

South Dakota Electric

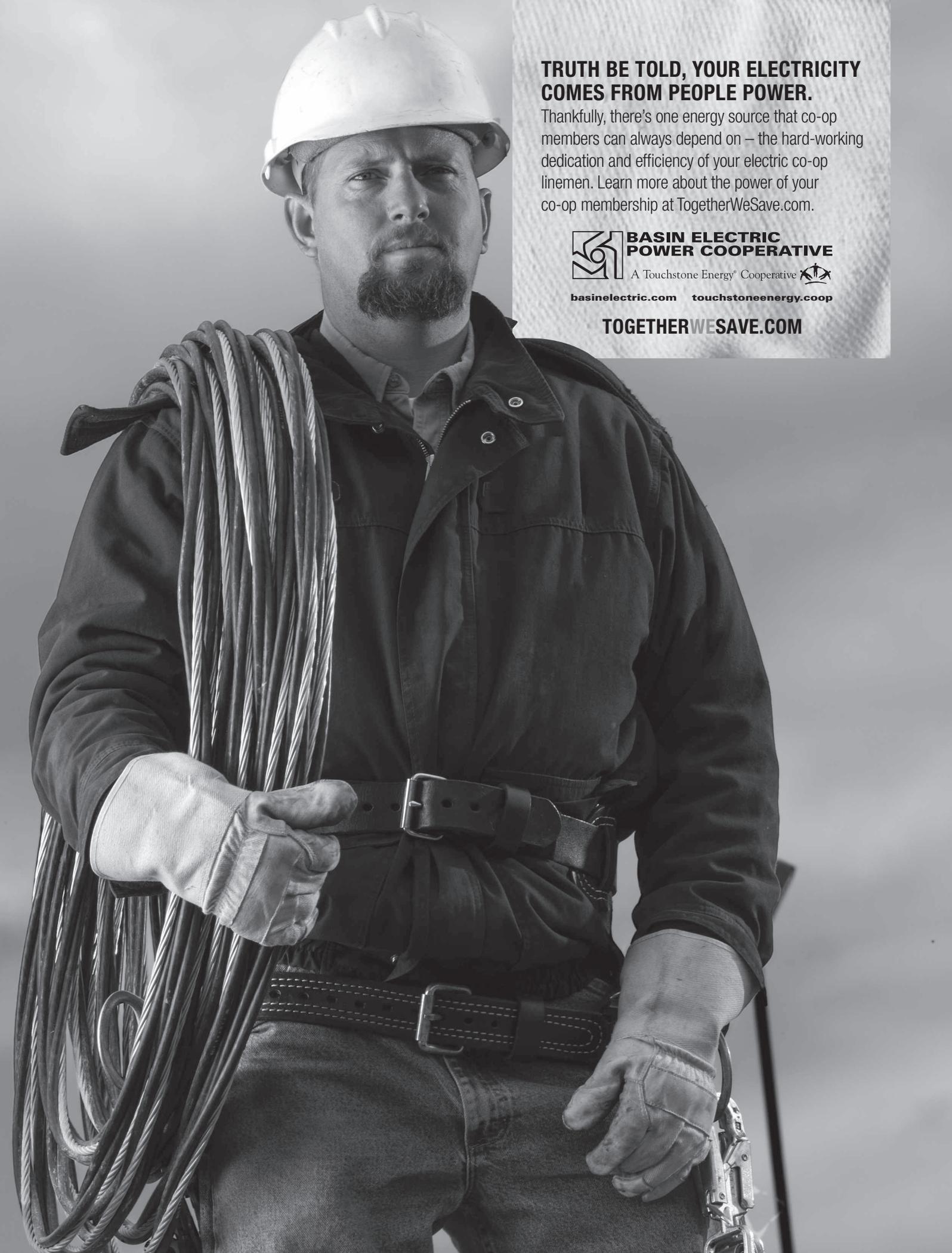
Your Touchstone Energy® Partner 

Cooperative Connections

FEBRUARY 2015 VOL. 67 NO.2



**CONNECTING THE DOTS:
DAKOTA RISING BUILDING COMMUNITIES** Pg-8



**TRUTH BE TOLD, YOUR ELECTRICITY
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West River Electric, Wall, S.D.
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Looking Out for Our Co-ops and their Members



Ed Anderson
General Manager, South Dakota
Rural Electric Association

As January turns to February, our state and national elected officials are settling down to the business of governing.

Keeping abreast of what our elected leaders are doing, and the decisions they are making, is important to all of us as citizens of a democracy. In the classroom, we learned how government was supposed to work, how the three branches of government held one another in check to ensure that well thought-out laws would be enacted. As we grew older, we may have become more jaded as we watched our government grind to a halt last fall. And now, our state leaders are in Pierre for the 90th Legislative Session. With the

best of intentions, they will consider many bills – more than 500 are typically introduced each session, and this year will likely be no different (more than 120 bills were already drafted, awaiting lawmakers' arrival in Pierre for the start of session.)

As lawmakers wade through the merits of these bills, they weigh what impact such proposed laws will have on all of us. As part of their information gathering, lawmakers listen to lobbyists – including those working on your behalf through your local electric cooperative. They also listen to their constituents – you, the co-op member. In fact, your voice is one that carries much strength.

More than 325,000 South Dakotans receive power from their local electric cooperatives. These people expect that the co-op they own will do what they can to ensure that safe, reliable and affordable electric power is provided. One part of keeping electric power bills affordable is keeping a watchful eye on regulations and legislation at the state and federal level. That's where your co-op's statewide association, the South Dakota Rural Electric Association, and national arm, the National Rural Electric Cooperative Association, come in.

At times, this means that we actively promote legislation that benefits co-op members. At other times, it means that we work to reshape legislation that would be detrimental to our members.

Co-ops also work to ensure reliable power by keeping their members informed and engaged. Co-ops know that their members form the foundation of the co-op. They are the owners of the co-op. They elect their neighbors to make decisions for the co-op. And, they ask their members to contact their elected leaders on issues.

In March, electric co-ops will host their third Electric Co-op Day at the Capitol when they bring in electric co-op members and employees to watch our legislature in action and learn more about the process of government. We hope to see you there on March 3.

