OAHE ELECTRIC JANUARY 2024 VOL. 25 NO. 9





## Beneath the Black Hills

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# Reliable Power for Today – and Tomorrow



Jordan Lamb Chief Executive Officer

Ringing in a new year sparks a sense of renewed hope and optimism about the future. As the CEO of Oahe Electric Cooperative, for me, it's a time to reflect on where we are and where we're going. At the heart of this reflection, I think about ways we can better serve you, the members of the cooperative.

Our team at Oahe Electric is always looking ahead, exploring ways to innovate and utilize new technologies to improve our services. As our nation increasingly relies on electricity to power the economy, keeping the lights on has never been more important. We're committed to powering – and empowering – our community at a cost local families and businesses can afford.

So how are we working to ensure reliable and affordable power while adapting to a changing energy landscape and our community's evolving needs?

One critical component of reliable power is the mix of energy resources used to generate the electricity that keeps the lights on across our service territory. You may not realize it, but Oahe Electric doesn't generate electricity. Instead, we purchase it from our energy provider, East River Electric Cooperative, who purchases it from Basin Electric Cooperative. From there, we distribute it to homes and businesses throughout our community. Our current energy resource mix is made up of natural gas, 11%; hydro, 17%; coal, 39%; wind, 29%; power purchases (when price is cheap), 3%; and recovered steam on pipeline pumps, 1%.

We're increasingly using more electricity generated from renewable energy sources, but we still depend on a diverse energy mix to ensure reliable power that's available to our members whenever they need it.

In addition to managing a reliable energy mix, Oahe Electric is using technology to enhance our local grid, limit service disruptions and improve outage response times.

Advanced metering technology, also known as AMI, enables two-way communication between the co-op and consumers. In the event of a power outage, AMI helps pinpoint the exact location of the outage and can even analyze damaged or tampered meters. AMI helps Oahe Electric save money with real-time data, and ultimately improves power reliability for our entire community.

Proactive tree trimming is another way we limit service disruptions. Scheduled trimming keeps power lines clear from overgrown limbs that are likely to fall. Drone inspections of lines and vegetation have allowed us to reduce labor and equipment costs while bolstering reliability. Through the use of small drones, we can accurately monitor the health and growth of trees and identify potential problems. As technology advancements become more accessible, we anticipate using advanced mapping software to better maintain the environment while providing more reliable service.

One of the best methods for improving our services to you is monitoring trends and leading practices from other electric co-ops in South Dakota and across the country. Learning from other co-ops is one of the many benefits of the cooperative business model because for us, it's about cooperation, not competition.

As we turn our focus to 2024, Oahe Electric will continue working to provide the reliable, affordable electricity you expect and deserve – for today and tomorrow.

#### COOPERATIVE CONNECTIONS

#### OAHE ELECTRIC

(USPS No. 019-042

#### **Board of Directors:**

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#### **Our Mission**

Oahe Electric delivers high quality, low-cost electric service to our local member-owners. As a Touchstone Energy® Cooperative, we are committed to meeting the highest standards of customer satisfaction. We do business with accountability, integrity, innovation and commitment to community. As an electric co-op, we are part of America's most trusted network of high quality energy providers.

# **Outage Priorities**



Valerie Marso Office Manager

Sometimes having electricity is a matter of life or death. There are consumers who cannot live without medical equipment that is powered by electricity and others who depend on electricity to keep medications cold, fend off heatrelated conditions or for other critical reasons.

Oahe Electric has a strong track record in reliability and although it is rare that consumers would need to be concerned about sustained outages, you do need to be prepared with a secondary plan (alternate housing, locations to charge batteries etc). As winter approaches, the most obvious major challenge would be restoration following a storm.

We will make our best efforts to alert you in the event of an anticipated and/or prolonged outage that may adversely affect the supply of power to your device but there are things beyond our control therefore we cannot guarantee supplying power 100% of the time.

In the event of delinquency, we will be compassionate and will work with you as much as possible.

We will be updating our records and contacting all consumers who currently have a medical necessity listed on their account to check if the need is still active. If the consumers affirm the need, we will keep you on the list. If you have a medical necessity and have not notified us, please do so as soon as possible.

If you have any questions or concerns or would like to have a medical necessity added to your account, please contact our office.

### **Holiday Closings**

Oahe Electric will be closed the following dates during the 2022 holiday season.

**Christmas** – Friday, Dec. 22 through Monday, Dec. 25 **New Years Day** 

We would like to thank all of you for being wonderful members. We appreciate your support over the past year and we send our best wishes for a great Christmas and a fantastic New Year!

