

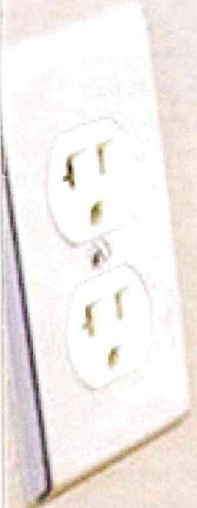
South Dakota Electric

Your Touchstone Energy® Partner 

Cooperative Connections

DECEMBER 2016 VOL. 68 NO. 12

Spreading Good Cheer: Cooperatives Shine During Holidays P8-9





MERRY & BRIGHT

Celebrating **family**. Sharing **joy**. Giving **hope**.

From United Way to holiday sharing trees, our employees and members find ways to give back to our communities all year long.



Your Energy Starts Here

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South Dakota Electric Cooperative Connections

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Rosebud Electric, Gregory, S.D.
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Editorial

Giving Back is the Co-op Way



Ed Anderson
General Manager, South Dakota
Rural Electric Association

As some of you might know, cooperatives across the globe adhere to the same Seven Cooperative Principles that guide all of our decisions – from how co-ops are run, to how we engage with our local communities. Concern for community is the seventh principle, and it is one that all employees of cooperatives in South Dakota and western Minnesota value year round. But during the holiday season, concern for community seems especially important.

Electric cooperatives have a proud history of giving back. You'll find examples in many communities throughout the region.

Cooperative members help co-ops give back, too. Through the Operation RoundUp® programs, members can round up their energy bills to the next dollar amount and the extra change goes toward helping those in need, right here in their local community.

Our commitment is also global. Cooperatives have donated equipment and sent lineworkers overseas so they can help bring power to thousands of people who have never experienced the benefits of electricity.

So many families go without on a daily basis and struggle to make ends meet. This struggle can be especially hard during the holiday season.

There are many ways you can give back to the community that go beyond dollar donations. Take some time to go through your closets and find clothes that no longer fit or have lost their use. Bag those items up and take them to your local Salvation Army, Goodwill or church clothing drive. Volunteer for a local food or toy drive, deliver meals to the sick and the elderly or simply make a meal for a neighbor in need.

No matter how great or small the act, every time we give back, we strengthen our community. So take the time to give back this holiday season. You'll be glad you did.

Decorating Safety

Indoor Lights and Electrical Decor

- Always purchase electrical decorations and lights from reputable retailers.
- Use lights approved for safe use by a nationally recognized testing laboratory.
- Never connect more than three strands of incandescent lights together.
- Consider purchasing LED lights, which use less energy and run cooler than traditional incandescent lights.
- Before decorating, determine how many outlets are available and where they are located. Plan your displays accordingly.
- Carefully inspect each electrical decoration. Cracked or damaged sockets, loose or bare wires and loose connections may cause a serious shock or start a fire.
- Follow the manufacturer's use and care instructions that accompany electrical decorations.
- Avoid overloading electrical outlets with too many decorations or electrical devices. They can overheat and cause a fire.
- Make sure that cords are not pinched in doors, windows or under heavy furniture, which could damage the cord's insulation.
- Do not mount or support light strings in a way that might damage the cord's insulation.
- Always unplug electrical decorations before replacing bulbs or fuses.
- Turn off all indoor and outdoor electrical decorations before leaving home or going to sleep.

Outdoor Decorations

- Make sure all extension cords and electrical decorations used for outdoor decorating are marked for outdoor use.
- Match power needs (amperage) of electrical products with amperage rating of extension cords.
- Outdoor electric lights and decorations should be plugged into circuits protected by ground fault circuit interrupters (GFCIs). If circuits are not GFCI-protected, portable outdoor GFCIs can be purchased where electrical supplies are sold and require no special knowledge or equipment to install.
- Inspect all lights, decorations and extension cords for damage before using.
- Fasten outdoor lights securely to trees, the house or other firm supports to protect them from wind damage, but take care not to attach the lights in a way that could damage the cord's insulation.
- Keep all extension cords and light strings clear of snow and standing water.
- Make sure spotlights used to illuminate decorations are well-ventilated, protected from weather and a safe distance from flammable items.
- Inspect ladders for loose or missing parts before using.
- Use wooden or fiberglass ladders when decorating outdoors. Metal ladders conduct electricity.
- Use the right ladder height, ensuring ladders extend at least three feet past the edge of the roof.
- Exercise caution when decorating near power lines. Keep yourself and your equipment at least 10 feet from power lines.

Source: esfi.org

Kids' Corner Safety Poster

"Never touch a power cord with wet hands."



Rebekah Sharples-Schmidt, 8 years old

Rebekah was 8 years old when she submitted this safety poster. She is the daughter of Glen and Riva Sharples-Schmidt, Wakonda, S.D. They are members of Clay-Union Electric, Vermillion, 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.



If storms down power lines,
remember to

STAY AWAY!

Holiday Treats



Almond Snowballs

- 1/2 cup toasted slivered almonds
- 1/4 tsp. salt
- 1 cup butter, softened
- 1-1/2 cups powdered sugar, divided
- 1 tsp. vanilla extract
- 2-1/2 cups all purpose flour

Process almonds in a food processor 30 seconds or until very finely ground. Beat butter at medium speed until creamy. Gradually add vanilla and 1 cup powdered sugar, beating until blended. Combine flour, salt and almonds in a medium bowl; gradually add flour mixture to butter mixture, beating until blended. Shape dough into 3/4-inch balls; place 2 inches apart on parchment paper-lined baking sheets. Bake at 325°F for 12 to 15 minutes or until lightly browned. Cool on baking sheets for 2 minutes. Transfer to wire racks and cool for 10 minutes. Roll warm cookies in remaining powdered sugar.