Stay Informed, Stay Involved

As state lawmakers across the region head back to their respective capitols, it's important for citizens to stay involved in the political process.

Lawmakers often say they want to hear from their constituents on issues that matter at home. With that in mind, here are ways to contact your elected officials:

Minnesota

According to the Minnesota State Legislature website, you can call, email or write a letter to your legislator's office in St. Paul. Email is most effective if it is not a blanket mailing to all members. When sending an email, remember to include your name, postal address and phone number.

To find specific contact information for your senator, go to <http://www.senate.leg.state.mn.us/members/index.php?ls=#header>. To find contact information for your representative, go to <http://www.house.leg.state.mn.us/members/hmem.asp>.

Nebraska

Contacting members of Nebraska's unicameral legislature in Lincoln is most easily achieved via the Legislature's website at <http://www.nebraskalegislature.gov/>. From there, access the Contact page (http://www.nebraskalegislature.gov/senators/senator_list.php) to find the Nebraska senator representing your area.

South Dakota

South Dakotans can contact their senators and representatives in Pierre through the Legislative Research Council by visiting <http://legis.sd.gov>

Contact information for specific legislators can be found at http://legis.sd.gov/Legislators/Who_Are_My_Legislators/default.aspx

Phone messages can be left for senators at 605-773-3821 while messages for representatives can be left at 605-773-3851.

Good To Know

If you're calling about a specific piece of legislation, it is best to find out the House or Senate file number (bill number) and status before you contact your legislator. Legislators consider hundreds of pieces of legislation each session.

National Burn Awareness Week is Feb. 1-7

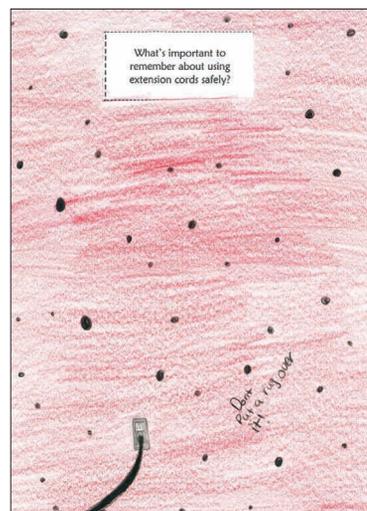
The smell of cookies baking in the oven or tasty sauces simmering on the stovetop is hard to resist for adults and children alike. However, before you dip your finger into the pot to taste that delicious soup, know that scalds from cooking liquids, grease and food, as well as tap water and steam were responsible for 46 percent of all burns in 2012. Of these, 53 percent of the victims were children under five and most of these burns occurred in the home – usually in the kitchen or bathroom.

While thousands of scald burns occur annually, increased awareness of the dangers can prevent injuries. Following a few simple precautions will help keep you and your little chef safe from potential burns:

- Cool a burn under cold running water for 10-15 minutes and call 9-1-1 for serious burns.
- Always supervise children in the kitchen and dining areas.
- Create a "No Child Zone" while preparing and serving hot foods and beverages.
- Don't carry or hold a child while cooking on the stove. Instead, place the child into a high chair or other safe area while cooking.
- Children love to reach, so to prevent hot food or liquid spills, simply use the back burner of your stove and turn pot handles away from its edge; also, keep hot foods away from the edge of your counters.
- Keep clothing from coming in contact with flames or heating elements.
- A small adjustment to your water heater can give you one less thing to worry about. To prevent accidental scalding, set your water heater to 120 degrees Fahrenheit or the manufacturer's recommended setting.
- Make a habit of placing matches, gasoline and lighters in a safe place out of children's reach and avoid novelty lighters as they may look like toys in a child's eyes.
- When filling the bathtub, turn on cold water first then mix in warmer water carefully.

Source: *mass.gov*

Kids' Corner Safety Poster



"Don't put a rug over extension cords."

**Emily Ohlrogge,
10 years old**

Emily is the daughter of Keith and Leslie Ohlrogge, Woonsocket, S.D. They are members of Central Electric Cooperative, Mitchell, 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.



Bountiful Brunch

Daisy Baked Hash Browns

- 1 pint sour cream
- 2 cups shredded cheese
- 2 lb. bag hash browns, thawed
- 2 cups corn flakes
- Chopped onion
- 1/2 cup melted butter
- 1 can cream of chicken soup

Combine sour cream, hash browns, chopped onion and soup. Place in 9x13-inch pan. Add shredded cheese. Sprinkle corn flakes on top and drizzle melted butter over corn flakes. Bake, uncovered, at 350°F. for 1 hour.

Darlene Price, Prairie City

Green Chile Egg Bake

- 12 eggs, beaten until fluffy
- 2 (4 oz.) cans diced green chiles, undrained
- 8 oz. Monterey Jack cheese, shredded
- 1 cup cottage cheese
- 8 oz. Pepper Jack cheese, shredded
- 4 oz. (1 stick) butter, melted
- 1/2 tsp. salt
- 1 T. baking powder
- 1/8 tsp. pepper

Combine all ingredients and pour into a 9x13-inch pan (glass works best.) Bake, uncovered, at 350°F. until set. Serve with salsa and sour cream.

Nancy Stenson, Fort Pierre

White Tail Ridge Orange French Toast

- 1 lb. day-old bread, unsliced
- 1-1/2 cups orange juice
- 3 eggs
- 1/4 cup sliced almonds, toasted
- 3 egg whites
- 1 cup water
- 1/4 cup sugar
- 1 cup light brown sugar
- 1/4 tsp. salt
- 1 cup light brown sugar
- Grated zest of 1 orange
- 6 oz. frozen orange juice concentrate
- 1 tsp. almond extract

Cut bread in 16 slices about 1/2-inch thick. In a shallow dish, whisk eggs, whites, sugar, salt, zest and almond extract. Stir in orange juice. Dip bread slices into juice mixture until thoroughly soaked. Transfer slices to a baking sheet as you work. Drizzle any remaining liquid over slices. Cook slices on a large, hot griddle until golden. Transfer to a clean baking sheet. Place in oven and bake at 375°F. for 10 minutes. While toast is baking, make syrup. Mix water and brown sugar in a small saucepan; bring to a boil. Reduce heat to medium-low and simmer 1 minute. Add orange juice concentrate; cook until hot, about 1 minute, while stirring. Sprinkle toast with almonds and serve with syrup.