#### **Statement of Non-Discrimination**

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident. Person with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English. To file a program discrimination complaint, filing cust. html and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9922. Submit your completed form or letter to USDA by: 1.) mail - U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; 2.) fax: (202) 690-7442; or 3.) email: program.intake@ usda.gov. USDA is an equal opportunity provider, employer, and lender.

## 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.

### PUMPKIN APPLE SOUP

#### **Ingredients:**

3 tbsps. butter 1 cup finely chopped onion 2 tsps. 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.



During winter months, ensure your home is well sealed to reduce the need for excessive heating. Seal air leaks around your home and add insulation where needed to save up to 10% on annual energy bills.

Install weather stripping on exterior doors and apply caulk around windows. Check attic insulation levels and hire a qualified contractor if additional insulation is required.





### Cooperative Connections Card Program Vendors

#### Automotive

Automotive			
Graham Tire Company	605-224-8643	Pierre	Receive a 10% discount on regularly priced service work. Cannot be combined with any other offer.
Lamb Motor Company	800-952-2222	Onida	Receive a free alignment check with the purchase of 4 new tires.
Napa Auto and Truck Parts/Farnam's Genuine Parts, Inc.	605-224-8624	Pierre	Receive 10-50% off retail price.
Food/Convenience Store			
Branding Iron Bistro	605-494-3333	Pierre	Enjoy \$1 off your order. Limit one per visit.
Gator's Pizza Pasta and Subs	605-224-6262	Pierre	Purchase any large pizza at regular price and receive a FREE order of breadsticks.
Grey Goose Store	605-945-0794	Pierre	Receive a free 20 oz. fountain soda or coffee with the minimum of a \$30 gas or diesel purchase.
The Corner	605-258-2400	Onida	Buy one breakfast sandwich at regular price, get second half off.
Health/Fitness and Beauty			
Anytime Fitness	605-224-4011	Pierre	Receive a free two-week mini-membership.
Home/Garden			
Slumberland Furniture	605-945-1997	Pierre	20% off any regular priced Lazy Boy items. Excluding special orders.
Lee Real Estate	605-222-6003	Perre	Receive a FREE Comparable Market Analysis for real estate properties, which gives members current market values for home, land and commercial properties.
Services			
Inman's Water Technologies	605-224-5111	Pierre	Receive a 10% discount on the rental price of a water softener and/or reverse osmosis drinking water system by paying a year in advance. Receive 10% off of the purchase price of a new water softener or reverse osmosis drinking water system when you mention this ad. Payments made by credit cards do not qualify for discounts/specials.
Olson Plumbing Inc.	605-224-6436	Pierre	\$50 discount on any electric boiler, Marathon water heater, or fireplace
Small Engine House	605-224-5815	Pierre	10% off parts and labor
Sports/Recreation			
Teton River Traders Gun Shop LLC	605-224-1371	Ft. Pierre	2% discount. Payments made by credit cards do not qualify for discount.
Retail			
Fastenal	605-224-4060	Pierre	10% off of fasteners and 5% off on all other products



Jerry Hammerquist, middle, receives the Rural Neighbor Award.

### Jerry Hammerquist Honoring a Cooperative Leader

#### **Shannon Marvel**

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It's a small wonder why someone like Jerry Hammerquist would win the 2023 Rural Neighbor Award, sponsored by Touchstone Energy Cooperatives. He's a community rancher who values his neighbors.

"Well it's pretty easy in our neighborhood to be a good neighbor because we've got good neighbors. We help them, they help me," Hammerquist said.

"There's nothing like having good neighbors, I'll grant you. We have the best neighborhood in South Dakota."

Hammerquist lives and ranches on the farm his grandfather first homesteaded in Caputa about 140 years ago.

When his father passed away in 1960, Hammerquist was a senior in high school.

"I got my classes changed so I could work on the ranch, then I started working for neighbors and sale barns. My wife got to working for the attorneys. And we got on with the federal U.S. Attorney. Without her, I wouldn't have made it. We ended up having two kids, seven grandkids, and one great grand kid. Caputa is where I grew up. I'm still here," Hammerquist said.

Hammerquist got his start in the cooperative world when he was asked to be on a committee to find a candidate for the election in his area.

"I could not find any, so I was told to put my own name in – not thinking a thing about it," Hammerquist recalled.

He won the 1984 election. Back then, Hammerquist said things were simpler.

"We didn't have any complaints, it was very easy to start out with. Then I got to be an officer, and we grew like crazy," he said.

