

COOPERATIVE CONNECTIONS

Christmas at the Capitol

**Capitol Christmas
event turns 40**
Pages 8-9

**The wonders of
winter stargazing**
Pages 12-13

Thousands of visitors are expected to view the nearly 100 Christmas trees on display in Pierre during the Christmas season.



Accommodating growth in our system



Dave Eide
General Manager
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As many of you know, there has been quite an increase in the number of livestock and livestock facilities in Clark County. Codington-Clark Electric has added new electric services for hog finishing barns, large farrowing barns, and large dairy facilities. It might seem strange, but we haven't served a dairy in Clark County for many years until now. Dairy cows started arriving at the new Clark Dairy north of Carpenter in October. When the facility becomes fully stocked, they will be milking around 10,500 cows.

The Willow Lake substation has been serving the vast majority of members that live in southern Clark County since 1963. To accommodate growth, the step-down transformer at the substation has been changed out a few times throughout its life; there is currently a 5,000 KVA step-down transformer installed in the substation. We were again considering increasing the size of the transformer to a 7,500 KVA to meet increased capacity needs in the area. Instead, after considering the location of growth in southern Clark County, the decision was made to submit a request to East River Electric for building a new substation about 11 miles north of Carpenter.

East River finished building the substation in 2021 and it was named the Foster Creek Substation after a nearby creek. It is currently being fed from a transmission source in Spink County. The Foster Creek Substation will soon be connected to a looped transmission line as another transmission line has been constructed going south to the Carpenter substation.

WAPA is working to install a new bay in the Carpenter substation scheduled to be completed in January. When finished, the Foster Creek substation will have the capability of being fed from the south or west. Having another substation in the area has a major impact on improved reliability. Not only will there be a looped substation in the area, but we will also be capable of feeding the Clark substation to the east, the Crocker substation to the north and the Willow Lake substation to the southeast with the new Foster Creek substation. Last summer, we interconnected the Foster Creek, Clark, Crocker and Willow Lake substations with some new but mostly existing three-phase lines. If for some reason we lose either the Clark, Crocker or Willow Lake substation we can feed those areas with the new Foster Creek substation to bolster reliability. Down the road, the plan is to also loop the Willow Lake
(Continued next page)



COOPERATIVE CONNECTIONS

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(USPS 019-073)

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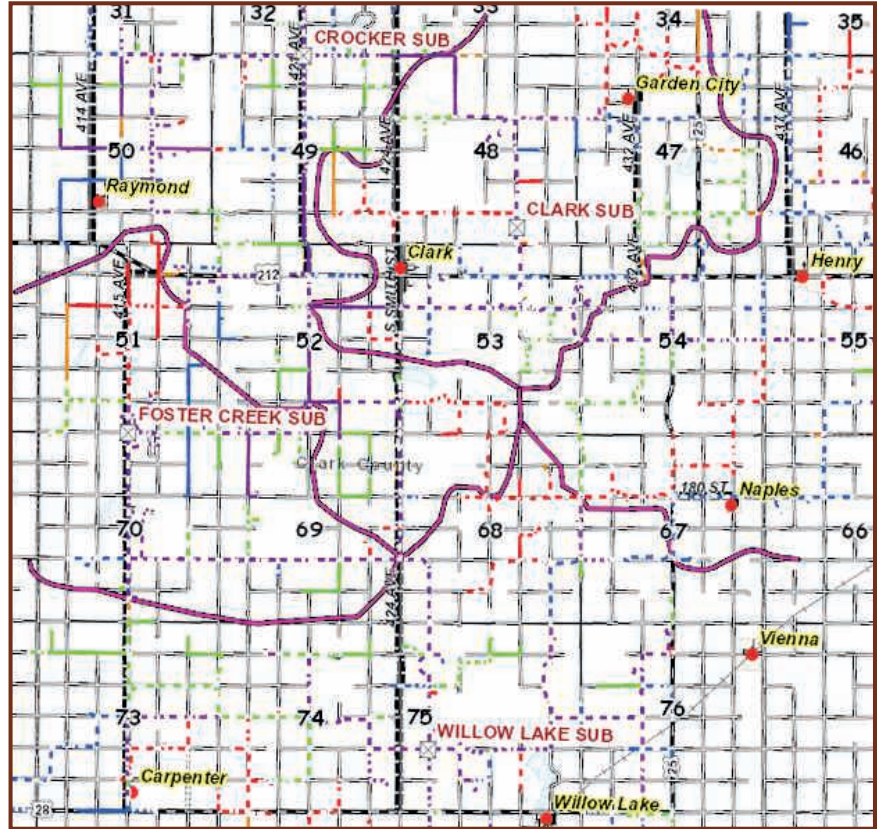
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www.ccelectric.coop

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Accommodating Growth, continued



Magenta lines indicate substation area coverage.

substation, again increasing reliability in southern Clark County.