Darcy Bracken-Marxen, Hermosa

Hearty Oatmeal

- 1-3/4 cup lowfat or fat free milk
- 1/8 tsp. ground cinnamon
- 1 cup old fashioned or quick cooking oats (not instant)
- 1/4 cup sliced strawberries
- 1 tsp. brown sugar
- 1/4 cup dried cherries
- 3 T. toasted sliced almonds (3/4 oz.)

Combine milk, oatmeal, brown sugar and cinnamon in saucepan; bring to a boil over medium-high heat. Stir often to prevent boiling over. Cook until thickened. Divide between two serving bowls and top with strawberries, cherries and almonds. Serve immediately. Makes: 2 servings

Nutritional information per serving: 510 calories; 8 g fat; 0 g saturated fat; 10 mg cholesterol; 25 g protein; 87 g carbohydrates; 8 g fiber; 0 mg sodium; 600 mg calcium (60% of daily value). Nutrition figures based on using fat free milk.

Pictured, Cooperative Connections

Hash Brown, Sausage & Bacon Frittata

- 1/2 pkg. of shredded hash browns
- 6 sausage links, diced
- 1/2 cup melted butter
- 8 slices bacon, diced
- 2 cups shredded Mexican cheese
- 1 cup milk
- 2 cups shredded Cheddar cheese
- 9 eggs
- Salt and pepper to taste

Place hash browns into lightly sprayed 9x11-inch pan, press down evenly to form a crust. Drizzle butter evenly over crust and bake at 425°F. for 25 minutes. Place cheeses, sausage and bacon over hash brown crust. Blend milk and eggs together; pour over all. Reduce heat to 350°F. and bake an additional 30 minutes.

Mary Metz-Carda, Hurley

Bacon Cheese Puff

- 5 green onions, chopped tops and all
- 12 slices white bread, quartered
- 3/4 cup chopped red, green or yellow peppers
- 8 oz. Swiss cheese, shredded
- 8 slices bacon, cooked and crumbled or Canadian bacon, cut into pieces
- 8 eggs
- 4 cups milk
- 1-1/2 tsp. salt
- 1/4 tsp. pepper

Cook onions and peppers until soft in bacon grease, if available. Arrange 1/2 bread slices in single layer in bottom of greased 9x13-inc pan. Sprinkle with 1/2 bacon, onions, peppers and cheese. Repeat layers again with bread, onion, peppers, bacon and cheese. Pour beaten eggs, milk, salt and pepper over top layer in pan. Refrigerate overnight. Bake at 350°F. 50 minutes or until eggs are set and top is puffed and golden.

Caroline Bochman, Tyndall

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

Efficient Indoor Lighting for Your Home



Jim Dulley
www.dulley.com

Dear Jim: We are remodeling some rooms in our home and need new lighting options. I always used 60- and 100-watt bulbs, but they are difficult to find now. What new types of lights are best to use? – Michael S.

Dear Michael: The standard high-wattage incandescent bulb technology is certainly not illegal, but it does not meet the current energy efficiency standards. Also, the bulb life is very short when compared to newer-technology standards, so the overall cost of using the older bulbs is high.

The wattage of a light bulb refers to how much electricity it consumes, not how much light it produces. The amount of light is measured in units called lumens. A 60-watt incandescent light bulb produces about 800 lumens of light and a 100-watt bulb about 1,600 lumens.

Today, your primary choices of bulb are halogen, CFLs (compact fluorescent lights) and LEDs (light emitting diodes), which I listed in the order of increasing efficiency. For many home applications, LEDs are the best choice even though they cost more initially.

Halogen bulbs are basically incandescent bulbs with halogen gas around the filament to improve efficiency enough to meet efficiency standards. CFLs are much more efficient, using only about 25 percent as much electricity as incandescent bulbs to produce the same amount of light – and they last 10 times longer.

Today's CFLs have improved when compared to the original versions. Instant start models are available and some are dimmable using a standard dimmer wall switch. The types of phosphor layers on the inside surface of the bulb determine the light quality and color.

CFLs can produce true full-spectrum (simulates natural sunlight) light quality and can be purchased with warm white, cool white and daylight color temperatures. Many people objected to the cool white (bluish) color temperature of the early CFLs – they wanted something that mimicked the color of incandescent lamps (warm white). Daylight lamps have an even higher color temperature and they produce more accurate colors and are good for tasks such as reading and painting.

LEDs are the newest and most efficient light source available and provide an excellent payback. A 12-watt LED produces as much light as a 60-watt incandescent bulb. The LED

bulb should also last a minimum of 20,000 hours. Most of them are dimmable, work well at cold temperatures and reach full brightness immediately.

LEDs gradually get dimmer over time. When a LED is rated for 20,000 hours, its output will stay above 70 percent of its original brightness for that time.

If you have been using incandescent bulbs, you are probably accustomed to a yellowish light quality. This is called the “color temperature” of a bulb. Incandescent bulbs are in the 2700-degree K range. The whiter “daylight” LEDs and CFLs are in the 4,000- to 5,000-degree K range. Most people grow accustomed to the whiter light and prefer it. The color temperature is listed on the packaging.

CRI (color rendering index) is another quality of the light bulb to consider. A higher CRI makes objects in a room look more like they would look under natural sunlight. A CRI above 80 is considered adequate for homes, but 90 or above makes everything look better and doesn't cost much more.

There are four general types of lighting uses – ambient, accent, decorative and task. Ambient lighting is for general illumination with comfortable brightness. Accent lighting can create a mood in the room or highlight areas or objects. Decorative lighting is when the light itself is the object, such as a chandelier. Task lighting is for reading or doing a specific activity.

For effective lighting in your new rooms, install several grouped circuits with dimmers to control and vary the lighting schemes. For example, choose high-CRI bulbs over a dining table to enhance the appearance of food. An overhead high color-temperature bulb above a chair would be good for reading or other tasks.

For existing rooms, where it may not be easy to rewire or add circuits, switch to LEDs in most fixtures and install dimmer wall switches. There are many new types of LEDs available to replace almost any incandescent bulb. Unlike incandescent bulbs, LEDs do not lose efficiency as they are dimmed.