Stephanie Fossum, Hudson

Chex Caramel Corn

- 1 bag popped microwave popcorn
- 3 cups Corn Chex
- 3 cups Rice Chex
- 1/2 to 3/4 cups honey roasted peanuts
- Topping:**
- 1/4 cup margarine
- 1/3 cup packed brown sugar
- 2 T. light corn syrup
- 1/2 tsp. vanilla

Pop corn; remove unpopped kernels. In large microwavable bowl, combine popcorn, cereal and peanuts. In medium bowl, microwave butter, brown sugar, syrup and vanilla on HIGH about 2 minutes, stirring after 1 minute, until mixture is bubbling. Pour over cereal/popcorn mixture; stirring gently until evenly coated. Microwave on HIGH 5 to 6 minutes, stirring and mixing after every minute. Spread on waxed paper or cookie sheet to cool. Break up. Store in airtight container.

Jane Ham, Rapid City

Can't Fail Caramels

- 2 cups sugar
- 1 cup milk
- 1 cup firmly packed brown sugar
- 1 cup butter or margarine
- 1 cup light corn syrup
- 4 tsp. vanilla
- 1 cup heavy cream

Combine sugars, corn syrup, cream, milk and butter or margarine. Cook slowly, stirring constantly to 248°F. or when small quantity dropped in cold water forms a firm ball; remove from heat. Add vanilla. Pour into greased 8x8x2-inch pan or cookie sheet; cool. When firm, place on board and cut into squares. Wrap each square in waxed paper. Makes 1-1/4 pounds of caramels.

Judy Jensen, Langford

Peppermint Bars

- Brownie:**
- 1 (family-size) pkg. fudge brownie mix
- Chocolate Glaze:**
- 12 ounces semi-sweet baking chocolate, coarsely chopped
- 1/2 cup (1 stick) butter
- Crushed peppermint candies or candy canes

- Peppermint Filling:**
- 5 cups confectioners' sugar
- 14 T. butter, melted
- 2 T. heavy cream
- 1 tsp. peppermint extract
- 1/8 tsp. red food coloring

Prepare brownie mix as directed on package. Spread in greased, foil-lined 15x10x1-inch baking pan. Bake at 350°F. for 15 minutes or until toothpick inserted into center comes out clean. Cool in pan on wire rack. Meanwhile, beat filling ingredients in large bowl with electric mixer on medium speed until well blended and smooth. Spread evenly over brownie. Refrigerate 30 minutes. For glaze, microwave chocolate and butter in microwavable bowl on HIGH 2 minutes or until butter is melted, stirring until chocolate is melted. Spread over top of brownie. Sprinkle with crushed peppermint candies. Cut into bars. Makes 36 servings.

Nutritional Information Per Serving: Calories 258, Total Fat 14g, Saturated Fat 7g, Cholesterol 30mg, Sodium 104mg, Carbohydrates 31g, Dietary Fiber 1g, Protein 2g

Pictured, Cooperative Connections

Pecan Delights

- 2-1/4 cups packed brown sugar
- 1 tsp. vanilla extract
- 1 cup butter or margarine
- 1/2-lb. whole pecans
- 1 cup light corn syrup
- 1 cup semisweet chocolate chips
- 1/8 tsp. salt
- 1 cup milk chocolate chips
- 1 (14 oz.) can sweetened condensed milk
- 2 T. shortening

In a large saucepan, combine the first 4 ingredients. Cook over medium heat until all sugar is dissolved. Gradually add milk and mix well. Continue cooking until a candy thermometer reads 248°F. (firm-ball stage). Remove from heat; stir in vanilla until blended. Fold in pecans. Drop by tablespoonfuls onto a greased or parchment paper-lined baking sheet. Chill until firm. Loosen from paper. Melt chocolate chips and shortening in a microwave-safe bowl or double boiler. Drizzle over each cluster. Cool.

Ginny Jensen, Volga

Hopscotch

- 1 cup chocolate chips
- 2 cups chow mein noodles
- 1/2 cup peanut butter
- 2 cups miniature marshmallows

Melt chocolate chips and peanut butter over hot water. Mix in noodles and marshmallows. Drop by teaspoonfuls onto waxed paper. Let cool.

Belle Kvale, Lemmon

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

Seal Tight, Ventilate Right



Patrick Keegan
Collaborative Efficiency

Dear Pat: My family is planning to remodel our kitchen in the coming months. The remodel will be pricey, but we hope to incorporate energy efficient features that will help reduce our energy costs. What are some things we can do to make sure our kitchen is as energy efficient as it can be? – Carlos

Dear Carlos: Undertaking a remodeling project in any part of your home gives you the chance to make a space work better for your needs – including reducing your energy use. For many households, the kitchen is the heart of the home – meaning it is used the most – so incorporating energy efficiency measures here can have a real impact on your energy bills.

Before starting a remodel, consider having a home energy audit completed by a certified professional. This energy assessment can help you identify major efficiency issues in your kitchen that you can address as you remodel. The audit can also identify other large efficiency investments your home may need that could make sense to invest in at the same time. For example, upgrading your heating and cooling system and duct work during the same time as your kitchen remodel could be more cost-efficient than completing two separate projects.

Below are some additional tips and thoughts to consider while you go through your kitchen remodel:

Kitchen layout and design

During a remodel, homeowners often want to expand the kitchen. However, bigger isn't always better – and enlarging the footprint of your kitchen will likely mean higher heating and cooling bills. Consider whether a more efficient layout in your kitchen could prevent a need for expansion.

The design phase of your project is also when you will decide on placement of your major appliances and kitchen features. There may be opportunities to shorten plumbing runs to make hot water delivery to your sink and dishwasher more efficient and to add plumbing insulation to reduce heat loss. Also think about heat sources in your kitchen and how they will affect your refrigerator – placing your refrigerator in a very sunny spot or next to your oven will make this appliance work harder and use more energy.