Something we rarely talk to the membership about is line losses. Codington-Clark electric loses about 7,000,000 kWh per year in line losses. Line losses cost the Co-op about \$391,650 per year, power that we purchase but are unable to resell. You might be asking, what is line loss? We have about 2,000 miles of distribution line and 3,400 transformers scattered throughout Codington, Clark, Grant and Day counties. Copper and aluminum conductors are not perfect, there is a slight amount of resistance associated with each conductor. The resistance causes a slight amount of heat or loading. Inside the transformers

there is also a slight amount of heat loss due to copper windings and the iron core which is needed for the voltage step-down process. When the miles of distribution line and transformer losses get added together, we end up losing the 7,000,000 kWh. Line losses and voltage drop are linked: if you have low voltage, you usually have bad line losses. Adding more substations to the system improves both line losses and voltage, thereby improving service to the membership.

Your co-op is doing well, yet we continually try to improve. If you have any suggestions, please feel free to call or email. We'd be glad to hear from you. Have a blessed and happy Thanksgiving!

Ready your home for a winter break during the holidays

If you're planning to be out of town for an extended period of time during the holidays, take heed of the following recommendations to save some energy and keep your home safe while you're away.

- Set your home's thermostat to 50 degrees. This temperature is a happy midpoint that avoids wasting energy to warm an empty house while still preventing damage to your pipes and plants. If sub-20-degree days are forecast during the time you are away, drip faucets.
- Turn off your electric water heater at the breaker or set it to the lowest temperature possible.
- To avoid a potential fire hazard, unplug the washer and dryer before you leave your home. Disconnect the hoses leading to the washer to prevent them from freezing.
- Unplug all of your small appliances. You'll reduce the risk of a house fire and save a bit on your electric bill.
- Don't broadcast your travel plans on social media. Instead, share photos from your trip after you return.
- If you set a timer for your outdoor or indoor lights, make sure to switch up the times over the days you'll be gone so it's not obvious to any onlookers that the house is empty when lights go on at 6 p.m. every day like clockwork. If possible, stagger several timers that control different lights to approximate the natural movement of someone through a house.
- Close blinds and curtains. Don't advertise your belongings to any would-be house burglars.
- Be strategic about putting out post-holiday recycling and trash. If there are a lot of boxes from new gadgets or other expensive electronics, wait until you get back to put them out so they're not sitting outside in full view for days. Or have a trusted neighbor set them by the curb on the appropriate day.
- Place a hold on all mail and newspaper deliveries, and ask a neighbor or a friend to pick up any packages from your porch.

DID YOU KNOW?



On Christmas Eve 1923, President Calvin Coolidge began the country's celebration of Christmas by lighting the first National Christmas Tree decorated with electric lights.



Don't cut down trees by power lines

Milo Thompson

Milo reminds electric cooperative members that cutting down trees located near power lines can be hazardous. Milo is the child of Kurt and Rebecca Thompson of Hayti. They are members of H-D Electric.

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.



HOLIDAY DESSERTS

CRANBERRY CAKE**Ingredients:**

3 Tbsp. butter
1 cup sugar
1 egg
2 cups flour
1 cup milk
3 tsp. baking powder
1/4 tsp. salt
2-3 cups raw cranberries

Butter Sauce

1 cup sugar

1/2 cup butter
1/2 cup evaporated milk or cream
1 Tbsp. flour
1 tsp. vanilla

METHOD

Grease and flour a bundt pan or 9 x 13 inch pan. Cream butter, sugar and egg. Beat in flour, milk, baking powder and salt. Fold in cranberries. Spread batter in pan. Bake at 350 degrees about 45 minutes. Bundt pan may need one hour. Serve with butter sauce. For butter sauce, mix flour and sugar. Place all ingredients except vanilla in saucepan. Heat, beating well over high heat until hot and bubbly. Add vanilla. Serve warm over cranberry cake.

Mary Jessen, Holabird

BAKED RICE PUDDING**Ingredients:**

2 cups milk
1 cup water
1/4 cup sugar
3 tbsp. rice
1 tbsp. butter
1/4 cup raisins
Pinch of salt

Topping

Sugar
Cinnamon
Milk

METHOD

In a 2-qt. baking dish, add milk, water, sugar and rice. Stir together. Add a pinch of salt and raisins. Bake at 350 degrees for one hour. Take out of oven and add butter. Let sit while you eat main meal. Dish up in bowls, sprinkle with sugar, cinnamon and add milk.

