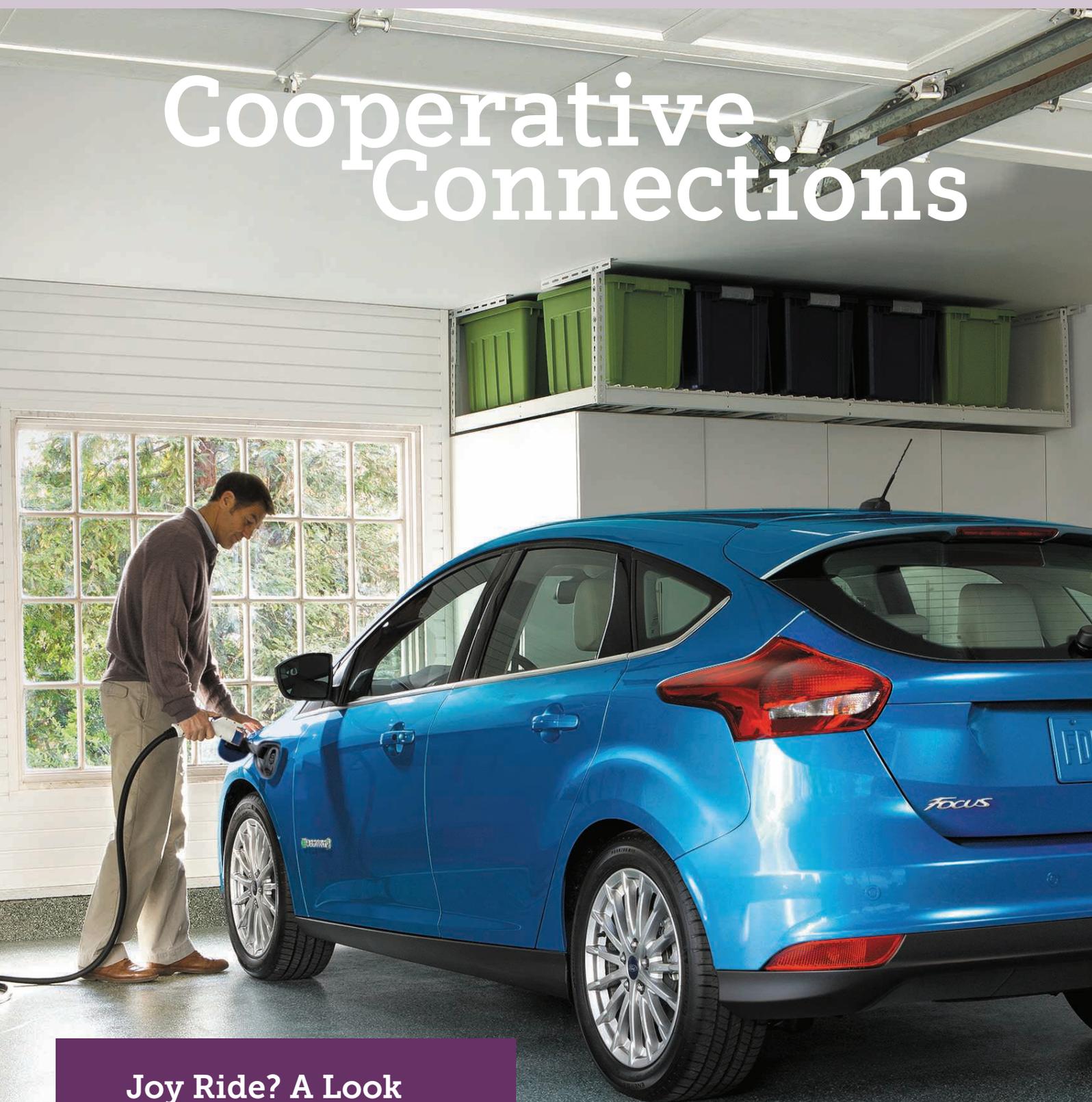


# Cooperative Connections



**Joy Ride? A Look  
at Electric Vehicles**

Page 8

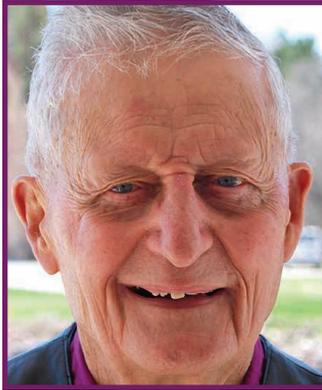
**Tractor of Tomorrow?**

Page 12

Dwayne Breyer

# Co-op Leader Retiring

By Mike Chase



Dwayne Breyer

BHEC Board Member

***It has been great to have members who had enough faith in me and then supported me.***

Volunteering has always been part of Dwayne Breyer's life, so when he was asked to serve on Black Hills Electric Cooperative's board of directors in 2007, the answer was an immediate yes.

Breyer and his wife, Mary, live south of Hot Springs and have been members of the co-op since 1997. Now, after 11 years on the board, Breyer has decided it is time for "younger minds to take over." Breyer's last day on the board will be at the annual meeting in Hot Springs on May 31.

Breyer said he has really enjoyed serving the membership and working with the co-op's directors and employees. "I also enjoyed the interaction between directors from other co-ops across South Dakota and other states."

"It is like being in a family," he said. "Everyone cooperates with each other and works together for the betterment of the cooperative."

Breyer said there were challenges over the years. "When I joined the board, more and more members were looking at alternative generation," he said. "We wanted to determine how it could benefit those members without other members having to subsidize the small generators. We continue to study solar and wind and ways to incorporate it into our generation portfolio "

With increases in wholesale power costs, Breyer said that the board discussed rates often. "The biggest challenge has been having to deal with rates," he said. "It was tough for a couple of years."

"When we went to the demand rate, that was not an easy change," Breyer said. "I never had anyone really work me over on issues affecting the co-op and that says something about our co-op members."

Breyer believes it is important for the cooperative to be involved in the community. "I am proud of the giving the co-op does to non-profits and area volunteer fire departments and organizations," he said. "Our area meetings and fair dinners have been a great way for me to meet our members and visit."

Breyer, who served as board president from 2012 through 2014, said, "I like the way Walker (Witt) helps the board and challenges us. The training began immediately and the co-op commits to the education of the directors," Breyer said. "The mentoring of directors gives each of us the opportunity to go as far as we can. No one sleeps in our meetings!"

Breyer remembers when he and Mary bought their first place in 1958 near Milbank, it was a co-op that brought electricity to them. "We had no electricity and the line was about three-quarters of a mile away," he said. "I talked to the co-op and they built a line and we had power in two days."