Appliances

If you are replacing any kitchen appliances, look for ENERGY STAR®-certified refrigerators, dishwashers and freezers

to help save energy. In particular, refrigerators that are ENERGY STAR®-certified will use about 10 percent less energy than standard models – and up to 40 percent less energy than a refrigerator from 2001. Once it is replaced, rather than moving your old refrigerator into the garage where it could use even more energy, ask your electric co-op how you can recycle it. They may even offer a program that hauls away your older appliance.

Lighting

Many remodeled kitchens incorporate lots of windows to ensure a bright, naturally-lit kitchen. Using natural light can make your kitchen feel more open and reduce reliance on overhead lights, but beware of overheating the room in the summer. When thinking about your windows and lighting, consider your home's climate and orientation and how to use natural light strategically.

In addition to overall lighting, a kitchen needs bright task lighting. Installing individual task lights on separate switches can help minimize the energy you use for lighting. Throughout your kitchen, install ENERGY STAR light fixtures and bulbs, which are certified for energy savings, high quality and performance.

Kitchen ventilation

Increasingly, homeowners are installing professional-looking hoods above stoves in their remodeled kitchens. Be sure to pick a high-efficiency model sized for your needs and install it so that it vents directly to the outside. Remember that running a hood exhaust fan more frequently than needed can make your heating and cooling system work harder, as conditioned air is pulled outside.

Overall comfort

The kitchen is often a family's gathering place, so installing zonal heat in this space could make sense – you could turn up the thermostat for the kitchen without warming the entire home.

Other ways to ensure that the kitchen is a comfortable room for your family are to address any building envelope issues noted in your energy audit. For example, increase wall and attic insulation, address duct and air sealing needs, invest in efficient windows and install window coverings that help block hot summer sun and blustery winter wind.

This column was co-written by Pat Keegan and Amy Wheelless of Collaborative Efficiency. For more information on how to test and seal your ductwork, please visit: www.collaborativeefficiency.com/energytips.

Prepare for Winter Now

It may not seem like winter yet, but officials of the South Dakota Office of Emergency Management (OEM) say it is still time to make preparations.

"Heavy snow and extremely cold temperatures can occur at any time of the year; we just don't know when," says Tina Titze, director of the Office of Emergency Management. "By preparing now, you can be ready if you have to deal with power outages, blocked roads and being forced to stay at home for several days."

Among the preparation tips OEM suggests are:

- Monitor local weather forecasts when winter storms are approaching;
- Make sure you have enough supplies, including food, prescription medication and batteries if you get stranded at home;
- When traveling during the winter, make sure you have a winter survival kit in your vehicle and check road conditions before you leave.

For more on making winter weather preparations, check out the new OEM winter weather guide at <http://breadysd.gov/seasonal/seasonal.aspx>.

A new children's book on winter weather preparedness, featuring OEM's new mascot Tommy the Turtle, is also available at <http://breadysd.gov/docs/Winter%20Weather%20Book.pdf>

The Office of Emergency Management is part of the South Dakota Department of Public Safety.

Fire Marshal Urges Safety With Christmas Decorations

South Dakota Fire Marshal

Paul Merriman encourages South Dakotans to enjoy the holiday season, but also to be careful with possible fire risks.

"There are so many special activities going on in homes during the holidays," says Merriman. "There are more family gatherings, more special meals and more features like Christmas trees, candles and lights. All those are good things, but they also increase the chance of home fires."

Among the safety tips that Merriman suggests can be used to reduce the risk of other holiday-related home fires include:

- If you have a natural tree in your home, check the

amount of water in the stand each day. A fresh tree can take in up to a quart of water a day.

- Place the tree away from heat sources such as fireplaces and heaters and don't place it in an exit path.

- Never use candles on or near a tree. Make sure the lights you use are UL listed and not frayed or damaged.

- Don't use outdoor lights indoors or indoor lights outdoors.

- Don't overload electrical circuits. Use approved circuit strips and turn off all Christmas lights before leaving the home or retiring for the evening.

- Put lit candles in glass

safety globes and keep lit candles away from drafty windows and doorways.

- Avoid the temptation to burn cardboard boxes or holiday wrapping paper in a fireplace. Those materials burn at very high temperatures and not all fireplaces are suited to burn those materials.

As always, Merriman says home owners should place working smoke alarms on each floor of the home. Two-thirds of the home fire deaths results from fires in homes with no smoke alarms or working smoke alarms.

The South Dakota Fire Marshal's office is part of the South Dakota Department of Public Safety.

IN THE RIGHT *light*
DECORATE YOUR HOME SAFELY DURING THE HOLIDAYS.

According to the National Fire Protection Association, **860 home fires** caused by holiday decorations occur **each year**. An additional **210 home fires** are caused by Christmas trees per year. Follow these steps to ensure you decorate your home safely during the winter holidays.

- OUTDOOR USE ONLY** (with plug icon) **INDOOR USE ONLY** (with plug icon): Make sure all **extension cords and electrical decorations** are marked for **proper use**.
- Outdoor electric lights and decorations** should be plugged into circuits protected by **ground fault circuit interrupters (GFCIs)**.
- Inspect** all lights, decorations, and extension cords **for damage before using**.
- Exercise caution** when decorating near power lines. Keep yourself and your equipment at least **10 feet** from power lines.
- Turn off** all indoor and outdoor electrical decorations **before leaving home or going to sleep**.
- Avoid overloading electrical outlets** with too many decorations or electrical devices. They can **overheat and cause a fire**.