Deanna Dean, Artesian

FANCY CHRISTMAS CAKES**Ingredients:****Cakes**

1 pkg. (2-layer size) white cake mix
1 tbsp. McCormick® Red Food Color
1 tsp. McCormick® All Natural Pure Vanilla Extract
1 tbsp. McCormick® Green Food Color
1 pkg. (16 oz.) chocolate candy coating, such as CANDIQUIK®

Buttercream

1/2 cup (1 stick) butter, softened
1 tsp. McCormick® All Natural Pure Vanilla Extract
1 pkg. (16 oz.) confectioners' sugar, sifted
2 tbsp. milk
Pinch of salt

METHOD

Preheat oven and prepare batter as directed. Divide batter evenly into 2 bowls (about 1-1/2 cups of batter each). Stir red food color and vanilla into first bowl. Stir green color into second bowl. Pour red and green batter into greased 13 x 9-inch baking pans. Gently tap on counter to remove any air bubbles. (If you do not have 2 13 x 9-inch pans, bake one color cake first, then reuse the pan to bake the second.) Bake 6 minutes. Remove pans from oven and tap on counter to remove any air bubbles. Return pans to oven and bake 6-9 minutes longer. Cool in pans 10 minutes. Invert cakes onto wire rack. Cool completely. Refrigerate cakes until ready to assemble. For buttercream, beat butter in large bowl with electric mixer until light and fluffy, about 3 minutes. Add vanilla and mix. Gradually beat in confectioners' sugar on low speed, scraping sides and bottom of bowl after each addition. Add milk and salt; beat on medium-high until light and fluffy, at least 3 minutes. If frosting is too thick, beat in additional milk.

www.mccormick.com

Please send your favorite soup 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 2021. All entries must include your name, mailing address, phone number and cooperative name.

Dear Pat and Brad: Our energy bills seem higher than they should be, but I'm not sure where to start looking around my home for opportunities to save energy. Do you have any suggestions? – Les



Pat Keegan
Collaborative
Efficiency

Dear Les: That's a great question. There are many products and services that claim to provide maximum energy efficiency, so it can be challenging to know where to start. Fortunately, our monthly bills can help identify areas for the most energy savings.

For the vast majority of homes, the months that require the most energy use are in the winter and summer when temperatures are most extreme. Just total up your average energy use for the months when you use the most energy, then subtract the average amount you use during "shoulder months," when you're barely using your heating or cooling system, typically during fall and spring.



Brad Thiessen
Collaborative
Efficiency

The most likely reason for the difference in energy use is heating and cooling your home. If someone says switching to a new heating or cooling system could save you 20 percent, they likely mean you can save 20 percent on heating or cooling costs, which are a portion of your overall energy costs.

Every home is different. For example, there's a small percentage of homes that include uncommon energy uses like a well pump, swimming pool or a home business that requires more energy than heating or cooling. But typically, heating and cooling your home are by far the largest energy uses.

Sealing air leaks is often the least expensive energy-saving measure that delivers the most bang for your buck.

The second most cost-effective way to cut heating and cooling costs depends on your situation. If you have an older propane or oil furnace, replacing it with an energy efficient heat pump might be your best investment. If you already have an efficient furnace or

air conditioning unit, insulating your attic could be the next most cost-effective measure, followed by insulating exterior walls or the crawl space or basement.

Replacing windows is a high-priority project for many homeowners, and new windows can certainly add value to your home. However, this can be a costly project, making it difficult to justify solely based on potential energy savings. If your windows are old and leaky, it could be worth the investment. Do your research upfront so you fully understand the costs of the project.

After you've found ways to reduce your heating and cooling costs, where else should you look for energy savings? Your next largest energy use is likely water heating. A few low-cost measures like repairing leaky faucets and insulating the first 6 to 10 feet of hot water line could deliver significant savings. Installing energy efficient showerheads can save water and reduce energy use. Check out Consumer Reports for reliable comparisons and reviews of energy efficient showerheads.

If your water heater is more than 10 years old, it's likely time to consider how and when to replace it. You can purchase a traditional water heater that uses the same fuel you're using now. But there are several other options, including heat pump water heaters, tankless water heaters and even solar water heaters. Be sure to do some research before your water heater breaks so you know about your options.

Appliances and lighting account for a smaller portion of your overall household energy use. As you replace older appliances and lighting, look for options that include the ENERGY STAR® sticker. You should also review energy use information found on the EnergyGuide label.

We hope this information will help you start to identify areas to save energy at home. Consider enlisting the help of an energy auditor who can provide an overall assessment of your home's efficiency.



Ben Hanten, left, has expanded his craft brew business in Yankton and reports record sales. *Photos provided by Ben Hanten.*

BEN'S BREWING CO.

Ben Hanten transforms Yankton's Freeman Building into a taproom and event venue

Billy Gibson

billy.gibson@sdrea.coop

Visitors to Ben's Brew Station in Yankton will find a number of mixed metaphors to stir the imagination.

There's the artwork hanging from the ceiling that depicts intriguing representations of various types of air craft, like a bi-plane made out of carpenter levels and a Spruce Goose replica with metal roller skate wheels for landing gear. The eclectic set of suspended sculptures represents the Freeman Company, an aerospace manufacturing business that once occupied the spacious building located on Walnut Street.

The name itself refers to the fact that the venue is situated a block away from an old railroad depot and there's a rail spur that enters the 28,500-sq. ft. building, which was used to convey products to the rail line for delivery to customers all across the country.

