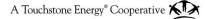
NORTHERN ELECTRIC

MAY 2022 VOL. 23 NO. 1



COOPERATIVE CONNECTIONS

Great Goats

Goats gaining in popularity Pages 8-9

Irrigators benefit from load control Pages 12-13

Bennett and Matea Gordon of Whitewood are part of a rising trend in teens choosing to show goats at youth exhibits and competitions

Time to pack your bags! The VIP Tour is back on the schedule this summer!



Ben Dunsmoor Editor

We are heading north this summer and you are invited to join us.

Our annual trip to North Dakota to tour the power plants that generate your electricity is back on the schedule after being canceled in 2020 and 2021 due to the COVID-19 pandemic. It is called the VIP Tour and it gives you – the VIPs of our co-op – an up-close look at the resources that produce the power you use every day.

The VIP Tour is a crucial piece of the puzzle when it comes to keeping the members of Northern Electric Cooperative informed about their co-op. Member education is one of the core principles of every cooperative and this annual tour is a hands-on lesson in how electricity is generated and distributed to members at the end of the line.

The VIP Tour is a great opportunity to learn about the power plants and resources that are ultimately owned by the members of the co-op.

During the two-day trip we travel to Bismarck, North Dakota, where members tour the Basin Electric Power Cooperative headquarters. Basin Electric is the generation and transmission cooperative which produces power for Northern Electric and 130 other electric cooperatives in nine states. Basin Electric is partially owned by you and three million other electric cooperative members throughout the central portion of the United States. We kick off the tour at Basin Electric's headquarters in Bismarck to get an overview of the co-op system and show members how Basin serves electric cooperatives at the local level.

The VIP Tour also takes members just north of Bismarck to Beulah, North Dakota, where Basin Electric operates several large facilities to meet the energy needs of its members. Members will tour the Antelope Valley Station which is a 900-megawatt coal-fired power plant. Members will also tour the Freedom Mine which sits right next to the Antelope Valley Station. Tour participants will learn how coal is used to responsibly generate electricity for co-op members.

The tour also travels to the Garrison Dam on the Missouri River. Northern Electric Cooperative receives 17 percent of its electricity from hydropower. This tour will show members how the Missouri River is used to produce clean and reliable electricity.

We are excited that the VIP Tour is back this year. It is a great opportunity to learn about the resources that are ultimately owned by the members of the co-op. Everyone who is a member of Northern Electric can apply for the VIP Tour. The dates for this year's tour are **June 28-29**. An application can be found on **page 15** of this issue of Cooperative Connections. You can also apply online at: <u>northernelectric.coop/viptour</u> The cost of the commercial bus, hotel, and meals during the tour are completely covered by Northern Electric to make this opportunity accessible to every member of the cooperative.

The VIP Tour is your chance to learn. It is your chance to explore. It is your chance to get a better understanding of where your power comes from. We hope you can join us as we head north this summer.

COOPERATIVE CONNECTIONS

NORTHERN ELECTRIC

(USPS 396-040)

Board President: Donna Sharp

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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 provied 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 March 17, 2022, at the headquarters in Bath with all directors present. As the first order of business, the board approved the February 24, 2022, minutes and February expenditures. The board then reviewed and accepted monthly reports by management.

Directors viewed the East River Electric Power Cooperative video report. East River Director Kirk Schaunaman reported on actions taken by the East River Board at its March 3, 2022, meeting. General Manager Char Hager reported on the East River MAC meeting held March 1, 2022. The next South Dakota Rural Electric Association board meeting will be March 24-25, 2022. Directors Donna Sharp, Josh Larson, Todd Hettich, Char Hager and Manager of Information Technology Derek Gorecki reported on the 2022 NRECA PowerXchange/TechAdvantage Experience held March 4-9 in Nashville, TN. Director Todd Hettich attended a director education course to complete his Credentialed Cooperative Director (CCD) certification. General Manager Char Hager reported that Communications Director Ben Dunsmoor was officially seated as a member of the Touchstone Energy Brand Strategy Committee on March 4, 2022.

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 activities.
- Legal and Legislative report.

FINANCIAL REPORT

kWh Sales	33,049,715 kWh	32,129,650 kWh
Electric Revenues	\$2,733,389	\$2,602,443
Total Cost of Service	\$2,543,219	\$2,548,998
Operating Margins	\$190,170	\$53,445
Year to Date Margins	\$405,637	\$190,718

Feh-22

RESIDENTIAL AVERAGE MONTHLY USAGE AND BILL

FEB-2022	3,369 kWh	\$281.00	0.0834 per kWh
FEB-2021	3,382 kWh	\$280.89	0.0831 per kWh
Wholesale power cost, taxes, interest, and depreciation account for 84.8% of NEC's total cost of service.			