Shining Brightly

Electric Cooperatives Spread Cheer

SANTA MAY HAVE RUDOLPH WITH HIS NOSE SO BRIGHT, but several communities know that when it comes to spreading good cheer and lighting the way, their local electric cooperative shines through.

At Renville-Sibley Co-op Power Association in Danube, Minn., the coffee is on and cookies are served for members stopping in at the co-op's annual open house in early December. Lyon-Lincoln Electric in Tyler, Minn., also hosts a similar event in early December. While they're at it, eligible members are able to pick up capital credit checks.

Similar events are held at other cooperatives, whether it be one-day affairs at individual offices or as a general invitation to stop in for a cup of coffee or cider and possibly a treat.

Leading up to the holidays, cooperatives in Gregory, Milbank, Elk Point and elsewhere have served as drop off locations for contributions to local food pantries. These endeavors have gathered hundreds of pounds of much-needed food and cereal to help those in need.

Each year, Northern Electric Cooperative in Bath, S.D., greets passersby on U.S. Highway 12 with a light display that stretches across the co-op's south lawn. In recent years, co-op employees have also spearheaded a toy drive for the local Toys for Tots program.

And, when it comes to lighting things up, co-ops like Grand Electric Cooperative in Bison, S.D., and Clay-Union Electric Corporation in Vermillion,

Brenda Kleinjan





S.D., lend a hand in hanging community holiday decorations.

In Bison, the connection between the co-op and the holiday decorations has lasted more than a half-century, said Operations Manager Mike Lemburg.



Lemburg knows the co-op has been hanging the decorations for the Bison Commercial Club for as long as he has worked at the cooperative. Conferring with his predecessor, Juell Chapman, Lemburg confirmed that the tradition started prior to Chapman's 1967 start at the cooperative.

Some time in late November, one will find employees of Grand Electric Cooperative and West River Telephone Cooperative working to hang the 25 to 30 decorations on poles throughout the community.

"The Commercial Club bought them and we hang them up," said Lemburg. Among the decorations that will adorn the community in northwestern South Dakota are candy canes, candles and tree shapes.

The employees also put up the cooperative's own decorations on the town's north end.

New to the community in 2015 was the addition of a parade of lights and a community meal. Proceeds from the event went to the community's ambulance fund.

And, throughout the season – and the entire year – the region's electric cooperatives provide safe, reliable electricity to light many a holiday celebration in homes across the area.

Left: Passersby on U.S. Highway 12 are greeted with a festive display on Northern Electric Cooperative's lawn near Bath, S.D. **Above:** A patriotic toy soldier waves the flag at Northern Electric. **Top:** With more than a half century experience in hanging the holiday decorations along the streets of Bison, S.D., Grand Electric was among the entries in the communities inaugural light parade in 2015. **Right and Cover:** Trixie, The Elf on the Shelf, spread energy efficiency and safety tips through social media to members of Central Electric Cooperative in Mitchell, S.D., in 2015.

Tips from Elf on the Shelf

At Central Electric Cooperative in Mitchell, S.D., Trixie, the Elf on the Shelf, visited the cooperative in December 2015. Her antics were shared on the co-op's Facebook, Instagram and Pinterest feeds. Using a "Naughty or Nice" indicator, Trixie shared tips on energy efficiency and safety using the hashtags "#Elfontheshelf" and "TrixiesAdventures".

You can follow Trixie's Adventures on Pinterest and Instagram too! Search CentralElecSD on Instagram or visit their Pinterest site at <https://www.pinterest.com/centraleccoop/>.

"Nice": Always unplug indoor and outdoor decorations before leaving home or going to bed. *Source: esfi.org*

"Naughty": Peeking in the oven before the Christmas cookies are done! When the door is opened, the inside temperature can lose as much as 25 degrees, forcing your oven to work harder. *Source: U.S. Department of Energy*

"Nice": Water your natural Christmas tree daily. A dry tree can be a fire hazard. *Source: Electrical Safety Foundation International (ESFI)*

"Nice": Put on a sweater, shawl or grab a blanket before turning up the thermostat. During an eight hour period, you can save up to 1 percent per degree turned back. *Source: U.S. Department of Energy*



"Naughty": Leaving your dryer running while unattended. Each year, roughly 2,900 home clothes dryer fires are reported. The leading cause is failure to clean the lint vent. *Source: United States Fire Administration*

"Nice": Open the blinds on south-facing windows on a sunny day to let the sunlight heat your home and close at night. *Source: U.S. Department of Energy*

"Naughty": Leaving on electronics when leaving the room. TVs on average use more energy than the individual annual usage of clothes washers, dryers, freezers and cooking activities. *Source: U.S. Energy Information Administration*

"Naughty": Leaving the refrigerator door open for extended periods of time. Your mother knew what she was talking about when she said this! Be intentional each time you open the door.

An Electrifying Story

What if Thomas Edison was a bad guy? An evil genius? A man so desperate to protect his inventions that he would bribe the police and even electrocute dogs to show his electric systems were better than his competitors?

You'd have what writers like me have always been searching for – a dramatic, can't-put-it-down story about electricity.

Graham Moore's new novel, "The Last Days of Night," tells the based-on-fact story of the ultra-high stakes battle between Edison and George Westinghouse over nothing less than what kind of electricity would power the U.S.

As with any good novel, it's also about more than just the basic plot – it's about invention and the creative process. It's about the business, scheming, teamwork and luck that can make the difference between a genius who lives his life undiscovered and unknown and one who enjoys wealth and fame.

