

# COOPERATIVE CONNECTIONS



## Crazy about Curling

Win or lose, there's  
no bad curling  
Pages 8-9

Saddle making  
for the pros  
Pages 12-13

Many curling enthusiasts  
contend the world would  
be a more peaceful place if  
everyone "threw the stone."

# Looking Ahead In 2022



**Dick Johnson**  
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westriver.coop

Being in the utility business, we spend much of our time doing long term planning. You don't build generation, transmission or distribution systems overnight. It takes years and even decades of planning and forecasting what the future holds. With our current growth, forecasting has become a bit, should I say, more of a guessing game. We recently completed our budget and workplan for 2022. We are finalizing a four-year work plan to submit to our board and lenders as well. They both tell a very interesting story into our future.

Our board recently approved our capital budget for 2022 that is approximately 45 percent over last year's budget. This is the largest I can remember for just "normal" operations. Twenty five percent of the total is for our new Eglin Street substation near Exit 61. Some of the 25 percent also includes substation design and grading for a new "Ashland" substation one mile north of Exit 61. Ten percent of the budget is for a new transmission line from the Box Elder sub to the Haines substation with distribution under build. We have been working with easements for several years and are finally ready for construction.

**As long as our power costs can remain steady, we should easily be able to cover all of the increased construction costs with increased sales.**

Seven percent is for replacement equipment, tools, and vehicles. The remaining 60 percent is basically for new services, meters, transformers, and upgrades in our service territory.

Our four-year work plan provides another glimpse at our forecasting. We complete a four-year work plan in order to secure future

financing needs. A one-year look is fairly easy. But how long can this explosive growth last in our area, state, or country? That makes four-year and 10-year forecasts much murkier waters. We are having another planning meeting in January, but preliminary estimates will put a new work plan in the \$45-50 million area. New services that are planned, or already in development, show that we could have over 8,000 new residential services in four years; we have about 18,000 now. These figures don't consider if we end up with other commercial loads that are expected in our area. We will have at least one or two new substations and corresponding needed transmission in this new plan.

If we used a fairly moderate approach to forecasting, we could see our system double in number of accounts in 10 years; that is right, double. Frankly, I don't see that happening, but with the addition of the B21 to our area, and other economic development initiatives happening, it surely could occur. I feel that given the current state of the economy and the likely rise in interest rates, our growth will go back to a more normal pace in the future.

What does this all mean for you, the member? The first swipe at the question says rates will increase. Probably not. As long as our power costs can remain steady, we should be able to cover all of the increased construction costs with increased sales. I have said it before; more members mean more meters to spread our fixed costs of doing business across.

Sometimes I feel it is a daunting task, but most days I find this a great deal of fun. A chess game indeed! I hope you all have a safe winter season and stay warm!

**COOPERATIVE CONNECTIONS**

**WEST RIVER ELECTRIC**

(USPS No. 675-840)

**Our Mission:**

We are safety conscious, community oriented, and the trusted energy expert for our member owners.

**Our Vision:**

We will achieve an ACSI score of 90 by 2024.

**Our Values:**

- 1. Safety
- 2. Accountability
- 3. Integrity
- 4. Innovation
- 5. Commitment to Community

This institution is an equal opportunity provider and employer.

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# LEGISLATION IMPACTS SOLAR TAX AND SCHOOLS



**Robert Raker**

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As the next legislative session starts, your co-op is monitoring proposed legislation that impacts how the tax revenue from solar is distributed to the local schools. West River Electric's tethered to this because of our commitment to the community and the fact that New Underwood has a proposed 125-megawatt Wild Springs solar facility. If you recall, our power provider, Basin Electric Cooperative, entered into a purchase power agreement with the future solar facility's owner, and the facility happens to be in West River's territory near New Underwood.

Starting last summer, the New Underwood school board and superintendent met with local legislators to advance legislation that utility scale solar tax should mirror utility scale wind tax. Currently, utility scale solar is counted as local effort. In other words, the schools' portion of the solar tax revenue is essentially distributed to all South Dakota schools. Conversely, with wind, the schools' portion of tax revenue is allocated directly to the local school district where the wind farm resides and with a ten-year sunset. After the sunset period, the wind is counted as local effort. The current law benefits Eastern South Dakota because



**New Underwood Superintendent Katie Albers**

the wind is optimal for wind farms vs. the wind out west. However, Western South Dakota is likely to see more solar because we have more beneficial sunlight hours than the eastern side of the state. 104901

Do not get me wrong, Western South Dakota has wind farms, but our future for utility scale solar is brighter. In fact, in addition to Wild Spring's 125-megawatt facility, two more large projects are being proposed, an 80-megawatt facility in the Oelrichs area, and a 20-megawatt facility near the Rapid City Airport which is in the Douglas Schools District. So, two of the communities West River Electric serves stand to be directly impacted by this legislation that New Underwood is leading.

I would be remiss if I did not offer a likely counter argument to this proposal. The slippery slope argument states, carving out taxes to stay with the local schools negatively impact schools that do not have the ability to increase tax revenue. 11215500 However, this is likely to fail because the current law removes a communities' incentive for economic development work that increases tax revenue. Also, we must keep in mind no solar facilities in South Dakota are currently paying this tax and the legislation only applies to future tax revenue. Therefore, the legislation does not deprive any school districts' current funding.