- Northern Electric Board of Directors • is accepting applications until April 14, 2022, to fill the vacancy in District 7.
- Reminded the board of the 2022 NRECA New Director Orientation, May 11-13, Arlington, VA.
- Reminded the board of the 2022 NRE-CA Legislative Conference, May 1-5, Washington, DC.

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 Friday, April 22, 2022.
- 2. Approved payment of legal fees of \$1,417.62 to Harvey Oliver.
- 3. Approved Work Order Inventories #22-02 for \$523,419.78 and #22-02MC, \$54,797.04 to be submitted to Rural Utilities Service (RUS) for reimbursement from loan funds for electric plant construction already completed.
- 4. Approved 16 estate requests for out of order capital credit retirements totaling \$6,672.80.
- Authorized Director attendance to the 5. 2022 CFC Forum and CFC, Federated and NCSC Annual Business Meetings, June 20-22, in Boston, MA.
- 6. Authorized Director attendance to the 2022 NRECA Summer School for Directors, June 3-7, in Charleston, SC and July 22-26, in Salt Lake City, UT.
- 7. Approved membership dues for the Redfield Chamber of Commerce in the amount of \$270.00.

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

Feb-21

Budget-friendly efficiency upgrades

There are two ways to measure energy efficiency improvements.

There's the payback period - the amount of time it will take for the improvement to pay for itself. Then there's comfort.

Improvements can often increase the comfort level of a home - not easy to measure but one of the driving forces behind home weatherization efforts. There are several areas of the home that can be improved easily, without breaking your budget.

LIGHTING - There has been a steady decline in the price of LED bulbs for residential consumers. Nowadays, 60-watt-replacement LEDs can be purchased for \$5 or less. LEDs should save 60 percent or more on power costs compared to incandescent bulbs and last for many years. New LED fixtures are also an affordable option. They come with LED bulbs built in so you never need to change the bulbs.

HEATING AND AIR CONDITIONING - The Energy Information Administration estimates that heating, ventilating and air conditioning systems account for 22 percent of a typical home's annual electric bill. While newer systems can be 20-45 percent more efficient than older ones, the upfront cost is often a barrier to adoption.

But there are still ways to save. Simple solutions such as changing air filters at least every three months will increase airflow to rooms, increase the life of the HVAC unit's motor and improve air quality in the home. Sealing and insulating ductwork can be done in a weekend and results in energy savings of up to 20 percent.

To lessen the amount of work that heating and cooling systems need to do, it is important to find and seal air leaks. Look for leaks around exterior doors and windows, electric outlets, and entrance points for TV and phone cables. Also check dryer vents and any place with an opening in the wall. To seal leaks, apply caulk, spray foam or weather-stripping to these areas.

Simple acts such as cooking outdoors on a hot summer day or keeping curtains closed to keep out the summer sun will keep the interior of your home cooler and reduce the amount of time AC units need to operate.

EV REGISTRATIONS SEE SUBSTANTIAL INCREASE



According to the South Dakota Dept. of Revenue, the state experienced a boom in electric vehicle registrations in 2021. At year-end, there were 1,313 electric vehicles registered in the state. That compares to just 242 from the year before. EV registrations saw a slight jump from 227 in 2015 to 236 in 2019. Minnehaha County led the state with 406 registered EVs, followed by Pennington County with 228 and Lincoln with 151. Nine counties had no EVs registered.



Stay away from power lines

Naomi Goldade

Naomi Goldade likes to have outdoor fun in the spring and summer but reminds co-op members to stay away from power lines. Naomi is the daughter of Alex and Rachael Goldade of Timber Lake. They are members of Moreau-Grand Electric Cooperative.

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.

SUPER CASSEROLES

ONE DISH CHICKEN AND RICE

Ingredients:

- 1/2 to 1 cup onion, chopped 1/4 to 1/2 cup green and/or red bell
 - pepper
- 1 can cream of chicken soup (or cream soup of your choice)
- 1/2 cup milk
- 1/2 tsp. salt
- 1/4 tsp. pepper
- 1/3 cup mayonnaise
- 2 cups chicken, cooked and chopped
- 1 cup peas (frozen)
- 2 cups cooked white rice
- 1 cup shredded cheddar, divided

METHOD

Preheat oven to 350 degrees. Lightly grease a 9-inch x 13-inch baking dish and set aside. Sauté onion and bell pepper in olive oil or butter. Blend soup, milk, salt, pepper, and mayo in a bowl. Add chicken, peas, sauteed onions and peppers, and rice to the prepared baking dish. Mix gently. Pour soup over chicken mixture. Mix gently. Fold in half of the cheddar. Top with remaining cheese. Bake until top is golden brown, about 25 minutes.

