South Dakota Electric

Cooperative Connections

MAY 2017 VOL. 69 NO. 5

Avoid a Moving Violation Page 8-9

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> Brenda Kleinjan, Editor Dawn Trapp, Communications Specialist

Editorial This May, Take the Time to Plug Into Safety



Ed Antierson General Manager, South Dakota Rural Electric Association This month, I'd like to take a moment to reflect on the importance of safety. May is Electrical Safety Month and cooperatives in South Dakota and western Minnesota will be sharing safety tips and reminders throughout the month to help raise awareness about the dangers of electricity. We all depend on electricity to power our lives, but accidents can happen when electricity is improperly used.

Our responsibility to you

Cooperatives' concern for safety extends beyond their employees. They care deeply about the safety

of our members and this month, we encourage you to plug into safety. According to the Electrical Safety Foundation International, thousands of people in the U.S. are critically injured and electrocuted as a result of electrical fires, accidents and electrocution in their own homes.

To promote safety education in our local communities, cooperatives post, tweet and write about safety. They participate in safety education for students and conduct dozens of safety demonstrations using a table top display or a large high voltage demonstration trailer.

Take a moment to plug into safety.

We encourage the public to contact their electric coopera-

tive if they see a downed power line or any other type of dangerous electrical situation. We strive to provide our communities with safe, reliable and affordable electricity and to serve as your trusted energy advisor, now and well into the future.

Our responsibility to employees

It is no accident that safety is a top priority at our electric cooperatives. We are committed to a culture of safety that is integral to our daily operations. Many cooperatives in South Dakota and western Minnesota are part of the Rural Electric Safety Achievement Program (RESAP) that follows specific guidelines and protocols for electrical safety that are considered leading practices. Lineworkers are required to wear personal protective equipment at all times when on the job. This includes special fire-resistant clothing that will self-extinguish, limiting potential injuries from burns and sparks. Insulated and rubber gloves are worn in tandem to protect from electrical shock. Our safety team regularly discusses important safety issues pertaining to work within the building as well as out in the field.

We believe it is our duty and responsibility to raise awareness about the importance of electrical safety. Take a moment to plug into safety. Please visit http://www.esfi.org for tips about how to keep you and your loved ones safe.



Keep Your Family Safe During a Flood

Heavy rains often cause flooding in lowland areas, homes and basements. Safe Electricity reminds everyone to be alert to electrical equipment that could be energized and in contact with water, along with other potential hazards that create a serious danger of electrocution. Cleaning up and using water-damaged appliances also carry safety risks.



As part of the "Teach Learn Care" TLC Campaign, Safe Electricity urges parents and other caregivers to make sure

children are aware of these hazards as well.

"The prospect of an electrical accident is probably not top of mind when you're dealing with a flooded basement, room or even outdoors," said Molly Hall, executive director of Safe Electricity. "But it's the first thing you should think of before you step foot in the water."

Safety measures to keep in mind include:

• Never drive into flooded waters.

• Never step into a flooded basement or other room if water may be in contact with electrical outlets, appliances or cords.

• Never attempt to turn off power at the breaker box if you must stand in water to do so. If you can't reach your breaker box safely, call your electric utility to shut off power at the meter.

• Never use electric appliances or touch electric wires, switches or fuses when you're wet or when you're standing in water.

• Keep electric tools and equipment at least 10 feet away from wet surfaces. Do not use electric yard tools if it's raining or the ground is wet.

• If an electrical appliance has been in contact with water, have a professional check it out before it is used. It may need to be repaired or replaced.

"A good safety measure is to have ground fault circuit interrupters (GFCIs) professionally installed on outlets," Hall said. "These safety devices can cut off power instantly if there's a problem."

GFCIs are recommended for outdoor outlets and outlets near wet areas of the home such as kitchen, bath and laundry room.

Source: www.safeelectricity.org

May is National Electrical Safety Month



Never use electrical equipment near water and other liquids.



Never use electrical cords that are frayed or damaged.



Do not overload electrical outlets.



Never use light bulbs that exceed the recommended wattage for any lighting unit or fixture.

Kids' Corner Safety Poster

"Don't put electronics near water."



Ryder Vrchota, 9 years old

Ryder is the son of Stacy and Judy Vrchota, Aberdeen, S.D. He attended Ipswich, S.D., based-FEM Electric Association's annual meeting last June.

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

Reader **Recipes**

Comforting Casseroles



1 (16 oz.) pkg. elbow macaroni 4 cups fresh broccoli florets 1/2 cup finely chopped onions 1/2 cup butter, cubed 1/2 cup flour 1 tsp. ground mustard 1 tsp. salt 1/4 tsp. pepper
6 cups milk
1 (15 oz.) jar processed cheese sauce
2 cups (8 oz.) shredded Cheddar cheese, divided
4 cups cubed, fully cooked ham

Cook macaroni according to directions, adding broccoli during the last 3 to 4 minutes; drain. In a large Dutch oven, sauté onion in butter 2 minutes. Stir in flour, mustard, salt and pepper until blended. Gradually stir in milk. Bring to a boil; cook and stir for 2 minutes or until thickened. Stir in cheese sauce and 1 cup Cheddar cheese until blended; remove from heat. Stir in ham, macaroni and broccoli. Divide between a greased 9x13-inch pan and 8-inch square baking dish. Sprinkle with remaining cheese. Bake one and freeze the other. Cover and bake at 350°F. for 50 to 60 minutes or until bubbly. To use frozen casserole: Thaw in refrigerator overnight. Remove from refrigerator 30 minutes before baking.