On balance, the proposed legislation's benefits outweigh the drawbacks and for the sake of the two communities West River Electric serves, hopefully South Dakota's legislators will agree. This bill will allow fairness across all types of renewable sources regardless of which part of the state it is located in.



**District 30 Rep. Tim R. Goodwin**

# Make a plan before heading out in wintry road conditions

Though they may make for a pretty seasonal backdrop, snow and ice can complicate even modest travel plans. It's unsafe to drive when visibility is vastly reduced or when you can't fully control your car. According to AAA, wintry weather and its byproduct - hazardous road conditions - are a factor in nearly a half-million crashes and more than 2,000 road deaths each year. With those figures in mind, here are some tips to minimize the risk to yourself and other motorists during winter weather.

**Don't drive unless you must.** It really isn't worth the risk to your safety and that of others to venture out onto potentially unsafe roads for any circumstance that isn't urgent. Pay attention to weather reports so you can run any time-sensitive errands and stock up on supplies before adverse conditions arrive. If you must drive to work, that's one thing. But don't tempt fate if you can help it.

**If you have to drive, eliminate distractions.** Keep your phone out of reach or set it to airplane mode - a good practice year-round but especially important when roads are dicey.

**Keep a bundle of cold-weather gear** in your car, including water, nonperishable food, warm clothing, a flashlight, glass scraper, blankets and medications.

**Before you set out,** alert others to your route, destination and estimated time of arrival.

**Make sure your tires are** properly inflated and have plenty of tread.

**Keep your gas tank** at least half full to prevent a frozen fuel line, which could leave you stranded.

**Don't use cruise control** when driving on any slippery surface.

**Drive slowly.** Lower your speed to counteract the reduced traction that accompanies snow and ice. Accelerate and decelerate slowly. Applying the gas slowly can help avoid skids. Since it takes longer to slow down on icy roads, take your time to slow down for a stop sign or light.

**A final note for winter driving:** Never warm up a vehicle in an enclosed area such as a garage. Exercise caution and good judgment to stay safe as you negotiate whatever conditions winter brings this year.

## POWERLINE SAFETY QUIZ

### TRUE OR FALSE?

*Power lines are insulated for contact.*

**False.** While power lines may have a covering to protect against weather, they are not insulated for contact. Birds can sit on power lines unhurt because they don't create a path to the ground. You and your ladder do.

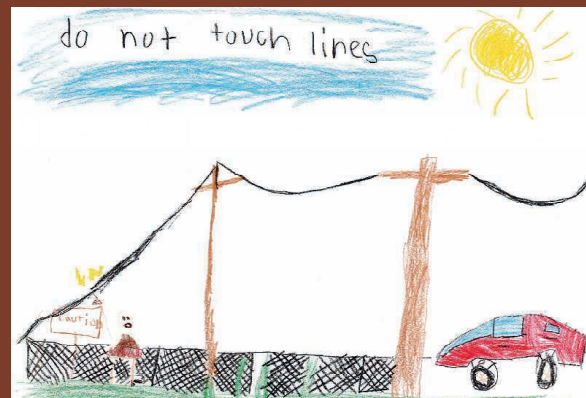


*I should keep myself and any equipment I'm using at least 10 feet away from any power lines.*

**True.** You don't need to contact a power line to be in danger; electricity can jump, or arc, from a power line to a person who gets too close. The best insulator is space. Keep yourself and your equipment at least 10 feet away from power lines.

*I can be electrocuted by a power line even if I am wearing gloves and rubber boots.*

**True.** Work gloves and rubber boots offer no protection against contact with a power line. Once again, space - and lots of it - is the best insulator.



## Don't touch power lines

### Luke Walden

Luke Walden reminds co-op members that it's important to never touch power lines under any conditions. Luke is from Brandon, where he and his parents Blake and Jennifer are all members of Sioux Valley Energy.

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.



# BRUNCH TIME!

### COLD OATMEAL MUESLI

Ingredients:

- 1 cup quick oats
- 1 cup old fashioned oats
- 1/2 cup raisins
- 1/3 cup brown sugar
- 1 tsp cinnamon
- 2 cup milk

#### METHOD

Mix all ingredients together and let sit overnight in the refrigerator. Serve cold. May add walnuts and apples or other fresh berries when serving, if desired.

**Elaine Rieck, Harrisburg**

### BRUNCH EGG BAKE

Ingredients:

- 12 slices, bread, crusts removed
- 2 cups diced ham or bacon, crisp and chopped
- 1 - 4 oz. can mushrooms, drained
- 1 green pepper, chopped
- 1 onion, chopped
- 1 cup cheddar cheese, shredded
- 5 eggs
- 2-1/2 cups milk
- salt and pepper
- paprika

#### METHOD

Butter six slices of bread and put face down in 9 x 13 inch pan, lightly sprayed with cooking spray. Cover the bread with the ham, mushrooms, green pepper, onion and cheese. Dice the remaining bread and spread over the top. Beat eggs, milk, salt and pepper and pour over the top. Sprinkle with paprika. Cover the pan with foil and refrigerate overnight. In the morning, bake at 350 degrees for 1 hour. Serves 12.