For almost four decades, Jerry has faithfully served as a board director for West River Electric Association for an impressive 39 years, 20 of those years as board chairman.

Hammerquist said it was an interesting time when he was the chairman of the Action Committee for Rural Electrification fundraiser. During that time, Hammerquist was able to get many people to donate to the fundraiser. "I had a little trouble cooking the egg sometimes. It was a very good experience for me," he said.

Hammerquist not only manages a thriving ranch but has been a valued member of the Elks Club, Central States Fair, Western Junior Livestock Show, and the Western South Dakota Buckaroos.

He's served as a past president and director of the Pennington County Agricultural Stabilization and Conservation Service Farmers Home Administration.

Currently, he holds the position of president on the Rapid Valley Water Conservation District Board and has previously led Rushmore Electric and chaired Action Committee for Rural Electrification (ACRE) on behalf of the South Dakota Rural Electric Association.

He's also been recognized with significant community agricultural awards, including the Catalyst Club Good Neighbor award in 2010 and Ag Producer of the Year in 2018.

He's a recipient of the Black Hill Stock Show Hall of Fame/Silver Spur Award.

His advice to those who follow in his path is to remember that you're member owned.

"The customers do come first. And the employees," Hammerquist said. "It was all a real learning experience."



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

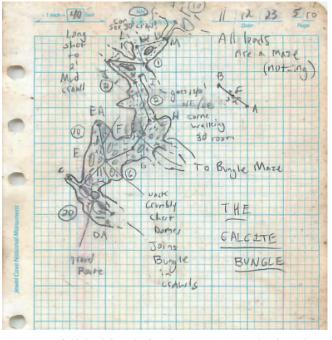
Charting Untrodden Miles in Jewel Cave

#### Frank Turner

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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.

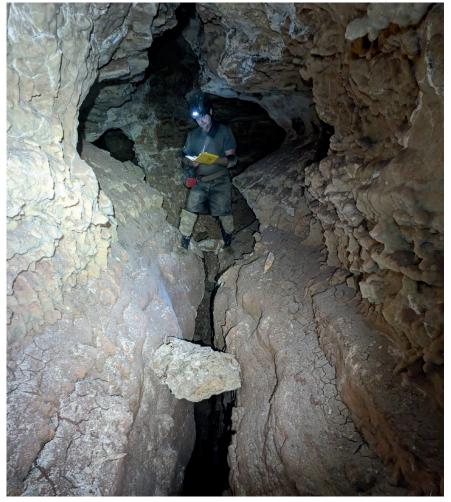
"Herb and Jan are icons in the Black Hills area and throughout the world because they were the first to document and map the cave back in 1959," said Wiles. "They fell in love with the cave and it really captured their imagination."

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* 

## Five Ways to Safeguard Your Home This Winter



As the temperatures drop and the days grow shorter, there's a natural inclination to create a warm and cozy haven at home. Unfortunately, as we see increased use of heating equipment, candles and electrical items, the number of home fires tends to increase during winter months.

Matt Eldridge

Here are five ways you can safeguard your home for the winter season.

- Ensure carbon monoxide and smoke detectors are working properly. If your detectors are battery-operated, replace the batteries annually. Test the detectors once a month and give them a good dusting to ensure the sensors are clear of dirt and debris.
- Inspect electrical cords. We depend on more cords during winter, whether for holiday lighting, extension cords or portable heaters. Before using any corded items, double check to make sure cords aren't frayed or cracked. If you use portable space heaters, remember to keep them at least

feet away from flammable items. Use models that include an auto shut-off feature and overheat protection. Space heaters can take a toll on your energy bills. Use them efficiently (to heat smaller spaces) and safely. Never plug a space heater into a power strip. Speaking of power strips...

- 3. Avoid overloading electrical outlets and power strips. When overloaded with electrical items, outlets and power strips can overheat and catch fire. If you use power strips for multiple devices, make sure the strip can handle the electrical load. For a safer bet, look for power strips that include surge protection.
- 4. Clean the fireplace to improve safety and efficiency. There's nothing better than a warm fire on a chilly night, but it's important to maintain your fireplace for safety. As wood burns, a sticky substance known as creosote builds up in the chimney. When creosote buildup becomes too thick, a chimney fire can ignite. The chimney should be cleaned at least once a year to reduce fire risks. Regular cleaning also improves air flow and limits the amount of carbon monoxide that seeps indoors.
- 5. Practice safety in the kitchen. As we spend more time in the kitchen during the holiday season, be mindful of potential fire hazards. Never leave food that's cooking on the stovetop unattended. Clean and remove spilled foods from cooking surfaces and be mindful of where you place flammable items like dish towels.

