

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.



More power! Using more electricity can benefit the environment.



Ben Dunsmoor
Editor

It is time to start thinking about purchasing more electric products.

As the holiday shopping season begins, I want you to become familiar with the term beneficial electrification. Beneficial electrification is the replacement of products that traditionally use gas or fossil fuels with products powered by electricity to benefit the environment. Think about products like electric leaf blowers, weed trimmers, lawnmowers, and snow blowers instead of gas-powered tools and appliances.

Beneficial electrification is the concept of using more electricity to create fewer emissions.

Beneficial electrification is a concept that has been developing over the last several years. There is even a non-profit organization known as the Beneficial Electrification League (BEL) that promotes the use of more electric products in order to:

- Save consumers money over time;
- Benefit the environment and reduce greenhouse gas emissions;
- Improve product quality or consumer quality of life;
- Foster a more resilient grid

Yes, for years you have been told to reduce the amount of electricity you use to lower greenhouse gas emissions and benefit the environment. However, that idea is being turned upside down as electric generation becomes more renewable. Experts now believe the path to reducing emissions is to actually use more electricity.

Basin Electric Power Cooperative, Northern Electric's generation and transmission provider, has significantly changed its energy portfolio over the past two decades. In 2000, Basin Electric generated 85 percent of its electricity from coal. Last year, only 40 percent of electric generation came from coal and 30 percent came from renewable resources such as wind and hydro. Basin is also in the process of adding utility-scale solar to its portfolio over the next few years as two major solar projects come online in western South Dakota. It all means that the electricity you use every day is becoming more environmentally friendly.

Northern Electric already has several ways you can support the beneficial electrification movement. The co-op currently sells large-capacity electric water heaters and offers several rebates and incentives to switch from a natural gas unit to an electric unit. Northern Electric also offers rebates and special rates for members who have electric heating systems. And the emerging electric vehicle market will be a major component of beneficial electrification as gas and diesel vehicles are replaced by cars and trucks powered by electricity.

Purchasing tools and appliances such as electric leaf blowers, weed trimmers, and snow blowers as gifts is an easy way to begin supporting beneficial electrification this holiday season by replacing those old gas-powered tools in the garage.

Beneficial electrification is the concept of using more electricity to create fewer emissions. And the benefits will only continue to grow as electric cooperatives diversify electric generation portfolios with more renewable sources of energy. That is the reason it is time to start thinking about purchasing more electric products during the holiday shopping season and beyond.

COOPERATIVE CONNECTIONS

NORTHERN ELECTRIC

(USPS 396-040)

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Northern Electric Cooperative Connections is the monthly publication for the members of Northern Electric Cooperative, PO Box 457, Bath, SD 57427. Families subscribe to Cooperative Connections as part of their electric cooperative membership. The purpose of Northern Electric Cooperative Connections is to provide reliable, helpful information to electric cooperative members on electric cooperative matters and better rural living.

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Northern Electric Cooperative's regular board meeting was held October 21, 2021, at the headquarters in Bath with all directors present except Francis Esser who was excused. National Rural Utilities Cooperative Finance Corporation (CFC) Distribution Lending, Regional Vice President Darrin Lynch was a guest for the meeting. As the first order of business, the board approved the September 27, 2021, minutes and September expenditures. The Board then reviewed and accepted monthly reports by management.

East River Director Kirk Schaunaman reported on the ER board meeting held October 6-7. General Manager Char Hager reported on the ER MAC Meeting held October 6. South Dakota Rural Electric Association Director Nolan Wipf reported on the SDREA Legislative Committee meeting held October 5.

MANAGER'S REPORT

General Manager Char Hager's report to the board included the following items:

- Update on development projects.
- Update on Rural Electric Economic Development (REED) revolving loan fund.
- Legal and legislative report from Char Hager regarding plans for the 2021 Northeast Rural Utilities Legislative Issues Forum, November 16, Aberdeen.
- Reviewed the Key Ratio Trend Analysis (KRTA) with the board.
- Reviewed Strategic Plan with Directors.
- Reminded the board of the Basin Electric Annual Meeting and Member-Only Meeting, November 9-11, Bismarck.
- Reminded the board of the Mid-West Electric Consumers Assoc. Annual Meet-

ing, Dec. 7-9, 2021, Denver, CO.

- Reminded the board of the 2021 Winter School for Directors, December 10-14, Nashville, TN.
- Informed the board of the 2021 NRECA Board Leadership Certificate Courses 953.1-Improving Board Decision Making Quality and 944.1-Giving and Receiving Effective Feedback, December 7 & 8, in Pierre.
- Reviewed Northern Electric Cooperative, Inc. Bylaws.