Becky Walker, Sioux Falls

TUNA PASTA CASSEROLE

- 4 oz. dried whole-wheat rotini pasta (about 1-1/2 cups)
- Nonstick cooking spray
- 16 oz. frozen mixed vegetables, thawed
- 1 pouch (11 ounces) low-sodium chunk light tuna
- 1 can (10-3/4 oz.) low-fat, low sodium condensed cream of chicken soup
- 1/2 cup chopped roasted red bell peppers
- 1/2 cup fat-free half-and-half
- 1 tsp. all-purpose, salt-free seasoning blend
- 3/4 cup crushed low-sodium, whole-grain crackers
- 1/4 cup shredded or grated Parmesan cheese

METHOD

Prepare pasta according to package directions, omitting salt. Using colander, drain well. Transfer to large bowl. Preheat oven to 350 F. Lightly spray 2-quart glass baking dish with nonstick cooking spray. Stir mixed vegetables, tuna, soup, roasted peppers, half-and-half and seasoning blend into pasta until combined. Transfer to baking dish. Top with crackers and Parmesan cheese. Bake, uncovered, 25-30 minutes, or until casserole is warmed through and topping is golden brown.

familyfeatures.com

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

CHICKEN AND CHEESE CASSEROLE

- Ingredients:
- 2 cups uncooked elbow macaroni
- 2 5-oz. cans of chicken chunks
- 2 cups shredded cheddar
- cheese
- 2 cups milk
- 2 cans cream of chicken soup
- 4 oz. sliced mushrooms
- 1/4 cup chopped onion

METHOD

Preheat oven to 350 degrees. In a large bowl, mix all seven ingredients together. Pour into a 9x13 baking pan. Bake at 350 for 45 minutes or until bubbly and golden brown. Jeanette Kleinsasser, Iroquois

CO-OP NEWS



A Career To Remember

Doris Scheuffele spent more than 30 years as the senior billing clerk for Northern Electric and built numerous relationships with co-op members and co-workers

Ben Dunsmoor

bdunsmoor@northernelectric.coop

If you are reading this article, Doris Scheuffele probably knows your name.

Scheuffele knows most of the members of the cooperative. As the senior billing clerk at Northern Electric, she has been calculating and mailing thousands of bills containing thousands of names to thousands of members for the past three decades. In April, those names will become a memory as Scheuffele retires following a 32-year career at the co-op.

"I probably know more names than faces," Scheuffele joked. "I enjoyed working with the public and I will greatly miss that." Doris Scheuffele (left) looks at paperwork with former Northern Electric senior accountant Chris Larson (middle) and former office manager Larrie Petrich in 2003.



Doris Scheuffele Senior Billing Clerk Doris Scheuffele retired from Northern Electric Cooperative in early April. Scheuffele's main responsibility for the last 30 years has been ensuring every bill for every member was calculated correctly and was mailed on

time every month. She has not only become familiar with the names of most of the members on paper, but she has also become familiar with them in person during the co-op's annual meetings, when they stopped by the office to pay their bills, or at member events.

"It was different every day and it was challenging," Scheuffele said of her work at the co-op. "(At a cooperative) you are working for the people who own the business."

Scheuffele grew up in Milbank and moved to the Aberdeen area in the late 1980's. She started working at Northern Electric in December of 1989 doing clerical work. She quickly transitioned to handling the billing for the cooperative after only 14 months on the job.

Technology has been the biggest change Scheuffele has experienced



since she started in 1989. For many years she had to manually record meter readings from members or employees and input the data into the co-op's billing system every month. Those meter readings were used to calculate the bills. When the bills were generated, she was in charge of printing and mailing more than 4,000 statements.

"Everything was a manual process and now it is just a matter of a couple clicks on a keyboard," Scheuffele said. "It (mailing bills) was probably a two-day process. All the office employees would help."

Northern Electric transitioned to automated meters in the late 1990s and today all the readings and calculations are done using a sophisticated software program. Digital files of the bills are sent to a printing company and mailed directly to co-op members from the printer. Automation has reduced the billing and mailing process from a week to just a few days.

Even though the technology has changed, Scheuffele said her passion for helping the people of the co-op and working with a dedicated team of co-workers has not changed. It is what she will miss the most in her retirement.