Joane Beringer, Gettysburg

Green Bean Casserole

3 T. melted butter 2 T. flour 1 tsp. sugar 1/2 tsp. grated onion or 1/3 tsp. onion powder 1 tsp. salt 1/4 tsp. pepper 1 cup sour cream or light cream 3 cans cut green beans, drained 8 oz. grated Cheddar cheese 1/2 cup crushed corn flakes

Combine 2 T. butter with flour; mix over low heat until smooth. Remove from heat; add seasonings and cream. Fold in beans. Place in greased 8x10-inch baking pan. Top with grated cheese. Mix remaining butter with corn flakes; sprinkle on top. Bake at 350°F. for 30 to 45 minutes.

Belle Kvale, Lemmon

Quick Casserole

1 lb. ground beef Onion 1 can vegetable soup 1 can SpaghettiOs

Brown ground beef with onion; drain. Combine all ingredients. Bake at 350°F. for 45 to 60 minutes. Sprinkle with Parmesan cheese, if desired.

Cheesy Mexican Cornbread Casserole

- 1 lb. prepared cornbread, cut into 1/2-inch cubes 6 eggs 1-1/2 cups milk
- 1 cup sour cream
- 1 Cup sour cream 1 T. McCormick® Chili Powder
- 1 I. MCCOFMICK® CHIII POW
 - 2 tsp. McCormick[®] Oregano Leaves 1/2 tsp. McCormick[®] Garlic Powder
- $1/2 \mbox{ tsp. McCormick}^{\ensuremath{\circledast}}$ Chipotle Chili Pepper $1/2 \mbox{ tsp. salt}$
- 2 cups (8 oz.) shredded Mexican blend cheese, divided
- 1 can (14-1/2oz) petite diced tomatoes, drained
- 1 can (8-2/4 oz.) whole kernel corn, drained
- 1 can (4 oz.) chopped green chiles

Place cornbread in 9x13-inch baking dish sprayed with no stick cooking spray. Set aside. Beat eggs in large bowl with wire whisk. Add milk, sour cream and seasonings; mix well. Stir in 1-1/2 cups cheese, tomatoes, corn and chiles. Gently pour over cornbread. Sprinkle with remaining 1/2 cup cheese. Bake at 350°F. for 45 to 55 minutes or until center is set and edges are golden browned. Let stand 5 minutes before serving. Serve with additional sour cream, if desired. Makes 12 servings.

Nutritional Information Per Serving: Calories 275, Total Fat 15g, Sodium 653mg, Cholesterol 141mg, Carbohydrates 23g, Dietary Fiber 2g, Protein 12g

Pictured, Cooperative Connections

Jalapeno Popper Casserole

- 2 lbs. tater tots
- 2 (8 oz.) pkgs. cream cheese
- 1 cup sour cream 6 jal
- 2 cups Mexican shredded cheese

lb. bacon, cooked and crumbled
 green onions, thinly sliced
 jalapeno peppers, deseeded
 and diced

Place tater tots in a 9x13-inch pan. Bake at 425°F. for 15 minutes. Combine cream cheese, sour cream, 1-1/2 cups cheese, bacon, onions and jalapenos; spread over tater tots. Top with the remaining cheese. Sprinkle bacon and onions over top, if desired. Bake for 20 minutes. Note: Prepackaged bacon pieces may also be used.

Kim Jost, Agar

Chicken Spaghetti Casserole

- 4 oz. spaghetti, broken into pieces 1 chicken, cooked and cut up 1 can cream of chicken soup 1/2 cup milk
- 1/4 cup pimento1/4 cup minced green pepper1 T. minced green onion1 cup shredded Cheddar cheese

Cook spaghetti as directed on package. Combine with remaining ingredients. Place in greased casserole dish. Sprinkle with cheese, if desired. Bake at 350°F. for 35 minutes.

Mary Truman, Kimball

tive name.

Affordable Strategies for Drafty, Inefficient Windows



Energy Efficiency NOTES

Patrick Keegan Collaborative Efficiency

Dear Pat: Our home is very old and includes the original windows. My wife and I worry they aren't as energy efficient as they could be. The windows let in cold drafts during the winter and some of the rooms seem to overheat in summer. We're frustrated because we like the look of the older windows and replacing them with new ones is so

expensive. Can you offer any solutions? – Ken and Judy

Dear Ken and Judy: Yes, windows are an important contributor to the efficiency and comfort of your home. In last month's column, we talked about replacing windows, but doing so is costly and it could take 20 years of energy savings to recover the investment.