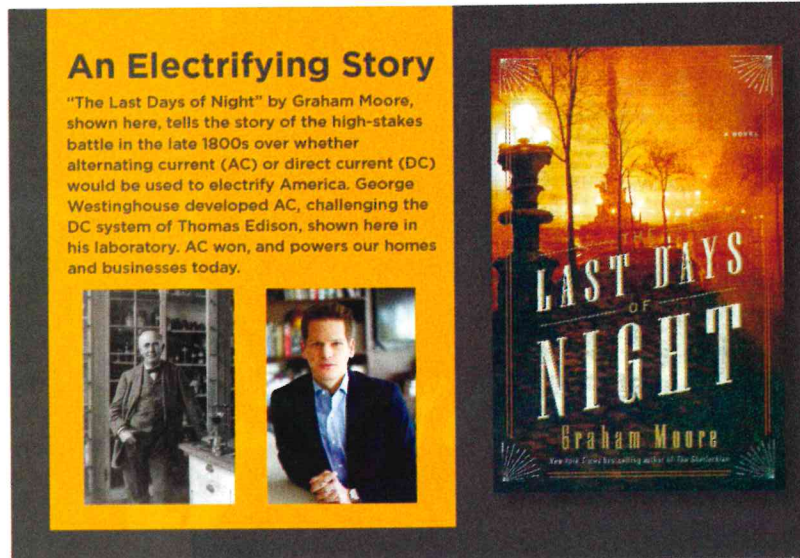
Oscar-winning author

The storytelling moves briskly through courtroom drama, corporate intrigue, romance, greed and political corruption. It's a history lesson, with a cast of famous characters, including the Wall Street baron J.P. Morgan, Alexander Graham Bell and eccentric inventor Nikola Tesla. The book includes an author's note at the end to help separate fact from fiction. If it was a movie (and a movie is in the planning stages), it would be rated PG – a graphic description of the use of the electric chair plays a role, though the account was taken from actual newspaper reports of the day.

Moore is most popularly known as the Oscar-winning screenwriter for the 2014 movie "The Imitation Game" about WWII codebreakers. "The Last Days of Night" tells its story through the character of Paul Cravath, the smart but inexperienced attorney Westinghouse hired to fight the scores of lawsuits Edison had filed against him.

In the late 1800s, Edison was turning his invention of the light bulb into a network for electrifying the country, starting in New York City. The Westinghouse company had invented what it felt was a better light bulb, but the lawsuits claimed it was just a copy of Edison's.

The much bigger issue came with *how* the electricity would be delivered to those light bulbs. Edison's system used direct current (DC), which is what comes out of any battery you have in your home. Westinghouse and Nikola Tesla had developed alternating current (AC), so named because it actually changes direction about 60 times a second, as a more efficient way to deliver electricity over long distances. Alternating current won – AC is the kind of electricity found in your home today.



Fear of electricity

A feature of the fight was a media relations war over whether AC or DC was more dangerous. In those early days of electricity, it created both fear and amazement since few people understood the phenomenon. In the 1930s, 40 years after the events in this book, electricity started coming to rural parts of our country. And some of those same fears came with it. One story told of a man who wanted to make sure a bulb stayed screwed into the overhead socket so the electricity wouldn't flow out and electrocute everyone in the room.

In the book, Moore covers the complexities of generating and delivering electricity – but he does so with a sense of excitement. The great gift to Moore was that his unlikely and compelling character, attorney Paul Cravath, was a real person. And he had a real romance with a real celebrity, who happened to have her own creative genius, backed by a cleverness for self-promotion and a willingness to cut ethical corners.

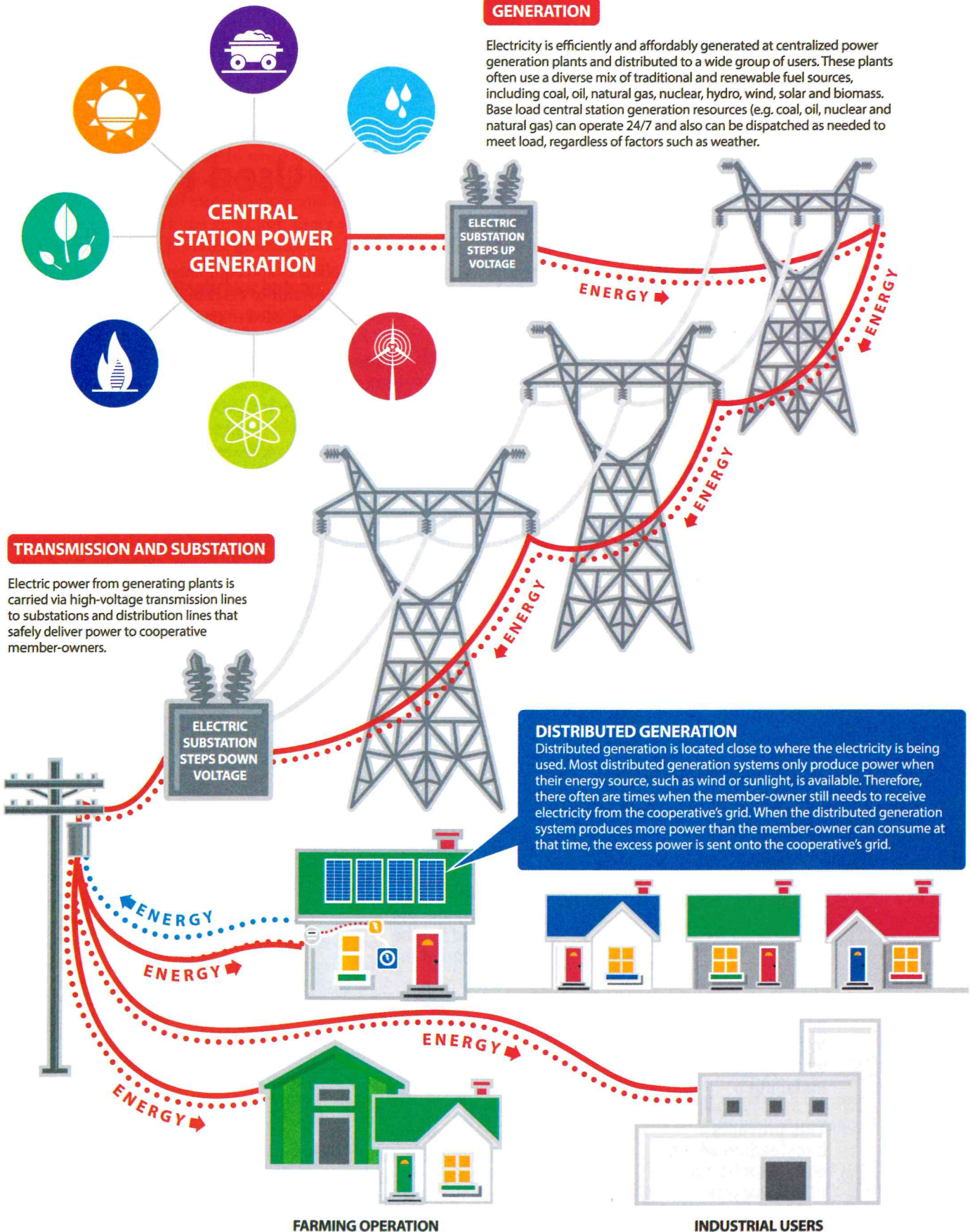
The story ends on an intelligently positive note, making the point that invention and creation require a cast of talents. The book concludes with a tribute to all of the characters: "Only together could they have birthed the system that was now the bone and sinew of these United States. No one man could have done it. In order to produce such a wonder ... the world required ... Visionaries like Tesla. Craftsmen like Westinghouse. Salesmen like Edison."

