

## Cooperative Connections



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# Considering Solar?

## We're Here to Help



**John Lee, CEO**

jlee@butteelectric.com

Today's consumers want and expect options, including the type of energy powering their homes. Many homeowners are looking for a less expensive form of energy with ongoing savings. Some are looking for a green energy source. These two motives are why many homeowners are exploring rooftop solar panels.

The interest in alternative energy sources is also being fueled by decreasing costs for rooftop solar, the availability of financial incentives and the proliferation of companies offering solar panel installation.

However, as attractive and popular as rooftop solar may appear, it is important for consumers to fully understand its true costs, the operational reality of this form of energy and actual energy savings. To determine whether rooftop solar is right for their particular situation, homeowners must undertake their due diligence.

### We're here to help.

As your trusted energy advisor, Butte Electric can offer a candid assessment of your specific situation. After all, Butte Electric has a different "bottom line" that is not directly tied to the sale of a product or service. We constantly strive to find new ways to help you use energy more efficiently.

Butte Electric is seeking to keep pace with the changing energy environment and evolving technology. We are exploring more options that will help you manage your energy use such as our demand response, LED lighting and smart home-enabled thermostats and lights. We take a more holistic, objective view of how to achieve energy savings.

### Is rooftop solar right for you?

To help determine whether rooftop solar is right for you, Butte's energy advisors will look at the:

- overall energy efficiency of the home/building
- age and pitch of the roof
- orientation of the sun in relation to the home/building
- tree coverage near the home/building

- weather patterns for the region.

Unlike a solar company that has one objective – to sell their products and services – we will look at the total energy picture and help you determine the best options for your home. While rooftop solar certainly works for many people, it's not the answer for all.

When helping co-op members determine whether rooftop solar is right for them, a co-op energy advisor will also discuss the many financial considerations:

- Is there a large, up-front payment required or are fees spread out over time?
- Will the homeowner own the panels or will they be leased?
- Are there any hidden costs, i.e., does the roof need to be replaced before installing the panels?
- Are there ongoing maintenance fees?
- Are there rebates or other financial incentives available?
- Is the estimated energy savings worth the investment?
- Is it more cost effective to invest in other energy saving measures?

Most importantly, an energy advisor will provide perspective on the total energy puzzle. Taking into account current energy consumption, the home "envelope," age and efficiency of the HVAC system and home site, an energy advisor can help co-op members determine whether rooftop solar is the best choice given the homeowners' objectives.

When assessing solar options, it is an excellent time to examine other potential energy efficiency improvements for your home. For example, it may make sense to insulate the attic at the same time as installing solar.

Butte Electric recognizes that consumer interest in green energy sources and renewables is at an all-time high and we stand ready to help our members determine their best options.

## Mission Statement

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



**Butte Electric  
Cooperative, Inc.**  
A Touchstone Energy® Cooperative

# Butte Electric

## Cooperative Connections

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## Electric Co-op Policy Priorities for the New Congress

By Dan Riedinger

Every time a new Congress convenes, electric cooperatives have the opportunity to educate new lawmakers on issues that matter most to their consumer-members and the communities they serve. The 116th Congress kicked off in January with more than 100 new members in the House and Senate.

Since then, co-ops have been working with the National Rural Electric Cooperative Association (NRECA), the national service organization that represents more than 900 not-for-profit electric cooperatives, to introduce ourselves to new members on Capitol Hill. Here are several priority issues that we're bringing to lawmakers' attention.

### Energy Policy & Infrastructure

The potential for energy and infrastructure legislation presents a significant opportunity as electric cooperatives work to meet the growing needs of their local communities. NRECA will work to ensure that any infrastructure package focuses on more than roads and bridges, including opportunities to modernize the electric grid and expand rural broadband access. This is critical to ensuring that rural America is not left behind in the 21st century economy.

### Environment

NRECA will promote and encourage bipartisan support for renewable energy research and development programs –including programs that focus on finding a viable use for carbon capture, utilization and storage, which comprise a suite of technologies for reducing greenhouse gas emissions from power plants. Cooperative renewables use has increased substantially in recent years, more than doubling since 2010.

### Broadband

Expanded rural broadband access remains a priority for NRECA. As electric co-ops engage the new Congress, we will work to ensure that all rural broadband discussions include the electric co-op perspec-

tive on the need to expand high-speed internet service in rural areas. According to the Federal Communications Commission, 23 million rural Americans lack access to broadband – millions of them are members of an electric co-op. That's why roughly 100 electric cooperatives are working to close the digital divide by bringing broadband to their communities, and more are exploring the option.

### Tax Policy

The 2017 tax reform law included a provision that treated federal grants as income. This threatens the tax-exempt status of some electric cooperatives, because many co-ops rely on government grants to maintain and expand their infrastructure and provide services to their local communities. America's electric cooperatives will seek to fix this unintended consequence of the tax law.

### Grid Resilience

Protecting our nation's vast power grid is a national priority and focus for electric cooperatives. Ensuring appropriate information sharing and preserving existing partnerships and structures are essential to these efforts. We will advocate for resources and technologies that meet the unique cybersecurity and recovery needs of small and medium-sized utilities to help protect our systems.

With such a large freshman class of lawmakers, educating them about electric cooperatives and the issues we care about will take time and perseverance. Advocating for the interests of our consumer-members and the communities in which they live is at the very heart of our business.

Dan Riedinger 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.