**Mary Jessen, Holabird**

### CHEESY SAUSAGE AND POTATO SKILLET CASSEROLE

Ingredients:

- 8 ounces bulk breakfast sausage, crumbled
- 1 medium onion, chopped
- 1 medium green bell pepper, chopped
- 6 eggs
- 1 cup milk
- 1 tablespoon McCormick® Oregano Leaves
- 1/2 teaspoon salt
- 1/4 teaspoon McCormick® Coarse Ground Black Pepper
- 1 1/2 cups shredded mozzarella cheese
- 1 cup crumbled feta cheese
- 2 plum tomatoes, seeded and chopped
- 1 tablespoon oil
- 1 package (20 oz) refrigerated shredded hash browns
- 3 tbsp fresh dill, parsley or green onion finely chopped

#### METHOD

Cook and stir sausage in large skillet on medium heat 5 minutes or until lightly browned. Add onion and bell pepper; cook and stir 5 minutes or until vegetables are tender. Set aside. Beat eggs in large bowl with wire whisk. Add milk, oregano, salt and pepper; mix well. Add sausage mixture, cheeses and tomatoes; mix well. Set aside. Pour oil into same skillet, swirling to coat the pan. Spread hash browns in bottom and up sides of pan. Pour egg mixture over potatoes. Cover. Cook on medium heat 10 to 15 minutes or until eggs are set.

**mccormick.com**

**Please send your favorite seafood recipes to your local electric cooperative (address found on Page 3). Each recipe printed will be entered into a drawing for a prize in December 2022. All entries must include your name, mailing address, phone number and cooperative name.**



# Wall Gets 1 Megawatt of Electric Vehicle (EV) Charging

One megawatt of EV charging brings Wall's total to 2.2 megawatts of available fast charging. You have heard many times that EVs are coming. Well, we are getting one step closer. Recently, Electrify America installed a group of fast chargers, just off the interstate in Wall, that are designed for EV owners taking road trips. Studies show that much of all EV charging happens at home, but what about the long road trips? Fast chargers

are designed to charge EV quicker than at home chargers and hence why they use roughly 40 times more power. 11155800

The new fast charging facility includes two 350 kW chargers and two 150 kW chargers, whereas the charger in your garage is likely to be closer to eight kW. In total just this charging station has a potential of 1,000 kW or one Megawatt worth of charging. You can see from the top image to your right; the upper Midwest

is lagging in EV charging fast chargers and Electrify America has plans to address this. According to Electrify America's Cycle 3 (January 2022 – July 2024) regional plan, it intends to provide fast charging along the entire I-90 interstate system.

Wall already has eight Tesla Superchargers with each of those going up to 150 kW which equals 1.2 megawatts. However, these Superchargers strictly charge Tesla vehicles only. So, if you plan to buy the new Ford f-150 Lightning, which will accelerate 0-60 mph in under four seconds when it is released, Tesla's chargers



will not work with your pickup. That is where Electrify America's charger will come into play.

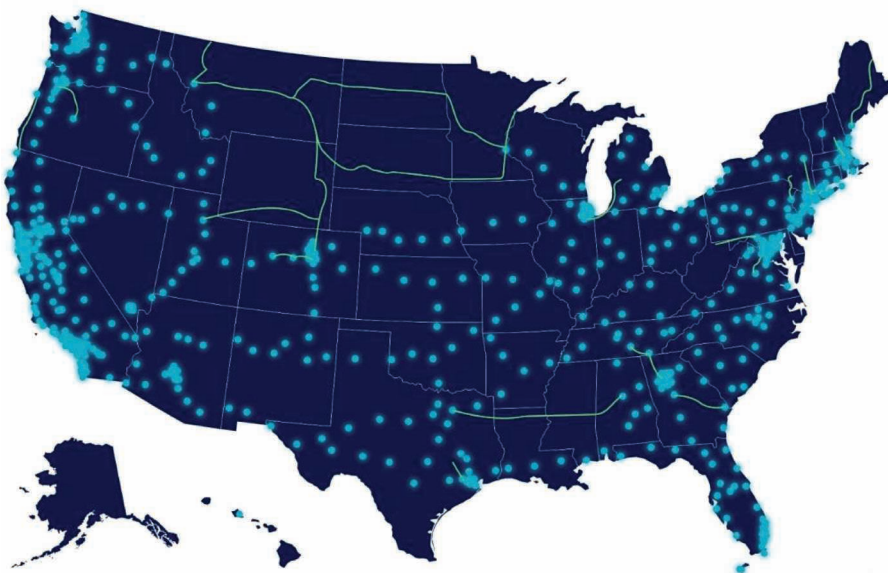
Fortunately, we anticipated this type of load coming and that is why we spend a significant

amount of time strategically planning. To ensure these chargers are charged the actual cost of the electricity, West River Electric's billing department developed a specific rate and a metering

solution ahead of time. This type of load is distinguishable to many other electric loads because it has a poor load factor, in other words they are all or nothing. Therefore, if the billing department put them into their own rate class, other commercial loads would subsidize the energy they used.