There's also a vintage vibe at play with a line of 1950s style pinball machines along one wall and pub games like darts, corn hole and bocce ball.

Finally, there's the names of the brews, sure to pique a patron's

curiosity – descriptive designations such as Raspberry Porter, Bishop Marty, Walshtown Irish Red, Oktoberfest, West Side Live, Pineapple Heat, Strawberry Rhubarb, Slic and many more.

After 16 years owning and operating Ben's Brewing Company, Ben Hanten expanded his business by opening The Brew Station last summer. He acquired the building with the vision of creating a fun and energetic environment to serve custom brews while offering live music, games and menu options provided by local food trucks. Frequent vendors during weekends and special events include Grind N' Griddle, Broken Trellis, Up in Smoke and Windy City Bites. Popular entertainers such as Adam Moe and Shawn Coles have taken The Brew Station stage.

Customers come for the fun and fellowship but also for the craft beer and to see what new blends happen to be on tap. In October, for instance, a brew called Madcat Pumpkinslapper was on the menu through a collaborative effort with Jefferson Beer Supply and Madcat Pumpkin Patch. The blend included real pumpkins and gourds, and a number of spices like cinnamon, nutmeg, cloves and ginger.

Crafting new flavors never gets old

THE BIG FOUR BREWS

Here are the top sellers at Ben's Brewing Company:

West Side Park IPA – The company's flagship product blends Dakota Challenger, Amarillo and Citra hops for a full juicy flavor with hints of orange, mango and grapefruit.

Kenny Pepper Cream Ale – the heat is on with this ale that's sure to warm the palate with roasted jalapenos and a hint of malt.

Kelly's Cove Golden Ale – a refreshing, easy-drinking ale with a light, delicate hop profile featuring Citra and Azacca and a smooth, clean finish.

Burleigh – a brown ale with a touch of roast, nuts and chocolate.

for Hanten. He enjoys visiting with customers, giving tours of the brewery and sharing stories of the building's history and colorful namesake, Edgar Freeman.

"He was quite a character," Hanten said. "We've learned a lot about him, and many of the employees who worked at The Freeman Company have added a lot of extra details, too. We started the bar 16 years ago, and it's fun to see it blossom into this," Hanten said.

Hanten reports that his brew revenue is up nearly 90 percent with plans to venture into the canning business in the coming year. He said customers can look for the Ben's Brewing Company label "anywhere you buy beer."

CHRISTMAS AT THE CAPITOL

Each year, musicians and other entertainers from across the state perform for the tens of thousands of visitors who travel to Pierre to see the “Christmas at the Capitol” displays and decorations. *Photo by Billy Gibson*

Christmas at the Capitol: Celebrating 40 years of yuletide splendor and dazzling displays

Billy Gibson

billy.gibson@sdrea.coop

With all of its spectacular lights, familiar carols and colorful decorations, Christmas at the Capitol inspires thousands to become awash in the spirit of the season.

It’s an especially magical and meaningful event for Moriah Gross, founder and director of the Pierre Youth Orchestra. Over the past decade, Gross and her students have performed in the Capitol Rotunda and added to the yuletide ambiance that more than 20,000 visitors travel from far and near to experience.

Gross is one of many performers slated to appear in the Rotunda as Christmas at the Capitol takes place from Nov. 23 through Dec. 26. Visitors to this year’s celebration can expect to see brilliant hues of ruby, pink and pearl in recognition of the event’s 40th anniversary.

“Winter Wishes” is the theme for 2021 as nearly 100 decorated trees will line the halls and fill the

historic structure. Local businesses and government agencies, non-profit organizations and other community groups from across the state will once again put their decorating skills to the test and give the Capitol and its environs a South Dakota Christmas flair.

This year’s official lighting ceremony will take place on Tuesday, Nov. 23, at 7:30 p.m. The popular Pie Day is set for Saturday, Dec. 4, from 11 a.m. to 3 p.m., when complimentary slices of pie, cookies, coffee and ice cream will be offered along with live musical entertainment sure to spark the Christmas spirit.

Gross said she and her students look forward to the event each year, but one memory stands out for her among the rest. Two years ago, she accompanied a guest performer who sang the traditional carol Silent Night in the language of the Lakota Sioux.

“It was so spectacular and moving to be able to have that experience there inside the State Capitol and honoring the Lakota people and

culture, and also to have our students experience that as well,” said Gross, a member of Oahe Electric Cooperative outside of Pierre.

A native of Kansas and accomplished string instrumentalist, Gross relocated to Pierre 10 years ago and soon realized there was no educational string program for public school students. So, she started the Pierre Youth Orchestra, which has nearly 40 students who are set to perform at the Capitol on Sunday, Dec. 19, at 5 p.m.

THIS YEAR’S OFFICIAL LIGHTING CEREMONY WILL TAKE PLACE TUESDAY, NOV. 23, AT 7:30 P.M. THE POPULAR PIE DAY IS SET FOR SATURDAY, DEC. 4, FROM 11 A.M. TO 3 P.M.

