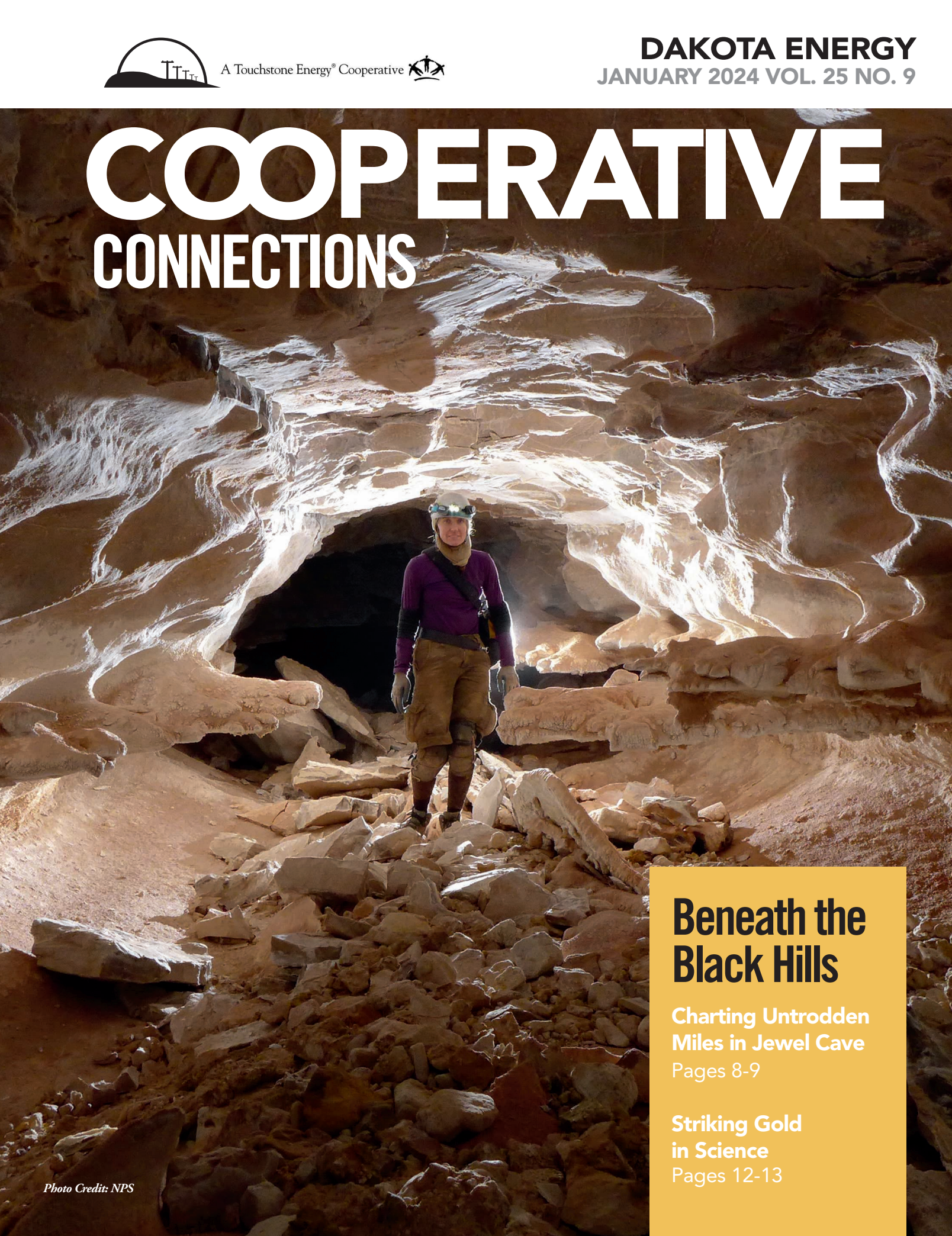




A Touchstone Energy® Cooperative 

DAKOTA ENERGY
JANUARY 2024 VOL. 25 NO. 9

COOPERATIVE CONNECTIONS



Beneath the Black Hills

**Charting Untrodden
Miles in Jewel Cave**

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**Striking Gold
in Science**

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Dakota Energy will have its first rate increase in six years effective January 1, 2024.



Darrell Raschke
President

Dear Member,

Dakota Energy Cooperative is adjusting rates for the first time in six years. These changes are due to a 2.6% increase in the cost of wholesale power from East River Electric and Basin Electric, compounded by increases in material and equipment prices used to maintain our distribution system. The changes will impact all rate classes, including adjustments to demand rates and service availability charges. You will see this rate increase on your electric bills rendered after January 1, 2024. A complete list of new rates has been published on our website at www.dakotaenergy.coop.

We understand no one likes to pay more. That's why Dakota Energy has tried hard to keep rates the same, which we've been successful since 2018. But when we received the latest cost of power increase from our power supplier, we were unable to absorb it. After thoughtful and deliberate consideration of the rise in power costs and the impact on the cooperative's financial stability, Dakota Energy's Board of Directors approved the rate change at the October board meeting. Your cooperative is committed to providing reliable power and quality service at the lowest possible cost and is working hard to minimize the impact of the necessary rate increase. Approximately 73 cents of every dollar Dakota Energy receives is allocated to pay for the wholesale power we sell to our members; the remaining 27 cents fund the material, labor, and equipment Dakota Energy uses to serve our members.