When asked what he will miss most about serving on BHEC's board, Breyer said, "The people. Working with and listening to the members, other directors and the employees has been great. You become more of the community when you serve on this board. Thanks for the ride, it has been great."



# Black Hills Electric

## Cooperative Connections

(ISSN No. 1531-104X)

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### Board of Directors

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Jim Preston – Secretary

Al Perry – Assistant Secretary

Dennis Quivey – Treasurer

Gary Kluthe

Dwayne Breyer

**CEO and General Manager:** Walker Witt – [wwitt@bhec.coop](mailto:wwitt@bhec.coop)

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BLACK HILLS ELECTRIC COOPERATIVE CONNECTIONS is the monthly publication for the members of Black Hills Electric Cooperative, 25191 Cooperative Way, P.O. Box 792, Custer, S.D. 57730-0792. Families subscribe to Cooperative Connections as part of their electric cooperative membership. Black Hills Electric Cooperative Connections' purpose is to provide reliable, helpful information to electric cooperative members on matters pertaining to their cooperative and living better with electricity. Also available at [www.bhec.coop](http://www.bhec.coop).

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Postmaster: Please send address changes to Black Hills Electric Cooperative, P.O. Box 792, Custer, S.D. 57730-0792. Address all other correspondence to: Cooperative Connections, P.O. Box 792, Custer, S.D. 57730-0792 Telephone: (605) 673-4461; Fax: (605) 673-3147; e-mail: [bhec@bhec.coop](mailto:bhec@bhec.coop); website: [www.bhec.coop](http://www.bhec.coop)

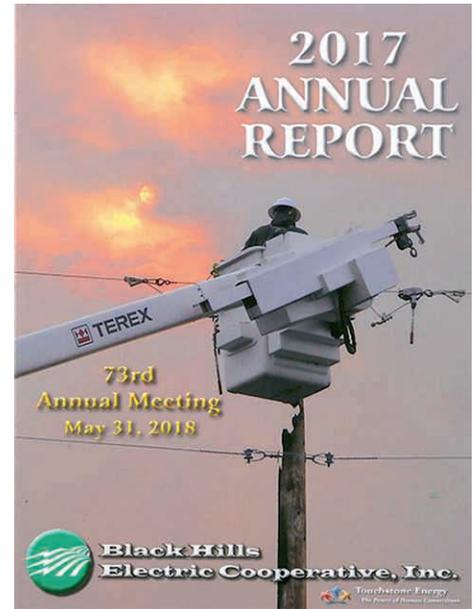
## Annual Report Mailed in May

Black Hills Electric Cooperative members should have received their copy of the 2017 annual report in early May.

Again this year, we will not use a pre-registration postcard. If you plan to attend the annual meeting on Thursday, May 31, please e-mail us at [bhec@bhec.coop](mailto:bhec@bhec.coop), call us at 673-4461 or 1-800-742-0085, go to our webpage at [www.bhec.coop](http://www.bhec.coop) and click on annual meeting registration or go to our Facebook page at [www.facebook.com/blackhillselectriccoop](http://www.facebook.com/blackhillselectriccoop).

Pre-registration helps us to better plan for the number of people who will attend. It helps us order only the meals necessary, saving hundreds of dollars in uneaten meals.

We have to guarantee the meals based on our pre-registration numbers. If less people come than pre-registered, we still have to pay for the meals we guaranteed. If more come than pre-registered, we may not have enough meals for everyone. The pre-registration deadline is Friday, May 25.



If you do pre-register and must cancel, please contact us as soon as possible.

This year's annual meeting is at the Mueller Center in Hot Springs with registration beginning at 5 p.m.

## Power out? Who you going to call?

It doesn't matter what time of day or night that you have an outage on Black Hills Electric Cooperative's lines, you can get power restored by calling 673-4461 from Custer south or 1-800-742-0085 from Custer north and the Hermosa area.

Prior to reporting an outage, please check the breaker below your main meter or check to see if the meter display is blank. If the meter is blank, report your outage. If the meter is showing readings, open the panel below the meter and shut the breaker off and then back on to reset it.



During normal business hours of 7:30 a.m. to 5 p.m. Monday through Friday, your calls will be answered by someone in the office. When you call one of those numbers after hours, you will be

transferred to our dispatch center and will get a recording with four options:

Press 1 to report an outage. The options under this are to report by phone number, report by meter number, report down poles or lines or other critical information or speak to an operator.

Press 2 to leave billing questions.

Press 3 to leave a meter reading.

Press 0 to speak to an operator for all other calls.

When you report an after-hours outage, our dispatch center immedi-

ately contacts the line crew on call and the crew is dispatched to your outage.

Once power is restored, our dispatch center will call your phone number to verify that your power is back on.

## Electrical Safety on the Farm

Farming is among the more dangerous occupations for several reasons, including potential for encounters with electrical hazards. Before taking to the fields, the Safe Electricity program urges farm workers to be aware of overhead power lines and to keep equipment and extensions far away from them.

Safe Electricity encourages farm managers to share this information with their families and workers to keep them safe from electrical accidents.

- Start each morning by planning your day's work. Know what jobs will happen near power lines and have a plan to keep the assigned workers safe.
- Keep yourself and equipment at least 10 feet away from power lines in all directions, at all times. Use a spotter when moving tall equipment and loads.
- Use care when raising augers or the bed of a grain truck. It can be difficult to estimate distance and sometimes, a power line is closer than it looks. Use a spotter to make certain you stay far away from power lines.
- Always lower equipment extensions, portable augers or elevators to their lowest possible level, under 14 feet, before moving or transporting them. Wind, uneven ground, shifting weight or other conditions can cause you to lose control of equipment and make contact with power lines.
- Be aware of increased height when loading and transporting larger modern tractors with higher antennas.
- Never attempt to raise or move a power line to clear a path. If power lines near your property have sagged over time, call your utility to repair them.
- Don't use metal poles when breaking up bridged grain inside and around bins.
- As in any outdoor work, be careful not to raise any equipment, such as ladders, poles or rods, into power lines. Remember, non-metallic materials, such as lumber, tree limbs, tires, ropes and hay, will conduct electricity, depending on dampness and dust and dirt contamination.
- Use qualified electricians for work on drying equipment and other farm electrical systems.
- If you are on equipment that contacts a power line, do not exit the equipment. When you step off the equipment, you become the electricity's path to ground and receive a potentially fatal shock. Wait until utility workers have de-energized the line and confirmed it is safe for you to exit the vehicle. If the vehicle is on fire and you must exit, jump clear of the vehicle with both feet together. Hop as far from the vehicle as you can with your feet together. Keep your feet together to prevent current flow through your body, which could be deadly.