Gross said while she calls the Capitol “one of my favorite places to perform,” the experience is also beneficial for her music students in many ways.

“It’s just the opportunity to play for

DECKING THE CAPITOL HALLS



Nearly 100 trees are decorated by clubs, associations, non-profits and government agencies. *Photo by Travel South Dakota.*

an audience in this kind of setting. It's very intimate and not like playing on a stage in a large theater where the audience is sitting at a distance away from you," she said. "In the Rotunda, there are people all around, sometimes standing room only, and they're very close and intimate. It's an emotional time of year and you get to really connect with the audience. At the same time, they have to be disciplined and focused on what they're doing. It's a unique experience that a lot of students don't always get to have."

She said many students will return after they've graduated from the program and sit in on the performance and have their photos taken with the current crop of students at the Capitol.

Observing Christmas at the Capitol from behind the scenes, Gross noted the many individuals and volunteers who help make the event a success each year.

"I can't say enough about all the committees, greeters, volunteers, organizers and others around the

Approximate number
of annual visitors

20,000

to the Christmas at
the Capitol event.

community who make this possible for people coming in from all over the country and the world. You have the sights and sounds and scents of the pine trees, and it all adds up to a wonderful holiday experience," she said. "There are so many people who all work together to make this something special."

The annual holiday event started back in 1981 with a dozen decorated trees and has grown in popularity through the past 40 years. Visitors can look for some of the more popular recurring displays such as a set of hand-painted porcelain ornaments from the China Painters Organization and an old wooden nativity scene that the local Knights of Columbus group sets up on the second floor of the Capitol each year.

Those interested in serving as a volunteer for the event can contact rick.augusztin@state.sd.us.



The State Capitol grounds are also decorated to evoke the spirit of Christmas. *Photo by Travel South Dakota.*



Electrifying Education

Codington-Clark Electric Director Roy Gjerde and East River Electric's Jennifer Gross with Willow Lake fifth-graders.

Co-ops in the Classroom

What do socks, atoms and bicycles have in common? All these materials were used to teach nearly 500 children in schools throughout Codington-Clark Electric Co-op's service territory about electricity.

Co-ops in the Classroom is a program offered by Codington-Clark Electric's wholesale power provider, East River Electric Power Cooperative. Jenny Gross, Education and Outreach Coordinator for East River, travels throughout East River's service territory in eastern South Dakota and western Minnesota to teach children about electrical safety, generation, conservation and economics. In October, Gross brought this energy education to 23 classrooms in Codington-Clark Electric's territory.

During the hour-long presentations, Gross took the students on the journey of electricity at the atomic level, all the way to the hundreds of miles it travels from the power plant to our homes.

A variety of hands-on demonstrations engaged the students. A Van de Graaff generator demonstrated the movement of electrons with some hair-raising results.

"That one is always a crowd-pleaser," said Gross. "Not only does it provide

a visible and audible example of how electricity moves, students also get a kick out of seeing their hair stand up and shocking their friends. Sometimes we even get the teachers to join in."

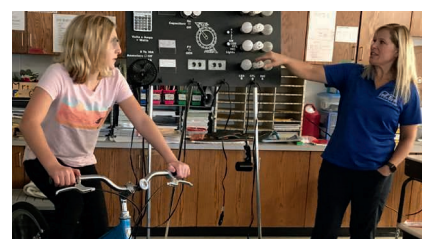
Another device that brings a lot of excitement is the Pedal Power bicycle generator. Students are asked to become power plants as they provide the energy that produces electricity for lights and small household devices.

"The Pedal Power turns the concept of electricity from abstract to tangible. By providing the energy needed to make a light bulb turn on, students are able to quantify how much more energy an incandescent light bulb requires than a CFL or LED," said Gross. By the end of the presentation, students had developed a new understanding and appreciation for electricity.

"As your local Touchstone Energy® Cooperative, Codington-Clark is

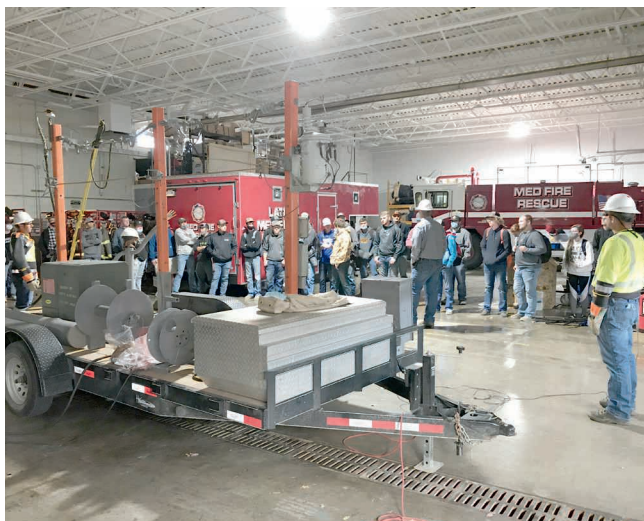
committed to the communities we serve. By providing this service to schools in our territory, we can reach thousands of people with the critical messages of electrical safety and conservation," said Dave Eide, General Manager for Codington-Clark Electric.