"I will miss the friendships that I have made with co-workers and even with the members. If you think about it, you spend more time here than you do at home."

Scheuffele plans to spend more time at home with her husband, kids, and grandkids during Scheuffele (left) sorts mail with former Northern Electric cashier/receptionist Carol Anderson (middle) and accountant Tiffany Hubert (right).

retirement. She also hopes to have more time for her hobbies of gardening, quilting, and crafting. But she will never forget the time she spent working at the co-op and those names that she would see every month.

"I will miss working here. I have really enjoyed what I do."

BRITTANY HOFER HIRED AS NEW SENIOR BILLING SPECIALIST



Brittany Hofer Hofer began working at Northern Electric Cooperative on March 21.

Brittany Hofer has been hired as the new senior billing specialist for Northern Electric. Hofer will replace Doris Scheuffele who retired in April.

Hofer grew up in Bath and still lives in Bath. She graduated from Northern State University with a major in Professional Accountancy and a minor in Banking/ Finance. Prior to coming to Northern Electric, she did accounting for South Dakota Wheat Growers/Agtegra and Harms Oil. Most recently she prepared tax returns, bookkeeping and payrolls for clients at TNTax Business Services. "I grew up around Northern Electric and have been intrigued with what they do. I attended farm safety camp when I was little," Hofer said. "I am looking forward to being part of the community with the co-op and growing into my position."



Anna Johnson and Jessemy Sharp groom at the 2021 Brown County Fair. Photo by Donna Sharp

Ag students show a fondness for working with goats at youth exhibitions and competitions

Billy Gibson

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Matea Gordon's goats always keep her guessing.

The 17-year-old is one of four Gordon siblings from Whitewood who have been highly active - and highly successful - on the 4-H and FFA competition scenes over the past decade.

She prefers to work with market goats because the animals force her to stay on her toes. She never knows what she's going to get.

"They tend to have big personalities. Sometimes they're shy and cute. Other times they can be pretty stubborn. You just never know," she said. "Plus, it's fun to see how much progress you can make with them throughout the year."

Her younger brother, Bennett, enjoys raising and feeding the goats daily.

"I've learned about genetics, animal health and feed nutrition. The goats kind of become your friend as you bring them up and take care of them."

The brother-sister duo are part of a

trend in ag exhibition circles that finds eager competitors opting to work with goats. Their mom, Kindra Gordon, said all four of her children have been fond of tending to goats.

She said the family started with two goats a decade ago, and their involvement grew from there. Today, they travel and compete at nearly a dozen shows throughout the year. Likewise, she has seen youth participation in goat exhibitions double over the past few years.

"When the kids joined 4-H, they wanted to do a project and the goats just seemed to fit our lifestyle," she said.

Regardless of what animals her children choose, she has found there's much to be gained in participating in the competitions and other opportunities that youth ag programs provide.

"The kids have learned about responsibility, life skills and the agriculture industry. They learn about sportsmanship and how to manage stress. We tell them to be happy for their friends when it's their time to win, and they'll be happy for you when you win. We've met a lot of people and made a lot of friends along the way."

One of those friends is Tessa Erdmann, a freshman at SDSU from Groton who serves as president of the state FFA. She is long-time friends with Matea and her older sister, Danika, both of them winners of Butte Electric Cooperative's college scholarship program.

Tessa said her choice to work with goats mostly came down to a practical matter. She cites her smallish physical stature as one reason for channeling her focus on the species.

"I'm 5 feet tall and I came to the conclusion that I didn't want to hold on to something way bigger than me," she said.

At age 12, Tessa went with her father, Darrin, to an auction and brought home her first three animals: Buttercup, Sassy and Thunderbolt. She describes the event as "love at first sight." In her first year to show at the Brown County Fair, Tessa won ribbons in the breeding and showmanship divisions and has placed many times since then.

A former gymnast and a member of Northern Electric based in Aberdeen,

Moorse sees goat-breeding as a gift



Clockwise from top/left: FFA President Tessa Erdmann; Kylee Ellerton of Custer; Taylor, Tate and Tye McGraw of Raymond.





Tessa said she has also experienced a large measure of mutual support within the animal exhibition community.

"Everybody is always so nice and you can count on everyone to help one another," she said. "We're competitive inside the ring, but outside we're family and we don't hate each other. One year, someone's father was hurt and couldn't make it to the competition. Everyone chipped in to help the family out."

Becca Tullar is a 4-H advisor in Brown County. She explained what she believes is the reason for the rising interest in goats.