Electrical work around the farm can also pose hazards. Often, the need for an electrical repair comes when a farmer has been working long hours and is fatigued. At such times, it's best to step back and wait until you've rested.

Source: safeelectricity.org

## Primary Elections Near

Voters in South Dakota head to the polls in June for the primary election while voters in Minnesota follow suit Aug. 14.

A primary election determines which candidates will be on the ballot in the November general election.

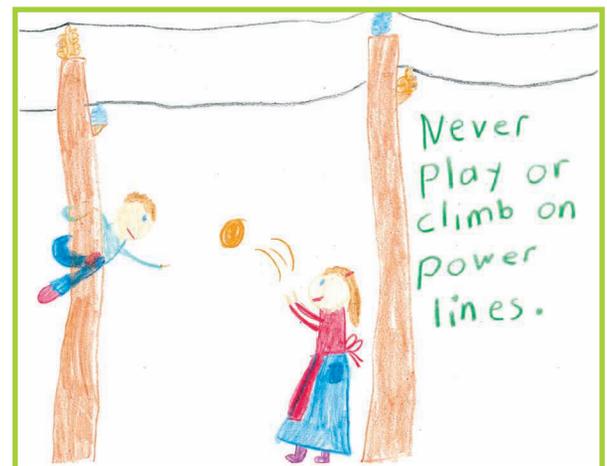
In South Dakota, there are 24 House and Senate races with primary elections that will be decided on June 5. Those wishing to vote in the primary election have until May 21 to register to vote. Absentee voting began on April 20.

Minnesota's Primary Election Day is Tuesday, Aug. 14. Minnesotans can vote by mail or in person from June 29 through Aug. 13.

As part of the election cycle, co-ops across the county are engaging in Co-ops Vote, a non-partisan program developed by the National Rural Electric Cooperative Association (NRECA), the national service organization that represents the nation's more than 900 private, not-for-profit, consumer-owned electric cooperatives. The Co-ops Vote campaign seeks to help get out the vote and insert issues important to co-ops and their communities into the public discussion.



## KIDS CORNER SAFETY POSTER



**"Never play or climb on power lines."**

**Caroline Ekberg, 9 years old**

Caroline is the daughter of Lance and Doris Ekberg, Hamill, S.D. They are members of Rosebud Electric Cooperative, Gregory, 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.



# Dairy Delicious

## Cream Cheese Chicken Taquitos

2 boneless chicken breasts	1 (8 oz.) pkg. cream cheese
1 tsp. chili powder	1/3 cup water
1 tsp. garlic powder	1/2 cup shredded cheese
1 tsp. cumin	12 6-inch flour tortillas

Place chicken, chili powder, garlic powder, cumin, cream cheese and water in crock pot. Cover and cook on LOW for 8 hours or 4 hours on HIGH. Place 1/4 cup of the chicken mixture into each tortilla. Top with 1 to 2 T. shredded cheese. Roll tightly and place in a single layer on greased baking sheet. Bake at 400°F. for 10 minutes or until tortillas are slightly browned and cheese is melted.

**Cortney Reedy, Tea, S.D.**

## Crunchy Ice Cream Bars

1/2 cup light corn syrup	4 cup Kellogg's Cocoa Krispies
1/2 cup peanut butter, creamy or chunky	1 pint ice cream

Mix corn syrup thoroughly with peanut butter. Pour over Cocoa Krispies and stir until well coated. Press mixture into a 9x13-inch buttered pan. Place in freezer to firm up. Cut into 12 3-inch squares. Place a slice of ice cream between 2 squares. Cut each square into 2 bars. Wrap individually in foil and keep in freezer until needed.

**Cindy Reu, Luverne, Minn.**

## Strawberry Cheesecake Pie

2 cups sliced fresh strawberries	1 (8 oz.) pkg. cream cheese, softened
1/4 cup chopped almonds	2 cups cold milk, divided
1 T. sugar	1 (3.4 oz) pkg. instant vanilla pudding
1 9-inch graham cracker crust	

In a bowl, combine strawberries, almonds and sugar. Pour into crust. In a mixing bowl, beat cream cheese until smooth; gradually add 1/2 cup milk. Add pudding mix and remaining milk. Beat for 1 minute or until blended; pour over strawberries. Cover and refrigerate for 2 hours or until set.

**Stephanie Fossum, Hudson, S.D.**

## Lemon Ginger Blueberry Muffins

2 cups flour	1/4 cup milk
2/3 cup sugar	1/4 cup vegetable oil
1-1/2 tsp. baking powder	1 egg, lightly beaten
1 tsp. McCormick® ground ginger	1 tsp. McCormick® pure lemon extract
1/2 tsp. baking soda	1 cup blueberries
1 cup sour cream	

Lightly grease 12 muffin cups or line with paper baking cups. Set aside. Mix flour, sugar, baking powder, ginger and baking soda in large bowl. Mix sour cream, milk, oil, egg and lemon extract in medium bowl. Add to flour mixture; stir just until dry ingredients are moistened. (Batter will be thick and slightly lumpy.) Gently stir in blueberries. Spoon batter into prepared muffin cups, filling each cup 2/3 full. Bake at 400°F. 20 to 25 minutes or until toothpick inserted in center of muffins comes out clean. Serve warm. Makes 12 (1 muffin) servings.

*Nutritional Information Per Serving: Calories 213, Total Fat 9g, Sodium 122mg, Cholesterol 29mg, Carbohydrates 30g, Protein 3g, Dietary Fiber 14g*

**Pictured, Cooperative Connections**

## Cowboy Caviar

2 cans Mexicorn	1 can diced tomatoes and green chilies
2 cups shredded Cheddar cheese	6 green onions, chopped
1 cup Miracle Whip	Fritos Scoops corn chips
1 cup sour cream	

Mix together all ingredients; serve with corn chips.

**Jane Ham, Rapid City, S.D.**

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

## Select Proper Size and Design of Window/Door Awnings for Energy Savings, Comfort, Privacy



**Jim Dullely**

[www.jimdullely.com](http://www.jimdullely.com)

**Installing window awnings can reduce summertime energy usage.**

**Dear Jim:** I have always liked the appearance of window awnings. The salesman told me installing them can also save a lot of energy. Do they really save much energy and what awning choices are best? – Kathy F.

**Dear Kathy:** The awning salesman was not just blowing smoke to get a sale. Installing window awnings can reduce summertime energy usage. There are also other benefits such as reduced fading of furniture, drapes and carpeting, and protection of your primary windows and doors from the sun and severe weather. The same UV rays which fade your furniture also slowly degrade window frame and door materials over time.