Luckily, you can make significant improvements to your existing windows without investing a large amount of money or time. Let's take a look at how we can address heat loss during the winter and heat gain during the summer. We'll start with the window itself.

Energy loss and drafts often occur in the cracks between the components of the window. Weather stripping can be used for areas where a window's movable parts meet the window frame. Retailers offer a variety of weather stripping for different types of windows. These materials are low-cost, easy to apply and can pay for themselves in energy savings in as little as one year. Ask your local retailer for guidance.

The seam between the window frame and the wall is another common source of air leakage. For anything less than a quarter-inch wide, fill it with caulk; for anything larger, use expanding foam and paint over it. Be sure to follow the manufacturer's instructions.

If the window pane is loose or the glass is cracked or missing, it's probably costing you additional money. If you're handy, it is possible to re-glaze a window yourself or there may be a local shop in your area that will do it.

Installing exterior or interior storm windows can sometimes produce as much savings as a full replacement. It's possible to order these windows to the exact size of your window opening. Recent testing by a national laboratory showed that storm windows could cut heating costs by 7 percent to 12 percent.

Another strategy to consider is window coverings. There are many types, including interior roller shades, cellular shades or draperies. Recent laboratory tests showed that cellular shades could cut heating or cooling expenses by 10 percent to 16 percent. Cellular shades can be purchased with a lighter reflective side and a darker, heat-absorbing side. Some can even be reversed with the change of seasons.

Draperies are usually less efficient but can also provide a level of comfort during winter and summer months. For maximum effect, make sure they overlap in the middle, are as tight to the window and wall as possible and run all the way to the floor.

The key to reducing overheating in the summer is to keep the sun's rays from reaching the window by installing awnings or overhangs above windows that receive a lot of direct sunlight. Window films that adhere to the window surface can reflect unwanted summer sun. Solar screens designed to block the summer sun can also be effective.

The key to reducing overheating in the summer is to keep the sun's rays from reaching the window by installing awnings or overhangs above windows that receive a lot of direct sunlight.

If you're on a tight budget or there are windows in vacant rooms that you don't really use, you can fasten plywood onto the frame on the outside of the house and cover the inside with rigid foam insulation. Another low-cost measure for these areas that can produce as much savings as storm windows is to fashion a plastic weather barrier that adheres to the frame. Building supply retailers sell a clear plastic and framing material that can be shrunk into place by using a hair dryer.

To learn more about improving the efficiency of older windows, visit www.energystar.gov or www.energy.gov. You may also want to check with your local electric co-op, as many offer incentives and are knowledgeable about local suppliers and contractors.

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



Technical Education Bill Signed into Law

Senate Bill 65 was signed into law on Feb. 23 by Gov. Dennis Daugaard. The law goes into effect on July 1, 2017.

SB 65 is a follow-up to Amendment R and creates a South Dakota Board of Technical Education that will oversee technical schools.

The nine-member South Dakota Board of Technical Education will consist of four members recommended by each of the state's technical institutes. The remaining five members will represent different geographic regions of the state and to reflect the industries that rely upon the technical institutes to provide a skilled workforce. Additionally, no more than six members of the board may be members of the same political party. All members will serve a three-year term and cannot serve more than two consecutive terms.



Shaving for Cancer Research

Basin Electric Power Cooperative's 2017 Brave the Shave campaign raised more than \$410,000 for kids with cancer.

In its 10th year, the campaign supports local families through the Brave the Shave Family Fund and research through the Andrew McDonough Be Positive (B+) Foundation.

In total, 452 participants signed up to go bald, donate their hair or volunteer at the various events. The campaign raised more than \$410,000.

Since 2008, more than 2,500 volunteers have shaved their heads and raised \$2.6 million to help fight childhood cancer.

Here is a rundown of this year's events:

• March 5 – Brave the Shave Boot Camp, Bismarck, N.D. – Nearly 50 people, both kids and adults, participated in this superherothemed boot camp, raising \$815.

• March 7 - Guns 'n Hoses, Mandan, N.D. - Law enforcement





and firefighters faced off to raise more than \$7,500 during the fifth annual head-shaving event.

• March 8 – Kupper Automotive Drives Hope Event, Bismarck – Kupper Automotive employees raised more than \$26,000 for Brave the Shave at the auto dealership's fourth annual head-shaving event.

• March 9 – Mercer County, Beulah, N.D. – Employees at Dakota Gasification Company's Great Plains Synfuels Plant, Leland Olds Station and Antelope Valley Station joined forces with the community to raise more than \$22,000.

• March 10 – Brave the Shave flagship event, Bismarck – Twenty children and five angel families attended this year's event. In addition to the hair cutting and head shaving, the event included children's crafts, an online auction, face painting, balloon creations, local mascots and Miss North Dakota International. More than \$300,000 was raised at this event.

The Brave the Shave online auction raised more than \$23,000. Joining Basin Electric as prime sponsors of the event are North American Coal Corporation, Bismarck Cancer Center, Garrison-Max Ambulance District, Starion and MDU Resources. Stylists from local salons Spa D'Athena, Luxe Beautique, Man Cave Grooming, Salons on 40th and Golden Comb Salon & Day Spa provided the hair removal services.