The goal for lighting efficiency is to use as little lighting as needed. Where you do not have a wall switch, such as with a table lamp, install a three-way socket and use a new three-way LED. Add a four-bulb lighting kit to a ceiling fan with a switch to allow you to switch on fewer than all four lights.

Remember to turn off lights when you leave a room. A rule of thumb for CFLs is to switch them off if you plan to be out of the room for 15 minutes or more. Switching them on and off more often will shorten their life. Contrary to popular belief, with the new electronic ballasts, “switching” does not use a large amount of current each time they're switched on.

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

Thune Urges EPA to Withdraw Proposed Power Plant Regulations

U.S. Sen. John Thune (R-S.D.) has sent a letter to Environmental Protection Agency (EPA) Administrator Gina McCarthy calling on the EPA to withdraw its proposed regulations on existing power plants, citing the significant financial burdens it will impose on South Dakota consumers, as well as technical infeasibilities that will drive up energy costs and threaten grid reliability.

“The Obama administration’s proposed power plant regulation is yet another example of presidential executive action that Americans clearly rejected in November as it will hurt jobs and increase costs,” said Thune. “The president’s proposed regulation is a national, backdoor energy tax that will slam South Dakota rate payers – especially low-income families and seniors living on fixed incomes. Affordable and reliable energy provides essential comforts for families across the country this winter and powers American industries to build a stronger economy. Yet the EPA’s proposal will make electricity rates skyrocket and stifle economic growth. I continue to urge Administrator McCarthy to reconsider.”

On June 2, 2014, the EPA proposed the Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, or Clean Power Plan, requiring a 30 percent reduction in carbon dioxide emissions from existing power plants by 2030. Under the proposed rule, South Dakota power plants must reduce carbon dioxide emission rates 35 percent by 2030 based on emission levels from 2012. This reduction mandate is more stringent than the national average for the EPA’s proposed reductions. According to testimony provided to the South Dakota Public Utilities Commission in July of 2014, South Dakota consumers could see their electricity bills increase by as much as 90 percent on account of this regulation, a release by Thune said.

South Dakota PUC: EPA’s Proposed Clean Power Plan Wrong for South Dakota

The U.S. Environmental Protection Agency’s proposed plan to regulate carbon emissions from existing power plants will have harmful results on the reliability and affordability of electricity in South Dakota if implemented as it is currently written, warned the South Dakota Public Utilities Commission. The PUC responded to the EPA’s call for comments to its Clean Power Plan by thoroughly analyzing the proposal, discussing effects with South Dakota stakeholders and submitting extensive written comments to the federal agency this month. Those comments can be read on the PUC’s website at www.PUC.SD.gov/energy/111dcomments.aspx

In mid-June of last year, the EPA rolled out its proposed rule to regulate carbon emissions from existing power plants under the Clean Air Act §111(d). The agency initially opened a comment period until mid-October for the myriad parties that would be affected by the complex rule to share their concerns. The EPA extended the comment period to Dec. 1, after receiving feedback from numerous parties about the compressed timeline. The EPA expects to finalize the rule by June 1, 2015. States will be required to submit their plans on how to comply with the rule by June 30, 2016. The South Dakota Department of Environment and Natural Resources will be responsible for compiling and filing the state plan with the EPA.

In its proposed rule, the EPA specifies carbon reduction goals for the state that are based on national or regional averages with no consideration for the production and dispatch of energy in South Dakota that crosses state boundaries. The existing power plants in South Dakota targeted by the EPA’s proposal are the Big Stone Plant, a coal-fired plant near Milbank jointly operated by Otter Tail Power Co., North Western Energy and Montana-Dakota Utilities Co.;

and Deer Creek Station, a natural gas combined-cycle plant near Elkton owned by Basin Electric Power Cooperative. The EPA’s proposal does not give credit for carbon-free electricity generated by hydropower plants located along the Missouri River in South Dakota.

Among the concerns of PUC commissioners Gary Hanson, Chris Nelson and Kristie Fiegen are the proposal’s use of flawed assumptions and suggestions of carbon emission reductions that are not technically feasible, resulting in dramatic increases in the cost of electricity to consumers and a reckless disregard for electric reliability.

The PUC’s written comments focus on four primary elements: educating the EPA about the state’s electric industry; identifying concerns with EPA’s short compliance timeline; identifying technical issues with the building blocks EPA has specified for states to use to comply with the Clean Power Plan; and providing economic impacts forecasted for South Dakota.

“The EPA’s proposal will be destructive to our economy,” said PUC Chairman Hanson. “Environmental prudence should be part of national energy policy. I also firmly believe that energy must be affordable and reliable. I am frustrated that the EPA’s plan obviously bypasses essential facts about South Dakota’s reality. If the plan is unchanged, our state’s consumers will pay dearly,” he concluded.

“This plan concerns me to the core and the PUC will continue to do all that we can to moderate its impact to South Dakota consumers, farmers and business people,” said PUC Vice Chairman Nelson.

“It is important that South Dakota energy consumers know that the PUC will continue to dig our heels in and advocate for rational and reasonable solutions on their behalf,” said Commissioner Fiegen.

Dakota Rising Helps Communities Connect the Dots

BE THE CHANGE YOU WANT TO SEE IN YOUR COMMUNITY. That take on Mahatma Ghandi's famous quote about changing the world is a driving force for the communities and individuals engaged in the various programs of Dakota Resources.

By
Brenda Kleinjan

"One of the things we learned early on is that capital is not the only resource needed for successful economic and community development – or development of a successful organization," said Beth Davis, president of Dakota Resources Economic and Leadership Development headquartered in Renner, S.D.