## Protecting Your Home and Business

Every year, electrical equipment, wiring, appliances and tools cause injuries and fires at both homes and workplaces. Paying close attention to the condition of electrical equipment and taking appropriate and prompt action to correct electrical problems can help to ensure your safety and the safety of those around you. Below are guidelines to help identify and reduce electrical hazards.

### Electrical Outlet Safety

- Avoid overloading outlets with too many appliances and ensure that electrical loads are appropriate for the circuits.
- Unplug appliances when they are not in use to conserve energy as well as minimize the opportunities for electric shock or fire.
- Use outlets instead of relying on extension cords and power strips. Consider having additional permanent outlets installed where needed.
- Use Ground Fault Circuit Interrupters (GFCIs) in wet/damp areas like kitchens, bathrooms and outdoors.



### Electrical Cord Safety

- Inspect electrical cords to ensure that they are not frayed, cracked or damaged.
- Do not place electrical cords in high traffic areas, under carpets or across doorways where they pose a potential tripping hazard or could be easily damaged.

### Certification and Awareness

- Ensure that all electrical products and equipment are certified by a nationally recognized testing laboratory, such as Underwriters Laboratories (UL), and read the manufacturer's instructions carefully.
- Allow only trained and qualified electrical workers to perform work on electrical equipment.
- Be aware of signs of electrical problems such as flickering lights and/or buzzing, sizzling or humming sounds from electrical systems.

Source: [www.acadiainsurance.com](http://www.acadiainsurance.com)

## Ladder Safety and How It Affects Everyone

THE NUMBERS SPEAK FOR THEMSELVES



**ladder injuries** every day\*



**deaths** caused by falls each year\*



The **most common ladder falls** happen between 6 and 10 feet off the ground

WHETHER YOU'RE USING A LADDER AT HOME OR AT WORK, THESE NUMBERS AFFECT YOU.

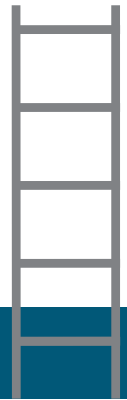
**2** most common ladder accidents include\*\*:

1. **Missing the last step when climbing down**
2. **Overreaching**

\*\*National Electronic Injury Surveillance System (NEISS) 2017 Data Highlights\*, 2017, CPSC

\*\*\*ALI Ladder Safety Training and Citation Report\* - United States, 2018, American Ladder Institute

Take safety into your own hands by taking ladder safety seriously. Visit [www.LadderSafetyMonth.com](http://www.LadderSafetyMonth.com) to learn more.



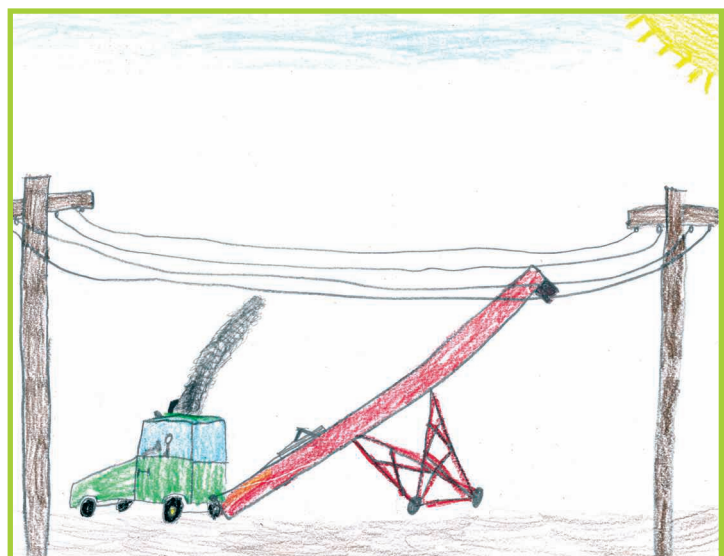
National Ladder Safety Month is presented by



Thank you to our Top Cap sponsor



## KIDS CORNER SAFETY POSTER



**"Be careful with farm equipment around power lines."**

**Carson Lee**, 10 years old

Carson is the son of Chris and Marisa Lee, Fairfax, Minn. They are members of Renville-Sibley Co-op Power, Danube, Minn.

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

# Seafood Sensations

## Clam Chowder Dip

- 2 slices bacon, chopped
- 1/3 cup chopped onion
- 1 pkg. McCormick® Original Country Gravy Mix
- 1-1/2 cups milk
- 1 cup shredded white Cheddar cheese, divided
- 1 (6.5 oz.) can chopped clams, drained
- 2 tsp. McCormick® Parsley Flakes

Cook bacon in large skillet on medium-high heat until crisp. Remove bacon, reserving drippings in pan. Add onion; cook and stir 2 to 3 minutes or until translucent. Stir in gravy mix, milk and 1/2 cup shredded cheese. Bring to boil. Reduce heat and simmer 2 minutes or until gravy starts to thicken. Remove from heat. Stir in clams. Pour into 9-inch glass pie plate. Sprinkle with remaining 1/2 cup cheese. Bake at 350°F. for 15 minutes or until cheese is melted. Sprinkle with bacon and parsley. Serve with toasted baguette slices or crackers. Makes 12 servings.