 March 17 – Campbell County, Gillette, Wyo. – Employees at Dry Fork Station joined with the community to honor local kids and raise nearly \$9,000.

• March 18 – Bismarck Bobcats Brave the Shave night, Bismarck – Several Bismarck Bobcats players and coaches shaved their heads on center ice and special edition jerseys were auctioned off at the event. In all, more than \$7,000 was raised.

• March 20 – Brookings County, Brookings, S.D. – Employees at Deer Creek Station and community members raised more than \$13,000 during this event.

For more information or to donate, go to www.bravetheshave.coop.

Planning, Communication Help to Avoid a **Moving Violation**

E NCOUNTERING A LARGE, OVERSIZED LOAD ON THE highway can make one wonder what the load is and where it is going - and how long you may be following it as it winds its way to its destination.

But for your local electric cooperative, these loads can create some challenges, especially really tall loads.

"We see a lot of oversized loads any more," said Brett Fosheim, operations manager at Butte Electric Cooperative in Newell, S.D., which lies on the northern edge of the Black Hills. U.S. Highway 85 runs north to south through the co-op, connecting Interstate 90 to the oil patch in western North Dakota. Additionally, U.S. Highway 212 cuts an east-west path through the cooperative.

"We didn't really see a decrease in those moves

when things slowed down up north," Fosheim said. Fosheim noted that most of the oversized loads

were large industrial equipment.

"Almost all of it is tanks moving up 85 from 212," he said.

"Most of them we've been working with are doing a really good job of contacting us about their routes," said Fosheim of the companies entrusted with transporting the large cargo.

That can be crucial as the often power lines need to be moved by utility crews as the load moves toward its destination.

"We probably have a better group of movers than we ever had in the past," Fosheim said.

Before the larger industrial loads became more commonplace for Fosheim and his crews, the co-op



Brenda Kleinjan



The types of large, oversized loads moving down the region's highways can be quite varied. Here, Murdo, S.D.-based West Central Electric crews lift a line for a historic train depot that returned to Fort **Pierre after spending** several decades ason a ranch in western South Dakota. Opposite page: Large structure and equipment moves can often take multiple utility crews to safely lift lines.

would see "a fair amount" of house moves annually, "but those have really slowed down for us. Now it's just equipment moving up to the oil patch."

And with the change in type of oversized load comes increased frequency.

"Now, we're averaging two or three large loads amonth. I can't remember the last time we had a house move," Fosheim said.

Coordinating the moves can create challenges.

"Our territories are intermingled out here, especially in the Northern Hills," Fosheim said, referring to how electric cooperative areas and investorowned utilities areas can intertwine. Adding to the complexity is that multiple types of utilities may also have infrastructure affected by the moves.

"We have communications carriers attached to our facilities," Fosheim said. "We advise the movers of all the carriers we know that are in the area.

Moving lines for the large loads can be very time-consuming, Fosheim said, especially with really, really large loads.

"Some of these tanks are really big with a lot of axles underneath them. We've seen them with two pusher trucks in addition to the pull trucker. There have been some big monstrosities coming through," Fosheim said.

While the sheer size of the load makes for interesting conversation, it also creates logisitical challenges.

"We run out of right-of-way to lift the line, so our crews may wind up to bottom of the ditch, another 10 feet lower than the roadway," Fosheim said. And, once they lift the line, the size of the load may make it impossible for the crew to get around the load to the next crossing. This means that the co-op must plan for a multiple crews to assist with the move.

"It can be quite time-consuming and very hard to plan around," Fosheim said, pointing that often the load can encounter delays before it gets to the co-op's area, pushing project from a morning timeline to afternoon.

"It just takes more personnel to move these bigger loads," he said.

"We get just as many moves in winter as we do in spring or summer," Fosheim said.

Problems can arise, however, when those moving large loads fail to contact the utilities about lines.

In the past, co-ops have found evidence of damage – sometimes downed lines – from someone simply ignoring basic safeyy.

"The ones that are contacting us are quite good," said Fosheim, noting that state efforts in monitoring big moves and making sure utilities are notified has helped. "There are some that get by that we don't see."

Hire a professional for the moving and contact your electric cooperative.

"We haven't had any mover damage for several years," Fosheim said.

In northeast South Dakota, Webster-based Lake Region Electric Association has also seen a decrease in damage caused by large loads.

Operations Manager Jim Grimes notes that the large industrial loads have decreased in recent years and they see an occasional house move coming into the area.

At Lake Region Electric, they took steps to adjust their major highway crossings to accommodate most higher loads.

Grimes' advice?

"Hire a professional for the moving and contact your electric cooperative. That's what they are geared up for and set up for," Grimes said. "The guys doing it on their own are the ones that tend to get into trouble."

Convenience and Efficiency

N THE EARLY DAYS OF HIGH-TECH LIVING, COMPUTers were touted as marvelous inventions that would make life easier. Smart-home technology actually has the potential to do that.