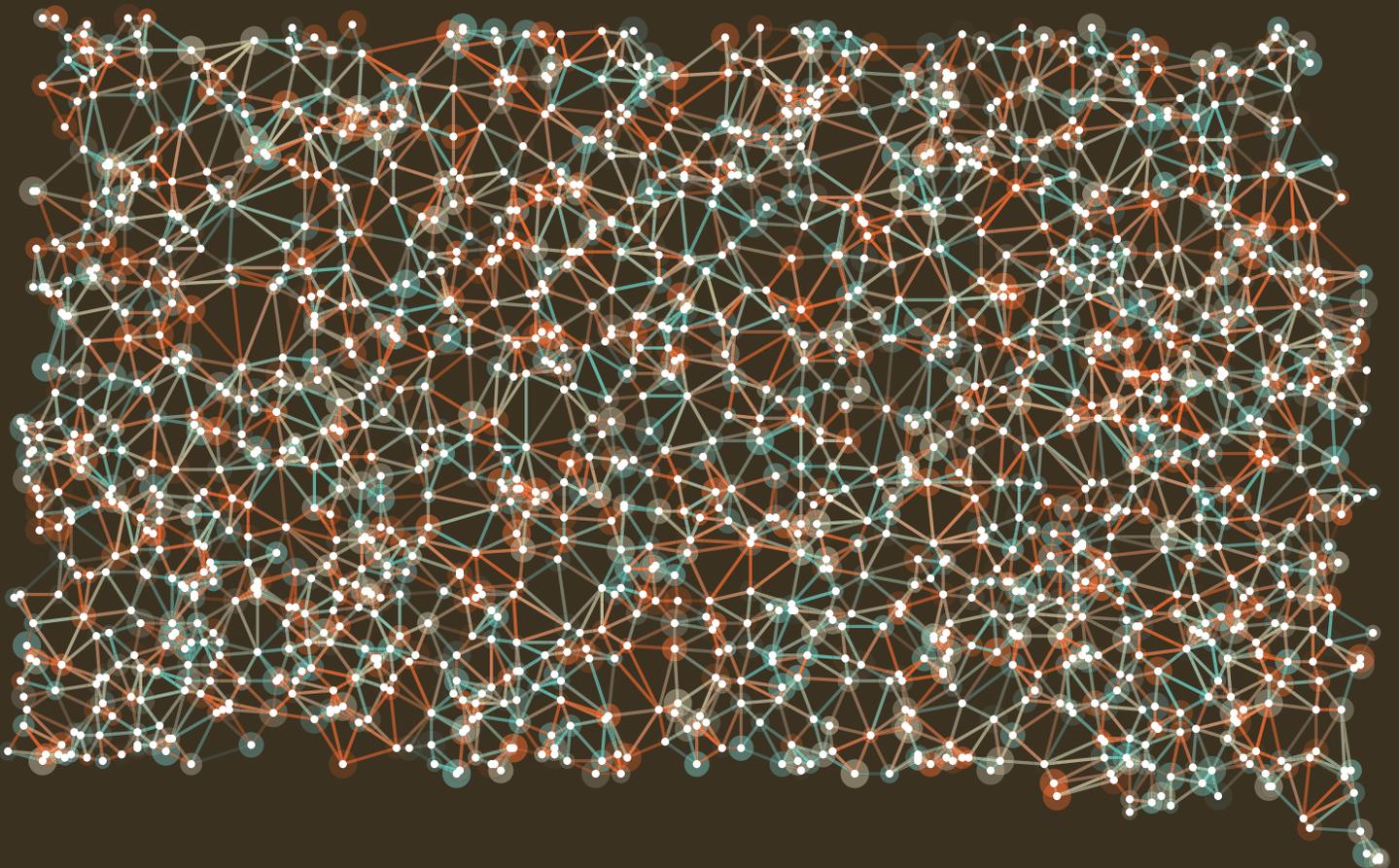
"We have been able to accomplish what we have through connecting the dots, with resource organizations and the communities and entrepreneurs we serve," Davis said.

Since 2008, communities across South Dakota have worked with Dakota Resources to assess, energize and facilitate community change. Dakota Resources is a state-wide nonprofit focusing on helping rural communities realize their community and economic goals.

While the efforts vary depending on each community's specific needs, the one of the elements that makes change possible is effective and engaged community coaching.

In 2014, Southern Charles Mix Dakota Rising was added as a new Community Site for the entrepreneur development program, Dakota Rising.

As a Dakota Rising Community Site, Southern Charles Mix Dakota Rising will participate in a





times a year for three-day conferences in addition to online meetings. The sharing among Fellows grows companies and grows a Fellow's business confidence. Becoming a Fellow adds a level of accountability that encourages action. Fellows receive assistance from their closest Dakota Rising community site, as well as from Dakota Resources. The South Dakota economy relies on the growth of rural businesses and Dakota Rising can help those small business entrepreneurs accelerate that growth.

"Sometimes it just gives you the confidence to keep following your dream and work through the problem," said Chad Homan of Homan Welding in Faulkton.

statewide learning community working together to share best practices around entrepreneurship development and retention and expansion strategies.

Other communities participating in the program include Southern Hills on the Rise (Fall River and Custer counties), Dakota Rising Aberdeen (Brown County), Faulkton Area Dakota Rising (Faulk County) and Dakota Rising Lawrence County.

"What this program has allowed us to do is bring together all the different energies in our community together under one roof," said Joel Price, Faulkton Area Development Corporation, in a video about the community's involvement with Dakota Rising.

The Dakota Rising Community Sites often work in conjunction with Dakota Resource's other programs – Home Address and the Capital Investment Fund.

Dakota Rising is a three-year Dakota Resources program that helps rural entrepreneurs discover new ways to grow their business. Dakota Rising mentors entrepreneurs who have passion, drive and a will to take their companies to the next level. The program's goal is to help businesses all over rural South Dakota become more successful, put more people in their community to work and help entrepreneurs better manage their businesses. Dakota Rising strategically partners with local communities to help entrepreneurs and business people grow their businesses.

"Dakota Rising is not just about making your business itself better, it's about making your business better for your community," said Kelly Melius, Common Sense Mfg. in Faulkton.

The Dakota Rising program was launched in 2008 by Dakota Resources and a Design Team made up of a variety of stakeholders in rural development. Since then, dozens of entrepreneurs have accelerated their business growth and have taken advantage of the insight, ideas and experience of other Fellows. The Dakota Rising community meets three

A Dakota Rising Fellow is a person who has taken a startup business to a viable, profit-earning stage and is poised for the next level of growth. After successfully completing the application process and being chosen, Fellows are connected to a community of statewide resources, mentors and financial experts. Personal and business growth strategies are developed while working in a small cohort where Fellows help one another despite vastly different industries and experiences. After one year in the program, each Fellow is awarded a \$10,000 grant to support professional growth and business expansion.

