energy efficiency and cycle longevity. That’s led to major increases in the projected hours of use and lower failure rates.

Many consumers don’t like the lighting quality offered by compact fluorescent light bulbs, which can also be prone to failure due to heat build-up when used in closed lighting fixtures.

While LED lighting was initially expensive and limited to warm white or a few color temperatures and designs, market acceptance and continued research have forced prices down and led to an expanded variety of products.

Lumens not watts

Cashing in on lighting efficiency can get easier if we rethink the way we buy and use the lighting products.

Many consumers resist switching from

ounces to grams, miles to kilometers or Fahrenheit to Celsius when discussing measurements and temperatures. But, when it comes to lighting, thinking lumens instead of watts makes sense, because it could save you dollars and cents.

Cool white, soft white, dimmable, three-way, decorative and color are now among the options, with LEDs taking up an increasing share of shelf space in the lighting sections of hardware, discount and home improvement stores.

“The wide range of products is the biggest challenge – used to be a lamp was a lamp – you pretty much knew what you were getting,” said Touchstone Energy’s Shedd. “Now, the shelves are packed with a dizzying array of choices.”

According to Shedd, education, or re-education, is the key. Once a consumer knows that lumens are a measurement of the amount of light given off by a bulb, they understand that the lower the lumens, the dimmer the light.

“Sure lumens can be confusing – we didn’t grow up with that,” said Touchstone Energy’s Shedd. But showing that a 1,000 lumen lamp is equivalent to a 60-watt incandescent bulb is a short-term fix.”

While replacing compact fluorescent light bulbs with LEDs saves less energy, consumer preferences have driven a shift away from CFLs, in part because of color and lighting quality.

“The energy savings and life expectancy of an LED is incrementally better,” said Shedd. “The early CFLs did not offer good color, they took a long time to reach full brightness, particularly in cold environments, and some failed prematurely – especially if they were used in enclosed fixtures.”



Energy Audits

Savings You Can Count On

Derrill Holly

National Rural Electric Cooperative Association

Better energy efficiency at home starts with savings, not sales, and an energy audit conducted by a trained energy advisor can help you get there.

“Members are our community and we are the experts in the electric energy arena,” said Manuela Heyn, an energy services representative for Gulf Coast Electric Cooperative, who is also a member of the Southport, Florida-based Co-op. “We have the tools, knowledge and commitment to assist our people. Saving energy can also help shave peak loads.”

Heyn conducted her first energy audits with very basic tools: a flashlight, laser temperature gun and candy thermometer (to check water heater output temperature). She now has access to more sophisticated equipment such as thermal imaging equipment.

Members become frantic when they see a major increase in the power bill and want almost immediate answers as to why. In conjunction with experience and the ability to refer to meter data reports, the process of identifying major power consumption problems has been simplified and resolved in many instances in the office.

During on-site audits, she uses all her senses to find abnormalities such as hot water line leaks, running well pumps, damaged power cords, construction issues – one case leading to spongy drywall, disconnected ducts and lack of insulation to name a few.

She also checks household systems many homeowners seldom see or consider unless they spend time with their HVAC technician.

“One home I visited had an overflowing air handler water pan and extreme fungal growth” said Heyn. “Some members, particularly renters, don’t realize that their HVAC systems have an air filter. When they are dirty, they can freeze up the system and cause an increase in power consumption.”

Expert advice

Many of the electric co-ops that provide energy audits support professional development for energy advisors that includes exposure to building science concepts.

Training focused on both new construction techniques designed to improve energy efficiency and retrofitting options for upgraded older housing are common. Specialized training for multi-family units and manufactured housing are also common.

“By providing a picture of how energy is used in the home, people can concentrate on what can save them the most energy,” said Eileen Wysocki, an energy auditor with Holy Cross Energy, headquartered in Glenwood Springs, Colorado.

Wysocki starts with a baseload estimate of energy use based upon meter data. Talking with the consumer-member, she learns about household size and behavior patterns, and considers seasonal factors like heat tape used to prevent water lines from freezing.