The reduction in air-conditioning electrical usage results from the blocking of the direct radiant heat from the sun through windows and doors. Studies by the University of Minnesota found installing window awnings can reduce cooling energy needs by 21 percent in Phoenix, 17 percent in St. Louis and 24 percent in Boston.

Another advantage of awning energy savings is it is greatest during the hottest hours of the afternoon when the sun is most intense. This reduces the peak electricity load for the utility company's electric generation, so there is less chance of brownouts and other problems associated with excessive electricity demand.

There are many window awning options available. The first decision to make is if you want fixed or adjustable awnings. They both are equally effective during the summer to reduce your peak electricity usage in midafternoon. The advantage of adjustable awnings is the level of shading can be changed throughout the day and various seasons. Fixed and adjustable ones are available in all-aluminum or fabric over an aluminum frame.

Adjustable fabric awnings offer better protection from severe weather because some can be lowered to be almost flat over the window opening. They can also be raised to nearly expose the entire window glass for winter solar heat gain. Fabric awnings using Sunbrella® fabrics provide SPF-15 cancer risk protection. Also, ones using GORE™ Tenara® thread are durable and hold up well to UV (ultraviolet) degradation.

The maximum projection from the wall for an adjustable aluminum awning is fixed by the frame and the down arm length. To open them, the aluminum awning slats roll up above the frame and the hinged arms swing upward. The advantage of aluminum is its strength and its resistance to degradation from the sun's UV rays.

Sideless awning designs, called Venetian awnings, are effective for true south-facing windows because the most intense sun's rays come from directly overhead. Actually, just a relatively short flat board over the window, such a large roof overhang, is effective at blocking the sun over these windows. If you also need to block the late afternoon sun at those south-facing windows, install hood style awnings with sides. For casement windows, hip-style awnings provide clearance for the window sash to swing open outward.

If you are also concerned about security and privacy, select an adjustable awning which can be lowered completely flat against the window. This offers privacy and some protection from break-ins and storm damage to the window glass from flying objects.

Proper sizing (projection length from the house wall) of window awnings is important both for blocking the summer sun and for allowing the winter sun to shine. This is particularly true if you install fixed awnings, instead of adjustable ones, because their shading angle cannot be changed. The orientation of the window to the sun also affects the proper awning sizing because the sun is lower in the sky during early morning and late afternoon.

If you still remember your high school geometry, you can calculate the size of awning needed for various windows and doors. The latitude angle (varies from about 29 degrees for Houston to 45 degrees for Minneapolis) for your area determines how high the sun is in the sky and its angle of incidence on your windows. You can find the sun location for various regions, seasons and times of day in most basic solar energy books.

If you are not a math whiz, just make a "test stick" awning to determine the proper size. Hold the end of a stick against the top of the window frame or wall at the time of day when you need shading. Vary the stick lengths and the angle until its shadow provides the shading you desire. The shades width should extend at least two inches on either side of the window.

Send inquiries to James Dullely, Cooperative Connections, 6906 Royalgreen Drive, Cincinnati, OH 45244 or visit [www.dullely.com](http://www.dullely.com).



# Touchstone Energy® Scholars Recognized

Touchstone Energy® Cooperatives in eastern South Dakota and western Minnesota honored some of the area's most impressive high school seniors Saturday, April 28, during the 16th annual Touchstone Energy Scholar of the Year banquet and recognition on the campus of Lake Area Technical Institute.

The event honored the 33 high school students who were chosen each week throughout the school year as the Touchstone Energy Scholar of the Week. It's a program which recognizes students for academic achievement, co-curricular involvement and community service. The students are featured in weekly segments which air on KSFY Television and each student receives a \$100 scholarship for being chosen as the Scholar of the Week.

Nathan Hulscher, a senior at Florence High School within Codington-Clark Electric's service territory, was selected during the banquet as the Touchstone Energy Scholar of the Year. Hulscher, who plans to attend Augustana University in the fall, received a \$1,000 scholarship. Trevor Case, a senior at Webster Area High School within Lake Region Electric's service territory, and Alexander Palecek, a senior at Yankton High School within Clay-Union Electric's service territory, were both chosen to receive \$500 scholarships. The names were drawn from among the attendees.

Lake Area Technical Institute's President Michael Cartney was the keynote speaker for the Scholar of the Year banquet. KSFY News anchor Brian Allen served as the master of ceremonies.

Touchstone Energy Cooperatives in eastern South Dakota and western Minnesota provide safe and reliable electricity to more than 113,000 homes and businesses. The cooperatives have sponsored the Scholar of the Week program since 2002. In that time Touchstone Energy Cooperatives have awarded over \$80,000 in scholarships as part of the Scholar of the Week program.

## Cooperatives Honored

Four cooperatives that serve in South Dakota and western Minnesota were recognized with Spotlight on Excellence Awards. The Spotlight on Excellence Award is an initiative of the Council of Rural Electric Communicators and is NRECA's highest communication honor.

The awards are presented by the cooperative recognizes a body of outstanding work produced by electric co-op communications and marketing professionals across Co-op Nation.

Winners of the 2017 Spotlight on Excellence Awards represent leading practices across all communication platforms and position them as the best in the field through their superior accomplishments that have lasting impact, demonstrate a high level of professionalism and deliver exceptional results.

Gold winners scored 90 points or more in their category and classification, while Silver winners scored at least 80 points. Awards are presented for best projects and programs for the year that embody high standards of quality and achievement.

Among the cooperatives honored:

- Basin Electric Power Cooperative, Bismarck, N.D. – Gold Award for Best Wild Card, "Pathfinders: Coal and the future of energy" and Gold Award for Best Event, "2017 Basin Electric Annual Meeting"
- Central Electric Cooperative, Inc., Mitchell, S.D. – Gold Award for Best Event, Solar Informational Workshops
- East River Electric Power Cooperative, Madison, S.D. – Silver Award (Tie) Best Total Communication Program "Powering Your Safety"
- Northern Electric Cooperative, Bath, S.D. – Gold Award for Best External News Publication, "Northern Electric Cooperative Connections"



The 2017 Ford Focus, with a price tag in the \$35,000 dollar range, can accelerate from 0 to 60 mph in 6 to 11 seconds, which is about average for all U.S. cars.

## What You Don't Know about Electric Cars Could

# THRILL YOU

## Electric Vehicles Aren't Just for City Driving.

**Paul Wesslund**

NRECA Contributing Writer

If you want a really powerful car, maybe one that can accelerate from 0 to 60 mph in less than 3 seconds, consider an electric vehicle like the NIO EP9.