Participants in the programs agree that the Dakota Rising programs help improve their communities.

"If they can employ two or three or more people, that's more pay checks in town, said Dwight Hossell of Dacotah Bank. "If even 50 percent of those pay checks are spent in town on rent or groceries or recreation, that just helps impact everybody so everybody's life is a little better."

Melius sums up the experience with this: "It's about making our town better."



Efficiency Upgrades that **Make Sense**

By
**Brian
Sloboda**

WHEN IT COMES TO ENERGY EFFICIENCY, THERE are two ways to measure improvements. The first is the payback period. This is the amount of time that the improvement will pay for itself. The second is comfort. Improvements can often increase the comfort level of a home. This is not easy to measure, but it is one of the driving forces behind home weatherization efforts. There are several areas of the home that can be improved easily, without breaking your budget.

Lighting

In recent months, the price of LED lamps for residential consumers has steadily declined. 60-watt equivalent LED lamps can be purchased at many big box retailers for \$10 or less. LEDs

can save 60 percent or more when compared to incandescent bulbs – and last for several years. It should be noted that care should be taken when selecting a bulb for a fixture that uses a dimmer, as not all dimmers will work with LED bulbs. There are also flickering issues with poorly made LEDs.

Heating and Air Conditioning

The Energy Information Agency estimates that heating and air conditioning account for 22 percent of a typical home's annual electric bill. Options such as an air-source heat pump or a ground-source heat pump can be 20 percent to 45 percent more efficient than the existing heating or cooling system in the average home. However, the up-front cost is often a barrier to adoption.



Right: Changing air filters at least every three months will increase airflow to rooms, increase the life of the HVAC unit's motor and improve the air quality of the home.
Above Inset: The price of LED lamps has come down in recent years and can save home owners plenty.



Simple solutions such as changing air filters at least every three months will increase airflow to rooms, increase the life of the HVAC unit's motor and improve the air quality of the home. Sealing and insulating ductwork can be completed in a weekend and result in energy savings of up to 20 percent.

By locating and correcting air leaks, you can lessen the amount of work that heating and cooling systems need to do. To locate leaks, walk through your home on a cold day and feel for drafts around exterior doors and windows, electric outlets and entrance points for TV and telephone cables. In basements, target dryer vents, gas lines or any place with an opening in the wall. To fix leaks, apply caulk, spray foam or weather stripping to these areas.

Simple acts, such as cooking outdoors on a hot summer day and keeping curtains closed to keep out summer sun, will keep the interior of the home cooler and reduce the amount of time air conditioning units need to operate.

Simple acts, such as cooking outdoors on a hot summer day and keeping curtains closed to keep out summer sun, will keep the interior of the home cooler and reduce the amount of time air conditioning units need to operate.

Appliances and Electronics

The appliances and gadgets that make life easier are also the largest users of electricity in our homes. When buying a new appliance, look for the ENERGY STAR® label. This simple act can result in 10 percent to 15 percent more in energy consumption savings. Some states have adopted ENERGY STAR holidays where the sales tax is waived on the purchase of qualifying ENERGY STAR-rated appliances.



More simple household tips to boost energy efficiency include:

- Cleaning lint traps on dryers and not over-drying clothes will save energy and extend the life of your clothes.



- Replacing worn refrigerator gasket doors will stop cool air from leaking from the refrigerator.
- Clean refrigerator coils and keep refrigerators away from heat-generating appliances such as an oven.

Home electronics, such as computers, TVs, DVD players and other modern devices, consume power even when turned off. This phenomenon is called parasitic load and sometimes these devices are referred to by the more playful term, “energy vampire.” According to a study conducted by the Lawrence Berkeley National Laboratory, the average home loses 8 percent of its monthly energy consumption to these energy vampires. A full 75 percent of the power used to run home electronics is consumed when those appliances are turned off, according to the U.S. Department of Energy. Cutting off power by using a power strip or a smart strip is the best way to stop this senseless loss of energy.

The best energy efficiency improvements are often the easiest. Turning lights off when leaving a room, sealing windows and doors and cleaning refrigerator coils isn't as much fun as buying a shiny new appliance. But these simple jobs are proven ways to save energy and increase comfort.

Brian Sloboda is a program manager specializing in energy efficiency for the Cooperative Research Network, a service of the Arlington, Va.-based National Rural Electric Cooperative Association.

The Cooperative Research Network monitors, evaluates and applies technologies that help electric cooperatives control costs, increase productivity and enhance service to their consumers.

Above: The simple act of turning off lights when leaving a room is one of the most simple and effective energy efficiency improvements you can make. **Below left:** Look for the ENERGY STAR® label when purchasing new appliances.

Building Block No. 3

Renewable and Nuclear Power

AMONG THE ENVIRONMENTAL PROTECTION AGENCY'S building blocks that comprise the agency's proposed greenhouse gas rule for existing power plants under section 111(d) of the Clean Air Act is the block calling for increased renewable and nuclear power.

The block would reduce carbon dioxide emissions by closing or curtailing coal plants and substituting that generation with power from existing and new zero-CO₂-emitting nuclear and renewable power sources.

The block would allow existing nuclear power plants that are at risk of shutting down to remain open and additional renewable power generation sources could be added nearly nationwide.

Many – including the nation's electric cooperative association and the governor, public utilities commission and attorney general of South Dakota – claim that the building block exceeds the EPA's legal authority under 111(d).

But, beyond that basic, fundamental objection, other concerns emerge.

In his comments to the EPA about the proposed

rule, South Dakota Gov. Dennis Daugaard pointed out that approximately 74 percent of South Dakota's electric production in the 2012 base year was renewable energy. Further, he pointed out that only three states emitted less carbon than South Dakota.

Among the concerns about Building Block 3 expressed by the governor was how the state's renewable energy goal was calculated and how hydropower – which accounted for nearly half of the state's megawatt-hour generation in 2012 – was calculated.

In its filing on the rule, the South Dakota Public Utilities Commission writes, "the proposed rule does not allow existing hydropower to count toward complying with a state's goal...Annual production, however, is dependent on river management rather than demand for electricity. Therefore, a large portion of the state's generation is outside anyone's control.

"Yet because hydropower is used in calculating the required amount of renewables, the state is effectively penalized as a result of its carbon free source of power," the PUC comments continued.