This is the 11th year CCEC has brought the program to area schools, but we are already making plans to return next year. Contact the energy experts at CCEC for more information on energy education opportunities.



At left, a student gets a hair-raising experience from a Van de Graff generator; above, a student generates electricity with the Pedal Power bicycle; at top, two students demonstrate how electricity arcs.

CCEC teaches safety at Lake Area Technical College

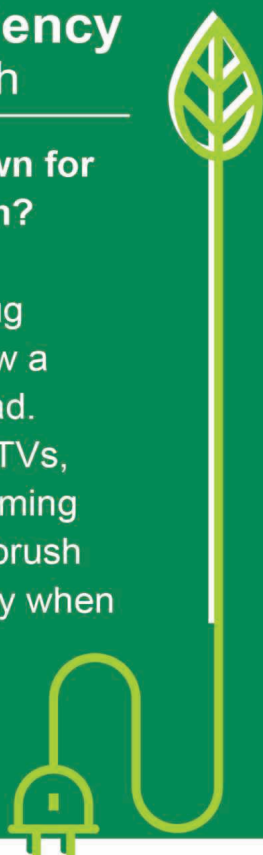


Codington-Clark Electric Cooperative's James Hatton, Jared Terhark and Jarod Suttan were at Lake Area Technical College where they held classes with the agriculture students on electrical safety. Students also attended a demonstration with the high voltage safety trailer.

Energy Efficiency Tip of the Month

Heading out of town for
the holiday season?

Remember to unplug
electronics that draw a
phantom energy load.
Some gadgets like TVs,
phone chargers, gaming
consoles and toothbrush
chargers use energy when
plugged into an
outlet—even when
they're not in use.



Have a storage heater?

If you have a storage heater installed at your home or farm it is not a bad idea to clean your unit. The bottom grill is removable which allows for vacuuming in and around the blower. These units get extremely hot. It is important to keep curtains or other flammable materials away from them. If you have any questions about proper cleaning please call Bob Johnson at the office at 886-5848 or 1-800-463-8938.



Notice:

CCEC will be closed the following days:

Thanksgiving – Nov. 25-26

Christmas – Dec. 24

New Year's Day – Dec. 31

**For emergencies, call
605-886-5848 or 1-800-463-8938.**



**Codington-Clark Electric
has Marathon® lifetime
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100-gallon tank rebate = \$600

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*Must be connected to a
load management device
to receive the rebate and bill credit.*

**Please call us at 605-886-
5848 for details.**



SEARCHING FOR THE STARS

Badlands Observatory photographer Teresa Hofer captured this image of The Pleiades, also known as the Seven Sisters.

Badlands Observatory welcomes stargazers, researchers and others interested in pursuing the field of astronomy

Billy Gibson

billy.gibson@sdrea.coop

For centuries, astronomers have sought to find a scientific explanation for the Star of Bethlehem, which is described in the Gospel of Matthew as the celestial sign that led the Magi into the presence of the Christ child.

Some have speculated that the object high in the night sky could have been a supernova, a comet or possibly a conjunction of the planets Jupiter and Venus.

Accomplished astronomer Ron Dyvig has views of his own. As a researcher who adheres to scientific methods, he's a bit hesitant to plow into topics where science and faith may collide.

But when pressed to offer an educated opinion on the Christmas Star, he replies, "There are several elements that make it challenging to address from a scientific standpoint and there are a

half-dozen theories beyond what's there in the Biblical accounts. But I think it could have been a nova or the planet Venus. Venus can be remarkably bright after sunset when it appears to descend in the west for several weeks. That may have been what the Magi saw and would be something they could follow. But a lot of people have strong religious beliefs about it, and if you believe it was a miracle, then science can't really explain it adequately."

Dyvig is founder of the Badlands Observatory, which he opened for his own private viewing and independent research in 2000. Two years ago, he began renovating the facility located in the small community of Quinn just north of I-90, with the goal of one day welcoming members of the public interested in astronomy.

While the renovation project is not fully complete and a grand opening is set for next spring, Badlands

Observatory is now welcoming visitors by reservation only.

"Since we got settled into this facility, there has just been so much public interest in it that we decided to go public. It's as simple as that," Dyvig said. "Right now we're taking it slow with small groups. During the winter months our activities will be curtailed a bit, then we'll expect a busy spring."

A native of Deadwood, the 79-year old Dyvig took a keen interest in astronomy at an early age when he was



Teresa Hofer and Ron Dyvig are long-time collaborators who have opened the Badlands Observatory to public access.

introduced to the discipline by his local Boy Scout troop leader. He created his first observatory as a youngster when he made a concrete pad and a cylinder to hold his telescope in place in the middle of a rancher's field. During his high school and college years, he spent late nights scanning the skies, marveling at the vastness of the universe and hoping to discover new heavenly bodies.