“We have many ‘second homes’ in our service territory,” said Wysocki, adding that even when those homes are empty, energy use continues. “Fan coil blower motors, whole house humidi-

fiers, boiler pumps, ventilation systems, driveway snowmelt pumps, pool pumps, hot tubs, garage heaters, heated toilet seats and towel bars are using energy, regardless of occupancy.”

The co-op serves Colorado’s popular ski areas around Aspen and Vail, and is currently designing a new audit form. It will stress benefits members can receive through efficiency upgrades, including comfort, said Mary Wiener, energy efficiency program administrator for Holy Cross Energy.

Co-ops that offer energy audits use the service to reinforce their roles as trusted energy advisors, helping members save energy in an effort to help them control their electricity costs.

While some co-ops provide complementary audits free of charge, especially when they are requested in response to high bill concerns, others may charge a small fee, offering rebates to members who implement some of the recommendations provided.

Time spent with an energy auditor can help a member avoid ineffective upgrades or the purchase of oversized equipment

that might not improve their comfort or produce savings through recoverable costs.

Offering solutions

An energy advisor’s home visit usually gets far more attention than a brief discussion

On average, a member can reduce their energy use by about 5 percent if they follow the low-cost or no-cost advice given during the audit.

about energy efficiency at a co-op district meeting, a county fair or other community event. Most audits are initiated following a request tied to high bill concerns, when members are really motivated to control their energy costs.

On average, a member can reduce their

energy use by about 5 percent if they follow the low-cost or no-cost advice given during the audit. Additional savings of up to 20 percent can be achieved by addressing issues with big-ticket items, such as HVAC replacement, attic insulation or major duct repair discovered during the audit.

Improved energy efficiency not only helps the co-op control peak demand and wholesale power costs, it also provides opportunities to discuss services available to members. Those include rebates, weatherization programs and payment assistance.

To learn more about energy audits available to you, contact your local electric cooperative.

Derrill Holly writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association, the national trade association representing more than 900 local electric cooperatives. From growing suburbs to remote farming communities, electric co-ops serve as engines of economic development for 42 million Americans across 56 percent of the nation’s landscape.



Energy Audits Point the Way to Savings

Conducting an energy audit of your home is a great way to identify opportunities for energy savings. Below are five areas an auditor will typically cover.

- **Leaks and Losses:** Damaged, missing or improperly installed insulation can increase energy use year-round. Knowing where and how to check can identify problems.
- **Comfort Costs:** A visual inspection of your thermostat, water heater, heating and air conditioning equipment and ductwork, can identify performance problems.
- **Assessing Appliances:** The age, condition, location and use patterns for washers, dryers, refrigerators, and other major appliances can impact their efficiency levels.
- **Learning Lighting:** A quick discussion about lighting options with an energy auditor can take the guesswork out of choosing the best bulbs and fixtures.
- **Activity Adjustments:** Knowing how and when you use energy can help you save money. Shifting the time of day you use energy to do things (like laundry and cooking) to cooler, less humid hours can ease the load on HVAC systems.



Amanda Groethe and Whitney Ditlevson drove from Stearns Electric Association's Melrose, Minnesota, headquarters to Salt Lake City in a Tesla Model 3. Their route took them along Interstate 90 through Worthington, Minn., Mitchell, Chamberlain, Murdo, Wall and Rapid City, S.D. (Photo Courtesy of Stearns EA)

EV ROAD TRIP

Co-ops' Road Trips Lead to Valuable Research on Long-Distance EV Travel

Derrill Holly

National Rural Electric Cooperative Association

Charging is the next big hurdle for long-haul travel in electric vehicles, and the nation's electric cooperatives could play huge roles in delivering sustainable solutions for their consumer-members and other travelers.

"Charging presents a challenge. We who live in and drive through rural America still charge our vehicles, but it often requires more creativity, more time, or help from a friend," said Alan Shedd, director of energy solutions for Touchstone Energy® Cooperatives. "Ready access to public charging is not commonplace in rural areas."