BOARD REPORT

The board considered and/or acted upon the following:

1. Approved the date and time of the next regular board meeting for 8:30 a.m. on Monday, November 29, 2021.
2. Approved payment of legal fees for Harvey Oliver in the amount of \$1,213.04.
3. Approved Work Order Inventories #21-09 for \$517,985.67 and #21-09MC for \$47,463.20 to be submitted to the Rural Utilities Service for reimbursement from loan funds for electric plant construction already completed.
4. Adopted a resolution approving the 2022 Basin Load Forecast completed by Basin Electric. The forecast projects NEC's system demands and energy requirements through 2050.
5. Set the 2022 Annual Meeting date for Tuesday, September 13.
6. Appointed General Manager Char Hager voting delegate to vote for the NISC District #6 Director Election.
7. Held Executive Session.

Talk to your director or co-op manager if you have questions on these matters.

FINANCIAL REPORT

	Sept-21	Sept-20
kWh Sales	19,656,820 kWh	18,697,672 kWh
Electric Revenues	\$2,070,412	\$1,974,432
Total Cost of Service	\$2,150,471	\$1,992,422
Operating Margins.....	(\$80,059)	(\$17,990)
Year to Date Margins	\$303,211	\$602,449

RESIDENTIAL AVERAGE MONTHLY USAGE AND BILL

SEPT-2021	1,120 kWh	\$160.52	0.1433 per kWh
SEPT-2020	1,118 kWh	\$157.83	0.1412 per kWh

Wholesale power cost, taxes, interest, and depreciation account for 81.3% of NEC's total cost of service.

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 tbsps. rice
- 1 tbsps. 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 tbsps. McCormick® Red Food Color
- 1 tsp. McCormick® All Natural Pure Vanilla Extract
- 1 tbsps. 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 tbsps. 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.



REFUGE RETREATS

REED Fund provides financing for street infrastructure in new 55 and older housing development in Aberdeen

Ben Dunsmoor

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It is a local project developed by a local group of business owners to fill a need in the Aberdeen area.

Refuge Retreats is a neighborhood designed specifically for residents 55 years old and older. The development is currently under construction in northeast Aberdeen next to Carlsen Funeral Home and Crematory. It is a project that is intended to fill a gap that was

recently identified in an Aberdeen housing study.

“The biggest hole we had in that housing study was 55-plus housing,” Michael Carlsen with the Refuge Retreats management group said.

Carlsen, his wife Lisa, their daughter Allie and her husband Jordan Ryckman connected with local contractors Cory and Chad Huff and their wives, Angela and Kendra, in early 2020 to develop the Refuge Retreats concept to fill that void.

Refuge Retreats will be a 56-unit maintenance-free housing development for residents 55 years and older when it is completed. The first ten units have already been constructed and rented. The next 12 units are currently under construction and ten residents have signed agreements to move in when those units are finished. The remaining units will be constructed in two more phases over the course of the next year.

“I use that Field of Dreams saying, ‘build it and they will come,’ and that is what is happening here,” Michael Carlsen said.

Every housing unit at Refuge Retreats is 1,500 square feet and has two bedrooms, two bathrooms, and a two-stall garage. The units have amenities that are attractive to residents over the age of 55



All the units at Refuge Retreats have in-floor heat, wide hallways and doors, and granite countertops.

Photo courtesy:
Refuge Retreats

such as in-floor heat throughout the home, wider doorways and hallways, and granite countertops. All the lawncare, landscaping and snow removal are also taken care of by Refuge Retreats management. A 3,500 square-foot clubhouse is currently under construction in the community so residents can gather for coffee, cards, and special occasions.

“This is a community of fairly like-minded people who want this type of living,” Carlsen said.

REED FUND PROVIDES KEY FINANCING

One of the major components of developing Refuge Retreats was constructing the streets throughout the development. The partners involved in the project, however, did not have experience building streets or securing financing for that type of construction.

Refuge Retreats secured a TIF (tax increment finance) district designation from the City of Aberdeen to fund a portion of the costs to install curb, gutter, sewer, and streets throughout the development. The partners then turned to the Rural Electric

“THE REED FUND WAS PROBABLY OUR KEY PIECE OF FINANCING. IT TURNED THAT LAST NUMBER ON THE COMBINATION LOCK.”

- MICHAEL CARLSEN

Economic Development (REED) Fund at the advice of their attorney to pay for the rest of the infrastructure.

“The REED Fund was probably our key piece of financing. It turned that last number on the combination lock,” Carlsen said.

The REED Fund is a non-profit community development financial institution governed by 26 electric cooperatives in South Dakota and western Minnesota; including Northern Electric. It is a revolving loan fund that focuses on projects which promote growth and improve the economic base in rural Minnesota and South Dakota.

“REED assists projects that promote community wellbeing and contribute to employment, business, wealth creation, and improvements in infrastructure and housing availability in the region,” East River Electric Power Cooperative Economic Development Director

Eric Fosheim said. “The Refuge Retreats project fits perfectly with the purpose of the REED Fund.”