As a college student, Dyvig learned and taught the art of telescope-making and became president of the Black Hills Astronomical Society. He later designed and fabricated the optics for the Hidden Valley Observatory in Rapid City.

Dyvig spent time honing his craft as a research assistant at the University of Arizona where he worked under several mentors and utilized the advanced facilities at Kitt Peak National Observatory. He was chosen to help design and test image intensifier camera systems for Steward Observatory.

While through the decades he kept day jobs to support his avocation, his evenings were spent star gazing and pursuing new discoveries. His passion and dedication to astronomy paid off when he discovered - and aptly dubbed - Asteroid 26715 South Dakota just a year after opening the Badlands Observatory. It's just one of the 25



Photographer Bob Rossiter and Ron Dyvig are shown with the 26-inch Newtonian Reflector telescope at Badlands Observatory.

discoveries credited to Dyvig during the course of his astronomy work.

Building the observatory was no small task. First, he found and converted an old medical building in Quinn to house the facility. Then he personally designed and fabricated all of the optics, including grinding and polishing the mirror for the 26-inch f/4.8 Newtonian Reflector telescope. West River Electric

Cooperative worked with Dyvig and the town of Quinn to install hoods over surrounding street lights to reduce "light pollution" and enhance the ability to scan the night sky.

Dyvig describes himself as fortunate to find a partner in Teresa Hofer, a career accountant who shares his passion for all things celestial.

There's always something to be done

at the observatory, Hofer said. Ongoing duties include maintaining and upgrading the optical and drive systems, control systems for the telescope and dome, facility management, designing and implementing new educational programs for visitors, website updates and keeping up-to-date on developments in the field of astronomy.

"There's plenty to do, especially since we decided to make the facility public after we figured people might like to see what we do," she said. "We had to make sure everything was comfortable for the public and do a lot of renovating and painting and upgrading."

Hofer said she is starting to promote the observatory as a destination for astronomy enthusiasts who might be interested in touring the facility and peering through one of seven telescopes on the observation deck. Dyvig is in the process of also building a radio telescope to add to his collection.

Those interested in experiencing the Badlands Observatory can call 605-381-1521 to set up a viewing time or visit www.badlandsobservatory.com.



The Orion Nebula has long captured the imaginations of star watchers as it has been associated with the Greek myth of a huntsman placed among the stars by Zeus.

BUILDING RURAL LEADERS

Minnesota Ag Rural Leadership Class IX members develop problem-solving skills during a “Building Strong Teams” session.

Working today to develop tomorrow’s rural community leaders in South Dakota and Minnesota

Billy Gibson

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Success in any endeavor calls for solid leadership. Don Norton of the South Dakota Agricultural and Rural Leadership Program (SDARL) is eager to build better leaders who envision a more prosperous future for individuals, families and businesses across the state.

Norton believes leadership skills don’t just materialize out of thin air. Those skills and abilities have to be taught. That’s the goal of SDARL, an 18-month program that takes participants through an intensive course of conferences, class time and state, national and international seminars all designed to prepare the students to return to their communities and make positive contributions.

“You don’t see SDARL graduates sitting on the sidelines,” Norton

said. “They’re stepping up to serve on commodity and corporate boards, in community organizations, in government and in their families, leading and taking action and inspiring others to do the same.”

SDARL Class VII graduate Mike Traxinger of Claremont is doing anything but sitting on the sidelines. Traxinger is a fifth-generation farmer and rancher who also serves as general counsel and director of governmental affairs for Agtegra Cooperative. He recently joined the board of directors at Northern Electric Cooperative based in Bath, is past president of the American Agricultural Law Association, co-chair of the Agricultural Law Committee of the State Bar of South Dakota and a member of the South Dakota Farm Bureau, Farmers Union and South Dakota Simmental Association.

“The SDARL program really helped hone my leadership skills and gave me more insight into ways that I could make a difference that I hadn’t thought of before,” said Traxinger, who also serves as president of the South Dakota Association of Cooperatives. “Leadership is vital to the continued success of rural America, farming and ranching operations, and our communities. And programs like SDARL are very effective in developing strong leaders who have a passion for service and a heart for helping others succeed in a way that’s beneficial for everyone.”

The SDARL Foundation was created in 1998 under the first Executive Director Dr. Dan Gee, who stepped into the role after retiring from the Animal Science Department at South Dakota State University. The first class started in 2000 with participants representing a range of backgrounds including ranching, farming, banking, media, government and private business.

Dr. Gee was the leader of SDARL



Leadership students take a field tour of a logging operation in northern Minnesota.

in 2008 when Olga Brouwer went through the curriculum. Brouwer was so impressed with Dr. Gee and the program that she later went on to become leader of the Minnesota Agriculture Rural Leadership (MARL) and has held that position for the past 10 years. She points out that both the MARL and SDARL programs were formed on the same day 21 years ago and have graduated a combined 600 students during that time.