By Brenda Kleinjan

While hydroelectricity accounted for more than 50 percent of South Dakota's electric generation in 2012, the way the renewable power source was – and wasn't – calculated in the EPA's proposed building block caused concern for many.



EPA's "Building Blocks"

The PUC also expressed concerns with how the EPA calculated the renewable goal. Beyond the issues with how hydropower is or is not included in the goal, there is an issue with how wind power and other renewables are counted.

The PUC noted that in calculating the state's renewable goal, it included all generation used in the state. However, the EPA noted that complying with the goal will involve the ownership of renewable energy certificates (RECs). [RECs were developed to facilitate the tracking of renewable energy, allowing purchasers of renewable energy to claim attributes and benefits of that specific renewable resource.]

The PUC noted that wind generation was approximately 24 percent of generation produced in South Dakota in 2012 (the EPA's baseline year). However, a majority of the RECs associated with that wind generation was contracted to out-of-state utilities for compliance within their own states.

In his comments, Gov. Daugaard pointed out that five of nine states in the region that EPA included South Dakota in cannot meet their respective renewable standards without using renewable energy that is produced in another state.

The PUC noted that if the EPA's final rules call for the RECs to follow purchase contracts, then the majority of South Dakota-generated RECs would flow out of the state. This would require that additional wind generation be built in the state to meet the renewables goal established by the building block. The PUC calculated that this would cost South Dakota consumers more than \$870 million. Costs for wind integration and major transmission and intermediate generation investments would also be needed and would greatly add to the costs.

The National Rural Electric Cooperative Association notes that electric cooperatives have worked diligently to diversify their energy resource portfolio. In fact, in 2012, South Dakota had 784 megawatts of installed wind generation; more than 300 megawatts of that generation were electric cooperative projects.

NRECA also notes that co-ops have doubled their renewable energy capacity since 2009.

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

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

According to the American Coalition for Clean Coal Electricity, the EPA's proposed rule – encompassing its four building blocks – could force the retirement of 30,000 megawatts to 80,000 megawatts of coal-based generation and could cause more than 200,000 jobs to be lost in 2020.

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

The public comment period on the EPA's proposed rule closed on Dec. 1. The EPA intends to issue a final rule in June of 2015 and states will then have one year to develop implementation plans or if they collaborate on multi-state or regional plans, they are allowed two years to develop their plan. Case by case, states can seek a one-year extension from the EPA. Therefore, in some states it may take until June of 2018 to fully understand what compliance with this proposal will mean.

For more on the comments filed by South Dakota go to <http://www.puc.sd.gov/energy/111dcomments.aspx>

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

COAL PLANT EFFICIENCY

Make physical and operational changes at existing coal-based power plants to improve heat-rate efficiency by 6 percent, which reduces the amount of coal needed per MWh of generation, thereby reducing CO₂ emissions.



NATURAL GAS

Existing natural gas combined-cycle plants are used more or less frequently, depending upon a variety of factors. EPA's CO₂ reduction goals are based on dispatching those natural gas plants more frequently (up to 70 percent capacity factor) while closing or curtailing existing coal-based generation sources.



RENEWABLE AND NUCLEAR POWER

Nuclear power and renewable resources like hydro, wind and solar power do not have direct CO₂ emissions. EPA's goals are based on keeping some existing nuclear power plants (that are at risk of closing) operating, ensuring that new nuclear plants under construction get finalized, and that more sources of renewable energy are developed.



CONSUMER ENERGY EFFICIENCY

Improving energy efficiency by consumers reduces the need for power generation. EPA's CO₂ reduction goals envision all states increasing energy efficiency programs to result in the avoidance of 1.5 percent of energy demand per year.



STATE CARBON INTENSITY GOAL

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

Bridgeway to the Bakken

Bakken Oil Boom Benefits Neighbor to the South

NORTH DAKOTA'S OIL BOOM IN THE BAKKEN HAS undoubtedly impacted that state's economy.

Revenues have soared, communities have seen growth that has strained resources as populations have exploded.

In South Dakota, highways appear busier with large loads trekking northward. But, what may surprise many is some of those loads are originating in South Dakota as they bring goods and services to northwestern North Dakota's Bakken region.

The South Dakota Governor's Office of Economic Development touts the state as "a prime location for companies in the oil and gas industry."

It notes that the oil-rich Bakken Shale is less than

100 miles away. The Williston Basin extends into the northwestern portion of South Dakota, making it an easy drive from the state's major cities.

The state's economic leaders have been working to promote South Dakota's productive agricultural and manufacturing bases provide solid ground for ancillary oil businesses.

With a number of suppliers transporting goods to the Bakken daily, South Dakota has proven to be a great location for businesses in the oil and gas industry, the GOED says.

Check out the listing on Page 15 of South Dakota businesses affiliated with the oil and gas industry.