Automating routine tasks around the home brings convenience and smart-home devices offer moneysaving efficiencies in heating and cooling, lighting and other home systems. Plus, as systems continue to develop that use voice control to run everything from door locks to home entertainment, the convenience of a smart home will increase exponentially, David Pedigo, an executive with CEDIA says.

CEDIA, the Custom Electronic Design & Installation Association, is an international trade

association of 3,700 member companies of home technology specialists whose job is to make sure smart-home systems are compatible and functional.

"CEDIA members deliver technology solutions that allow people to have their best moments in life from the comfort of their own home; life lived best at home," the CEDIA website says.

Pedigo says something as simple as getting up in the night to use the bathroom or raid the refrigerator can mean, with a voice-control system, simply telling the lights to come on, rather than fumbling for a light switch.

"The year 2016 truly has been the year of voice control in the home," Pedigo said. Trends for 2017



Terry Woster



indicate continued development of voice-control systems.

Experts say it's possible for do-it-yourselfers to upgrade with smart-home features, although in more advanced systems with more features, it may take a technology specialist to make sure the various devices work together.

"The integrators can come in and make sure the television is in the right place, the whole house is automated and working properly," said David Siroty of Coldwell Banker Real Estate. "They put all of your systems and appliances on one app, the heating and cooling, the doors, the lights."

Convenience for the smart-home owner can mean the ability to remotely see if the children got home from school in the afternoon, whether the oven is turned off, if there's a leak in the water line and whether the furnace or air conditioner is working. It's possible to see who is at the front door and even to give a plumber or electrician a temporary code to enter the house for a service call.

Something as simple as the NEST smart thermostat can save money by learning the behavior of the homeowner; that is, what temperature the occupants prefer and when, said Brian Sloboda, senior program manager, of the Cooperative Research Network of the National Rural Electric Cooperative Association.

An internet-controlled thermostat "is going to save you energy, it's going to save you money and it's going to make you more comfortable," Sloboda said. "You can take your phone and adjust the temperature so that when you get home, it's where you like it. That's a huge convenience."

Smart-home features advance the "green" or conservation movement by making residents more aware and conscious of how much energy they use and when they're using it, says Trevor Lambert of Vivint Smart Home.

"A smart thermostat can really pay for itself over time and it contributes to energy conservation for all of us," he said.

Siroty says people are realizing "the home itself is going to play a greater role than ever in supplying life's needs. It's almost a family member these days."

Opposite Page: A homeowner uses a smartphone to check interior and exterior cameras of her home. (Vivint Smart Homes)

Top: An exploded illustration of an August Smart Lock, which enables a homeowners to lock and unlock the door with a Smartphone, as well as create "virtual keys" for family or friends and monitor activity remotely. (Illustration from August Home website)

Security and Remote Access

Whether you want to keep a remote eye on an elderly relative living alone in a rural area or simply want to use your Smartphone from your office to open your kitchen door back home for the electrician or plumber, there's a system or feature to make that possible in a smart home.

And while the idea of a smart home with dazzling technology is still a novelty in some areas, experts say the security and remote access features are rapidly become a practical part of modern living.

"The home is the largest investment for most people and security is important," says Trevor Lambert, senior director of brand management for Vivint Smart Home.

The ability to remotely access a doorbell camera or to receive a notification when the front door opens contributes to the security and safety of the home, Lambert said. In rural areas, particularly where neighbors may be few and far between, remote monitoring of smoke or fire sensors increases the safety of the home and the peace of mind of the homeowner.

A number of good security cameras are on the market that allow a person to see what's going on inside or outside the home, said Brian Sloboda, senior program manager for the Cooperative Research Network of the National Rural Electric Cooperative Association.

"A good security system allows you to (remotely) check your livestock or to check your tractor to see that it's where it's supposed to be," he said.



David Siroty of Coldwell Banker Real Estate calls it property management from a distance. He

sees the value of

Close-up illustration of Skycontrol panel showing home ready to be armed for security. (Vivint Smart Homes)

remote camera and monitoring systems increasing in an aging America.

An older family member in the early stages of dementia might be able to remain at home longer with some simple monitoring, Siroty said. "As boomers retire, more of these features are going to become very valuable."

Dave Pedigo of CEDIA agrees.

"For an aging population, it (smart-home technology) isn't just nice, or exciting," Pedigo said. "Seniors can stay in their homes longer."

A recent blog post on an AARP site said smart-home technology has the potential to allow older adults to stay connected with family and friends. The post cautioned that the technology can be confusing for older adults and that some elderly citizens can't afford or don't have access to high-speed internet at home. Those are issues that must be considered in smart-home improvements.

Consumers are using Smartphones and tablets in record numbers across all age groups, Sloboda says. In years to come, a smart-home camera system could be the electronic equivalent of photo albums and family visits.

"You could see the grandkids growing up in real time, not in nowand-then photos or in visits months or years apart," he said.

Update on the CPP

BASIN ELECTRIC CEO AND GENERAL MANAGER Paul Sukut issued the following statement on President Trump's executive order on the Clean Power Plan (CPP):

"President Trump's announcement is a positive step forward in our efforts to seek time and flexibility when it comes to developing a carbon management plan, hopefully, in the context of a national energy policy.