Developing a rate and metering solution for these types of loads wasn't easy and there were not very many co-ops in the U.S. to glean experience from. However, WREA now has a solution that allows us to pivot more easily when future nontraditional loads come online. This solution will pay dividends because inevitably those types of loads will happen, and your board's long-term rate plan is to have all members paying actual costs. 48401

• Cycle 1 and Cycle 2 sites      — Cycle 3 Regional Routes



Electrify America's Cycle 3 plan will bring big changes to the I-90 interstate system.



# STICKS AND STONES

Members of the Aberdeen Curling Club hold a public instructional session to teach both the young and old the finer points of their sport.

## Curling clubs seek to educate the public and spread the word about the joy of throwing stones

**Billy Gibson**

[billy.gibson@sdrea.coop](mailto:billy.gibson@sdrea.coop)

Looking for a sure-fire way to achieve permanent world peace and lasting harmony?

Make curling mandatory.

At least Bryan Rau thinks that's just the ticket to putting an end to international animosity. Rau serves on the board of the Aberdeen Curling Club and describes being hooked the moment he threw his first stone in competition eight years ago.

"When I touched that first stone it was like 10,000 volts going through me. I kicked out the hack and threw that stone down the ice and it was just incredible," he said. "I think if everybody curled, the whole world would be different. Everybody would get along. There's no bad curling. No matter where you play, whether you win or lose, it's all good curling. It's a game that's played with honor and pride. You don't have to be a jock or a talented athlete. It's a sport that's

made for everyone. I've seen people play from 8 to 85."

Bryan and his fellow board member, Steve Gascoigne, spent a recent afternoon in Gascoigne's garage taking in a documentary called "Sticks and Stones: Battle for the Soul of Curling." When they're not playing the game, they enjoy talking about it.

As for his role as the club's ice master, Gascoigne can wax eloquently about how to prepare the perfect sheet of competition ice. He describes the tedious and exacting process that involves various measures of zammung, scraping, mopping, pebbling (twice), watering and nipping.

And if you can't control your stone after Gascoigne and his crew have spent 45 minutes working their magic, more practice may be in order.

The job of a stone hitting its target largely falls on the shoulders of the skip. A typical four-member team includes the lead, second, vice skip and skip. Each player throws two 44-pound stones and the vice skip



Aberdeen Curling Club members Danny Wolfgram, John Hilton, Alex Wolfgram and John Peterson recently completed an "eight ender," which is often compared to a perfect game in baseball.

## Curling club contacts

**Sioux Falls Curling Club**  
605-271-7539  
www.scheelsiceplex.com

**Aberdeen Curling Club**  
605-228-1717  
www.curlaberdeen.com

**Rushmore Curling Club**  
605-484-4477  
www.rushmorecurling.org

**Yankton Curling Club**  
(605) 665-0229  
www.yanktonice.org

**MN Curling Association**  
www.mncurling.org



Many curling clubs have two common goals: dedicated ice and a desire to teach others the rules and techniques of their sport.

stands in when it's the skip's turn to throw. The direction of the stone's path can be altered by sweepers who brush the surface in a way that can make the stone lose speed, gain speed or curl left or right.

The last stone is called the hammer and can be used to earn points with a favorable position near "the button" or knock the opponent's stone out of the target area.

But beyond the technical aspects of the sport or tallying wins or losses, each of the four most active clubs across the state share the same goal of educating the public about the sport and getting younger folks hooked on curling.

Rau, for instance, is a long-time Scout master and is working with his local troop to get the kids involved. He and Gascoigne and other members of the club visit the Boys and Girls club, school groups and others to

teach youngsters how to play the sport, share their positive experiences and answer their questions.

The same spirit of advocacy is also found at the Yankton Curling Club, which was started last winter by Mike and Julianna Ford along with a small group of other enthusiasts.

Julianna serves as president of the group and fell in love with the sport when she was a high school student in her native Alberta. She describes failing to make the roster of the volleyball and basketball teams but eventually finding a home with the curling squad.

"Our gym class went to the local ice rink and I loved it," she recalled. "It was a lot more strategic than physical and it was something I could compete in."

She later moved to Sioux Falls, married Mike, and the two helped create the existing club in that city.

Several years later they moved to Yankton for Mike's work and soon started another club. The Yankton group lists about 45 members and is also heavily involved in growing the sport in their community.

"We're reaching out to schools, clubs and nursing homes," Julianna said. "There are handicapped leagues and elderly people can play by using a stick to throw the stone. It's a sport that's literally for everyone."

The Fords don't often find themselves on different sides of the ice, but when they do they try to keep the competitive fires closer to an ember than a raging flame.

So, bottom line...who's better?

"No comment," Julianna said, before commenting with a chuckle, "but I'm the one who went to Arena Nationals."



Powering You for a Brighter Future.

## OPERATION ROUND-UP APPLICATION DEADLINE FEB. 1, 2021

Do you have a non-profit organization that you would like to see apply for Operation Round-up funds? You can visit [westriver.coop](http://westriver.coop) to download the application or stop in either office.



# ATTENTION: TEACHERS

### SCHOLARSHIPS AVAILABLE FOR UP TO \$500 FROM YOUR COOPERATIVE

West River Electric is again offering scholarships to teachers at schools served by West River Electric. Funds must be used for a classroom project, supplies, or equipment.