The cooperative's engineering service, Power Systems Engineering, recently conducted a rate analysis. This study provided data that

showed Dakota Energy's current rates would not supply enough revenue to cover the anticipated expenses for 2024. They are seeing increases nationwide due to rising material and equipment costs. It also showed that Dakota Energy will need annual increases in the coming years to cover the cost of operations and meet our mortgage ratio requirements. To remain flexible, Dakota Energy offers a variety of payment options; members can choose one that works best for their budget. Budget Billing helps avoid bill fluctuations by calculating an average of the previous 12 months' usage into an even monthly payment. SmartHub – Pay Now – Automatic Bill Payment – Pay by Phone are great electronic payment options, too. More information is available on our website www.dakotaenergy.coop. You may also stop in the office and drop off your payment at the counter or in the convenient drop box.

As a not-for-profit electric cooperative, Dakota Energy returns any margins to its members, so there's no incentive to raise rates more than required. Our goal is to always provide safe and reliable electricity to our members. If you'd like more information about the circumstances forcing Dakota Energy's rate increase or ways to save energy, please refer to our website or monthly newsletter. As we continue to navigate inflation in all aspects of our lives, please remember that Dakota Energy is here for you. Do not hesitate to contact us if you need assistance.

Sincerely,

Dakota Energy Board of Directors

**COOPERATIVE
CONNECTIONS**

**DAKOTA
ENERGY**

(USPS No. 018-949)

Board President: Darrell Raschke, Huron

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- Brian Bonebright, Wessington - Treasurer
- Brian Baum, Alpena
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- Todd Bushong, Tulare
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- Doug Schaefer, Orient

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Mike Moncur

**Manager of Human Resources &
Communications:** Jodene Decker

Dakota Energy Cooperative Connections is the monthly publication for the members of Dakota Energy Cooperative, PO Box 830, 40294 US Hwy 14, Huron, SD 57350. Members subscribe to Cooperative Connections as part of their electric cooperative membership. The purpose of Dakota Energy Cooperative Connections is to provide reliable, helpful information to electric cooperative members on electric cooperative matters and better rural living.

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**DAKOTA ENERGY'S "REINDEER
GAMES" PARADE OF LIGHTS FLOAT**

This year Dakota Energy's Parade of Lights float was decorated for a reindeer game kind of Christmas. Employee volunteers worked hard to put the float together and then were able to participate in Huron and Hitchcock's parades on Nov. 24 & 25.

DEC's float won the "Best Lighted" category in Huron's Parade of Lights. This was the fourth straight year that DEC's float won this category!

January is National Radon Action Month

Radon is a Natural Danger

About one in 15 homes in the U.S. has radon levels at or above the the EPA action level, according to the National Cancer Institute. You can't see or smell radon, and scientists estimate 20,000 lung cancer deaths in the U.S. each year are attributed to it.

Radon is produced from a natural breakdown of uranium in soil, rock and water. It enters homes, offices, schools and other buildings through cracks in floors and walls, construction joints or gaps around service pipes, electrical wires and sump pits. The Environmental Protection Agency reports elevated levels of radon gas have been measured in every state and estimates nearly one out of every 15 homes in America has elevated radon levels.

People who breathe in these radioactive particles, swallow water with high radon levels or are exposed to radon for a long period of time are susceptible to lung damage and lung cancer. Smokers who are exposed to elevated levels of radon gas have a 10 times higher risk of developing lung cancer, according to the Centers for Disease Prevention and Control.

It may take years before health problems appear. Your chances of getting lung cancer from radon depend mostly on:

- How much radon is in your home
- Where you spend most of your time (the main living and sleeping areas)
- The amount of time you spend in your home
- Whether you are a smoker or have ever smoked

Test Your Home

Old homes, new homes, homes with basements and homes without basements can have radon problems. Testing is the only way to determine how much radon is present.

Consider hiring a professional tester. Short-term (2-90 day) and long-term (more than 90-day) test kits are available, with the long-term kit producing more accurate results. The EPA website can help you find a radon test kit or measurement and mitigation professional near you. Do-it-yourself test kits also are available at many local hardware stores.

No level of radon exposure is considered completely safe, however the EPA only recommends reducing radon levels in your home if your long-term exposure averages four picocuries

per liter (pCi/L) or higher. A pCi is a measure of the rate of radioactive decay of radon gas. This decay causes radioactive particles that can get trapped in your lungs when you breathe.

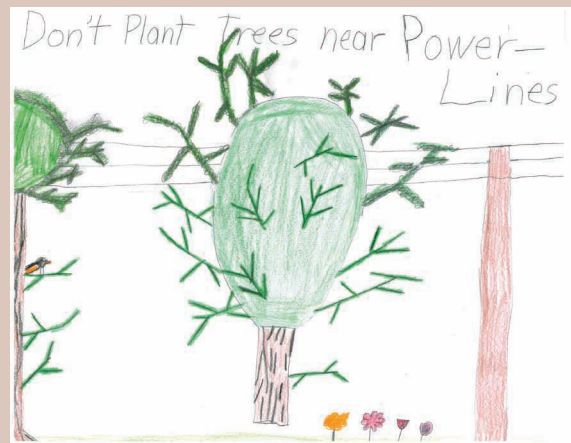
Reduce Radon Gas in Your Home

The American Cancer Society says a variety of methods can be used to reduce radon gas levels in your home, including sealing cracks in floors and walls and increasing ventilation though sub-slab depressurization using pipes and fans.

The EPA recommends using a state or nationally certified contractor, because lowering high radon levels often requires technical expertise and special skills. Two agencies have set the standard for participants seeking certification:

- The American Association of Radon Scientists and Technologists
- National Radon Safety Board

Always test again after the work is finished and then every two years. The U.S. Environmental Protection Agency has designated January as National Radon Action Month, a time when health agencies across the country urge all Americans to have their homes tested for radon.



Don't Plant Trees Near Power Lines

Annette Tschetter, Age 9

Annette Tschetter instructs readers to not plant trees near power lines. Annette is the daughter of Ryan and Elaine Tschetter from Revillo, S.D., members of Whetstone Valley 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.