You're right, that's too powerful. The NIO EP9 would also cost you more than a million dollars. But even more modest versions offer a respectable kick. The Chevy Bolt and Ford Focus, with price tags in the \$35,000 dollar range, make the jump to 60 mph in 6 to 11 seconds, which is about average for all U.S. cars.

There's a built-in reason electric cars hold their own in performance, says Brian Sloboda, a program and product manager at the National Rural Electric Cooperative Association.

"In an electric car, all of the power is going into the wheels. With a gas-powered car, a lot of power is lost inside the mechanical engine," says Sloboda. "If you sit in an electric car and the driver smashes down on the accelerator, you are going to be thrown into the back of your seat, much more so than many gasoline cars."

In March, Goodyear announced a new tire that would hold up better under the "instant torque from electric motors."

Photo Caption



### But wait, there's more.

"The battery is at the bottom of the car, so you have a lower center of gravity, which means you can take the corners crisper," says Sloboda. "If you do a lot of driving in the hills or mountains, they are fun."

Electric vehicles hold a lot of other surprises compared to the

traditional view of them as a glorified golf cart. Even electric co-op in rural parts of the country are hearing interest from their members.

About 700,000 electric vehicles drive on U.S. roads today, according to an analysis by CoBank, a financier for electric co-ops. That number could jump to 3 million in the next five years, says CoBank. The U.S. Department of Energy's Energy Information Administration projects electric vehicle sales growing from about 1 percent of the market today, to 12 percent by 2050.

Car makers are pushing those trends. In October, General Motors said it would launch 20 new electric vehicles by 2023. In January, Ford announced plans to invest \$11 billion in a lineup of 40 hybrid and electric vehicles by 2022. In March, Volkswagen said it had secured \$25 billion in electric car batteries and technology and plans to scale that up to \$60 billion.

One of the most radical new notions about electric vehicles, advises Sloboda, is to think of them not as cars or trucks, but as consumer electronics.

"The internal combustion engine is a perfected technology, so those cars aren't improving at a very rapid pace," says Sloboda. "But electric vehicles are evolving at a very rapid pace, so you're really kind of comparing it to a cell phone or a computer."

What that means for consumers, says Sloboda, is that they might consider leasing an electric car rather than buying one, to make it easier to trade in the car to take advantage of the annual improvements in battery life, and other features.

Other unexpected benefits of electric vehicles that could speed their acceptance, says Sloboda, include range, maintenance and more competitive costs.

### Will I run out of juice?

The electric vehicle industry has a term for the biggest roadblock to its growth—range anxiety. But Sloboda says the fear of getting stranded far from home with no way to refuel may be overblown, and getting less concerning.

"The range on the electric cars you can buy today is perfectly sufficient to cover almost everyone's daily commute," he says. Sloboda says that while electric cars won't work for someone regularly commuting 100 miles a day, "For most people, even in rural areas, that number is under 40 miles a day. Most electric cars on the market today have between a 120 mile range and some of them are getting close to a 200 miles."

The Federal Highway Administration reports the average American drives 37 miles a day.

### Less hassle

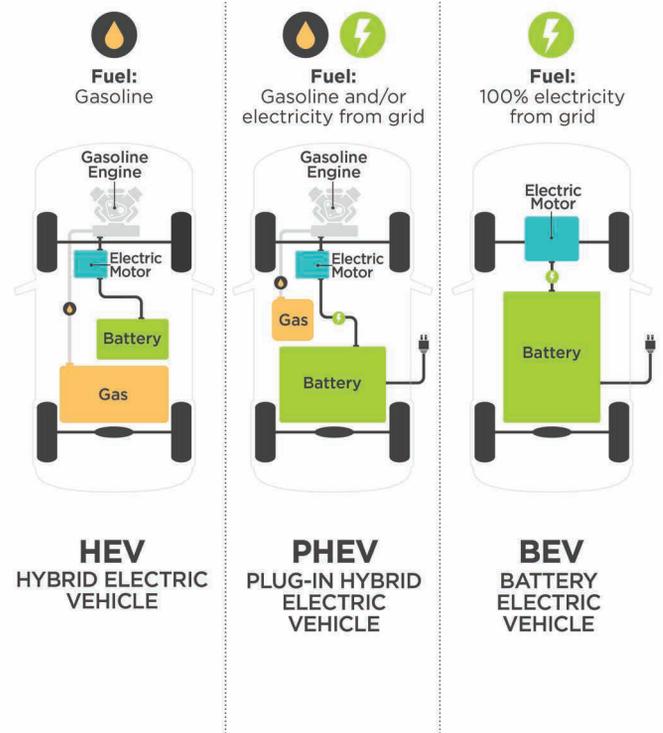
Electric car acceptance doesn't need to wait for a network or charging stations to appear around the country, says Sloboda. He sees refueling more like this: you plug your car into an outlet in your garage at the end of each day, and by morning it's fully charged.

"No more having to stop and fill your tank up once or twice a week," he says. "You can charge it at home while you're sleeping and wake up to a full tank every single day."

Electric cars can also save on maintenance, says Sloboda.

## Types of Electric Vehicles

If you're looking to purchase an electric vehicle, use this cheat sheet to help determine the various options. Drivers can choose between three types of electric vehicles (EVs). EVs are classed by the amount of electricity that is used as their energy source.



"With an electric vehicle, you don't have oil changes, and you don't really have transmission fluid changes," he says.

And regenerative braking in electric cars uses the electric motor to slow the car rather than relying only on brake pad friction. Sloboda says, "A lot of electric vehicle owners are saying they've never replaced their brakes because you just don't have the physical wear and tear on the brake pad."

### Costs are coming down.

Sloboda says electric car costs today make them a luxury car, but that's changing. As electric car research, development and production increases, costs will be coming down. Tax breaks for electric cars at the federal level and in some states can reduce costs by several thousand dollars. And Sloboda notes that electric costs less per mile than gasoline.

But one of the main reasons drivers buy electric cars is for environmental reasons.

Sloboda says an electric car "is cleaner than a gas-powered car, no doubt about it."

Another advantage of an electric car, he adds, is that "you're powering it with electricity from your local electric co-op."

*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.*

# Co-op blasters are re-certified

Black Hills Electric Cooperative is the only electric co-op in South Dakota that uses dynamite to blast holes for poles.

Four of the co-op's linemen are certified blasters and recently attended classes in Wyoming to get re-certified. The intense, two-day course deals with handling dynamite, detonation cord and blasting caps and the proper methods of blasting.