"EPA's Clean Power Plan would have significant impacts on Basin Electric and our membership. Of the 13 states hit the hardest by this rule, eight are in Basin Electric's service territory. Financially, Basin Electric would have to spend billions of dollars to comply. These dollars would simply cover adding new generation and potentially impact the operations of our existing facilities. This does not even include the expense of additional electric, gas or transmission infrastructure to support the new generation required to meet the proposed mandates of the CPP. These costs would be unfairly borne by our membership.

"Over the last decade, Basin Electric and our membership have taken a leadership role in the development of renewable generation. We've added more than 1,500 megawatts of wind generation to our system (which represents approximately 23 percent of our generation capacity), invested more than \$1 billion in natural gas generation resources and have invested more than \$1.6 billion in emissions control technology to make our already clean generation fleet even cleaner. Even more, our Dakota Gasification Company's Great Plains Synfuels Plant is home to North America's largest carbon capture and sequestration project capturing more than 30 million tons of carbon dioxide (CO₂). Our most recent project to add urea production to the Synfuels Plant continues that tradition by capturing CO₂ to make urea and for sale as a food grade product.

It's important to note that the CPP, as proposed,

FAQ REGARDING THE CLEAN POWER PLAN (CPP)

What is the current status of the Clean Power Plan?

The rule hasn't been implemented and is still in legal limbo. The Clean Power Plan (CPP) rule didn't go into effect because the Supreme Court issued a "stay" of the rule in February 2016.

The full D.C. Circuit Court of Appeals heard oral arguments on the merits of the case against CPP. That was an unusual circumstance. Typically only a three-judge panel of the Circuit Court would hear a case, but because of the gravity of the CPP, the court decided to hear the case "en banc" which means all of the available judges heard the case. The D.C. Circuit Court ruling could come sometime this spring.

President Donald Trump signed an executive order that would start the process of rolling back the Clean Power Plan. The Department of Justice will ask the D.C. Circuit to hold the case until the EPA can analyze the Clean Power Plan. They will have to go through a full rulemaking process to undo the rule or propose a new, more friendly rule.

What can the administration do?

The Trump administration has some alternatives to consider, but it isn't as easy as just saying they don't want to implement the rule. Here are some of their options:

They could wait for the D.C. Circuit's decision, and if the CPP is upheld, they could choose not to defend the CPP in front of the Supreme Court.

Before the D.C. Circuit's decision, the Trump administration could request the D.C. Circuit Court to hold the case in "abeyance" and remand CPP back to the EPA for reconsideration. They could ask for the court to still have jurisdiction so that the CPP remains under the Supreme Court stay.

Can the administration get rid of the Clean Power Plan?

Before the Clean Power Plan can be changed or undone, the EPA will have to go

through a full rulemaking process which includes notice in the *Federal Register*, time for public comment, a response to public comment, etc.

The EPA could propose a "no action" rule or propose a scaled back version of 111(d) that is much more favorable to power plants and utilities. But they would still have to go through the rulemaking process.

What are the next steps?

In late 2017 or early 2018, the EPA will likely begin a new rulemaking process to replace the Clean Power Plan

In late 2018, EPA will likely respond to public comments on the new rule. Depending on what the new rule may look like, there will likely be a legal challenge from those who wanted the Clean Power Plan. That will lead to another long legal fight that could bring us into 2020 before the old rule is gone and a new rule is finalized.

What else might impact the outcome?

- Neil Gorsuch's nomination to the Supreme Court vacancy.
- EPA budget cuts.
- Legal action against President Trump's Executive Order concerning the CPP.
- Other unknowns.

Where can I get more information about the Executive Order?

There will be many articles coming out on the executive order but this link from vox.com provides the quickest cleanest look at it so far.

http://www.vox.com/energy-and-environmenT/2017/3/27/14922516/trump-executive-order-climate

EPA CLEAN POWER PLAN TIMELINE

On Aug. 3, 2015, then President Obama announced the Environmental Protection Agency's Clean Power Plan to slow climate change by reducing carbon dioxide emissions 32 percent by 2030. Below are the key dates leading to the implementation of the plan (unless they are changed by lawsuits or congressional action.) Recent actions are included in red.



did not allow Basin Electric credit for our current investments in natural gas generation or renewables, nor our carbon sequestration efforts through Dakota Gas.

"President Trump's action does not, however, impact Basin Electric's efforts to seek a viable path forward in a carbon constrained future. We are actively seeking solutions that reduce our carbon footprint while keeping coal as part of our energy portfolio, preserving both the reliability and cost competitiveness of our members' energy supply.

In addition to our wind and natural gas investments, we are actively working to advance clean coal technology. Examples include hosting the Integrated Test Center at our Dry Fork Station in Gillette, Wyo., and our investments in research, most recently in the development of a high efficiency power generation technology that generates high quality CO₂ as a product stream, along with participation in DOE's CarbonSAFE program to further the science of CO₂ sequestration in saline aquifers."