*Nutritional Information Per Serving: Calories 94, Total Fat 6g, Saturated Fat 3g, Protein 4g, Cholesterol 9mg, Sodium 278mg, Fiber 1g, Carbohydrates 6g,*

**Pictured, Cooperative Connections**

## Shrimp Lover Squares

- 1 (8. oz) tube refrigerated crescent rolls
- 1 (8. oz) pkg. cream cheese, softened
- 1/4 cup sour cream
- 1/2 tsp. dill weed
- 1/8 tsp. salt
- 1/2 cup seafood sauce
- 24 medium shrimp, cooked
- 1/2 cup chopped green pepper
- 1/3 cup chopped onion
- 1 cup shredded Monterey Jack cheese

In a greased 9x13-inch pan, unroll the crescent dough; seal seams. Bake at 375°F. for 10 to 12 minutes or until golden brown. Cool completely on a wire rack. In a small mixing bowl, beat cream cheese, sour cream, dill weed and salt until smooth. Spread over crust. Top with seafood sauce, shrimp, green pepper, onion and cheese. Cover and refrigerate for 1 hour. Cut into squares. Makes 2 dozen.

**Becki Hauser, Tripp, SD**

## Crab Quiche

- 4 beaten eggs
- 3/4 cup milk
- 1/2 tsp. salt
- 1/2 tsp. ground thyme
- 1 T. diced pimento
- 1-1/2 cups chopped broccoli
- 1 cup chopped imitation crab
- 1 cup shredded Cheddar cheese
- 1 cup shredded Monterey Jack cheese
- 2 T. minced onion
- 1 unbaked 10-inch pie shell

Mix together first 5 ingredients; set aside. Combine broccoli, crab, cheeses and onion; spread in piecrust. Pour liquid mixture over all. Bake at 350°F. for 50 to 55 minutes. Let cool 10 to 15 minutes before cutting.

**Barbara Angerhofer, Hendricks, MN**

## Tilapia Parmesan

- 2 lbs. tilapia fillets
- 2 T. lemon juice
- 1/2 cup grated Parmesan cheese
- 3 T. mayonnaise
- 4 T. butter, room temperature
- 3 T. finely chopped onions
- 1/4 tsp. dried basil

In a buttered 9x13-inch baking dish, lay fish fillets in a single layer. Do not stack fillets. Brush with juice. Bake at 350°F. for 10 to 20 minutes or until fish flakes. Meanwhile, combine cheese, mayonnaise, butter, onions and basil. Spread cheese mixture on fish fillets and bake an additional 5 minutes or until golden brown.

**Cortney Reedy, Tea, SD**

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

Each recipe printed will be entered into a drawing for a prize in June 2019. All entries must include your name, mailing address, phone number and co-op name.

Spring is Coming

# Are Electric Mowers for You?



**Pat Keegan**

Collaborative Efficiency

**Dear Pat:** I'm seeing a lot of ads lately for electric lawn mowers. I want to save money and help the environment, but from what I've heard, a lot of electric mowers can be underpowered and the cordless ones lose their battery charge too quickly. Do you think it's worth making the switch from a gas mower to an electric mower? – Eric

**Dear Eric:** Until recently, corded and cordless electric mowers tended to be underpowered. For cordless mowers, this fact was made worse by their sub-par battery life.

But today, with those problems largely solved, the best electric mowers have the power and battery life to keep pace with a gas mower, depending on the size of your lawn.

A cordless, electric mower with a large 56-volt battery can run for about one hour. Plug-in electric mowers don't have this limitation, but using a long electrical cord can be challenging.

Quality electric mowers, especially the cordless, rechargeable ones, tend to cost twice as much as a new equivalent gas model. But you can recoup some of the expense with cheaper operating costs, since electricity is a less expensive fuel than gas and electric engines generally require less maintenance than gas engines.

Another important cost consideration is that rechargeable batteries typically need to be replaced after three to five years. The cost savings also depend on the size of your lot. A small lot uses less gas, so fuel cost savings are less significant.

You can save a significant amount of money on purchase price with a corded mower, if you don't mind the hassle of navigating around the cord.

There are additional benefits of electric mowers besides lower fuel and maintenance costs. Electric mowers are much quieter than gas mowers and they start instantly. Electric mowers produce less tailpipe emissions, but the overall environmental impact depends on how the electricity you're using (to charge the mower) is generated. The environmental benefits will be greater if the electricity is generated from renewable energy sources.

Given all these considerations, my advice is to weigh your priorities. If you are looking to buy new, have a small- to mid-size lot, prioritize environmental concerns and don't mind navigating a cord or recharging batteries, an electric mower could be the right choice for you.

If you don't mind the noise, maintenance and other hassles of a gas mower, have a large lot and prefer not to invest in the upfront purchase price, a gas mower may be a better option.

This column was co-written by Pat Keegan and Brad Thiessen of Collaborative Efficiency. For more information on mower options, please visit: [www.collaborativeefficiency.com/energytips](http://www.collaborativeefficiency.com/energytips).



Unlike models from only a few years ago, many of today's electric mowers have the power and battery life to keep up with gas mowers.

There's also a third choice. If your goals are to save money and hassle while protecting the environment, you can minimize your need for a mower, or get rid of the need completely.

If you're willing to keep your lawn mowed regularly and don't mind breaking a sweat, consider a manual reel mower. Some models are more effective than you might think and they're far less expensive and require little maintenance or storage space.

The most dramatic step you could take is replacing your lawn completely, perhaps with water-efficient landscaping, a rock garden, a vegetable garden or even an artificial lawn. This could dramatically cut your water bill and the environmental impact of a lawn.

Any change you make, whether in mowing or landscaping, will require a little research. But it's great to know the option of an electric mower is more viable than ever!



## Thinking About An Electric Ride?

### Touchstone Energy® Cooperative Members May Qualify for Nissan Leaf® Rebate

Residents of South Dakota, Minnesota, Iowa, North Dakota, Nebraska and other states who are members of a Touchstone Energy® Cooperative may be eligible for a \$3,500 rebate on a new Nissan Leaf from one of nearly two dozen dealers in the region.