Applications can be downloaded by visiting our website.

[WWW.WESTRIVER.COOP/SCHOLARSHIPS](http://WWW.WESTRIVER.COOP/SCHOLARSHIPS)

## LOCATE YOUR ACCOUNT NUMBER

If you locate your account number anywhere in this issue of West River Electric's *Cooperative Connections*, you will be a winner. There will be five account numbers placed randomly throughout the publication. If you spot your account number and notify our office before the 10th of the next month, you will receive a \$10 credit on your next bill.

## DID YOU CHANGE YOUR PHONE NUMBER OR EMAIL?

It is important to keep your information updated with West River Electric. We would like to keep you updated on planned outages or other important information that may affect your service. Contact us at 605-279-2135 or 605-393-1500 to make changes to your information.

## SERVICE AND BILLING QUESTIONS?

Contact 605-279-2135 or 605-393-1500 during office hours. E-mail us at [info@westriver.coop](mailto:info@westriver.coop) for questions on your account.

## WEST RIVER ELECTRIC OFFICE HOURS

### RAPID CITY OFFICE

3250 E Hwy 44, Rapid City, SD  
Monday-Friday  
7 a.m. to 5 p.m.  
605-393-1500

### WALL OFFICE

1200 W 4th Ave, Wall, SD  
Monday-Friday  
7 a.m. to 5 p.m.  
605-279-2135 370100

A night depository is available at both offices for your convenience. Office hours are subject to change in response to COVID-19.

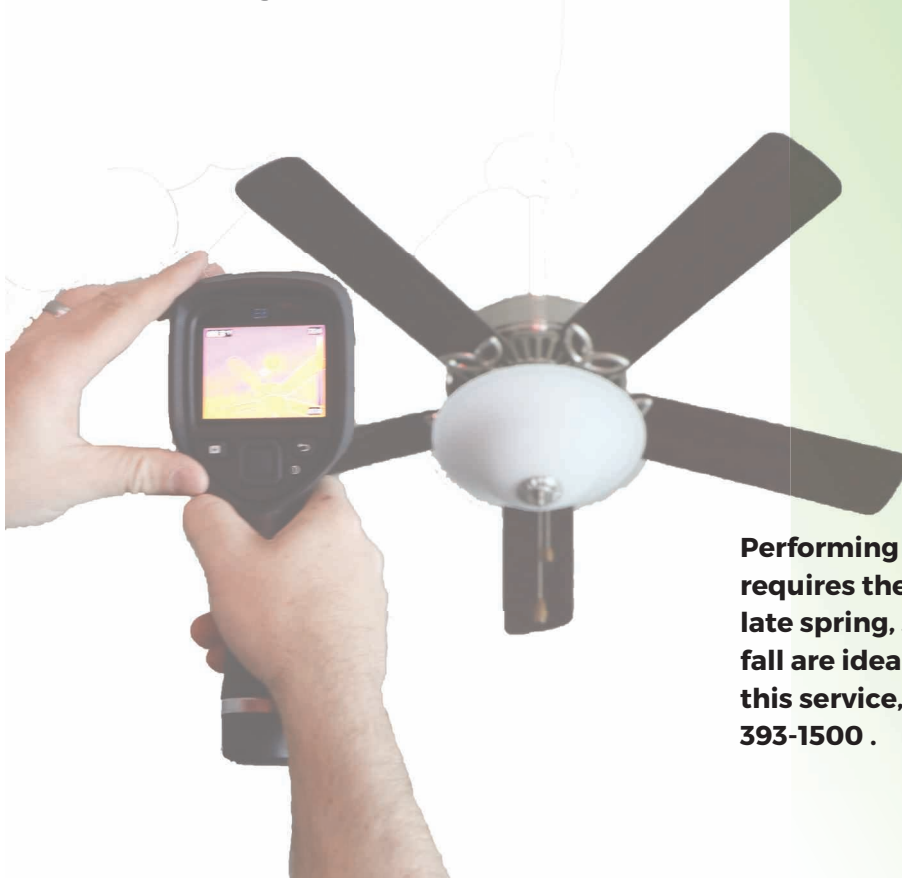
## OUTAGE OR EMERGENCY?

Contact 605-279-2135 or 605-393-1500 in the event of an outage or other emergency. Our calls are answered 24/7.

# ENERGY AUDITS AVAILABLE

## How energy efficient is your home?

We are offering two types of energy audits to help you figure out how efficient your home might be and if there are any issues that need your attention. The first audit we offer is a simple walk-thru of the home. We do a survey of the home and point out things that are visible to us that need to be fixed. The second one, for \$200.00, includes everything that the first one does along with a blower door test.



**Performing these audits requires the right weather, so late spring, summer, and early fall are ideal. If you would like this service, please call 605-393-1500 .**



# STILL IN THE SADDLE

At age 77, Dave Dahl of Fort Pierre is nearing the completion of his 2,000th saddle and has no plans to slow down anytime soon. *Photos by Billy Gibson*

## Saddle-maker Dave Dahl of Fort Pierre delights in helping bronc riders bring home championship buckles and purses

**Billy Gibson**

[billy.gibson@sdrea.coop](mailto:billy.gibson@sdrea.coop)

Dave Dahl will probably never win a hand model contest. Dahl's digits are gnarled, bent and puffy after nearly a half-century of hard labor producing bronc saddles for dozens of rodeo champions.