Paul Wesslund writes on cooperative issues for the National Rural Electric Cooperative Association, the Arlington, Va.-based service arm of the nation's 900-plus consumer-owned, not-for-profit electric cooperatives.

How the Grid Works

GENERATION

Electricity is efficiently and affordably generated at centralized power generation plants and distributed to a wide group of users. These plants often use a diverse mix of traditional and renewable fuel sources, including coal, oil, natural gas, nuclear, hydro, wind, solar and biomass. Base load central station generation resources (e.g. coal, oil, nuclear and natural gas) can operate 24/7 and also can be dispatched as needed to meet load, regardless of factors such as weather.



TRANSMISSION AND SUBSTATION

Electric power from generating plants is carried via high-voltage transmission lines to substations and distribution lines that safely deliver power to cooperative member-owners.

DISTRIBUTED GENERATION

Distributed generation is located close to where the electricity is being used. Most distributed generation systems only produce power when their energy source, such as wind or sunlight, is available. Therefore, there often are times when the member-owner still needs to receive electricity from the cooperative's grid. When the distributed generation system produces more power than the member-owner can consume at that time, the excess power is sent onto the cooperative's grid.

FARMING OPERATION

INDUSTRIAL USERS

Power Up Safely

Back-up Generators Useful Tools if Used Properly

By
American
Red Cross

THE FOLLOWING INFORMATION, DEVELOPED BY THE American Red Cross with technical advice from the Centers for Disease Control and Prevention, the National Fire Protection Association (publisher of the National Electric Code®) and the U. S. Consumer Product Safety Commission, is provided to address questions about using a generator when disaster or emergency strikes.

How to Buy a Generator

If you choose to buy a generator, make sure you get one that is rated for the amount of power that you think you will need. Look at the labels on light-

ing, appliances and equipment you plan to connect to the generator to determine the amount of power that will be needed to operate the equipment.

For lighting, the wattage of the light bulb indicates the power needed. Appliances and equipment usually have labels indicating power requirements on them. Choose a generator that produces more power than will be drawn by the combination of lighting, appliances and equipment you plan to connect to the generator including the initial surge when it is turned on. If your generator does not produce adequate power for all your needs, plan to stagger the operating times for various equipment.

TIPS FOR THE PROPER INSTALLATION AND USE OF GENERATORS



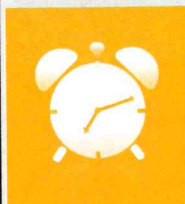
NEVER operate a generator **INSIDE** your home or in other enclosed or partially-enclosed spaces, including **GARAGES**.



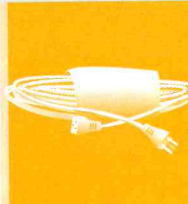
Make sure your generator is properly grounded and used with a **Ground Fault Circuit Interrupter (GFCI)**.



Install battery-operated **CO ALARMS** or plug-in CO alarms with a battery backup inside the home.



A generator is a **TEMPORARY** power source and should **NEVER** be used as a permanent solution.



Use only extension cords that have a **THREE-PRONGED** plug and are rated for the intended load.



Do **NOT** **OVERLOAD** the generator.



NEVER connect generators directly to household wiring without first installing a **TRANSFER SWITCH**. This prevents backfeeding which could electrocute utility workers making repairs.



Your home generator should be installed by a **QUALIFIED ELECTRICIAN** and bear the mark of a nationally recognized testing laboratory, such as UL, Intertek or CSA.



The Consumer Product Safety Commission recommends generators be positioned at least **20 FEET** from doors, windows and vents to prevent CO from entering the home.

If you can not determine the amount of power that will be needed, ask an electrician to determine that for you. (If your equipment draws more power than the generator can produce, then you may blow a fuse on the generator or damage the connected equipment.)

How to Use a Generator at Home

The primary hazards to avoid when using a generator are carbon monoxide (CO) poisoning from the toxic engine exhaust, electric shock or electrocution, and fire. Follow the directions supplied with the generator. Every year, people die in incidents related to portable generator use.