SOUPS & STEWS

PUMPKIN APPLE SOUP

Ingredients:

3 tbsps. butter
1 cup finely chopped onion
2 tps. pumpkin pie spice
1 tsp. ground ginger
1 can (15 ounces) pumpkin
1 cup chunky applesauce
3 1/2 cups chicken broth
3/4 cup heavy cream

Method

Melt butter in large saucepan on medium heat. Add onion; cook and stir 5 minutes or until softened. Stir in pumpkin pie spice and ginger.

Stir in pumpkin, applesauce and broth until well blended and smooth. Bring to boil, stirring occasionally. Reduce heat to low; simmer 5 minutes. Remove from heat. (If a smoother soup is desired, place mixture in batches in blender container; cover and blend until smooth.) Stir in cream. Heat gently before serving, if necessary.

McCormick.com

CREAMY CHICKEN NOODLE STEW

Ingredients:

1/3 cup butter, cubed
1 med. carrot, shredded
1 celery rib, finely chopped
1/3 cup all-purpose flour
1 carton (32 oz) chicken broth
1 cup whole milk
1 cup uncooked kluski noodles or other egg noodles
2 cups cubed cooked chicken
1 1/2 cups shredded cheddar cheese
1/4 tsp. salt
1/4 tsp. pepper

Method

In a large saucepan, heat butter over medium high heat; saute carrot and celery until tender, 3 to 5 minutes. Stir in flour until blended; gradually add the broth and milk. Bring to a boil, stirring constantly. Cook and stir until thickened, 1-2 minutes. Stir in the noodles. Reduce heat; simmer uncovered, until noodles are al dente, 8-10 minutes, stirring occasionally. Add the chicken, salt and pepper. Cook and stir until the chicken is heated through. Stir in the cheese until melted. Serve.

Susan Mitzner
Balaton, Minn.

CHICKEN NOODLE SOUP WITH ROTISSERIE CHICKEN

Ingredients:

1 tbsp. vegetable oil
1 1/2 cups chopped carrots, (about 1/2-inch)
1 1/2 cups chopped celery, (about 1/2-inch)
1 cup chopped white onion, (about 1/2-inch)
1 tbsp. rotisserie chicken seasoning
4 cups chicken stock
4 cups medium egg noodles
2 cups chopped rotisserie chicken
1 tbsp. parsley flakes

Method

Heat vegetable oil in large saucepan on medium-high heat. Add carrots, celery and onion; cook and stir 8 to 10 minutes until softened and lightly browned. Stir in Seasoning. Cook 1 minute.

Add stock and egg noodles. Bring to boil. Reduce heat; simmer 8 to 10 minutes until noodles are just tender.

Gently stir in chicken and salt. Simmer 2 minutes longer. Remove from heat. Stir in parsley to serve.

McCormick.com

Please send your favorite 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 2023. All entries must include your name, mailing address, phone number and cooperative name.

COOPERATIVE SCHOLARSHIPS AVAILABLE



Dakota Energy believes strongly in the future of area students and takes pride in helping develop rural leaders. To recognize the achievements of students and future leaders, Dakota Energy is offering \$5,000 of scholarships to qualifying high school seniors.

COOPERATIVE SCHOLARSHIPS:

- \$1,000 for a future line worker attending Mitchell Technical Institute's (MTI) Power Line & Maintenance program
- \$1,000 for a future electrician attending MTI's Electrical Construction and Maintenance program
- \$1,000 Basin Electric/Dakota Energy scholarship
- Four \$500 Dakota Energy scholarships for students attending a South Dakota university or technical school

WHO IS ELIGIBLE?

To qualify, an applicant's parent(s) must be a member of Dakota Energy Cooperative.

Applicants must be planning to be enrolled in a full-time undergraduate course of study at an accredited, two-year or four-year college, university or vocational/technical school.

Scholarship recipients are selected based on academic record, leadership, school and community involvement, an appraisal from a counselor, advisor or instructor who knows the student well, and an essay.

HOW DO I APPLY?

Scholarship applications are available at local high school guidance offices or on the cooperative website at www.dakotaenergy.coop. Applications are also available by emailing dakotaenergy@dakotaenergy.coop or calling the office at 605-352-8591.

Submit applications to:

Dakota Energy Cooperative
PO Box 830
Huron, SD 57350
Email: dakotaenergy@dakotaenergy.coop

Application deadline: Friday, Feb. 9, 2024



Who can apply?

Junior or senior students who attend a public, private, or home school are eligible to participate. DEC membership is not required.

Submit an application and all required attachments by Friday, Feb. 9, 2024

Are you ready for an all-expense paid trip to Washington D.C.?

Dakota Energy Cooperative is sponsoring two high school juniors or seniors from our service area for the Rural Electric Youth Tour. This is an all-expense paid trip to Washington D.C. from June 15-22, 2024.

Applications can be downloaded at <https://www.dakotaenergy.coop/community/youth-tour> or picked up at a Dakota Energy office or your high school advisor's office.



OCTOBER 2023

The Board of Directors met on Tuesday, October 24, 2023, with Directors Baruth, Baum, Binger, Bonebright, Nemeć, and Raschke present. Manager Felderman and Employees Decker, Hasart, Moncur, Picek and Zomer were present. Directors Bushong and Dearborn were absent.