The rebate, when combined with up to \$7,500 in federal electric vehicle tax credits, could result in up to \$11,000 in savings for the purchaser.

The offer expires April 1, 2019. To get the incentive, obtain a two-page flyer from your local Touchstone Energy Cooperative and bring the flyer along with a copy of your monthly electric bill to your participating Nissan dealership.

# Teachers Sought

Teachers throughout the Dakotas, Minnesota and Montana can earn two college credits through the Lignite Energy Council's Education Seminar June 10-13 at Bismarck State College in Bismarck, N.D.

Participants can receive credit from the University of North Dakota (teaching and learning), North Dakota State University (education) or Minot State University (science). Teachers who took the class when it was a one-credit course prior to 2009 can take it again if they need a refresher as there is lots of new information.

The seminar will provide teachers with the information and educational materials they need to teach their students about how lignite is mined and used to produce electricity for homes, farms and businesses in the Upper Midwest. In addition, the seminar covers lignite's economic impact on the region, as well as important environmental issues affecting the lignite industry. Since 1986, more than 3,300 teachers have attended the education seminar.



### Sponsors:

The teacher education seminar is sponsored by the Lignite Energy Council, in cooperation with Bismarck State College, The Center for Economic

Education at UND, NDSU and MSU.

### Speakers and Tours:

At the seminar, teachers hear presentations by educators, researchers and lignite industry representatives. One day is devoted to touring mining operations, reclamation sites and coal conversion facilities. Question and answer sessions in the classroom and on the tour give teachers the opportunity to find out what they need to know for their individual classroom needs.

### Professional Development Credit:

Two graduate professional development credits are available through the Center for Economic Education at the University of North Dakota, Grand Forks, N.D., North Dakota State University, Fargo, N.D., or Minot State University, Minot, N.D. To receive the credits, teachers must attend all portions of the seminar and prepare lesson plans demonstrating how they will use the seminar information and materials in their classrooms.

### Materials Available:

Teachers attending the seminar will receive lecture outlines on each presentation, lesson plan examples, classroom exercises, coal and ash samples, audiovisual materials and information on the facilities toured. They also receive resource guides listing publications and audiovisual materials available for energy education.

### Logistics:

Free lodging is provided in a Bismarck State College dormitory (two people per room). Meals will be provided. Also, transportation will be provided by the Lignite Energy Council for the tour of a mine and power plant.

An online application for all teachers is available at <http://www.lignite.com/teachers>.





Rushmore Electric's Mike Bowers, fifth from left, is one of 17 members of the Rapid City YMCA board of directors.

# LOCAL COMMUNITY INVOLVEMENT

## Co-op Leaders Contribute to Local Boards, Youth Programs and More

**Brenda Kleinjan**

[editor@sdrea.coop](mailto:editor@sdrea.coop)

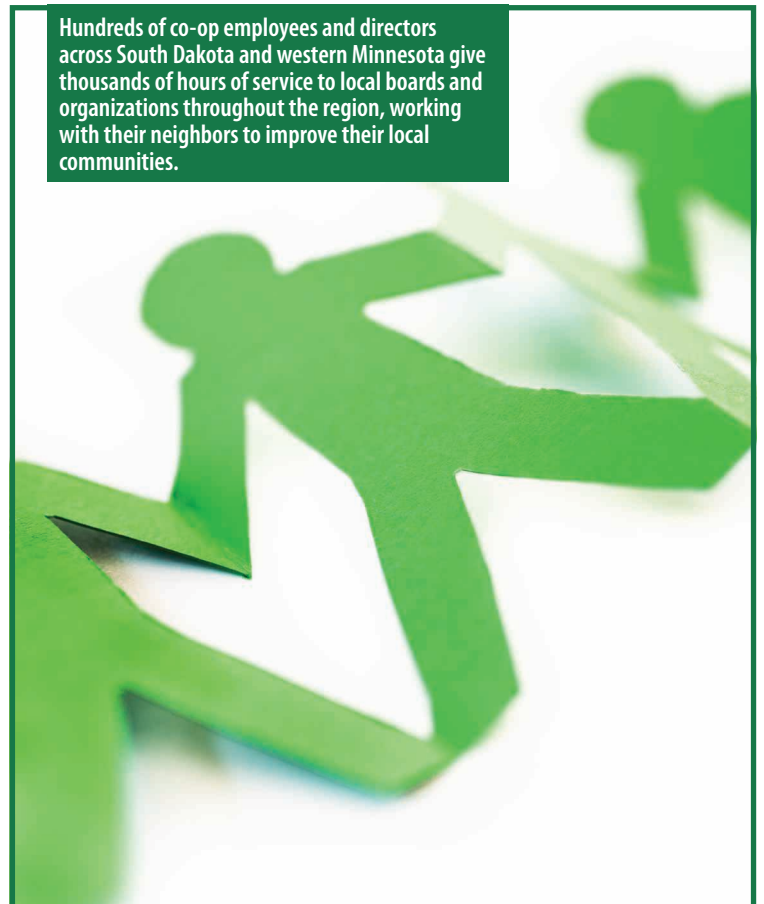
When cooperatives say they are committed to their communities, it's not just lip service. It's service rooted in fact.

From city councils, township boards and county commissions to school boards, church boards and other community organizations, co-op employees and directors are answering the call to serve on boards of various shapes and sizes.

Some specialize, focusing their involvement in one arena. Others are generalists, taking the skills and lessons they've learned through their roll at their local electric cooperative and translating it to benefit their local community through involvement on several boards and groups.