Because of the use of dynamite, the co-op can expect surprise visits from Alcohol, Tobacco and Firearms agents on a regular basis.

The blasters are Bill Brisk, since 1995; Dean Whitney, since 2002, Casey Ellerton, since 2008 and Mark Svoboda, since 2008.



Photo above and clockwise: Casey Ellerton, left, and Mark Svoboda connect detonation cord to blasting caps that will be inserted into the dynamite. The cord is hooked to a detonator switch; Svoboda drills holes for the dynamite; The controlled blast shatters the rock and makes drilling the hole easier.

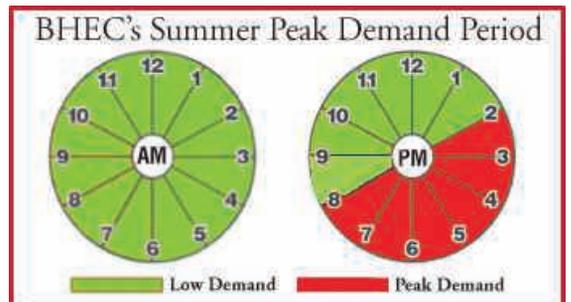


## Summer Demand Times Begin June 1

Black Hills Electric Cooperative's summer demand hours begin on Friday, June 1. Members on the demand rate will want to manage their electric use from 2-8 p.m. Monday through Friday.

Managing your demand during those times can save money on your electric bill.

From June 1 through September 30 co-op members use the majority of their electric energy from mid-afternoon to early evening, during the heat of the day. Because of this, the cost of energy the co-op buys to meet the load is higher. Using



large loads during off-peak times saves everyone money on energy costs.

For those with demand controllers, this is a good time to check the clock.

Call us if you have questions.

# Check and clean or replace your heat pump or furnace filter often

The air filter's job is to keep dust and debris out of your HVAC equipment. You'd be amazed how much builds up on there in a very short time in South Dakota.

When your heat pump or AC filter gets clogged, dust and dirt start getting into the unit itself, causing wear and tear on the parts. The clogged filter also prevents enough air from flowing through the system to keep it working properly.

According to ENERGY STAR®, you should check and change the HVAC filter every month during peak season. This is a job that you can probably handle on your own if you choose to do so.

Follow these easy steps to change the filter and keep your system running reliably.

First, locate the air filter. That can be the tricky part, because there are several places it could be.

In some systems, the filters are located in the return air duct. This is the one that pulls air from your space back into the system's air handler.

If both your heating and air conditioning systems share the same ducts, it's also possible that the air filter for both systems is located in or near the blower system for the furnace. If so, it's usually in the front of the furnace near the bottom. You may be able to see and access the filter without opening anything, or you might have to open a metal panel (marked FILTER) on the front or the top of the blower. The panel may be attached with hooks or screws.

The other potentially tricky part is making sure you use the right filters. The filter size is usually printed on the side of the filter. When in doubt, the easiest solution is to ask your HVAC tech to get you a supply of the right filters.

Also, keep in mind that you might want filters that do more than just keep dust out of your home. If you want to improve air quality by cleaning the air of pollen, mold

and other harmful contaminants, you need to invest in HEPA filters with a MERV rating of 10 or higher.

Before replacing the filter, turn off the power to the unit. Then remove the old filter by sliding it out of the slot that holds it in place.

Once you've taken out the filter, check the condition. Does it look clogged with dirt and dust? If you hold it up to the light, you probably can't see much

light coming through. This filter needs to be replaced or cleaned, depending on the

type of filter you are using. Even if it's been in use less than the time recommended by the manufacturer, replace it anyway. Many factors can impact how fast your filters get clogged.

Clean the filter or grab a new one. A disposable filter typically has a cardboard frame and a paper or fiber mesh surface. A permanent, reusable filter is made of a more sturdy material with a metal frame and a special coating to make it washable. If you're cleaning a reusable one, check the manufacturer's instructions for washing. You'll probably just need to rinse with water and let dry completely. Or in some cases, you can just vacuum away the dust.

Insert the new or cleaned filter. Now you just need to put it back in the right way. An arrow on the filter's frame shows you the direction that air should flow through the filter, which is always away from the return air duct and toward the air handler mechanism.

See, wasn't that easy? Now that you know how to change our HVAC filter, set a reminder for yourself so you remember to do it every month. And, don't forget about your furnace if its filters are separate from your air conditioner.

If, by any chance you don't have a regular HVAC service tech to ask about how to change your filter, it's likely that you've been neglecting other important maintenance tasks besides changing filters.



## We Are Looking For Advisory Committee Members

We are looking for volunteers to serve on the cooperative's advisory committee. The committee meets with CEO Walker Witt and other staff two or three evenings a year to learn more about the co-op and to provide input on the operations and direction of the cooperative.

Interested members may sign up at this year's annual meeting on Thursday, May 31, at the Mueller Center in Hot Springs or by e-mailing [mchase@bhcc.coop](mailto:mchase@bhcc.coop) or calling 605-673-4461.

The meetings begin at 5:30 p.m. and a meal is provided. Locations vary.

# Meet the Electric John Deere

## Battery-run Tractor Showcased in Paris

**Kaley Lockwood**

editor@sdrea.coop

**In order for the SESAM to take off, the battery capacity will need to expand to support the sun-up to sun-down longevity of farm work.**

Green and yellow are arguably the second-most American set of colors, behind red, white and blue of course. This rings true particularly for those who operate John Deere machinery on a daily basis, as the growth of our nation is supremely dependent on the country's agriculture industry, including the good folks who support it.

Technology in recent years has been the catalyst for the boom and bust of many industries. In the past decade or so, advancements in farming technology have primarily been focused on automation and precision, but with the automobile industry moving towards electric vehicles, the ag-industry is following suit.

John Deere showcased the first, fully battery-powered tractor in 2017 at SIMA, an international agribusiness tradeshow in Paris. This technological innovation was given a 'special mention' as it truly the first of its kind. Nicknamed SESAM, for Sustainable Energy Supply for Agricultural Machinery, this all-electric tractor is modeled after John Deere's 6r series tractors.



A peek under the hood of John Deere's first, fully battery-powered tractor. The all-electric tractor is modeled after John Deere's 6r series tractors.

In a press release by John Deere, SESAM is said to have all of the same "features and functionality of a 'conventional' tractor while offering the benefits of electric power." This emissions-free tractor runs at a lower noise level than other traditional tractors and is operated using two independent electric motors. The electrification of this tractor simplifies the moving parts and thus, greatly reduces the need for maintenance.