Oahe Electric wants you and your family to stay safe during the winter season.

### CO-OPS IN THE CLASSROOM

What do socks, flashlights and bicycles have in common? All these materials are used to teach children in schools throughout Oahe Electric's service territory about electricity.

Co-ops in the Classroom is a program offered by Oahe Electric Cooperative's wholesale power provider, East River Electric Power Cooperative. Jenny Gross, Education & 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. During the hour-long presentations, Gross takes 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 engage the students. A Van de Graaff generator demonstrates 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 invokes 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 something abstract into something tangible. By providing the energy needed to make a light bulb turn on, the students are able to quantify just how much more energy an incandescent light bulb requires than a CFL or LED," said Gross.

By the end of the presentation, students develop a new understanding and appreciation for electricity.

Schools that would like the "Co-ops in the Classroom' program presented to their elementary students should have a teacher or administrator contact Oahe Electric's CFO Valerie Marso at 1.800.640.6243 or vmarso@oaheelectric.com to schedule a presentation.



## Oahe Electric Now Accepting Applications for 2024 Scholarships

Oahe Electric, in conjunction with Basin Electric Power Cooperative, is offering one \$2,000 college scholarship to a lucky dependent of an Oahe Electric member(s). In addition to this scholarship, Oahe Electric is offering four \$1,000 college scholarships.

The scholarship program recognizes and encourages the academic achievements of students in our region. It also serves as an investment in the economic future of rural areas.

Applicants for the scholarships must be a U.S. citizen and a dependent of Oahe Electric consumers. Applicants also must be students enrolled or planning to enroll in a full-time undergraduate course of study at an accredited two-year or four-year college, university or vocational/ technical school.

The scholarship recipients are chosen based on a combination of their written essay, SAT/ACT scores, overall grade-point average, work experience, participation in school and community activities, a personal statement of career goals and a written recommendation by a third party.

Applicants for the 2024-2025 academic year are being accepted until **February 16, 2024.** 

For more information, contact Samantha at Oahe Electric in Blunt, SD at 1-800-640-6243 or oahe@oaheelectric.com. Applications can also be downloaded by visiting our website at www.oaheelectric.com.

## Oahe Electric Accepting Lineman's Scholarship Applications

Oahe Electric Cooperative is offering a \$1,000 scholarship for a full-time student registered or planning to register in a power line construction and maintenance program.

The purpose of this scholarship is to emphasize and support the education of future power line workers in South Dakota. Oahe Electric has committed to providing funds for financial assistance to students enrolled in power line maintenance programs with the hopes that graduates of that program will pursue a career with rural electric cooperatives in the area.

Applicants for the scholarship must be a member or a member dependent of Oahe Electric. Applications for the 2024-2025 academic year are being accepted until **February 16, 2024.** 

For more information, contact Samantha at Oahe Electric in Blunt at 1-800-640-6243 or oahe@oaheelectric.com. Applications can also be downloaded by visiting our website at www.oaheelectric.com.



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 know 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 envisioning 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.

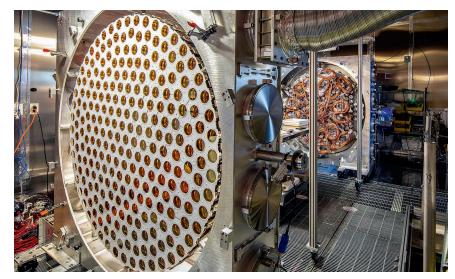
As Davis concluded his ground breaking neutrino research, a chapter was closing for the Homestake Mine. According to the facility's website, Homestake was North America's largest and deepest gold mine at the time of its closing, producing approximately 41 million ounces of gold in its 126-year lifetime. 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

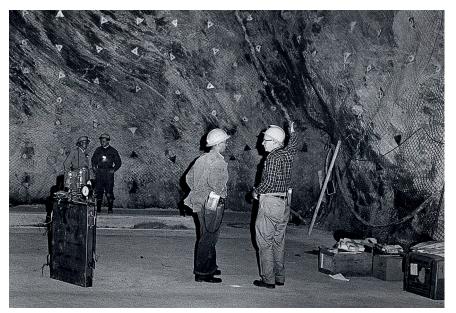


An array of the LUX-ZEPLIN, the world's most sensitive dark matter detector. Photo Credit: Matthew Kapust, Sanford Underground Research Facility.

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. 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 11a.m. City Boat Landing Hendricks, MN

FEB. 10 Polar Bear Chili Cook-Off 11a.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

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.

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