MANAGER’S REPORT

Manager Felderman reported on the following items:

- Energy sales and revenue
- CRC dispatch
- East River
- Basin Electric
- Greater Huron Development Corporation
- SDREA
- Annual Meeting cost comparison
- Industrial loads
- SPP

OFFICE SERVICES REPORT

Manager of Finance and Administration Moncur and Employee Hasart reported on the following items:

- September Financial reports
- 2024 Budget
- Industrial load rates
- KRTA Ratio review
- NISC financial reporting tool
- Upcoming work order inspection

OPERATIONS REPORT

Manager of Operations Zomer reported on the following items:

- Construction, maintenance, and retirement activities
- Main meter changes
- Changing rejected poles
- Overhead line rebuild
- New feed to Huron Energy
- Tree trimming
- New services

MEMBER SERVICES REPORT

Manager Felderman reported on the following items:

- Wiring department workload
- Potential hazards
- Load control program
- Submeter changes
- Member owned lights on meter poles

HUMAN RESOURCES/ COMMUNICATIONS REPORT

Manager of HR/Communications Decker reported on the following items:

- New member handbook
- New website
- 2024 Annual benefits enrollment
- Community involvement - homecoming parades
- Cybersecurity update

BOARD ACTION

The following items were acted upon:

- Accepted the reports presented
- Appointed Director Baum as delegate to the Mid-West Electric Annual Meeting
- Approved 2024 budget
- Appointed new standing board committees
- Approved donations and policies

BOARD REPORTS


Director Raschke reported on East River’s October 2023 regular board meeting.

Director Nemeć reported on SDREA September 2023 regular board meeting.

Next monthly board meeting is December 19th at 10:00 a.m. at the Huron office.

Year-to-Date Financial Report

	Oct-23	Year-to-Date
Total Revenue	\$2,070,438	\$20,751,427
Cost of Power	\$1,509,325	\$14,832,166
Operating Expenses	\$642,742	\$5,981,071
Total Margins	\$24,613	\$1,644,192
KwH’s Purchased	21,157,466	207,141,821
Services in Place		3,612
Miles of Line		2,532
Members per Mile		1.43



HOLIDAY CLOSINGS
DAKOTA ENERGY WILL BE CLOSED MONDAY, DECEMBER 25, 2023 FOR CHRISTMAS AND MONDAY, JANUARY 1, 2024 FOR NEW YEAR’S. LINE CREWS WILL BE AVAILABLE IN CASE OF AN EMERGENCY OR POWER OUTAGE.



Jewel Cave's walls glisten with a coating of calcite crystals coating that give this cave its unique name. *Image credit: NPS*

BENEATH THE BLACK HILLS

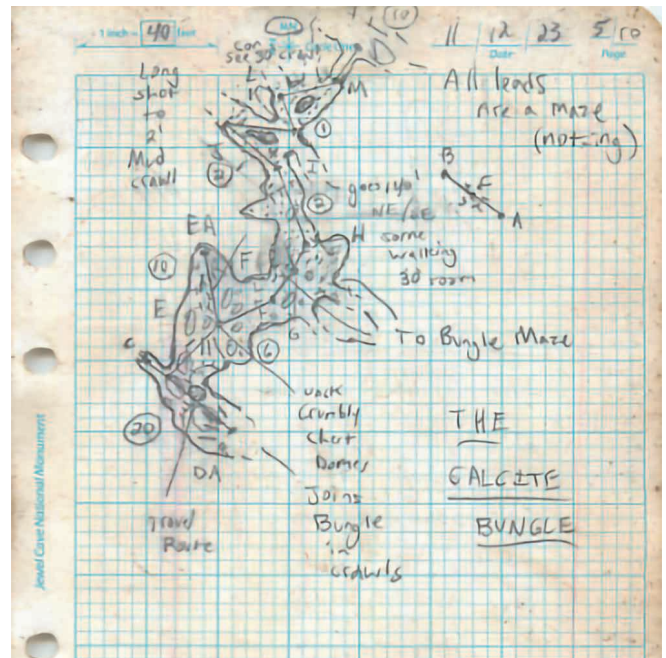
Charting Untrodden Miles in Jewel Cave

Frank Turner

frank.turner@sdrea.coop

In the depths of the Black Hills lies an immense domain of underground caves renowned for their untouched beauty, enticing tourists with the opportunity for stunning photography and expert-led tours. Digging a little deeper, however, reveals that many of these unsuspecting attractions are actually home to a vast network of rooms and passages where no human has ever set foot before. Jewel Cave National Monument, located west of Custer and celebrated for its unique, crystal calcite coating, is one such subterranean cavern that continues to be a frontier of exploration.

Jewel Cave has thousands of miles of unexplored passages, crawlways and chasms that await discovery, making it one of the largest cave systems in the world. The immensity of Jewel Cave and others like it in the Black Hills has inspired multiple



A field sketch from the four-day Veterans Day weekend expedition. *Image credit: NPS*

generations of ambitious cave explorers who have devoted years of their lives to mapping out new areas of these underground expanses.

Despite their efforts, only a small fraction of Jewel Cave has

been navigated and mapped, leading to new cave discoveries being recorded even now.

Recently, a group of National Park Service volunteer cave explorers, led by volunteer Chris Pelczarski, expanded the known limits of Jewel Cave in an expedition over Veterans Day weekend of this year.

In total, their journey lasted four days. Bringing only what they could carry, the small group of cavers wriggled through miles of passages without natural sunlight or ready supplies to ultimately be the first to step into what was previously untrodden terrain.

To achieve their goal, the volunteers tackled the 3-D maze that defines the Jewel Cave network, hiking and climbing steep underground terrain. Despite the challenge, Pelczarski said the ending discovery made the whole journey worthwhile. When discovering something new, the challenge pales in comparison.

“The experience of pushing the edge of something is very unique,” said Pelczarski. “When entering a new space, it weighs on you that it’s the first time that a human has ever interacted with that space. As explorers, we have an incredible amount of responsibility because we are the ones who share that story with others and set the tone of that space.”