Never Use a Portable Generator Indoors

This includes inside a garage, carport, basement, crawl space or other enclosed or partially-enclosed area, even with ventilation. Opening doors and windows or using fans will not prevent CO buildup in the home. The CO from generators can rapidly lead to full incapacitation and death, but CO can't be seen or smelled. Even if you cannot smell exhaust fumes, you may still be exposed to CO. If you start to feel sick, dizzy or weak while using a generator get to fresh air **RIGHT AWAY – DO NOT DELAY.**

Because you may have windows open to get fresh air while the power is out, be sure to place the generator away from windows, doors and vents that could allow CO to come indoors. To avoid electrocution, keep the generator dry and do not use in rain or wet conditions. To protect the generator from moisture, operate it on a dry surface under an open canopy-like structure, such as under a tarp held up on poles. Do not touch the generator with wet hands.

It is a good idea to install battery-operated CO alarms or plug-in CO alarms with battery back-up in your home, according to the manufacturer's installation instructions. If CO gas from the generator enters your home and poses a health risk, the alarm will sound to warn you. Test the battery frequently and replace when needed.

Be sure to turn the generator off and let it cool down before refueling. Gasoline spilled on hot engine parts could ignite.

Store fuel for the generator in an approved safety can. Use the type of fuel recommended in the instructions or on the label on the generator. Local laws may restrict the amount of fuel you may store or the storage location. Ask your local fire department for additional information about local regulations. Store the fuel outside of living areas in a locked shed or other protected area. Do not store it near a fuel-burning appliance, such as a natural gas water heater in a garage. If the fuel is spilled or the container is not sealed properly, invisible vapors from the fuel can travel along the ground and can be ignited by the appliance's pilot light or by arcs from electric switches in the appliance.

Plug appliances directly into the generator. Or, use a heavy duty, outdoor-rated extension cord that is rated (in watts or amps) at least equal to the sum of the connected appliance loads. Check that the entire cord is free of cuts or tears and

Keep It Ready

There are several things you should do to make sure your portable generator is ready to start and provide power at a moments notice.

Storage

Short-Term Storage (2 to 3 weeks)

- After each use, clean debris off unit.
- Store in a spot in your garage or out-building where you can get to it easily when you need to use it.

Long-Term Storage (2 to 3 months)

- For longer-term storage, fill tank with fuel and add a gasoline stabilizer in the tank.
- Perform scheduled maintenance per your owner's manual.
- If at all possible store it inside where it will be dry, protected and easy to get to.

Refer to your owner's manual for specific instructions.

*Source: Briggs and Stratton
DYK? Briggs and Stratton founder S.F. Briggs grew up at Watertown, S.D., and attended South Dakota State College, studying engineering.*

that the plug has all three prongs, especially a grounding pin.

Never try to power the house wiring by plugging the generator into a wall outlet, a practice known as "backfeeding." This is an extremely dangerous practice that presents an electrocution risk to utility workers and neighbors served by the same utility transformer. It also bypasses some of the built-in household protection devices.

Future Generator Safety Considerations

The only recommended method to connect a generator to house wiring is by having a qualified electrician install a power transfer switch. This switch must be installed in accordance with the National Electrical Code® (NEC), which is published by the National Fire Protection Association, as well as all applicable state and local electrical codes. Call a qualified electrician or check with your utility company to see if they can install the appropriate equipment.

For power outages, permanently installed stationary generators are better suited for providing backup power to the home. Even a properly connected portable generator can become overloaded. This may result in overheating or stressing the generator components, possibly leading to a generator failure. Be sure to read instructions that come with the generator to make sure you operate it within its limitations for power output.

Contact your local electric cooperative for more information about using a generator.

Santa's List for Energy Conservation

By Department of Energy

SANTA'S LIST MAY BE FULL OF TOYS FOR GOOD GIRLS and boys, but ever wonder what his wish list for you would look like? Check out these tips for energy conservation that just may top the jolly old soul's parchment.

Take Advantage of Heat from the Sun

- Open curtains on your south-facing windows during the day to allow sunlight to naturally heat your home, and close them at night to reduce the chill you may feel from cold windows.

Cover Drafty Windows

- Use a heavy-duty, clear plastic sheet on a frame or tape clear plastic film to the inside of your win-

dow frames during the cold winter months. Make sure the plastic is sealed tightly to the frame to help reduce infiltration.

- Install tight-fitting, insulating drapes or shades on windows that feel drafty after weatherizing.

Adjust the Temperature

- When you are home and awake, set your thermostat as low as is comfortable.

- When you are asleep or out of the house, turn your thermostat back 10° to 15° for eight hours and save around 10 percent a year on your heating and cooling bills. A programmable thermostat can make it easy to set back your temperature.



Find and Seal Leaks

- Seal the air leaks around utility cut-throughs for pipes (“plumbing penetrations”), gaps around chimneys and recessed lights in insulated ceilings, and unfinished spaces behind cupboards and closets.
- Add caulk or weatherstripping to seal air leaks around leaky doors and windows.

Maintain Your Heating Systems

- Schedule service for your heating system.
- Furnaces: Replace your furnace filter once a month or as needed.
- Wood- and Pellet-Burning Heaters: Clean the flue vent regularly and clean the inside of the appliance with a wire brush periodically to ensure that your home is heated efficiently.

Reduce Heat Loss from the Fireplace

- Keep your fireplace damper closed unless a fire is burning. Keeping the damper open is like keeping a window wide open during the winter; it allows warm air to go right up the chimney.
- When you use the fireplace, reduce heat loss by opening dampers in the bottom of the firebox (if provided) or open the nearest window slightly--approximately 1 inch--and close doors leading into the room. Lower the thermostat setting to between 50° and 55°F.
- If you never use your fireplace, plug and seal the chimney flue.
- If you do use the fireplace, install tempered glass doors and a heat-air exchange system that blows warmed air back into the room.
- Check the seal on the fireplace flue damper and make it as snug as possible.
- Purchase grates made of C-shaped metal tubes to draw cool room air into the fireplace and circulate warm air back into the room.
- Add caulking around the fireplace hearth.