**By Brenda
Kleijan**



South Dakota Oil and Gas Companies

as listed at <http://sdreadytowork.com/Key-Industries/Oil-Gas.aspx>

Company	Location	Description	Company	Location	Description
Adams ISC	Rapid City	Pipe and vessel, build and repair, hydraulics and large pump repairs	Horizontal Machining and Manufacturing	Huron	Fabrication, machining, measuring, welding, and fixturing services
American Engineering Testing, Inc.	Rapid City	Geotechnical, environmental, materials and forensics consulting and testing services	Integra Plastics	Madison	Fabrication and conversion of polyethylene and polypropylene
Bentonite Performance Materials, LLC	Belle Fourche	Bentonite products	Iron Outfitter	Piedmont	Metal fabrication and manufacturing
Black Hills Grid	Sturgis	Powder coatings, sandblasting, fabrication, design	Larson Manufacturing Co.	Brookings	Storm doors
Black Hills Manufacturing Services, Inc.	Sturgis	Design for manufacturing, prototyping, job shop, process consulting, cold spray repair, controls design, consulting	M&M Manufacturing Co., Inc.	Viborg	Hot water pressure washers
Broadwind Energy	Howard	Gearbox, motor and transmission repair	Malloy Electric	Sioux Falls	Power transmission parts, electrical supplies, motor repair and machine shop services
Builder's Choice	Vermillion	Modular building/housing	Mammoth Homes	Hot Springs	Manufactured housing
Caber Engineering, Inc.	Rapid City	Multi-disciplinary engineering firm providing comprehensive engineering, project management, & field services	Mark's Welding	Elk Point	Metal skid plates
Chenega Logistics	Sioux Falls	Custom innovations in IT Enterprise, cyber engineering, software development, intelligence and integrated solutions	Molded Fiber Glass	Aberdeen	Fiberglass brine tanks
Custom Touch Homes	Madison	Manufactured housing	Morris, Inc.	Pierre	Metal jig fabrication
D.T.S.	Tea	Custom steel and aluminum enclosures, sub-base tanks and trailers for the commercial generator market	Permian Tank & Manufacturing, Inc.	Belle Fourche	Steel tank manufacturing offering custom engineered and design tanks
Dakota Bodies	Watertown	Custom truck beds	Pipeline Plastics	Belle Fourche	High density polyethylene pipe (HDPE)
Dakota Kustom Coatings	Sturgis	Custom design, fabrication, & assembly of aluminum extruded structures, racks, workbenches, and machine safety guards	Rancher's Welding	Gregory	Oil tanks
Dakota Security Systems	Sioux Falls, Rapid City	Safety, security, and communication systems	Rosebud Cabinetry	Madison	Custom cabinetry solutions
Dakota Trailer	Yankton	Heavy trailer manufacturing	Shamrock Energy Management	Rapid City	Back office payroll, accounting and other business activities; business consulting
Deadwood Biofuels	Rapid City	Wood pellet manufacturing used in hydraulic fracturing and drilling for solids control	Sioux Corporation	Beresford	Custom pressure washing systems; electric and fossil fuel water heaters
Design Tanks	Sioux Falls	Fiberglass tanks	Sioux Steel	Sioux Falls	Fluid storage
Furgro Horizons	Rapid City	Remote sensing, mapping and GIS services; aerial acquisition services	South Bakken Steel and Fabrication	Belle Fourche	Welding, pipe badger, other well equipment
GCC-Rapid City	Rapid City	Cement manufacturing	Specialized Machine, Inc.	Sioux Falls	CNC machining and prototyping and design
Gen-Pro Power Systems, Inc.	Rapid City	Solar-powered water pumping, LED lighting, water purification systems, solar thermal heating systems, solar modules, grid tie and off-grid systems	Superior Homes	Watertown	Manufactured housing
Global Polymer	Brookings	Plastic composite sleeve for rig drilling	Terex Utilities	Huron	Overhead and utility equipment including auger trucks and bits
High Performance Engineering	Sioux Falls	Product design, injection molded parts or machined prototypes for manufacturing; contract mfg, assembly	Trail King Industries	Mitchell	Truck trailers for construction, commercial & specialized markets
			Tru-Catch Traps/Manufacturing Systems, Inc.	Belle Fourche	Machining clamps and other metal fabrication needs
			TrueNorth Steel	Rapid City, Huron	Steel tanks, corrugated pipe, and industrial plate work
			Twin City Fan & Blower	Brookings	Industrial and commercial fan and blower manufacturing
			W.L. Plastics	Rapid City	High-density polyethylene pipe for mining, industrial, oil, gas, irrigation, potable water and sewer systems
			Western Mine Service, Inc.	Hermosa	Custom welding, machining, and mechanical fabrication on large equipment; fabricated large custom containers
			Wheeler Tanks	Sioux Falls	Tanks, pressure vessels, and fabricated metal products
			Woodland Cabinetry	Sisseton	Custom cabinetry solutions

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Regional Dateline

January 21

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

January 23-24

Winter Show, Sisseton, SD
605-698-7261

January 24

Winter Games Winter Fest
Finale, Watertown, SD
605-882-6269

January 24

Glacial Lakes Beer Fest
Watertown, SD, 605-886-6127
watertowneventcenter.com

January 25

Public Opinion Prom &
Bridal Show, Watertown, SD
605-886-6901

January 25

Foreign Film Festival
Spearfish, SD, 605-642-7973
www.matthewsopera.com

January 30-31

ISOC SnoCross Shootout
Deadwood, SD, 605-578-1876
www.deadwood.org

January 30-31

Day County Farm, Home and
Sport Show, Webster, SD
605-345-4668
www.webstersd.com

January 30-February 8

Black Hills Stock Show and
Rodeo Rapid City, SD
605-355-3861



PHOTO COURTESY OF SHARON HELBIG

Sharon Helbig

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.

Events of Special Note

February 7

Eagles and Bagels Walk
in the Park, Fort Pierre, SD
605-223-7722, www.gfp.sd.gov

March 21

South Dakota
Taxidermy Competition
Watertown, SD, 605-886-6127

January 31

Living History Fair
Watertown, SD, 605-881-1758

February 3

Touchstone Energy® Safety
Events, 8:30 and 10 a.m.
Barnett Arena, Rushmore
Plaza Civic Center
Rapid City, SD, 605-224-8823

February 7-8

Dakota Territory Gun
Collector's Association Show
Aberdeen, SD, 701-851-0129

February 10-14

Farm Show, Watertown, SD
605-886-5814

February 14-15

Winter Big Boy Toy Show
Aberdeen, SD, 605-229-3632
www.hubcityradio.com

February 15

It's Your Party Bridal Show
Watertown, SD, 605-886-4127

February 16

Farm and Home Show
Wessington Springs, SD
605-539-1929

February 21 and March 21

James Valley Model Railroad
Open House, Aberdeen, SD
605-226-2139

February 22

Hub City Radio's Bridal
Showcase, Aberdeen, SD
605-229-3632

February 24-26

Ag Expo, Aberdeen, SD
605-725-5551
www.aberdeenagexpo.com

February 28-March 1

Home Builders Show
Watertown, SD, 605-886-5814
watertownhomebuilders.com

March 3

Nickelback, Sioux Falls, SD
605-367-7288

March 6

Clint Black, Deadwood, SD
605-559-0386

March 7-8

Big Boy Toy Show
Watertown, SD, 605-884-3548

March 7-8

Home Builders 14th Annual
Home Show, Aberdeen, SD
605-225-2055
www.aberdeenhba.com

March 13-14

Advantage RV Spring Camper
Show, Watertown, SD
605-753-5022

March 14-15

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