"They're a good starter animal and youngsters get used to them and many of the students stick with them. They kind of grow up together," she said. "They're easy to handle. Once you get them halter-broke they'll go wherever you want. They're fun animals to show. They're almost like pets and they build easy bonds."

One competitor who has a way with his goats is Tate McGraw, a 17-yearold from Raymond who has Down syndrome. His father, Wade, said Tate has been showing since he was 8.

"It's been a real blessing. He's easygoing and just has a way with the animals. He can get them to do things that other handlers can't," he said.

His other son Tye, 14, and daughter Taylor, 13, also show goats and other animals and McGraw said they each have their individual strengths.

"The best thing as a father is to see the network of friends they've developed across the state. They all support each other and they've learned to respect one another because they know one day they could be on top and the next day they could be on the bottom."



Garret Moorse isn't sure if he chose goats or goats chose him. In 2004, Moorse received twin Nubian kids – a buck and a doe – as a birthday gift. That gift sparked an interest in goats that has led him to building a top breeding operation in southwest Minnesota.

By 2011, Moorse was ready to hit the show circuit with only marginal success in the early stages. It would take a couple of years to make it to the American Dairy Goat Association. National Show in St. Paul where Moorse-G Foxy was named Reserve Junior National Champion Recorded Grade. He saw it all as a learning process.

"When I started out I didn't win anything but I learned a lot, and not to mention I met so many great people that I now call close friends," he said. "When Foxy won, that's what really got us excited and dedicated to continue on this path with dairy goats."

Moorse raises and markets Alpines, Lamanchas, Saanens, Toggenburgs and Recorded Grade Seniors and Juniors.

He said he enjoys working with the animals and is especially appreciative of his "goat family."

"It's a tight community and we're always seeing each other at shows, exchanging information and sharing ideas," he said. "I couldn't do what I do without my family and friends." For more information, Moorse can be contacted at 507.530.3175.

Dillon Browning of Mansfield and Matthew Mitzel of Mina Receive 2022 Cooperative Scholarships



Dillon Browning Warner High School Senior Dillon Browning received the \$1,000 Basin Electric Scholarship.



Matthew Mitzel of Matthew Mitzel of Mina is the 2022 recipient of the Northern Electric Scholarship. Dillon Browning of Mansfield and Matthew Mitzel of Mina have been selected as the 2022 recipients of scholarships from Basin Electric Power Cooperative and Northern Electric Cooperative. Browning has been awarded a \$1,000 scholarship from Basin Electric and Mitzel is the recipient of the \$500 scholarship from Northern Electric. Both Browning and Mitzel are seniors in high school and will be enrolling in universities this fall.

Browning has a 4.02 grade point average (GPA) at Warner High School and is involved in cross country, track, band, choir, one-act play, and oral interp. He currently serves as the student body president and will be pursuing degrees in political science and public policy. Browning said the \$1,000 Basin Electric Scholarship will help him achieve his goals.

"I would like to focus on having a positive impact in whatever career I serve in rather than worrying about how I am going to pay off cumbersome student debt," Browning said. "This scholarship will be beneficial for my financial future as I will be better prepared to afford college with less student loans."

Matthew Mitzel is in his final year of home school where he has a 4.2 GPA. Mitzel has been a member of 4-H for nearly a decade and currently serves as the president of his chapter. He has also been a member of the choir for the Living Christmas Tree in 2017, 2018, and 2019.

Mitzel is already getting a jump start on his college career by taking several dual-credit courses through Northern State University. Mitzel took a chemistry course at NSU in the fall of 2021 and his professor wrote a recommendation saying he was 'one of the strongest students in the class.' Mitzel plans to pursue a degree in mechanical engineering at South Dakota State University or the South Dakota School of Mines and Technology in the fall.

"I am deeply grateful for receiving the \$500 cooperative scholarship," Mitzel said. "It will help me take the next step in my career without being burdened financially."

All scholarship applicants had to submit an essay about the challenges they believe rural electric cooperatives will face in the future. Both Browning and Mitzel believe focusing on infrastructure is essential.

Browning believes co-ops need to prepare for increased demand on the electric grid as new technologies such as electric vehicles become more popular.

"Rural electric cooperatives can begin to expand their networks now to do so slowly; allowing for less direct impact on rates," Browning wrote in his essay.

Mitzel believes electric co-ops need to prepare for a population shift of members moving from rural areas to more suburban areas.

"CEOs should ask themselves, 'How can we improve the safety, reliability, and sustainability of our new infrastructure?'" Mitzel wrote.