Dahl is quick to point out, however, that looks can be very deceiving: his mitts are as strong and dependable and productive as they've ever been, seasoned with decades of experience. At the age of 77, Dahl is still going strong creating saddles out of his shop in downtown Fort Pierre. Incredibly, he's still keeping his customary pace of hand-crafting nearly 60 high-

performance saddles a year.

"Somebody once said if your hands aren't moving, you ain't making money," Dahl chuckled.

During the last week of December, Dahl was busy dashing out his 56th saddle of 2021. That saddle, commissioned by a Canadian bronc riding champion, was No. 1,924 of Dahl's career. Yes, Dahl does keep count, stamping every saddle that leaves the shop. He's already anticipating reaching the 2,000 mark.

He's considering loaning that milestone saddle to Fort Pierre's Casey Tibbs Museum so that visitors can see the brand that's catapulted dozens of rodeo competitors to the top.

"There's actually two that are marked 1,000," Dahl said. Turns out that Glen

O'Neill ended up with the first one, but then Dahl's daughter Darcy Harper also received a commemorative version for roping events. Incidentally, No. 1,800 is displayed in the North Dakota Rodeo Hall of Fame where Dahl was inducted in 2017 for both his riding and his other contributions to the sport.

The list of riders who have won titles from the swells of a Dahl saddle is endless and includes champions from Alberta to Aberdeen to Australia: CoBurn Bradshaw, Cody DeMoss, Clay Elliott, Chuck Schmidt, Jake Watson, Tom Reeves, Jeff Willert, Taos Muncy, Zeke Thurston, Cort Scheer, Wade Sundell, Kyle Whitaker and so many more that Dahl can hardly keep up. Eight Dahl saddles were at the 2021 PRCA Nationals in Las Vegas.

Pro riders enjoy collecting purses and Dahl delights in helping them reach their goals. He knows how hard it is not only to stay on a spirited bucking bronc

for a few seconds but also how difficult it is to make a dollar at it.

Dahl recalls his own limited days as a card-carrying professional when he won several buckles on the PRCA circuit before taking his saddle-making business full-time in the summer of 1974.

Bronc riding set a fire in Dahl's soul at an early age, growing up on the family farm in Keene, N.D., as one of 11 children. He competed for New Town High School and later went on to claim a national collegiate title as team captain for Black Hills State in 1967. A year after graduating with a bachelor's degree, Dahl also won the South Dakota Rodeo Association's saddle bronc title.

While he taught school for three years, Dahl eventually decided to make saddle-crafting his life's work. Dahl's friend and fellow rider Dick Jones got him interested in the craft and the two set up shop in an old abandoned drug store building next to the bank in Fort Pierre. In 1986, the bank decided to open a drive-through lane so the business moved across the street to its present location where Dahl runs Diamond D Saddle Shop and also manages a western clothing store adjacent to the shop.

Dahl plans on keeping his hands hard at work with no end in sight. He stays



Dahl's phone number is on the speed-dial list of collegiate rodeo coaches in several states across the country. At left, Dahl applies his trademark stamp to one of his saddles.

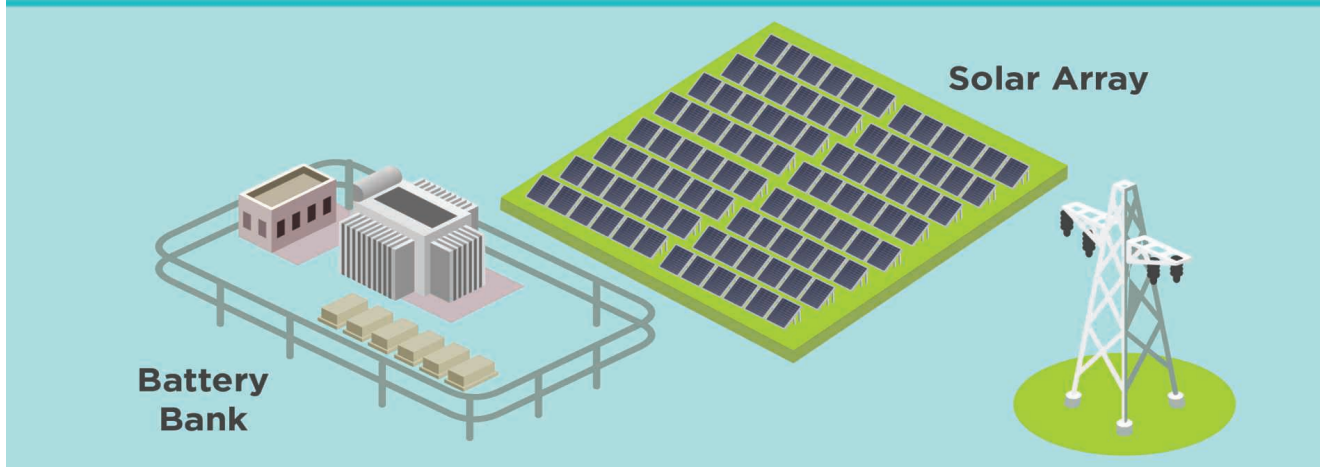
as busy as ever while participation in rodeo continues on an upward growth trajectory. College rodeo coaches in Missouri, Texas, Oklahoma, California and other states have Dahl on their speed-dial lists. He said he recently received a call from someone wanting him to fit a saddle for her 11-year-old child.