“I learned so much from Dr. Gee,” said Brouwer, who once operated a dairy farm in Elkton. “He was super-educational and also provided a lot of insight into the political process, how to reach out. If you go and talk to legislators and staffers you find out there are reasons why things might not be working out so well. But in order to change things, you have to be at the table and be active, especially for cooperatives.”

While both programs have similar structures and operate in similar fashion, Brouwer said MARL is affiliated with the University of Minnesota Extension and places a bit more stress on the academic side in the learning material.

Kylie and Jake Rieke are both graduates of the MARL program and leaders in their community. Along with raising corn and bean crops, Jake is chairman and a founding organizer of the R-S Fiber Cooperative while Kylie serves on the board of Renville-Sibley Cooperative Power Association based in Danube, Minn.

Jake participated in MARL from 2018 to 2020 and was impressed with what he gained from the program. His group traveled to Cambodia and Taiwan to examine their agricultural practices.

“It was a great experience. For us, it blew open an entire network of connected individuals to draw off their expertise and bounce ideas off of,” he said. “Everybody in the group brings a unique background in different fields, so there are people you can call to ask questions or answer questions someone may have for you. It gives you a fast lane for networking and for getting your projects moving to accomplish whatever goals you have in front of you.”

Neither SDARL nor MARL receive direct funds from state or federal governments to support their programming. Participants pay

The number of years
SDARL and MARL

21

have been developing
community leaders.

a percentage of the cost of going through the program but most funding comes from individuals, businesses and partnering organizations whose goal is to improve and develop rural communities.

One of those organizations standing in full support of both programs and the concept of rural leadership development is East River Electric Power Cooperative, which provides transmission, substation and distribution services for electric cooperatives in both states.

Those interested in investing in rural leadership through these programs can visit www.sdagleadership.com and www.marlprogram.org.



Christmas Day
December 25, 2021

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.

NOVEMBER 26

Parade of Lights

Dakota Avenue, Huron, SD,
605-352-0000

NOVEMBER 26-28

Beautiful – The Carole King Musical

Washington Pavilion, Sioux Falls, SD, visit <https://www.washingtonpavilion.org/> for more info and tickets

NOVEMBER 26-28

DECEMBER 4-6, 10-23, 26-31

Christmas Nights of Lights

Storybook Island, Rapid City, SD, 1-605-342-6357

NOVEMBER 27

Holiday Celebration and Winter Market/Festival of Lights Parade

Downtown, Rapid City, SD,
605-381-4204

DECEMBER 2

Christmas on the Prairie

526 North Broadway Avenue, Miller, SD, 605-853-3098

DECEMBER 2

Yankton Holiday Festival of Lights

Downtown, Yankton, SD,
605-668-5231

DECEMBER 3

Handel's Messiah

First Lutheran Church, Sioux Falls, SD, 605-367-6000

DECEMBER 3-4

Christmas in The Hills – "Visions of Sugar Plums"

Various Locations, Hot Springs, SD, 605-890-0519

DECEMBER 3-5

Annual Christmas Tree Lighting & Cowboy Christmas

Casey Tibbs Rodeo Center, Fort Pierre, SD, 605-223-7690

DECEMBER 4

Rapid City Garden Club's Wreath & Centerpiece Sale

Central States Fairgrounds, Rapid City, SD, 605-343-0710

DECEMBER 5

Magical Medora Christmas

Homestake Opera House, Rapid City, SD, visit <https://www.homestakeoperahouse.org/> for more info and tickets

DECEMBER 10

for KING & COUNTRY – A Drummer Boy Christmas Tour

Denny Sanford Premier Center, Sioux Falls, SD, tickets available at <https://smarturl.it/DBSiouxFallsSD>

DECEMBER 11

Breakfast with Santa

Bramble Park Zoo, Watertown, SD, tickets go on sale after Thanksgiving, 605-882-6269

DECEMBER 11

Frontier Christmas

Fort Sisseton Historic State Park, Lake City, SD, 605-448-5474

DECEMBER 11-12

Christmas with the Symphony: 'Tis the Season

Washington Pavilion, Sioux Falls, SD, tickets available at <https://www.bhsymphony.org/>

DECEMBER 11-12, 18-19

Christmas Tours of the Historic Adams House

22 Van Buren Street, Deadwood, SD, 605-722-4800

DECEMBER 15-18

Lakota Nation Invitational 45th Anniversary

The Monument, Rapid City, SD, 605-394-4115

DECEMBER 16-19

25th Annual Christmas at the Cathedral

Cathedral of Saint Joseph, Sioux Falls, SD, visit <https://ccfesd.org/events/christmas-at-the-cathedral/>

DECEMBER 18

Vendor and Craft Market

Watertown Mall, Watertown, SD, 605-882-1734

DECEMBER 31

New Year's Eve with The Davis Sisters

601 Columbus Street, Rapid City, SD, tickets available at <https://www.bhsymphony.org/>

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