In total, the explorers discovered and charted just over one mile of new passages during their Veterans Day expedition, uncovering new passages and even a distinctive split in the rock their group named ‘Fruit by the Foot,’ due to the volunteer group garnering a “fruitful yield” of discovery from the rock formation.

The broader work of these cavers has led to several breakthroughs over the years, including the discovery of Jewel Cave’s first cave lake, Hourglass Lake.

“In 2015, our explorers got to a point where the lowest part of the cave dipped into the Madison Aquifer. It was Jewel Cave’s first cave lake,” said Michael Wiles, Chief of Resource Management at Jewel Cave National Monument. “Since that initial discovery, 12 more lakes have been

found within Jewel Cave.”

With the possibility of discovery around every corner, Wiles regards volunteer explorers like Pelczarski as torchbearers in a continuing legacy created by the many cave explorers that came before them, including South Dakota caving legends Herb and Jan Conn and Wiles himself.

“Herb and Jan are icons in the Black Hills area and throughout the world because they were the first to document and map the cave back in 1959,” said Wiles. “They fell in love with the cave and it really captured their imagination.”

Together, Herb and Jan discovered the first 70 miles of Jewel Cave. Building from Herb and Jan’s initial discoveries, Wiles, with the help of volunteers like Pelczarski,

has been involved in the mapping of an additional 150 miles of cave since the Conns retired.

To date, 218.8 miles of Jewel Cave have been discovered. However, Wiles explained that barometric airflow studies indicate that the cave could be up to 14,000 miles long, and only 3% of the cave’s estimated total length has been mapped and discovered.

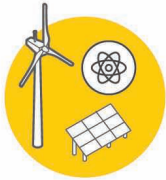
“Jewel Cave, for practical purposes, isn’t going to end,” said Wiles. “We know that the cave is hundreds if not thousands of miles long and that, alone, is exciting.”

With only a fraction of the total cave discovered, it’s evident that several years of cave discoveries lie ahead.

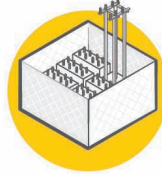


Volunteer cave explorer Dan Austin sketching a passage of Jewel Cave. Using coordinates to draw a survey line in the book, Austin draws the cave walls around the line to represent the cave walls around him, adding additional notes as needed. *Image credit: NPS*

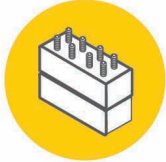
HOW ELECTRICITY GETS TO YOU



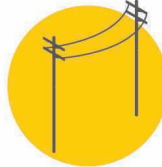
step 1
Generation
Electricity is generated from various sources.



step 5
Distribution Substation
Voltage is lowered further for safe distribution.



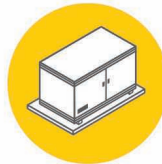
step 2
Step-Up Transformer
Voltage is increased to push the electricity over long distances.



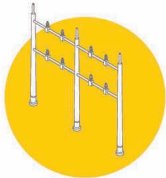
step 6
Distribution Power Lines
Electricity travels across these lines in your community.



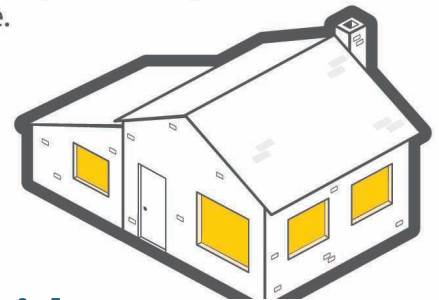
step 3
Transmission Power Lines
Lines carry electricity over long distances.



step 7
Final Stop
A transformer reduces voltage a final time, and electricity is sent to your home.



step 4
Transmission Substation
Voltage is lowered so electricity can travel across the local system.



Beginner's Guide to the Electrical Grid

Electricity plays an essential role in everyday life.

It powers our homes, offices, hospitals and schools. We depend on it to keep us warm in the winter and cool in the summer. If the power goes out, even briefly, our lives can be disrupted.

The system that delivers your electricity is often described as the most complex machine in the world, and it's known as the electric grid.

What makes it so complex? We all use different amounts of electricity throughout the day, so the supply and demand for electricity is constantly changing. For example, we typically use more electricity in the mornings when we're starting our day, and in the evenings when

we're cooking dinner and using appliances. Severe weather and other factors also impact how much electricity we need.

The challenge for electric providers is to plan for, produce and purchase enough electricity so it's available exactly when we need it. Too much or too little electricity in one place can cause problems. So, to make sure the whole system stays balanced, the electric grid must adjust in real time to changes and unforeseen events.

At its core, the electric grid is a network of power lines, transformers, substations, and other infrastructure that span the entire country. But it's not just a singular system. It's divided into three

major interconnected grids: the Eastern Interconnection, Western Interconnection, and Electric Reliability Council of Texas. These grids operate independently but are linked to allow electricity to be transferred between regions when backup support is required.

Within the three regions, seven balancing authorities known as independent system operators (ISOs) or regional transmission organizations (RTOs) monitor the grid, signaling to power plants when more electricity is needed to maintain a balanced electrical flow. ISOs and RTOs are like traffic controllers for electricity.

The journey of electricity begins at power plants.

Power plants can be thought of as factories that make electricity using various energy sources, like natural gas, solar, wind and nuclear energy. Across the U.S., more than 11,000 power plants deliver electricity to the grid.

To get the electricity from power plants to you, we need a transportation system.

High-voltage transmission lines act as the highways for electricity, transporting power over long distances. These lines are supported by massive towers and travel through vast landscapes, connecting power plants to electric substations.