Mitzel and Browning will receive their scholarships when they enroll in classes in the fall. The applications were judged by a panel of Northern Electric employees.

More information,

visit: northernelectric.coop/scholarships



Northern Electric Cooperative board member Josh Larson presents Groton High School Senior Allyssa Locke with a \$250 check for being named the Touchstone Energy Scholar of the Week.

SCHOLAR OF THE WEEK

Groton High School Senior Allyssa Locke Named Scholar of the Week on April 4

Ben Dunsmoor

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Groton High School Senior Allyssa Locke says there is no secret to her success. She simply puts in the hard work that is necessary to excel both inside and outside the classroom.

"It definitely has not been easy," Locke said about her achievements at Groton High School. "I have had to put in a lot of hard work."

Locke will graduate as the Groton senior class valedictorian this spring. She has maintained a 4.0 gradepoint average while participating in extracurricular activities such as volleyball, basketball, soccer, and dance. Locke is also involved with Family, Career and Community Leaders of America (FCCLA), the Fellowship of Christian Athletes (FCA), is a volunteer youth coach in the community and is an active member of her church youth group. Locke was recognized as the Touchstone Energy Scholar of the Week on April 4 for all her accomplishments.

"Managing all that has taught me how to work hard and really manage my time," Locke said.

Locke's success has not gone unnoticed at Groton High School. The faculty recognizes Locke's dedication and hard-working attitude.

"She is a young woman with great integrity," Locke's English teacher Sarah Hanten said. "She takes the lead whenever necessary."

Locke plans to attend South Dakota State University in the fall and pursue degrees in exercise science and physical therapy.

"I hope working hard in high school will also help me out in college and hopefully I will be successful," Locke said.

The Groton High School senior was featured on Dakota News Now on April 4 for being named the Touchstone Energy Scholar of the Week. She also received \$250 from Northern Electric Cooperative in recognition of her accomplishments.



Chris Danielski monitors an irrigation pivot control panel from his phone app. Photos by Billy Gibson

Load control program reaps big rewards for both residents and large energy users

Billy Gibson

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Danielski Farms didn't become a blue chip producer over the past four decades by making boneheaded business decisions.

In 2013, the company was invited by Cherry-Todd Electric to participate in the cooperative's irrigation load management program. Load management is a term used to describe a co-op's ability to balance the system's electrical load by adjusting or controlling network demand.

Better balance brings greater efficiency and lower costs for all consumers on the system.

Len Danielski recalls pulling the leadership team together and weighing the pros and cons. The proposal included installing specialized equipment that would allow Cherry-Todd to temporarily interrupt power when warranted - to any of roughly 200 irrigation pivots across 18,000 acres. While different electric co-ops have their own load management policies, Cherry-Todd's guidelines call for a lower irrigation rate for participants and the right of the consumer to withdraw and return to the regular rate at any time.

The deliberation process was helped along by the fact that Danielski's General Manager Gary Garvin previously served as a board member at Cherry-Todd. He was aware the cooperative business model was designed and intended to produce "win-win" situations for both the co-op and its owner-members.

Danielski Farms ultimately decided to place all of its irrigation system under load management and Len Danielski reports the results have exceeded expectations.

"We found it was a winner all the way around. We have the choice to place one pivot, two pivots, or all pivots on the load control program, or none," he said. "We've analyzed the benefits over time and found that the company wins, the cooperative wins and the co-op members win. It's a great partnership."

Chris Rahn, Cherry-Todd's primary key account contact, said load management is a tremendous benefit for members because it allows the cooperative – working in concert with both the member and the co-op's wholesale supplier Rushmore Electric – to distribute power more efficiently.

Rahn explained that one of the best ways to deliver power at the lowest possible cost is to "shave the peak" or to make sure supply and demand stay in a constant state of equilibrium as conditions such as weather, member consumption and market forces change constantly. Utilities are able to control supply but can find it challenging to project what consumer demand will be at any point in time.

Educated projections are important, but there are occasions when it helps for the co-op to have some control over demand. In the end, everyone benefits.

"We've had a residential water heater load control program for quite a while and it's been well-received by our

LOAD MANAGEMENT

members," Rahn said. "It enables us to get a better handle on the demand side and that's a benefit for all the members on our lines."

Garvin said another mitigating consideration for Danielski Farms is the fact that Cherry-Todd has done its part by making significant improvements to its infrastructure over time.

"We used to joke that we were always under load management because the power would go out a lot, but things have changed dramatically for the better and we hardly ever get bumped these days," Garvin said. "I've also got load management on my water heater at home and it works for us."