Carlsen said the REED loan may have not been the largest piece of financing for the 55-plus housing project, but it was critical to making the community a reality.

“It was the key piece,” Carlsen said. “What good does it do to build 56 houses without the road?”



The first ten units of the Refuge Retreats development have already been constructed and 12 more units are currently under construction.

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.*



Northern Electric heat rate offers stable and reliable home heating this winter

Northern Electric Cooperative's electric heat rate will help members avoid dramatic increases in heating costs this winter. According to a report from the U.S. Energy Information Administration (EIA) it could cost up to 50 percent more to heat a home with natural gas or propane this winter due to rising commodity prices. The cost to heat with electricity will only rise between six and 15 percent according to the same report.

The cost for Northern Electric members who take advantage of the co-op's electric heat rate, however, will remain stable this winter. Northern Electric members who have a separate meter – or submeter – calculating their electric heat use are charged 4.7 cents per kilowatt hour throughout the winter to heat their homes and shops. The normal residential energy charge is 9.3 cents. That means members who have electric heat connected to a submeter pay half the normal rate when they are heating their homes.

“The heat rate encourages responsible use of electric heat and keeps costs low for our consumers during the coldest months of the year,” Northern Electric CEO/General Manager Char Hager said.

To qualify for the electric heat rate members must call the Northern Electric office at 605-225-0310 and talk with a member services representative. The member services representative will review the member's account and possibly stop out at their service location to ensure that the proper metering setup and rates are being implemented on the account. There is no charge to investigate and install a submeter, but there is a \$3 per month charge to maintain a submeter at a home, farm, or business.

Members can also keep a close eye on their accounts throughout the winter months by signing up for SmartHub – an online account management tool available to Northern Electric members. Northern Electric members can use SmartHub to pay their bill online, set up automatic payments, view their daily electric use, and compare their use to previous months and years. To sign up for SmartHub members simply need to go to www.northernelectric.coop and click the 'new user' link in the SmartHub login box on the top of the homepage.

Taking steps to set up the proper metering for electric heat and regular monitoring of electric use can help Northern Electric members manage their heating costs and avoid the volatile price swings that are predicted for the upcoming winter.

More information, visit:
northernelectric.coop/heatrate

Electric Heat Rate

Northern Electric members who are enrolled in the electric heat program pay **4.7 cents per kWh** to heat their homes throughout the winter.

2021-2022 HEATING SEASON LIEAP INCOME LIMITS	
HOUSEHOLD SIZE	MAXIMUM 3-MONTH INCOME
1 Person	\$6,440
2 Person	\$8,710
3 Person	\$10,980
4 Person	\$13,250
5 Person	\$15,438
6 Person	\$17,567
7 Person	\$17,966
8 Person	\$18,365
9 Person	\$18,765
10 Person	\$20,153

Source: South Dakota Department of Social Services

HEATING ASSISTANCE

Heating assistance is available through the South Dakota Department of Social Services

South Dakotans who need help paying their heating bills this winter can request energy assistance from the Department of Social Services (DSS). Energy assistance can help low-income families pay for heating costs; however, the assistance does not cover all costs associated with heating. Funds for the Low Income Energy Assistance Program (LIEAP) are distributed on a first-come basis for meter readings from October 1 – May 15.

To be eligible for the South Dakota DSS Low Income Energy Assistance Program households must:

- Complete the DSS Low Income Energy Assistance Application
- The total gross income of the household must not exceed maximum income guidelines.
- The applicant must be responsible for paying the home heating costs.

DSS also has an Energy Crisis Intervention Program (ECIP) that is available from October 1 – March 31. This program offers income-eligible households emergency assistance if they have a disconnection notice for their heat source or an eviction notice if the heat bill is included with rent.

For more information – or to obtain an application for LIEAP – contact DSS:

- **Website:** dss.sd.gov/economicassistance/energyassistance/lowincome.aspx
- **Phone:** 1-800-233-8503

LIEAP applications can also be picked up at one of the Northern Electric Cooperative offices in Bath or Redfield.



You'll rave about all the benefits you get by switching to electric appliances, power tools and even vehicles. Electric appliances, especially stoves, are generally safer than their gas counterparts as they eliminate both open flames and the potential for a gas leak. They're less expensive throughout total ownership, easier on your pocketbook and better for the planet. Electricity powers all types of energy usages, while gas is limited in its scope of power.

Have questions about going electric? Contact your local Touchstone Energy® Cooperative or visit yourcoopower.com today.



**RE-ENERGIZING
COST SAVINGS**

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

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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 SDRAL 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.

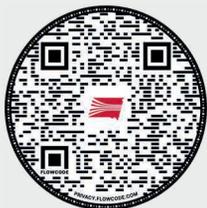
Those interested in investing in rural leadership through these programs can visit www.sdagleadership.com and www.marlprogram.org.



**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
Santa Claus Day
111 N Main Street, Groton, SD, 605-846-7607

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.