In November 2015, utilities across the country, including Basin Electric, filed a Motion to Stay with the D.C. Circuit Court of Appeals, which was denied. On Feb. 9, 2016, the U.S. Supreme Court granted Basin Electric and several other petitioners' Motion to Stay the Environmental Protection Agency's Clean Power Plan, giving the current administration time to review the rule and issue today's executive order.

"Smart" Smart-Home Improvements

By Terry Woster

Below: A doorbell camera shows the homeowners that a group of their child's friends are ready for some skateboarding. A smart doorbell system is a basic part of a smart-home improvement project, some experts say. Opposite **Page:** Smartphone screen imaaes illustrate some of the information available in a smart-home security system. Photos courtesy of Vivint Smart Homes

N AVALANCHE OF NEW "SMART" HOME TECH-NOL- ogy – video doorbells, self-adjusting heating systems, lighting that remembers just how bright or dim the homeowner prefers each room at any time of day or night – is flowing onto the markets, offering a wealth of options for anyone considering home-improvement projects.

Not every homeowner will want the futuristic home of George and Jane Jetson from the 1960s television cartoon show, "The Jetsons," (Rosey the Robot, for example, is still a ways off for the average homeowner). These days, though, anyone considering a home-improvement project that involves renovations and upgrades should consider smart-home systems, real estate and technology experts say.

Smart-home features and appliances are available to increase convenience, add security and efficiency and make the home even more a part of the family, the experts say.

"There's an avalanche of technology innovation aimed at our homes," says David Siroty, vice president for North American Communications for Coldwell Banker Real Estate. "And there is an explosion of DIY (do-it-yourself) products on the market, bringing smart homes into reach of nearly everyone."

Smart-home features offer increased security for

homes and their occupants, better energy management for both conservation and cost-savings and the simple convenience of easier living, experts say.

Besides many highly practical reasons to go as smart as possible, there's a "wow factor" to some of the devices, features that cause visitors or potential buyers to whisper "Wow" when they step into the home. A device on the market, for example, allows a homeowner to use a Smartphone from afar to access a camera inside the refrigerator at home to check the contents. Perhaps not many people would actually use such a feature, but a working couple who live miles from their places of business might find it helpful to know they need eggs or milk while they are near the store in the city rather than find that out when they reach home.

It's still a relatively new market, but the trend toward acceptance of and demand for smart-home features is accelerating, says Trevor Lambert, senior director of brand management for Vivint Smart Home, a smart-home services provider headquartered in Utah.

"I think many people think it's complicated, but any home can be upgraded," Lambert said. "Any home can incorporate smart-home technology to some level. The reality is a smart home doesn't need to be a certain age."



Access to the Internet is a key and in many rural areas, that access will determine how quickly smart homes develop, said Brian Sloboda, a senior program manager for the Cooperative Research Network of the National Rural Electric Cooperative Association.

"It's kind of chicken and egg," he said. "People in rural areas aren't going to get smart-home technology without access to reliable broadband internet. But broadband internet services won't go to rural areas without the assurance of customers."

However, Sloboda said there is a trend toward having broadband extend to more rural areas and, "we are seeing some co-ops exploring the possibility of offering broadband."

If a survey done in 2015 by Coldwell Banker and CNET is accurate, the market demand for smart-home products is there and growing. The survey asked 4,000 people in the United States about smart homes.

Some key findings:

• More than one in four Americans own smart-home devices and 87 percent of those surveyed say technology makes their lives easier.

• More than half of those with smart-home products say the technology saves time, an average of 30 minutes a day, and 45 percent say on average their smart-home technology saves them more than \$1,100 a year.

• Parents with children younger than 18 are almost twice as likely to have smart-home products as those without children.

• The Smartphone is the remote control device for a smart home, according to 76 percent of those who responded to the survey.

"Our survey highlights the fact that this innovation has made its way into homes faster than many expected, and that once a homeowner tries a connected device, that person is ready to experiment with more smart products," Lindsey Turrentine, editor-in-chief of CNET.com, said when the survey was released in August of 2015.

Siroty compares the expansion of smart-home technology to the growth in popularity of granite countertops. Granite countertops began as a luxury item, became a more traditional feature of homes and has become something that simply is expected to be part of a home, he said. Smart-home technology is moving through that same process, from luxury to expected feature, Siroty said.

The world of home improvements is replete with stories of do-it-yourself successes and failures. Smart-home home improvements are no different, the experts say. If you're really handy and comfortable with technology, you can probably do a lot of things on your own.

"If you don't feel that handy or have a lot of confidence, there's a lot of value in having someone come in and do the job," Lambert said. With a specialist, the homeowner knows the job is done and has access to trouble-shooting help if needed.

The desirability of having an expert handle things becomes more important as the complexity of the project increases, says Dave Pedigo, senior director of emerging technologies for CEDIA (Custom Electronic Design & Installation Association) said.

"The problem is, when you start adding things together, it becomes exponentially more difficult," he said. A simple project might be just fine as a DIY effort, but "now you're getting 20, 30 or 40 devices and it's increasingly difficult to get a positive experience."