Len Danielski said that under the load control program power to his pivots rarely gets disrupted and typically only for a few hours when it does. He said the company is pleased to participate in a program that will ultimately benefit all co-op members across the system.



From left, Gary Garvin, Len Danielski, Chris Danielski and Chris Rahn discuss Cherry-Todd Electric's load management program.

"We've found interruptions are usually during times when we don't need to be irrigating anyway, like in the heat of the day when a lot of the water will only get evaporated," he said. "And if it helps the cooperative and saves every member on the system some money, that's great."

Another element that makes the program work for Danielski Farms is the installation of a remote irrigation control system. All of Danielski's pivots



All of the roughly 200 irrigation pivots at Danielski Farms are under Cherry-Todd Electric's load management program.

are connected to the Ag Sense phone app that enables a user to turn the pivots on or off individually or in groups, and receive an abundance of electronic data.

Chris Danielski manages the app and said the telemetry allows him to track exactly when load control is being implemented, though he usually receives information from the co-op as well. He said efficiencies gained through both programs have resulted in net savings.

"If we have an hour or two of load management, once we get the notice that we're back on I can restart the pivot from inside the office," he said. "It used to take several hours to get someone to go out and restart the system."

East River Electric, based in Madison, is a power supply cooperative that delivers wholesale electricity to 24 distribution co-ops in eastern South Dakota and western Minnesota. East River has offered its co-ops a load management option since 1985 and has saved members roughly \$260 million in avoided wholesale power costs.

More than 75,000 different electric loads in homes, farms and businesses are connected to the system, including water heaters, air conditioners, irrigation systems and other big energy users.

Chris Larson, general manager of Clay-Union Electric, said the co-op based in Vermillion offers end-use consumers a load control program for water heaters, irrigation systems, grain bins and other commercial processing equipment.

The cooperative has 320 irrigation systems under load management with requests for 10 more in the near future as drought conditions show no signs of abating.

Larson emphasized that every cooperative has its own unique rate structure and load management policies when it comes to discounts, demand charges, time-of-use, system peaks and other variables. He said it's important for consumers to contact their local co-op for details and to work closely with staff to find the best solutions for the member.

He said co-ops are obligated to capture their costs of providing power but are also responsible for finding ways to accommodate their memberowners and helping them achieve their individual goals.

"Load management really is essential to maximizing system efficiency," Larson said. "It's a sophisticated process that ultimately leaves the member with plenty of choices. If we're controlling irrigation or commercial operations at a time that's not good for them or complicates their workflow, they need the ability to override the control system so they can make a good business decision that's best for them."

THE TROUBLE WITH TANKLESS

Tankless water heaters demand a large amount of electricity to create instant hot water

Ben Dunsmoor

bdunsmoor@northernelectric.coop

Homeowners have numerous options to consider when it is time to replace a water heater. There are many different models, brands, and styles of water heaters on the market today. Electric, gas, or heat-pump water heaters will work well for most consumers, however, tankless water heaters can pose several problems.

Tankless water heaters, also known as on-demand water heaters, are often labeled as 'more efficient' or 'environmentally friendly' because they only heat water when it is needed. Traditional units heat large quantities of water and store that heated water in a large tank, so it is available when someone turns on a faucet. Tankless water heaters may sound like a good idea when researching options, but the amount of electricity needed to create instant hot water can create several issues in a home. A 50-gallon water heater uses about 4,500 watts, or 4.5 kW, to heat water compared to a tankless system that can use as much as 36,000 watts or 36 kW to heat water for an entire home. That is eight times the demand of a normal water heater. In fact, the amount of electricity needed to quickly heat water using a tankless system will often rival the amount of power needed for an entire home before the tankless water heater was installed.

Homeowners who purchase a tankless water heater may also discover they need to upgrade their electrical panel just to handle the massive demand created when someone turns on a faucet. Normal tank water heaters need a single 30-amp 240-volt circuit in an electrical panel to operate. Tankless water heaters require up to four 40-amp 240- volt circuits.

Traditional tank water heaters are still more cost-effective, affordable, and efficient when compared to tankless water heaters. Large insulated electric Marathon water heaters only lose up to five percent of stored heat in a 24-hour period. Northern Electric members can save even more money if they connect their traditional water heater to the co-op's load management system. The load management system cycles units on and off during times of peak demand and qualifying members receive a \$6 per month bill credit for participating in the program.

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Call a Northern Electric Cooperative member services representative at 605-225-0310 to discuss water heating options before making a decision on purchasing a new water heater.