For much of his co-op career, Mike Bowers has also served on boards associated with the Rapid City YMCA. Bowers, the manager of Rushmore Engineering, a part of Rushmore

Hundreds of co-op employees and directors across South Dakota and western Minnesota give thousands of hours of service to local boards and organizations throughout the region, working with their neighbors to improve their local communities.





Electric Power Cooperative in Rapid City, has spent 20 years on the YMCA building committee. He's also been a part of the YMCA board of directors for 10 years, serving as secretary and board chairman.

But, his Y involvement has even deeper roots.

"I grew up with the Y," said the Wisconsin native. "I've been a Y member here for 42 years. I joined the Y the first month I was in town and never looked back."

Bowers said the YMCA's commitment to people in the community is appealing and resonates well with the work of electric cooperatives.

"Both invest in the community, absolutely," Bowers said. "The YMCA is very much a cooperative structure; not-for-profit, open to all and every member is an owner, if you stop to think about it."

The Rapid City YMCA and the Rapid City Area Schools are in the midst of a \$10 million renovation of a 68,000 square foot building in downtown Rapid City that once housed an electric and gas utility company. When completed, the facility will house YMCA early childhood development and also provide

infant childcare as well as hold school district administrative offices.

The facility, which is slated to open in August, will be known as the Rapid City Education Center. It recently secured \$1.1 million in funding from the Rapid City Vision Fund.

**We all need to be involved and give back to the community.**

"The Rapid City Education Center will more than double our capacity for childcare," Bowers said.

Bowers sums up his work with the YMCA succinctly.

"This is the way I want to be involved and give back," said Bowers.

Bowers is not alone in his commitment to his local community.

From youth wrestling, basketball, baseball and football programs to coaching varsity-level sports and serving as

referees, co-op employees and directors are working alongside their neighbors to ensure these programs succeed.

You'll also find co-op employees and directors setting aside their co-op hats to take on the work of members of school boards at several districts across the state.

Dozens of co-op employees serve as trustees and council members of towns and communities across the state. More than a dozen township boards are comprised of officers who work for electric cooperatives or who serve as a director for an electric cooperative. County commissions from Custer County in the west to Grant County in the northeast – and a few counties in between – have co-op employees and directors serving on their governing boards.

And, the work doesn't stop there. You'll find co-op directors and employees in service organizations like Lions, Rotary and Kiwanis, on in veteran's organizations like the American Legion and VFW, church boards, airport, library and transportation boards.

As Bowers notes, "We all need to be involved and give back to the community."



Chris Larson, General Manager of Clay-Union Electric Corporation in Vermillion, moderates the District 17 Legislative Public Forum held in October. Larson is member of the VDCD Governmental Affairs Committee, which hosted the candidate forum. Candidates present were, from left, Gregory Baldwin, Ray Ring, John Gors and Howard Grinager. Arthur Rusch attended by phone.



The average American family spends \$2,000 annually on energy bills, but unfortunately, much of that money is wasted through air leaks in the home. Applying caulk around windows, doors, electrical wiring and plumbing can save energy and money. Photo Credit: Rare Form Properties

# THREE EASY DIY PROJECTS TO SAVE ENERGY

Abby Berry

NRECA

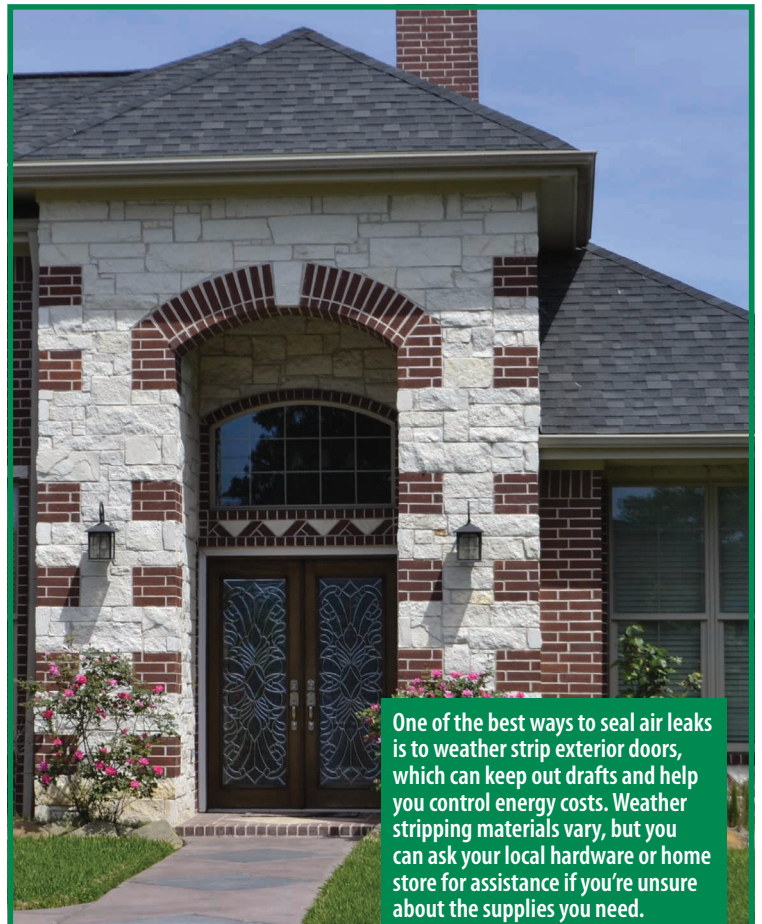
Winter weather can have a big impact on your energy bills, hitting your pockets a little harder than you would have liked. Now that spring is just around the corner, it's the perfect time to tackle a few DIY efficiency projects for your home. The good news: You don't have to be an energy expert to do this!