The Touchstone Energy Drive to CONNECT Event, during which teams of co-op employees from different parts of the U.S. drove EVs to a conference in Utah, provided opportunities for real-time research on long-distance travel. The event involved the use of several different vehicles, including plug-in hybrids and a range of EVs produced by different manufacturers, and the research took into account the various routes, driving conditions and charging options.

An EV enthusiast for nearly 45 years and a national expert on the topic, Shedd has made many trips covering more than 200,000 miles using both plug-in hybrid vehicles and EVs. That experience has paid off in knowing when, how and where to plug in.

"I'm a member of four different charging networks," Shedd admits. But he still keeps extension cords, adapter plugs, a custom charger, tools and test equipment handy so he can plug in at a motel or other location where EV chargers are not available.

"There are still large areas of the country that are underserved," said Shedd. "You don't have to stray far from an interstate or urban area to outrun charging convenience."

Road-Tested Travelers

Shedd was among the co-op staffers who spent several days in May learning firsthand about the challenges facing motorists traveling long distances in electric cars. While electric vehicles are gaining popularity for commuter use, with home and workplace charging options becoming more common, experience with long-range travel remains limited.

"Driving cross-country is part of the American psyche – the lure of the open road," said Shedd. "We take the car for granted while not too many years ago a cross-country trip in a gas-powered car was a big undertaking and not altogether certain."

Sharing their adventures on social media using the hashtag #DriveEvent, teams started out in six states with a goal of arriving in Salt Lake City on or before May 7 so they could discuss their travels at a pre-conference workshop. While every team arrived in time, some faced more challenges than others.

Mike Smith and his son Colin, 16, drove a Chevy Bolt from Cayce, South Carolina, to Salt Lake City by way of Interstate 80 and documented parts of the trip on Twitter.

“The route we chose had everything to do with charging availability and avoiding the mountains if we could,” said Smith, vice president of business and technology strategy for The Electric Cooperatives of South Carolina.

In Wyoming, they used a 240-volt dryer outlet to charge the car at one stop and a 50 amp campground power pedestal at another.

“We did a 5,000 mile road trip in a first-generation Honda Insight gasoline-powered car last year, and sometimes covered 1,100 miles a day,” said Smith, who traveled 2,116 miles one-way to Utah. “This time we had trouble doing 300 to 400 miles a day through Nebraska and Wyoming because of the lack of fast chargers.”

Direct current fast chargers (DCFC) operate at high power outputs of between 20 and 150 kilowatts, said Smith. “The fastest we have been able to charge the Bolt is 45 kW, which adds 170 miles of range per hour of charging. If a DCFC is not available, our next choice is a Level II charger, which adds between 20 and 30 miles of range per hour.”

“This is what we had to use on the last half of our trip,” Smith added “If we are really desperate for a charge, which we weren’t this time, we can get a Level I charge from a standard 20 amp 120 volt outlet, delivering a paltry five miles of driving range per hour. At that rate, a full charge would take about 46 hours for our car.”

The event involved the use of several different vehicles.

“We could drive for about three hours and then we had to charge for six,” said Colin Smith. “Our days and nights got mixed up towards the end. When the car was fully charged, we went; but when the car needed a charge we stopped and slept while the car was charging.”

Two employees of Melrose, Minnesota-based Stearns Electric Association made much better time in a Tesla Model S, in part because they had access to Tesla’s fast-charging network.

Amanda Groethe and Whitney Ditlevson, who staff Stearns Electric’s communications and marketing department, made the 1,216-mile trip to Salt Lake City with just nine recharging stops, and none of those

lasted more than two hours.

With planning, they were able to time charging stops to coincide with meal breaks or sight-seeing, and the Tesla charging stations were always conveniently nearby.

“Generally the Tesla was fully charged by the time we were done with everything we wanted to do,” said Groethe. She added that on a typical road trip with her family, she’d stop every two or three hours to see to the needs of her younger children.

The Cooperative Key

Teams from Montana and Colorado also completed the trip, but William Boyd Lee, vice president of strategic planning at CKEnergy, faced big challenges trying to get his Chevy Bolt from Binger, Oklahoma, to Salt Lake City.