VP





2022 NORTHERN ELECTRIC VIP TOUR

Northern Electric Cooperative is taking members to North Dakota for a behind-the-scenes tour of the electricgeneration resources that power your lives. The tour will take place on June 28-29, 2022.

TRIP DETAILS:

Tour the Basin Electric Power Cooperative facilities, mines, and generating units which produce the electricity you receive from Northern Electric. A commercial bus will be used for transportation.

COST: FREE

The trip is funded by Northern Electric Cooperative. Funding for the trip covers each participants transportation, lodging (double occupancy), and meals. Members are required to supply their own personal/shopping money.

TOUR RULES:

- All Northern Electric members, even those who have gone on the tour in the past, are eligible to attend. Preference will be given to members who have never gone before.
- Registrants must be current members of Northern Electric.
- Attendees may bring an accompanying partner of their choice on the trip.
- In the event an attendee cannot go on the trip, Northern Electric staff will select another participant.

TOUR APPLICATION

Mamo

Name.	
Address:	
City:	
State:	
Zip Code:	
Email:	
Phone:	

APPLICATION DEADLINE: MAY 27

Please mail applications to:

Northern Electric Cooperative Attention: Kay Albrecht PO Box 457 Bath, SD 57427

OR APPLY ONLINE AT: northernelectric.coop/viptour



MAY 14-15 Ellsworth Air & Space Show 1940 EP Howe Drive, Ellsworth AFB, 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.

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



Or visit https://sdrea.coop/ cooperative-connectionsevent-calendar to view more upcoming events. APRIL 23-24 Aberdeen A.B.A.T.E. Bike Show and Dance Ramkota Hotel, Aberdeen, SD, aberdeenabate2011@gmail. com

APRIL 27-30 45th Annual Kingswood Rummage Sales Southwest Sioux Falls, SD, kingswoodrummage.com

APRIL 28 MercyMe: The Inhale (Exhale) Tour Denny Sanford Premier Center, Sioux Falls, SD, 605-367-7288

APRIL 29-MAY 1 State USBC Women's Bowling Tournament Village Bowl, Mitchell, SD, 605-336-5583

APRIL 29-MAY 1, 5-7 Ordinary Days Grand Opera House, Pierre, SD, pierreplayers.com

APRIL 30 SDSO Centennial Finale Washington Pavilion, Sioux Falls, SD, sdsymphony.org

MAY 3-8 Come From Away Washington Pavilion, Sioux Falls, SD, 605-367-6000 MAY 7 Cinco de Mayo Fiesta 131 E Falls Park Drive, Sioux Falls, SD, 605-274-3735

MAY 8 Mother's Day Tours Historic Adams House and Days of '76 Museum, Deadwood, SD, 605-578-3724

MAY 14-15 AMA Coins and Sports Cards Show Denny Sanford Premier Center, Sioux Falls, SD, 605-321-9195

MAY 14-15 Ellsworth Air and Space Show 1940 EP Howe Drive, Ellsworth AFB, SD, ellsworthairshow.com

MAY 15 PAW Patrol Live! Swiftel Center, Brookings, SD, www.swiftelcenter.com

MAY 17 Norwegian Independence Day Main Street, Vivian, SD, 605-222-3296

MAY 20-22 Annual Sound of Silence Tesla Rally 615 Washington Street, Custer, SD, 605-673-2244

MAY 21

Booth Day D.C. Booth Fish Hatchery, Spearfish, SD, dcboothfish hatchery.org

MAY 21

Frühlingsfest & Spring Market Main Street, Rapid City, SD, 605-716-7979

MAY 28

Memorial Weekend in Mitchell Main Street, Mitchell, SD, 605-292-4444

MAY 29-30 Back When They Bucked Rodeo Days of '76 Arena, Deadwood, SD, 605-718-0810

JUNE 5

One Vine, Many Branches All Catholic Mass NSU Barnett Center, Aberdeen, SD, 605-216-2081

JUNE 19

SD Cattlemen's Foundation Prime Time Gala Sioux Falls Convention Center & Denny Sanford Premier

Center, Sioux Falls, SD, www. sdcattlemensfoundation.com

JULY 3

Richmond Lake Fireworks Richmond Lake at Edwards Preserve Point, Aberdeen, SD, www.facebook.com/Richmond LakeLife/

JULY 23 19th Annual Make-A-Wish Poker Run C&S Motorsports, Aberdeen, SD, 605-225-7262 or

SD, 605-225-7262 or 605-228-0604 IULY 23

Richmond Lake Association Pontoon Poker Run Anchor's Away Resort, Aberdeen, SD, www.facebook. com/RichmondLakeLife/

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