"It's just really a booming sport," he

said. "The training is better, there are better horses, there's better TV coverage of the sport and there's more money out there to be made. There are still a lot of ranch kids who grew up on horses and know how to ride. And they like to compete to see who's the best. There's so much work and I still enjoy it, so I don't plan on jumping out of the saddle anytime soon."

### THE FUTURE OF ENERGY STORAGE

A new form of battery storage technology, known as the iron-air battery, could potentially provide long-duration energy storage for hundred of hours. Long-duration energy storage will be crucial for adding more solar and wind energy to the electric grid since renewable energy is dependent on the weather and may not always be available when needed.



## New Tech Alert: Iron-Air batteries hold the promise of providing long-term energy storage capability

Maria Kanevsky

As the electric grid continues to evolve, new technologies are being developed to help advance the grid of the future. One of these technologies is a new form of battery storage technology called the iron-air battery, which could potentially provide long-duration energy storage for hundreds of hours.

Current battery technologies can only offer storage for tens of hours, meaning the innovative iron-air battery could provide energy for roughly 10 times longer than existing grid-scale batteries. This new technology could help ensure grid reliability even with extreme weather, such as hurricanes or powerful thunderstorms. Long-duration energy storage will also be crucial for adding more solar and wind energy to the grid since renewable energy is dependent on the weather and may not always be

available when we need it. New iron-air batteries could provide the missing link by storing excess energy to be used when the sun isn't shining or the wind isn't blowing.

The battery technology itself is made up of thousands of small iron pellets that develop rust when exposed to oxygen. This process discharges the battery. When the oxygen is removed, the pellets revert back to iron, which then charges the battery. According to Form Energy, the startup company developing this new technology, this process is known as the principle of "reversible rusting." Since the battery technology mainly uses the abundant and cheap resources of water, air and iron, the technology is relatively low-cost. These resources also make the technology relatively safe since there are no heavy metals, and also make the batteries simpler to recycle.

A key feature of these batteries is their

low cost, with Form Energy promising a price of less than \$20 per kWh. That price is about one-tenth the cost of lithium-ion battery technology, which is currently the cheapest battery technology on the market.

Individual iron-air batteries are about the size of a washing machine, making it easy to group many batteries together into a larger, scalable system. The size of the battery module group can vary, depending on the storage needed at a specific site. This means the batteries can be placed in a variety of areas, from rural to urban, to meet energy needs.

While this technology may be a solution for long-duration energy storage, the battery is not yet ready at the commercial level - although it is close. Form Energy estimates the battery should be ready by 2025.

Given the importance of long-duration energy storage for future of the grid, other start-ups are also looking to develop long-duration battery storage technology.

In the meantime, electric utilities can start to understand where this technology may potentially fit within their own systems to make the grid more resilient.

## Electric co-ops hold discussions with lawmakers and community leaders

**Billy Gibson**

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In preparing for the 2022 Legislative Session, electric cooperative leaders from across the state held several local forums to engage in wide-ranging discussions with elected officials.

Representatives from Basin Electric, East River, Rushmore Electric, the South Dakota Rural Electric Association (SDREA) and many distribution cooperatives invited lawmakers and community leaders to engage in a dialogue focusing on the latest developments in the electric utility industry.

Electric cooperatives will continue to participate in meetings and forums throughout the Legislative Session, which is scheduled to conclude on March 10.

Ken Schlimgen, general manager of Central Electric in Mitchell, served as host of the last of the pre-session forums. Schlimgen welcomed the local lawmakers in attendance and went over some of the programs the co-op is pursuing to provide better service to its members.

Schlimgen showed a slide of the cooperative's small solar array constructed outside the headquarters office. He said the array allows the cooperative to offer members a first-hand look at how solar energy works. Members are also shown statistical data on how much electricity the array is producing at any given time.

This kind of real-time information



Ken Schlimgen, general manager of Central Electric based in Mitchell, describes how the cooperative is investing in an electric all-terrain vehicle to educate members about how EVs work and their potential for curbing greenhouse gas emissions. *Photos by Billy Gibson*

is important for members to understand how renewable resources such as solar and wind produce clean power, Schlimgen said. It's also important for members to understand the limitations of these sources.

"We discovered the first year we had this array that it performed at about 20 percent below the projections that were given by the manufacturer," he said.

Schlimgen also shared photos of the cooperative's Polaris Electric Ranger XP Kinetic UTV. He said the vehicle is rated at 110 horsepower and has a towing capacity of 2,500 lbs.: "This is something we can use on a practical level and also show members when they request more information about electric-powered vehicles."

House Majority Leader Kent Peterson was in attendance and noted lawmakers have considered presenting a bill regarding the licensing of electric UTVs.