There are several easy ways to save energy, but if you're willing to take a hands-on approach, here are three projects you can do now to start saving.

## Make the Most of Your Water Heater.

Let's start with one of the easiest projects: insulating your water heater. Insulating a water heater that's warm to the touch can save 7 percent to 16 percent annually on your water heating bills. It should also be noted that if your water heater is new, it is likely already insulated. But if your water heater is warm to the touch, it needs additional insulation.

You can purchase a pre-cut jacket or blanket for about \$20. You'll also need two people for this project. Before you start, turn off the water heater. Wrap the blanket around the water heater and tape it to temporarily keep it in place. If necessary, use a marker to note the areas where the controls are so you can cut them out. Once the blanket is positioned correctly tape it permanently in place, then turn the water heater back on. If you have an electric water heater, do not set the thermostat above 130 degrees, which can cause overheating.



One of the best ways to seal air leaks is to weather strip exterior doors, which can keep out drafts and help you control energy costs. Weather stripping materials vary, but you can ask your local hardware or home store for assistance if you're unsure about the supplies you need.

## Seal Air Leaks with Caulk.

The average American family spends \$2,000 annually on energy bills, but unfortunately, much of that money is wasted through air leaks in the home. Applying caulk around windows, doors, electrical wiring and plumbing can save energy and money. There are many different types of caulking compounds available, but the most popular choice is silicone. Silicone caulk is water-proof, flexible and won't shrink or crack.

Before applying new caulk, clean and remove any old caulk or paint with a putty knife, screwdriver, brush or solvent. The area should be dry before you apply the new caulk.

Apply the caulk in one continuous stream, and make sure it sticks to both sides of the crack or seam. Afterwards, use a putty knife to smooth out the caulk, then wipe the surface with a dry cloth.

## Weather Strip Exterior Doors.

One of the best ways to seal air leaks is to weather strip exterior doors, which can keep out drafts and help you control energy costs. Weather stripping materials vary, but you can ask your local hardware or home store for assistance if you're unsure about the supplies you need.

When choosing weather stripping materials, make sure it can withstand temperature changes, friction and the general "wear and tear" for the location of the door. Keep in mind, you will need separate materials for the door sweep (at the bottom of the door) and the top and sides.

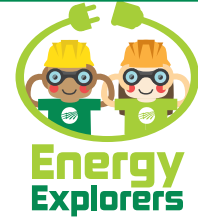
Before applying the new weather stripping, clean the moulding with water and soap, then let the area dry completely. Measure each side of the door, then cut the weather stripping to fit each section. Make sure the weather stripping fits snugly against both surfaces so it compresses when the door is closed.

By completing these simple efficiency projects, you can save energy (and money!) while increasing the comfort level of your home. And you can impress your family and friends with your savvy energy-saving skills.

Abby Berry writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association, the national trade association representing more than 900 local electric cooperatives.

# ENERGY EFFICIENCY QUIZ

Are you an energy efficiency whiz?  
Test your knowledge by taking the quiz below.  
*Hint: Check your answers at the bottom of the page.*



**1. Taking a long bath saves more energy than taking a short shower.**

A) True B) False

**2. LED bulbs typically use \_\_\_\_\_ less energy than incandescent light bulbs.**

A) 75% B) 50% C) 35%

**3. Which of the following is an energy vampire? (Hint: Energy vampires consume energy even when they aren't being used.)**

A) Dishwasher B) Electric mixer C) TV

**4. If you see this logo on a product, it has an excellent energy efficiency rating.**

A) ENERGY SMART B) ENERGY STAR C) ENERGY WISE

**5. Turning off the tap water while brushing your teeth can save up to four gallons of water per minute.**

A) True B) False

## ANSWER KEY

ANSWERS: 1. B 2. A 3. C 4. B 5. A



## Nondiscrimination Statement

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Kimball School received \$1,000 from Central Electric Cooperative's Operation Round Up® program to update their former playground for safety, entertainment and school pride.



# MAKING CHANGE

## Contributions by Co-op Members Add Up for Good

**Brenda Kleinjan**

[editor@sirea.coop](mailto:editor@sirea.coop)

Thirty years ago, South Carolina's Palmetto Electric Cooperative conceived of an idea to benefit residents in the three counties it serves. By having members round up their monthly electric bills, co-op members could have a lasting impact on charitable groups in the area.

Since that beginning in 1989, Operation Round Up® has been an incredibly successful way in which the co-op and its members have been able to help the less fortunate in their community. Through Operation Round Up, Palmetto Electric automatically rounds up a participating member's electric bills to the next highest dollar. For example, a consumer's monthly bill of \$52.73 would be automatically rounded up to \$53, with the additional 27 cents going to the Operation Round Up fund. On an annual basis, the co-op is able to donate roughly \$6 for each participating customer – and that pool of money is then allocated to a variety of worthy causes throughout their service area.

The concept spread nationwide and today, several cooperatives in South Dakota and western Minnesota have the program.



Central Electric Cooperative's Operation Round Up® program awarded \$2,300 to Helping with Horsepower, a therapeutic riding program at Reclamation Ranch outside of Mitchell, S.D., for a lift that allows wheelchair-bound clients to ride horses.