Substations are like pit stops along the highway, where the voltage of electricity is adjusted. They play a crucial role in managing power flow and ensuring electricity is safe for use in homes and businesses.

Once the electricity is reduced to the proper voltage, it travels through distribution power lines, like the ones you typically see on the side of the road. Distribution lines carry electricity from substations to homes, schools, and businesses. Distribution transformers, which look like metal buckets on the tops of power poles or large green boxes on the ground, further reduce the voltage to levels

suitable for household appliances and electronic devices.

After traveling through transformers, electricity reaches you—to power everyday life.

We're proud to be your local, trusted energy provider. From the time it's created to the time it's used,

electricity travels great distances to be available at the flip of a switch. That's what makes the electric grid our nation's most complex machine—and one of our nation's greatest achievements.

RESPECT SUBSTATIONS
and all other electrical equipment

REPORT SUSPICIOUS ACTIVITY

Only authorized utility workers should approach a substation, touch the fence or enter the gate.

Paying attention to activity in or near substations and other utility equipment helps keep everyone safe.

Authorized workers should:

- Wear proper personal protective gear and display an ID badge.
- Use work vehicles that have utility branded logos/information.

Suspicious activity includes individuals in street clothes who are:

- Near or inside a substation fence.
- Tampering with equipment, such as power poles, meters, and padmount transformers.

If you notice anything unusual at a substation, please report it to the electric utility. Examples include:

- An open or unlocked gate.
- A damaged fence.
- Obvious damage inside the fence.

Call 9-1-1 and then the electric utility if you see:

- Smoke or fire.
- Non-utility workers inside the substation fence.
- Non-utility workers on a pole or tampering with a meter.

Learn more at:
Safe Electricity.org



The Sanford Underground Research Facility partners with more than 2,000 scientists from more than 200 global institutions and universities, enabling groundbreaking research across multiple disciplines.

STRIKING GOLD IN SCIENCE

Unearthing Research at the Sanford Underground Research Facility

Frank Turner

frank.turner@sdrea.coop

Years ago, the Homestake Mine in Lead, South Dakota, lured prospectors with the promise of riches during the gold rush era. Yet today, the site where miners once delved for gold now hosts scientists pursuing their own discoveries, not for gold, but for discoveries in particle physics and dark matter at the Sanford Underground Research Facility.

The mine's transformation into a

state-of-the-art research facility really began in 1970 when Raymond Davis Jr. began what is now known today as the Homestake experiment, a research project that would forever change the entire landscape of western South Dakota. Seeing beyond the precious metal, Davis envisioned the Homestake Mine as the perfect location to conduct research on the illusive neutrino particle. Conducting neutrino research underground was a crucial component of the project because the deep

environment of the mine shielded his experiments from cosmic rays, allowing for more accurate detection of neutrinos. While the Homestake Mine was still in operation, Davis worked among the bustle of mining activities to conduct research, which led to groundbreaking discovery in neutrino research and ultimately to a Nobel Prize in 2002.

As Davis concluded his groundbreaking neutrino research, a chapter was closing for the Homestake Mine. According to the facility's website, Homestake was North America's largest and deepest gold mine at the time of its closing, producing approximately 41 million ounces of gold in its 126-year lifetime. When the mine was decommissioned in 2002, it threatened to not only leave a vast cavern in the earth but also a significant void in the local economy. Davis's success, however, prompted South Dakota's leadership to step in at a critical moment and

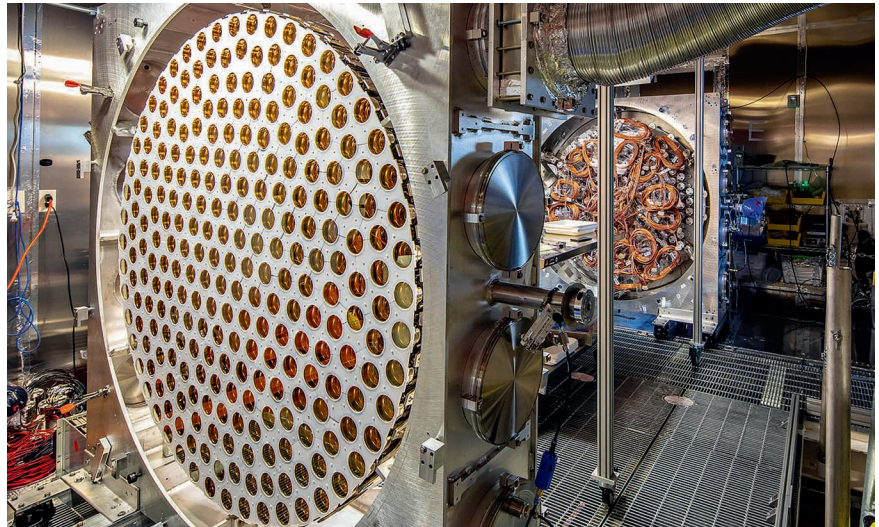
repurpose the mine into a bastion of scientific research.

Mike Ray, Media Relations Manager at Sanford Underground Research Facility, reflected on the state's response to the mine's closure. "Those in leadership at the time saw that this mine was closing and the terrible economic impact that the closure was going to have on the northern hills and this community, but they saw a light at the end of the tunnel," he said.

The light at the end of the tunnel became the Sanford Underground Research Facility. To advance one of South Dakota's most ambitious projects, the state secured a \$70 million donation from philanthropist T. Denny Sanford and a land donation from Barrick Gold Corporation, the mine's owner. The state then established the South Dakota Science and Technology Authority, which contributed an additional \$40 million to realize the project. These donations paved the way forward to begin construction on a space for some of the most advanced science projects ever made.