These two motors power an adapted DirectDrive transmission, producing 130 kilowatts of continuous power with a peak output of 400 horsepower, according to Farm-Equipment.com. The website also affirms that the tractor takes three hours to fully charge and can run up to four hours in the field with speeds ranging from 2 mph to 30 mph. As a comparison, the Tesla model 3 may have a capacity of up to 75 kilowatt hours of battery storage (kWh), providing a range of about 310 miles. The SESAM has a capacity of 130 kWh with a range of about 34 miles, which

means that this tractor uses a lot more electricity in a shorter period of time.

In order for the SESAM to take off, the battery capacity will need to expand to support the sun-up to sun-down longevity of farm work. In fact, the President and CEO of Autonomous Tractor Corporation, Kraig Schulz, purported that a 200 horsepower electric tractor would hypothetically need about 1,500 kWh of batteries to complete a full day's work. As energy storage technology continues to advance, it's only a matter of time before John Deere manufactures a tractor that can meet this need.

Although SESAM's battery technology may not yet be practical for a full day of farming, the all-electric tractor is a very exciting development for the agriculture industry. This is one of many future steps in the direction of electrifying agricultural machinery and integrating this equipment with renewables. As the press release

stated, "The SESAM tractor is a major part of John Deere's vision of the energy-independent farm of the future."

This push towards electrification of farm machinery in lieu of using fossil fuels directly supports the beneficial electrification movement. This concept, known fully as "environmentally beneficial electrification," is gaining traction among a growing number of groups in the U.S. including local electric cooperatives. Frequently promoted as a means to reducing greenhouse gases and helping the environment, beneficial electrification also helps consumers by providing products that are cleaner, quieter and easier to maintain. John Deere's SESAM tractor does just that.

*Kaley Lockwood 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.*

**The tractor takes three hours to fully charge and can run up to four hours in the field with speeds ranging from 2 mph to 30 mph.**

In 2017, John Deere showcased the first, fully battery-powered tractor. This technological innovation is truly the first of its kind. Nicknamed SESAM, for Sustainable Energy Supply for Agricultural Machinery, this all-electric tractor is modeled after John Deere's 6R series tractors.





Matt Greek, Basin Electric senior vice president of Research, Development, and Technology (second from left); and Doug Hardy, general manager of Basin Electric Class A member Central Montana Electric Power Cooperative (third from left), were among witnesses testifying before the U.S. Senate Committee on Energy and Natural Resources April 19 in Washington, D.C.

# Basin Electric, Member Co-op Staff Testify on **CAPITOL HILL**

## Basin Electric Power Cooperative

April 24, 2018

Matt Greek, Basin Electric senior vice president of Research, Development, and Technology; and Doug Hardy, general manager of Basin Electric Class A member Central Montana Electric Power Cooperative, testified before the U.S. Senate Committee on Energy and Natural Resources April 19 in Washington, D.C.

The purpose of the hearing was to examine energy-related challenges and opportunities in remote and rural areas of the United States.

“We have rural and remote communities all over the United States,” said U.S. Sen. Lisa Murkowski (R-AK), committee chairman. “We’re here today to focus on their energy challenges and opportunities, in hopes of moving the ball forward on more affordable, more reliable, and increasingly clean energy for all of them.”

Greek shared the challenges Basin Electric and its members are facing in order to continue providing reliable and affordable energy in a carbon-constrained future.

“Basin Electric has a fiduciary responsibility to its members to provide electric generation at the least cost,” Greek said. “The cooperative has worked to achieve this goal by diversifying its portfolio with wind and market purchases.”

According to Greek, Basin Electric is also investing in the development of carbon capture solutions to help “crack the code” with respect to cost-effective technologies that capture, utilize, and sequester carbon dioxide, such as the Integrated Test Center and Allam Cycle.



Matt Greek, Basin Electric senior vice president of Research, Development, and Technology, shares about Basin Electric’s efforts to reliably and economically serve its members-consumers in a carbon-constrained environment. Dale Niezwaag, Basin Electric vice president of government relations, is pictured back left.

Hardy discussed challenges of serving the rural areas in Montana, as well as the importance of federal power marketing administrations, and the cooperative’s hydropower purchased from Western Area Power Administration.

“The challenges of serving these rural areas are great,” Hardy said. “These challenges include high, fixed costs of the power lines and the associated power system infrastructure, across vast distances, with fewer customers per mile of line to pay those costs.”

Find video of the full committee hearing and transcripts of Greek’s and Hardy’s testimony on the Committee on Energy and Natural Resources webpage at <https://www.energy.senate.gov>.

# UREA Production Facility Reaches Milestone

The first unit train carrying urea fertilizer pulled away from Dakota Gasification Company's Great Plains Synfuels Plant at about 10 p.m. April 5, marking another significant milestone regarding the new urea production facility.

Urea is one of 12 products and one of three fertilizers produced at the Synfuels Plant. The 65-railcar unit train carried 6,523 tons of urea, or about 100 tons per railcar.

Spencer Wagner, Dakota Gas fertilizer production executive sales account manager, said unit trains will generally move throughout the year to the large terminals around the state.

"Our heaviest unit train traffic is expected to be in the winter and spring when our customers will need to get product in place for farmers," he said. "There are several unit-train capable facilities in North Dakota that will be potential locations where we will sell urea unit trains."

Wagner said the current advantage of moving urea by train includes lower freight costs.

"It is a cost-effective way to move a lot of product fast," he said. "It is a quick way to fill up storage facilities across the region, allowing farmers quick access to product when they are ready to apply it."

Another milestone was accomplished in early April when the first batch of diesel exhaust fluid was produced. Commissioning also continues on the carbon dioxide liquefaction unit, with startup planned for late April.

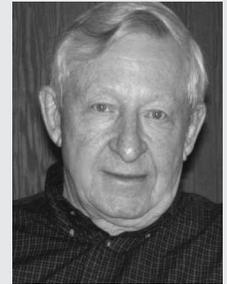


BNSF Railway Conductor Dan Bitner, left, and Bruce Banks, Dakota Gas fertilizer shift supervisor, shake hands at the exchange of the first unit train carrying urea fertilizer from the urea production facility.

## Last Remaining Original Incorporator Says Basin Electric Today Is

### 'Beyond His Wildest Imagination'

Leroy Schecher was just 29 years old, and a newly hired manager for Grand Electric Cooperative in Bison, South Dakota, when he signed his name on May 5, 1961, to incorporate Basin Electric, a cooperative that today serves a 550,000 square mile territory in nine states and provides electricity to 3 million consumers.