"Given the rapid growth of the EV industry, this is something we'll have to consider at some point. It's great to have an opportunity like this to talk with the co-ops directly and get the useful information we need to make the right decisions," Peterson said.

Trevor Jones, general manager of SDREA, previewed some of the legislative issues that could be addressed during the 2022 session, including

issues surrounding the expansion of a network of electric vehicle charging stations and tax exemptions for data centers that consume large amounts of electrical power.

Chris Studer of East River Electric provided an overview of the cooperative's Renewable Energy Credit program. Participating consumers can sign up to receive credits or Green Tags for using renewable energy that comes from several wind farms that supply energy to the cooperative. Studer said the cost of participating in the program can vary among distribution co-ops.

Sen. Josh Klumb of Dist. 20 expressed his thanks to the co-op for organizing and hosting the forum.

"The application of these new technologies is something that will have a direct impact on our citizens for generations to come. In terms of doing our jobs as legislators, there's simply no substitute for this kind of interaction."



Chris Studer of East River Electric details the cooperative's REC Program.



**Valentine's Day  
February 14**

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.

To view the publication's master event calendar, scan the QR code below:



Or visit <https://sdrea.coop/cooperative-connections-event-calendar> to view more upcoming events.

**JANUARY 22  
Reba McEntire**  
Denny Sanford Premier Center,  
Sioux Falls, SD, 605-367-7288

**JANUARY 28-29  
Deadwood Pro Snocross  
Races**  
Days of '76 Rodeo Grounds,  
Deadwood, SD, 605-578-1876

**JANUARY 28-29  
27th Annual Dinner Theater**  
Reliance Legion Hall, Reliance,  
SD, call 605-730-0553 for  
more info and tickets

**JANUARY 28-31  
Lead Winterfest**  
Various Locations, Lead, SD,  
call 605-584-1100

**JANUARY 28-  
FEBRUARY 6  
Black Hills Stock Show &  
Rodeo**  
Central States Fairgrounds &  
Rushmore Plaza Civic Center,  
Rapid City, SD, 605-355-3861

**JANUARY 29-30  
DTGCA Gun Show**  
National Field Archery Building,  
Yankton, SD, 605-731-9154

**FEBRUARY 4-6  
Fiddler on the Roof**  
Washington Pavilion, Sioux  
Falls, SD, 605-367-6000

**FEBRUARY 5  
Lake Hendricks  
Improvement Association  
Ice Fishing Derby**  
Hendricks, MN, contact Tim at  
507-828-2113 for registration  
and more information

**FEBRUARY 9-12  
Watertown Winter Farm  
Show**  
Codington County Extension  
Complex, Watertown, SD,  
605-886-5814

**FEBRUARY 11  
Calamity's Shindig**  
Homestake Adams Research  
& Cultural Center, Deadwood,  
SD, 605-722-4800

**FEBRUARY 11-12  
Bulls & Broncs**  
Expo Center at the W.H. Lyon  
Fairgrounds, Sioux Falls, SD,  
605-367-7178

**FEBRUARY 11-13  
Black Hills Sports Show &  
Outdoor Expo**  
Monument Arena, Rapid City,  
SD, visit [bhsportsshow.com](http://bhsportsshow.com)  
for more information

**FEBRUARY 12  
Lakota Games on Ice**  
3200 Indian Village Road,  
Mitchell, SD, 605-996-5473

**FEBRUARY 13  
Stop N Go Souper Bowl  
Dinner**  
Rapid Valley United Methodist  
Church, 5103 Longview Rd.,  
Rapid City, SD, 605-393-1526

**FEBRUARY 18-28  
Black Hills Film Festival**  
Various Locations in Rapid  
City, Hot Springs, Hill City and  
Spearfish, SD, visit [www.blackhillsfilmfestival.org](http://www.blackhillsfilmfestival.org) for more  
information

**FEBRUARY 19  
Sioux Empire on Tap**  
Denny Sanford Premier  
Center, Sioux Falls, SD, visit  
[siouxempireontap.com](http://siouxempireontap.com) for  
more info and tickets

**FEBRUARY 25-26  
Mardi Gras Weekend**  
Main Street, Deadwood, SD,  
605-578-1876

**FEBRUARY 25-27,  
MARCH 3-5  
Making God Laugh**  
Grand Opera House, Pierre,  
SD, 605-224-7826

**FEBRUARY 26  
The Music of John Williams**  
Washington Pavilion, Sioux  
Falls, SD, 605-367-6000

**MARCH 3-5  
The 39 Steps**  
Orpheum Theater Center,  
Sioux Falls, SD, 605-367-6000

**MARCH 10-13  
Annual Sioux Empire  
Sportsmen's Show**  
Sioux Falls Arena &  
Convention Center, Sioux  
Falls, SD, visit [www.siouxfallssportsshow.com](http://www.siouxfallssportsshow.com) for more  
info and tickets

**MARCH 12  
28 Below Fatbike Race,  
Ride and Tour**  
Spearfish Canyon Lodge, Lead,  
SD, visit [www.28below.com](http://www.28below.com)  
for more info and to register

**Note: Please make sure to  
call ahead to verify the event  
is still being held.**