The herculean effort, Ray explained, was not only to mitigate the negative economic impact of the mine's closure but to create something even more impactful for South Dakota and its residents. Today, the Sanford Underground Research Facility collaborators include over 2,000 scientists from over 200 institutions and universities worldwide. It is expected to garner an estimated \$2 billion net economic impact in South Dakota by 2029.

Beyond its economic contributions, the lab holds potential for groundbreaking discoveries across various disciplines, including projects researching biology, geology, engineering or particle physics. Notably, the lab is currently home to LUX-ZEPLIN, the world's most sensitive dark matter detector and DUNE, the Deep



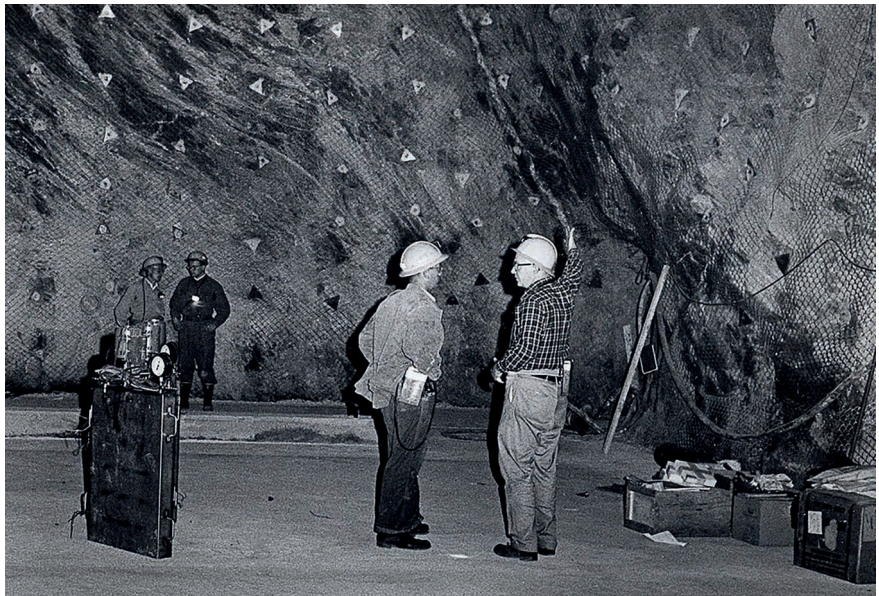
An array of the LUX-ZEPLIN, the world's most sensitive dark matter detector.
Photo Credit: Matthew Kapust, Sanford Underground Research Facility.

Underground Neutrino Experiment, among several other significant projects. While LUX-ZEPLIN and DUNE are distinct projects, both seek to provide fundamental insights into our current understanding of the laws of physics.

"There are so many examples of how fundamental research can take decades to lead to innovation," Ray said. "The beauty of this is that we don't always know where this research will

take us, but if we don't do this kind of exploration, we will never know the applications of these far-reaching projects."

Regardless of the outcome, the Sanford Underground Research Facility will continue to not only preserve the historic legacy of South Dakota's Homestake Mine, but also place South Dakota at the forefront of discovery and innovation for years to come.



A historic view of the Davis Cavern that hosted Ray Davis's Nobel Prize-winning solar neutrino experiment. The cavern has since been expanded and its walls have been coated with shotcrete, a type of spray-on concrete, to accommodate research on dark matter.
Photo Credit: Anna Davis, Sanford Underground Research Facility.



Shown in front of the True Dakotan building on Main Street in Wessington Springs are newspaper/print shop staff (left to right) Delia Atkinson, Office Manger; Kristi Hine, Editor/Publisher; Cathy Perry, Proofreader; shop dog Lincoln. Among the oldest buildings in Jerauld County, the building has always been a newspaper and/or print shop. Constructed in 1915, the True Dakotan recently underwent a complete renovation after a fire in June 2020.

SMALL TOWN NEWSPAPERS

Connecting Communities

Shannon Marvel

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Rural, small-town newspapers are an important cohesive element that keep communities together.

Many of South Dakota's community newspapers have faced economic difficulties, yet their dedication to their mission is what drives them to find innovative ways to persist.

According to South Dakota NewsMedia Association's Executive Director David Bordewyk, a combination of factors have made it difficult for small, community newspapers to thrive

as they once did in decades past.

"There's a lot of advertising that used to be in traditional media that has moved into a digital realm such as Google, Facebook and other platforms. That's been a huge disruption. Then there's the whole thing about the internet and how people consume information," Bordewyk said.

The pandemic had a major impact on the newspaper business and accelerated online advertising.

Inflation has also increased production and postal service costs considerably, which has made it tough for small, rural newspapers to balance their books and maintain profits.

"Almost all of our community newspapers rely on a postal service to deliver the newspaper to subscribers. And we've seen a 40 percent rise in postal rates over the last three years," Bordewyk said.

How do newspapers deal with that?

Some newspapers have done a good job of capturing that digital market, Bordewyk said. Others have really gotten aggressive at increasing their prices, with some having to increase subscription rates from \$40 to \$80 per year.

Regardless, there's value in a community newspaper.

Who else is going to consistently cover city council and county commission meetings, or local school activities and sports? Kristi Hine knows that value well.

Hine is the publisher and editor of the True Dakotan, a weekly newspaper that covers local happenings in Jerauld County, based in Wessington Springs.

"Newspapers play such an important role to keep communities together," Hine said.

"We cover everything from local government to high school sports to features. I just did a feature about these women who did a Christmas village exhibit at the county courthouse. It's peeling back the layers and truly telling the community's story. Without the local newspaper, there's no one to tell that story. Larger outlets may come cover a story if you have a tornado or your sports team is doing really well, but it's the community newspaper that'll be listening in on what the city council is going to say at their meeting," Hine said.