**Leroy Schecher**  
Original Incorporator, Basin Electric Power Cooperative

Schecher says he remembers that day well. He and four board members drove to Bismarck, N.D., because something needed to be done about power supply. Shortly before that, Fred Aandahl, assistant secretary of Interior during the Eisenhower administration, had been telling cooperatives that all the power that could be generated from the Missouri River dams had been allocated, so it was up to them to find a way to generate their own power.

"There were a lot of people there, but not a soul present on incorporation day would have ever dreamed Basin Electric would become what it is today," Schecher says. "Forming it was just something we felt we needed to do to provide for ourselves."

Schecher says he remembers many milestones throughout the years, including when it was just Jim Grahl, Basin Electric's first general manager, and the day the co-op bought Dakota Gasification Company for \$85 million.

Today, 57 years after signing those papers that brought Basin Electric into being, Schecher is the last remaining original incorporator. And while he has been retired from his nearly five decades of service to the electric co-op industry for 22 years, he still is genuinely interested in what is going on with the co-op he helped form, still receiving every year's annual report, reading every issue of "Basin Today" magazine, and even attending special events, such as Basin Electric's 50th anniversary celebration.

"It feels funny," he says. "When you do something, you don't typically look ahead and think about what consequences that action is going to have in 50 or 60 years. What Basin Electric is today was beyond my wildest imagination."

# DATELINE

## May 19-20, May 26-27

Northeast Area Pari-Mutuel Horse Racing, Aberdeen, SD, 605-715-9580

## May 25-September 30

Legends in Light® Laser Light Show at Crazy Horse Memorial, Crazy Horse, SD, 605-673-4681

## May 25-27

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

## May 26-27

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

## May 28

Memorial Day Stars, Strips and Steps Stair Climbing Challenge, Chamber office, Hot Springs, SD, 605-745-4140

## May 31

Black Hills Electric Cooperative Annual Meeting, 5 p.m. Mueller Center, Hot Springs, SD, 605-673-4461 to register before May 25

## June 1-2

South Dakota BBQ Championships, Huron, SD, 605-353-7354

## June 1-3

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

## June 1-3

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

## June 1-3

Wheel Jam, Huron, SD, 605-353-7340

June 15-16: Czech Days, Tabor, SD, [www.taborczechdays.com](http://www.taborczechdays.com), [taborczechdays@yahoo.com](mailto:taborczechdays@yahoo.com)

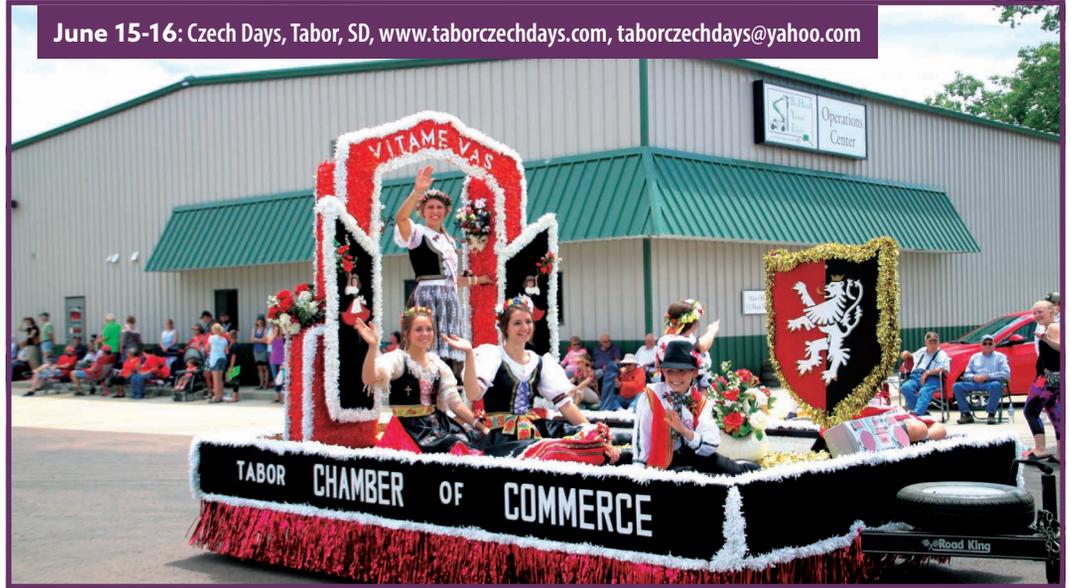


Photo courtesy: Becky Tysz, Tyndall Tribune

## June 1-3

Fish Days, Lake Andes, SD, 605-487-7694

## June 1-3

Black Hills Quilt Show & Sale, Rushmore Plaza Civic Center, Rapid City, SD, 605-787-8231

## June 2

Annual Casey Tibbs Match of Champions, Fort Pierre, SD, 605-494-1094

## June 2

Dairy Fest, Brookings, SD, 605-692-7539

## June 2

National Trails Day Prairie Trail Hike, 9 a.m., Peter Norbeck Outdoor Education Center, Custer State Park, SD, 605-255-4515

## June 2-3

Spring Volksmarch at Crazy Horse Memorial, Crazy Horse, SD, 605-673-4681

## June 2-3

Crazy Horse Spring Volksmarch, All-day Crazy Horse Memorial, Custer, SD, 605-673-4681

## June 7-9

Senior Games, Sioux Falls, SD, Contact Nick at 605-978-6924

## June 7-10

South Dakota Shakespeare Festival, Vermillion, SD, 605-622-0423

## June 8-9

Senior Games, Spearfish, SD, Contact Brett Rauterhaus at 605-772-1430

## June 9

Dakota Rods and Classics All Car and Motorcycle Cruis-In, 11 a.m. to 4 p.m., Black Hills Harley-Davidson, Rapid City, SD, [dakotorodsandclassics.com](http://dakotorodsandclassics.com)

## June 9-10

Siouxland Renaissance Festival, Sioux Falls, SD, 866-489-9241

## June 14-16

Miss South Dakota Scholarship Pageant, Various times Mueller Center, Hot Springs, SD, 605-745-4140

## June 15-16

Wild Bill Days, Deadwood, SD, 605-578-1876

## June 15-17

Black Hills Fat Tire Festival, Rapid City, SD, 605-394-5223

## June 16

Vinegar Festival, Roslyn, SD, 605-486-0075

## June 22-24

Main Street Arts & Crafts Festival, Centennial Park, Hot Springs, SD, 605-745-4140

## June 23-24

Sculpture in the Hills, Hill City, SD, 605-574-2368

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.