Lower Your Water Heating Costs

- Water heating accounts for about 18 percent of the energy consumed in your home.
- Turn down the temperature of your water heater to the warm setting (120°F). You'll not only save energy, you'll avoid scalding your hands.

Lower Your Holiday Lighting Costs

- Use light-emitting diode – or “LED” -- holiday light strings to reduce the cost of decorating your home for the winter holidays.

Source: <http://www.energy.gov/energysaver/fall-and-winter-energy-saving-tips>



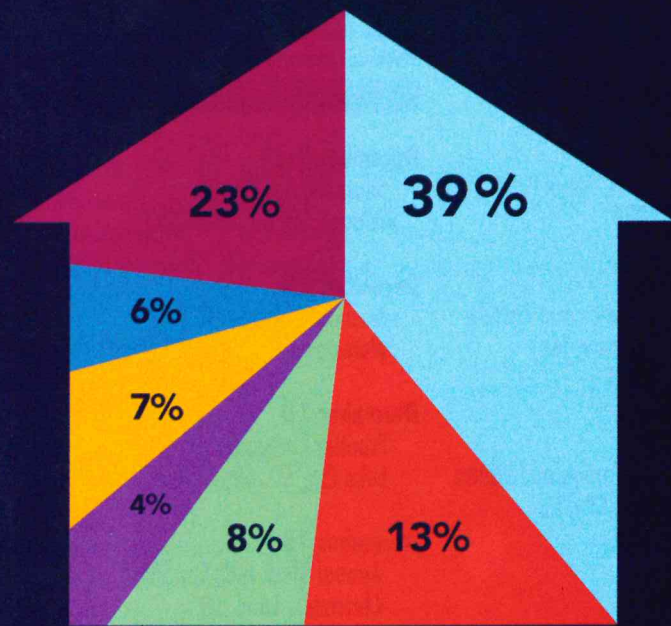
Everything You Need to Know About Appliance Standards

Appliance and equipment standards are improving the energy efficiency of everyday products, helping consumers save big on energy and money.

Consumers are saving more than
\$62 BILLION
EACH YEAR

the CO₂ emissions equivalent of
50 MILLION
driven in **ONE YEAR**

Average household energy use



Heating & cooling
Includes furnaces fans and boiler circulation pumps

Water heating

Kitchen
Includes refrigerators, dishwashers and freezers

Laundry
Includes clothes washers and dryers

Lighting

Electronics
Includes televisions and related equipment

Other
Includes cooking, outdoor grills, exterior lights, pool heaters, etc.

Regional Dateline

November 18-19

Holiday Arts Christmas Craft Show, Masonic Temple
 Mitchell, SD, 605-248-2526

November 18-January 8

Winter Wonderland, Falls Park
 Sioux Falls, SD, 605-275-6060

November 22-December 26

Christmas at the Capitol
 Pierre, SD, 605-773-3178

November 25-26 and December 10, 17-18, 22-23

1880 Train Holiday Express
 Hill City, SD, 605-574-2222

November 26

I Love the '90s, Sioux Falls, SD
 605-367-7288

November 26

Holiday Activities and Parade of Lights, Winner, SD
 605-842-1533

November 26

Holiday Celebration and Winter Market, Rapid City, SD
 605-716-7979

December 2-3

Living Christmas Tree
 Aberdeen, SD, 605-229-6349

December 2-3, 8-10, 15-17

Strawbale Winery Twilight Flights 2016, Renner, SD
 605-543-5071

December 3

Christmas Parade and Holiday Gift & Craft Fair, Custer, SD
 605-673-2244



PHOTO COURTESY OF CHAD COPPES, S.D. TOURISM

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

December 3

Holy Rocka Rollaz Christmas Concerts, Terry Redlin Art Center, Watertown, SD
 605-882-3877

December 3

Potter Family Christmas Show
 Lead, SD, 605-584-2067

December 9-10

Sharpshooter Classic
 Winner, SD, 605-842-1533

December 10

Breakfast with Santa
 Watertown, SD, 605-882-6269

December 10

Frontier Christmas
 Lake City, SD, 605-448-5474

December 10

Annual Black Hills Cowboy Christmas, Lead, SD
 605-584-2067

December 15-March 31

South Dakota Snowmobile Trails Season, Lead, SD
 605-584-3896

January 12

The Ennis Sisters in Concert
 Spearfish, SD, 605-642-7973

January 12-14

16th Annual Ice Fishing Tournament, Mobridge, SD
 605-845-2500

January 19-21

Snowmobile Rally
 Deadwood, SD, 605-578-1876

January 20-21

ISOC Deadwood SnoCross Showdown, Deadwood, SD
 605-578-1876

January 21

Bark Beetle Blues Crawl
 Custer, SD, 605-440-1405

January 27-February 5

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

February 4

Twenty One Pilots in Concert
 Sioux Falls, SD, 605-367-7288

February 7-11

Winter Farm Show
 Watertown, SD, 605-886-5814

February 10-11

Strawbale Winery Valentine Twilight Flights, Renner, SD
 605-543-5071

February 11

Ben Folds with the South Dakota Symphony
 Sioux Falls, SD, 605-367-6000

March 4-7

Summit League Basketball Championship
 Sioux Falls, SD, 605-367-7288

March 17-18

28 Below Fatbike Race
 Lead, SD, 605-584-3435

March 24-25, March 31-April 1

59th Annual Schmeckfest
 Freeman, SD, 605-925-4237