Since 2000, members at Sioux Valley Energy have awarded more than \$1.5 million to community groups, including funding more than \$10,000 in scholarships each year to members and their children.

Across the border at Lyon-Lincoln Electric Cooperative in Tyler, Minn., their Operation Round Up board funds grant requests ranging from fire department requests to school and other educational requests.

Danube, Minn.-based Renville-Sibley Co-op Power Association is launching its Operation Round Up in June.

“All co-ops adhere to the seven cooperative principles, including “Concern for Community.” The Operation Round Up® program is the perfect embodiment of this core principle,” said Lenae Wordes, Renville-Sibley’s communications manager. “The average co-op member donates \$6 with a maximum possible contribution of \$11.88 per year. This may not seem like a large amount, but when combined with nearly 1,900 of Renville-Sibley Co-op Power member accounts, it adds up to make an impact.”

“Renville-Sibley’s program will operate



with a board of trustees that is different from the board of directors for the electric co-op. This allows a group of members to focus on the mission of representing our communities,” said Wordes.

In the Watertown, S.D., area, Codington-Clark Electric’s Operation Round Up has helped 4-H clubs, a child hunger group and a local living history fair.

Central Electric Cooperative in Mitchell, S.D., awarded \$12,500 to 10 groups in November 2018. Among the groups receiving funding were community improvement associations and community centers, speed meters for two cities, 4-H, Habitat for Humanity and other groups. Since launching the program in 2015, the program has made \$72,500 in awards.

“Applications typically come from volunteers in your community who feel strongly about a project and making a difference,” said Courtney Deinert, Central’s manager of communications.

For the past 10 years, members of Oahe Electric Cooperative in Blunt, S.D., have distributed more than \$92,000 to groups and organizations in Hughes and Sully counties. The money raised has helped volunteer fire departments, animal rescue shelters and other groups selected by the Operation Round Up Board of Trustees.

At Elk Point, S.D., Union County Electric Cooperative started its program in 2018. This year, it awarded \$4,000 to four organizations including the local historical society, the Boys and Girls Club, an animal rescue and the local Veterans of Foreign Wars group.

Co-op members at West River Electric Association in Wall, S.D., are also involved. In 2018, the Operation Round Up fund awarded more than \$8,200 to groups ranging from rodeo booster clubs and cemetery associations to ambulance services, athletic groups and pre-school and community groups. One award helped purchase a heater for the New Underwood city pool.

Contact your local cooperative to find out what ways they are involved in their communities and how to participate.



The Letcher, S.D., 4-H “Kids Kountry Club” breaks ground on their new playground area after receiving a \$3,500 Operation Round Up grant from Central Electric Cooperative members.

# Fighting to Keep the Lights On

**Paul Wesslund**

NRECA

Did you know squirrels, lightning and trees have something in common? They can knock out your electricity.

Electric cooperatives work hard to keep your lights on all the time, but “you’re going to have power outages, and that’s just the way it is,” says Tony Thomas, senior principal engineer with the National Rural Electric Cooperative Association (NRECA).

An electric utility’s basic job of keeping the power flowing 24/7 calls for maintaining a complex network of power plants, poles and wires. But it also means battling the unpredictable. Thomas cites the top three troublemakers to electric reliability as trees falling on power lines and other interferences from vegetation, lightning strikes and animals going about their daily routines, especially squirrels chewing on electrical equipment.

“Utilities do an awfully good job,” says Thomas. “But Mother Nature gets in the way sometimes.”

Humans contribute to power outages as well, with vandals deliberately damaging electrical equipment and drivers accidentally crashing into utility poles.

## Statistics say the lights are almost always on.

Numbers collected from electric utilities show that power in the United States is incredibly reliable. According to these figures, the percentage of time that the average American has electricity at the flip of a switch is 99.97... oh forget it, you get the idea. Thomas says what’s most important to know about those numbers is that they don’t change much.

“I don’t see big swings from year to year,” says Thomas. “If things are fairly consistent, that means the utility is operating about as efficiently as it can.”

But utilities still try to improve on that reliability. Among the techniques being used to foil critter catastrophes are snake



When it comes to electric reliability, the biggest challenge is maintaining and updating the massive machinery of the nation’s electric grid. More than 8,500 power plants generate electricity that is shipped through 200,000 miles of high-voltage transmission lines.

barriers around substations, buzzard shields on transmission towers and mesh coverings on wood poles to protect them from woodpeckers.

For some of the other causes of outages like trees and lightning, there’s now an app for that.

Utilities operate extensive right-of-way programs to keep vegetation away from power lines, from clearing underbrush to publicity campaigns asking people not to plant trees where they can fall on power lines. These days, those efforts can be aided by digital software that forecasts the growth of trees and other plants so that utilities can prune branches before they cause a problem.

Other software tries to manage lightning by analyzing the age and wear on the utility’s equipment that minimizes the damage from lightning strikes so it can be

replaced before it fails.

Fighting storms and squirrels are two ways to keep the power on, but by far the biggest part of reliability comes from the decades of building, maintaining and updating the massive machinery of the nation’s electric grid. More than 8,500 power plants generate electricity that is shipped through 200,000 miles of high-voltage transmission lines. Banks of substations and transformers step-down that voltage to send it to homes and businesses through 5.5 million miles of local distribution lines.

Keeping that network up and running calls for a lot of planning among utilities to anticipate how electricity will be used in the future. Part of that reliability planning has focused on protecting the electricity system from computer-based digital attacks.



Electric cooperatives' top priority of keeping power flowing 24/7 calls for maintaining a complex network of power plants, poles and wires. But it also requires preparing for the unpredictable. Electric co-ops are winning the reliability battles against the top three troublemakers: storms, squirrels and hackers.