“Charging facilities west of Oklahoma City and up to Albuquerque, New Mexico are very lacking,” said Lee, who blogged about facing frustrating detours and charging equipment performance issues, in Amarillo, Texas.

Lee and his son, Jay, 27, decided to tow his EV to Salt Lake City from Oklahoma with a gasoline-fueled F150 pickup truck, but his data will help provide a comparison to EV travels to be discussed in an upcoming Touchstone Energy national webinar.

Increased consumer demand for EVs and the need for manufacturers to ensure that charging options are available will create opportunities for private-sector investment in charging stations, said Lee. He added that it could also offer new markets for power sales for electric cooperatives.

“With more automotive manufacturers entering the EV market, there’s a lot of incentive for building out a reliable charging network,” said Lee. “Electric vehicles are going to be a huge part of our world in the years ahead.”

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Mike Smith of The Electric Cooperatives of South Carolina and his son, Colin, recharged their Chevy Bolt at a public library in Park City, Utah. (Photo Courtesy of ECSC)



DATELINE

June 21-23

Crystal Springs Rodeo, Clear Lake, SD, 605-874-2996

June 21-23

Senior Games, Mitchell, SD, Contact Howard Bich at 605-491-0635

June 22-23

Oahe Days Arts & Music Festival, Pierre, SD, oahedaysinfo@gmail.com

June 22-24

Annual Main Street Arts and Crafts Festival, Hot Springs, SD, 605-440-2738

June 29

Naja Shrine Circus, Wall, SD, 605-342-3402

June 29-July 1

Sisseton Wahpeton Oyate Annual Wacipi, Agency Village, SD, 605-698-8284

June 30

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

June 30-July 1

Archeology Awareness Days, Mitchell, SD, 605-996-5473

June 30-July 1

The Great Outdoor Festival, Pierre, SD, 605-224-7361

June 30-July 4

99th Annual Black Hills Roundup, Belle Fourche, SD, 605-723-2010

July 1

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

July 2-4

Sitting Bull Stampede Rodeo, Mobridge, SD, 605-845-2387

July 3-5

Frontier Days Rodeo, Interior, SD, 605-455-1000



July 29: 13th Annual Langford Car Show, 10 a.m. to 2 p.m., trophies awarded at 1:30, Park of the Pines, Langford, SD, Contact Russell Nickelson at 605-493-6597

Photo courtesy: Langford SD Facebook Page

July 6-7

Senior Games, Madison, SD, Contact Bernie Schuurmans at 605-270-3327

July 6-8, 13-15, 20-22

Laura Ingalls Wilder Pageant, 8 p.m., Pageant Site, De Smet, SD, 800-880-3383

July 7, 21, Aug. 25, Sept. 8, 22

Lawn Mower Races, Pukwana, SD, 605-680-1718 or 605-682-9781

July 10-15

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

July 12-15

Hot Harley Nights, Sioux Falls, SD, 605-334-2721

July 13-14

Senior Games, Aberdeen, SD, Contact Gene Morsching at 605-216-2822

July 14

Cruiser Car Show and Street Fair, Rapid City, SD, 605-716-7979

July 14-15

Summer Arts Festival, Brookings, SD, 605-692-2787

July 17-22

Corn Palace Stampede Rodeo, Mitchell, SD, 605-770-4919

July 18-21

Black Hills Corvette Classic, Spearfish, SD, 605-759-4530

July 18-21

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

July 20-21

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

July 20-21

Gumbo Ridge Bronc Ride and Ranch Rodeo, Murdo, SD, 605-669-3031

July 20-21

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

July 20-21

Storybook Land Festival, Aberdeen, SD, 605-626-7015

July 20-22

Annual Gem & Mineral Show, Rushmore Plaza Civic Center, Rapid City, SD, 605-269-2015

July 20-22

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

July 21

Annual Heritage Music Fest, Elk Point, SD, 605-366-9466

August 18-19

Annual Threshing Bee, Rosholt, SD, 605-537-4426

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.