Starting a DIY project and then calling in an expert can mean wasting both time and money, he said. An official with

the Federal Trade



Commission gave a consumer caution in an article written in July of 2016 and posted on the FTC website. Carl Settlemyer with the FTC division of advertising practices noted that smart technology is rapidly evolving, "promising even greater convenience, security and comfort in the future."

But, Settlemyer said, the rapid growth puts a burden on consumers to understand how various devices work and what support the manufacturers will provide and to the security features of the product. He said consumers should ask questions when they shop for smart devices.

Among the questions:

• Find out if the product will work with connected devices you already have and with other companies' devices.

• Ask how you'll get security and other product updates.

• Take time during your initial set-up to familiarize yourself with any dashboards and widgets that you'll use to control the device remotely.

• Don't just accept out-of-the-box default settings. Turn on secure features and re-evaluate only after you're familiar with the device.

• Consider if you'll be able to keep using the device if the manufacturer stops providing updates and other support.

With those cautions in mind, what are the go-to devices or systems for a smart-home improvement project? A quick online search for smart-home gadgets will result in lists of five or six or 10 "best additions to your home," 25 features that "matter most to home buyers," and dozens of other responses.

Many lists include smart door locks, video doorbells, thermostats, light bulbs and electric sockets, ceiling fans, television sets, kitchen appliances, entertainment centers and exterior security camera systems. A growing number of manufacturers are pushing products onto the market. The smart consumer takes some time to study needs and applications, Sloboda said.

He has his own top-four list for a homeowner interested in "dipping a toe" into the smart-home pool.

On Sloboda's list are:

An internet-controlled thermostat. "It's going to save you energy. It's going to save you money. It's going to make you more comfortable."

A security camera system. "You can set alerts for when someone comes near the front door or near the barn. This is a peace of mind issue."

Smart crockpot. "This is where you're going to think I'm getting way out there, to communicate over the internet with the crockpot. But you can take it from high to low, or from low to warm when it's time, or if you get held up getting home."

Electrical outlets. "Simple electrical outlets but they can be controlled through the internet. A table lamp, you can turn it on if you're really late. It's more of a security issue."

Sloboda cautions that many products are available but, "the question to ask is would I actually use this? You can get all caught up in the hype."



Regional Dateline

April 22-23

Banff Mountain Film Festival World Tour, Rapid City, SD 605-394-4101

April 26-29

Black Hills Film Festival Hill City, SD, 605-574-9454

April 29-30, May 6-7 Pari-Mutuel Horse Racing Fort Pierre, SD, 605-223-7603

May 5-7

Naja Shrine Circus Rapid City, SD, 605-343-4076

May 6

Frühlingsfest and Spring Market, Rapid City, SD 605-716-7979

May 12-14

Siouxpercon, Sioux Falls, SD www.siouxpercon.com

May 14

1880 Train Mother's Day Express, Hill City, SD 605-574-2222

May 19

Tesla Car Rally, Custer, SD 605-673-2244

May 19-20

Sioux Empire Film Festival Sioux Falls, SD, 605-367-6000

May 19-21

State Parks Open House and Free Fishing Weekend Pierre, SD, 605-773-3391

May 20

Turkey Days, Huron, SD 605-352-0000



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.

May 20-21, 28-29 Pari-Mutuel Horse Racing, Aberdeen, SD, 605-715-9580

May 26-27

Štate Track Meet Sioux Falls, SD, 605-224-9261

May 26-28

Šouth Dakota Kayak Challenge Yankton, SD, 605-864-9011

May 27-28

Annual SDRA Foothills Rodeo Wessington Springs, SD 605-770-4370

May 30

Ź6th Annual Kids Art Fest Yankton, SD, 605-665-9754

June 2-3

Rockin' Ribfest, Yankton, SD 605-665-2263

June 2-3

Senior Games, Sioux Falls, SD Contact Scott Junke at 605-367-8222

June 2-4

Fort Sisseton Historical Festival Lake City, SD, 605-448-5474

June 2-4

Annual Black Hills Quilt Show and Sale, Rapid City, SD 605-394-4115

June 2-4 Wheel Jam, Huron, SD

605-353-7340

June 2-4

Fish Days, Lake Andes, SD pattironfeldt@hcinet.net

June 3

Dairy Fest, Brookings, SD 605-692-7539

June 9-10

Senior Games, Spearfish, SD Contact Brett Rauterkus at 605-722-1430

June 17-18

South Dakota Peach Festival Sioux Falls, SD

Deadwood, SD, 605-578-1876 May 13

Events of Special Note

Ćinco De Mayo Festival

May 6

Ŵells Fargo Cinco De Mayo Fiesta, Falls Park Sioux Falls, SD, 605-271-0468

June 17-18

Coin and Stamp Show Fort Meade Gym Sturgis, SD, 605-381-4625

June 23

148th Annual Midsummer Festival, Dalesburg Lutheran Church, Vermillion, SD 605-253-2575 www.dalesburg.org

June 23-24

Senior Games, Mitchell, SD Contact Howard Bich at 605-275-6891 or email sdsrgames@gmail.com

July 7-8

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

July 22

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