## The never-ending job of cyber security

Bridgette Bourge is among those over-seeing how digital technology affects reliability for electric co-ops and their consumer-members. As director of government affairs for NRECA, she sees both the positives and the negatives to the latest internet-based, or cyber, technology.

“Cyber helps a lot on reliability because it gives us the ability to monitor and know everything right away,” she says. “But whenever you increase reliability through a technology, you do potentially open up vulnerabilities as well from the security angle.”

For any organization, including electric utilities, the benefits of the internet come infested with mischief makers. Bourge says it's routine for a company to receive tens of thousands of attempts each day to break into its computer network. Those “knocks” at the cyber door can come from individuals, countries and organizations, or from the army of automated “bots” roaming the internet worldwide, testing for weaknesses where a hacker could enter.

For a utility, a troublemaker inside the computer network could affect electric service, and that's why NRECA has organized a variety of cyber reliability programs.

Bourge says those cyber reliability programs aim to help protect against a range of threats, from broad attempts to shut down parts of the electric grid, to more focused efforts to corrupt pieces of software used by electric cooperatives.

**As community-based, member-led businesses, electric co-ops have a unique interest in protecting the reliability of the local community's energy supply.**

NRECA's cyber protection efforts include a national program of working closely with the nation's electric co-ops to share the techniques for protecting utility systems from internet invaders. NRECA also works closely with federal government cybersecurity groups in the Department of Energy and the Department of Homeland Security.

NRECA is also part of a national program to create a cyber mutual assistance agreement. Much like how groups of line-

workers from an electric co-op travel to help restore power after a hurricane, these cyber agreements would be able to utilize teams of information technology experts in the case of a cyber incident.

“You can't solve cybersecurity,” says Bourge. “No matter what you do today, the bad guys are going to figure out a way around it tomorrow. You have to keep thinking about the next step.”

Bourge sees electric co-ops as well-placed to pay attention to cybersecurity. She says as community-based, member-led businesses, electric co-ops have a unique interest in protecting the reliability of the local community's energy supply.

“Electric cooperatives take cybersecurity very seriously,” says Bourge. “It's built into their DNA.”

*Paul Wesslund 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.*

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**December 15-March 31**

South Dakota snowmobile trails season, Lead, SD, 605-584-3896

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**February 21-23**

Sno Jam Comedy Festival, Sioux Falls, SD, siouxfallsnojamcomedyfest@gmail.com

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**February 22-23**

State Wrestling Tournaments, Rushmore Plaza Civic Center, Rapid City, SD, 605-394-4111

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**February 23**

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

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**February 23**

Speaker Series: Paul Horsted, National Parks Yesterday and Today, 1:30 p.m., Suggested donation \$5, Includes admission to the museum, coffee and cookies, High Plains Western Heritage Center, Spearfish, SD, 605-642-9378

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**March 2**

Speaker Series: Rick Mills, Railroading on the High Plains, 1:30 p.m., Suggested donation \$5, Includes admission to the museum, coffee and cookies, High Plains Western Heritage Center, Spearfish, SD, 605-642-9378

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**March 9**

Speaker Series: Dr. Bill Bosch, The German Russians, 1:30 p.m., Suggested donation \$5, Includes admission to the museum, coffee and cookies, High Plains Western Heritage Center, Spearfish, SD, 605-642-9378



**March 15-16**  
28 Below Fatbike Race,  
Lead, SD, 605-584-3435

Photo courtesy: travelouthdakota.com

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**March 9-10**

2019 Gun Show, American Legion Hall, Saturday 9 a.m. to 5 p.m., Sunday 9 a.m. to 3 p.m. MST, Philip, SD, 605-441-8466 or 605-441-1216

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**March 14-16**

SD State Class A Boys Basketball Tournament, Premier Center, Sioux Falls, SD

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**March 14-16**

SD State Class AA Boys and Girls Basketball Tournament, Rushmore Plaza Civic Center, Rapid City, SD

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**March 14-16**

SD State Class B Boys Basketball Tournament, Barnett Center, Aberdeen, SD

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**March 14-16**

Senior Center Fundraising Rummage Sale, Thursday 8 a.m. to 3 p.m., Friday 8 a.m. to 3 p.m., Saturday 8 a.m. to Noon, Lunch, pies and caramel rolls will also be sold, 1306 N 10th St., Spearfish, SD, 605-642-2827

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**March 16**

Speaker Series: Lee Stroschine, Fort Meade - Peace Keeper of the Black Hills, 1:30 p.m., Suggested donation \$5, Includes admission to the museum, coffee and cookies, High Plains Western Heritage Center, Spearfish, SD, 605-642-9378

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**March 17**

High Plains Live! Presents: Aces & Eights, 2 p.m., Tickets: \$10 by phone, in person or online at HighPlainsLive.org, High Plains Western Heritage Center, Spearfish, SD, 605-642-9378

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**March 23**

Speaker Series: Dr. Molly Rozum, Womens Suffrage In South Dakota, 1:30 p.m., Suggested donation \$5, Includes admission to the museum, coffee and cookies, High Plains Western Heritage Center, Spearfish, SD, 605-642-9378

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**March 30**

Speaker Series: Paul Higbee, The Legacy of Leland Case, 1:30 p.m., Suggested donation \$5, Includes admission to the museum, coffee and cookies, High Plains Western Heritage Center, Spearfish, SD, 605-642-9378

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**April 5-6**

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

**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.**