Community newspapers, in that sense, really are the eyes and ears for the community. The important goal of the community newspaper is to connect the community, Hine said. "Especially in this world when it's so easy to be on different sides of the spectrum. Community newspapers are the fabric that holds communities together, no matter what side of the aisle their readers land on," she said. "Especially in this world when it's so easy to be on different sides of the spectrum. Community newspapers are the fabric that keeps communities together, no matter what aisle their readers land on," she said.

Hine bought the True Dakotan eight years ago in March of 2015. Originally from Phoenix, Arizona, the newspaperwoman

has found herself enthralled with the small Jerauld County community.

Over the last eight years, Hine said she's seen more changes in the newspaper industry than her predecessor saw in the last 40 years.

"There's been a great deal of change," Hine said.

She's gotten more creative with advertising, using social media as a tool to promote local businesses. If a business is hosting an event or wants to promote a special sale, the business will do a Facebook live with Hine.

The True Dakotan also offers an online E-Edition and weekly newsletter, though the original print product is still the largest circulation.

Advertising and marketing aside, it all comes down to local news content.

"That's the driving force as we enter this evolution of newspapers. We're at the crux," Hine said.

To the northeast in Day County, the Reporter and Farmer newspaper is being led by Amanda (Fanger) Dulitz, a young reporter-turned-publisher, who recently purchased operation last year.

"Community newspapers are the lifeblood of a community. The strength of a community is reflected in the strength of their community newspaper. We're the bulletin board of the community. We're the cheerleaders of the community. We keep people connected," Dulitz said.

Dulitz found her passion for rural newspapers in South Dakota as soon as she picked up the reporter pad in 2007 after graduating from high school.

She worked at the Onida Watchman for a short time before heading east to Webster, where she took on the role as a news reporter for the Reporter and Farmer. Fast forward a couple decades and now Dulitz is the owner of the Reporter and Farmer.

She noted that costs were pretty stable at the newspaper for awhile, but seemed to sharply increase as soon as she signed the dotted line giving her ownership of the

operation.

"I'll probably have to take a look at my rates and lock in my rates for the next year. Everything is just going up, and it impacts the bottom line overall and you've got to do what you've got to do," she lamented.

But without the support of subscribers and advertisers, and really the entire community as a whole, the newspaper couldn't fulfill its purpose of keeping everyone on the same page and in the know.

The relationship between a community newspaper and the community itself is something Dulitz compares to a team of horses.

"The newspaper keeps everybody in an area knowing what's going on and pulling in the same direction. One horse can only pull so much, but if you put them together they can pull double.

That community unity – the newspaper – is what yokes people together and gets people pulling together," Dulitz said.

She understands that without the community support, there'd be no newspaper.

"We've got some of those readers when the paper gets back from the press on



Kristi Hine, editor/publisher, True Dakotan and Delia Atkinson, office manager

Friday – they're standing there waiting for the paper to be dropped off. They're the first ones in the door letting us know about some breaking news event that we haven't heard about yet," she said.

"Constantly, readers and advertisers let us know what we're doing right and what we're doing wrong. We need that. We need that mutual push and pull. We recognize that our readers and advertisers are key to our business and we appreciate it."



From left is Publisher Amanda (Fanger) Dulitz, circulation manager Pat Sass, graphic designer Megan Garry, writer Kevin Winter, sales representative Kirstin Ure (front), print tech Jessica Washenberger and proofreader Linda Holberg.



Jan. 26-27
Pro Snocross Races
 18 Seventy Six Dr.
 Deadwood, SD
 605-578-1876

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.

JAN. 5
Granite Sports Fantastic Friday
 3 p.m.
 Hill City, SD

JAN. 6
Live on Stage
 High Country Guest Ranch
 Hill City, SD

JAN. 10
45th Annual Ranchers Workshop
 9 a.m.
 Sinte Gleska University Multi-Purpose Center
 Mission, SD

JAN. 12
Granite Sports Fantastic Friday
 3 p.m.
 Hill City, SD

JAN. 13
Knights of Columbus Bowling Tournament
 1 p.m.
 Meadowood Lanes
 Rapid City, SD

JAN. 20
Live on Stage
 High Country Guest Ranch
 Hill City, SD

JAN. 23
A Trip to Chile (Reservations Required)
 6:30 p.m.
 Mangiamo
 Hill City, SD

JAN. 25
A Trip to Chile (Reservations Required)
 5:30 p.m.
 Mangiamo
 Hill City, SD

JAN. 26
Granite Sports Fantastic Friday
 3 p.m.
 Hill City, SD

JAN. 26-27
Reliance Area Community Development 29th Annual Dinner Theater
 6 p.m.
 Reliance Legion Hall
 Reliance, SD

FEB. 3
Live On Stage
 High Country Guest Ranch
 Hill City, SD

FEB. 3
Lake Hendricks Fishing Derby
 11 a.m.
 City Boat Landing
 Hendricks, MN

FEB. 10
Polar Bear Chili Cook-Off
 11 a.m.
 Main Street
 Hill City, SD

FEB. 10
Tour de Chocolate
 Main Street
 Hill City, SD

FEB. 17
Live On Stage
 High Country Guest Ranch
 Hill City, SD

FEB. 18-20
MASC presents Disaster! the Musical
 Vesta Community Center
 Vesta, MN

FEB. 20
A Trip to Portugal
 6:30 p.m.
 Mangiamo
 Hill City, SD

FEB. 22
A Trip to Portugal
 6:30 p.m.
 Mangiamo
 Hill City, SD

FEB. 23-24
Women in Blue Jeans Conference
 Highland Conference Center
 Mitchell, SD

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