

M I N N K O T A

MESSENGER



MAY - JUNE 2026



6 JOINING FORCES TO POWER NATIONAL SECURITY

Strong national defense relies on reliable power. To ensure continued security, the Grand Forks Air Force Base and Nodak Electric Cooperative must work together to keep the installation energized.

On the cover: Airman 1st Class Eduardo Tan secures a rope during pole-top rescue training with Nodak Electric Cooperative.

Minnkota Messenger is published six times a year by Minnkota Power Cooperative. Its mission is to communicate Minnkota's perspectives and concerns to its members, elected officials, employees and other business audiences. For editorial inquiries, call (701) 795-4282 or email bfladhammer@minnkota.com.

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Minnkota Power Cooperative is an equal opportunity provider and employer.

Minnkota Power Cooperative is a generation and transmission cooperative headquartered in Grand Forks, North Dakota. It supplies wholesale electricity to 11 member-owner distribution cooperatives, three in eastern North Dakota and eight in northwestern Minnesota. Minnkota also serves as operating agent for the Northern Municipal Power Agency, an association of 12 municipal utilities in the same service region. Together, the Joint System serves more than 171,000 consumers.



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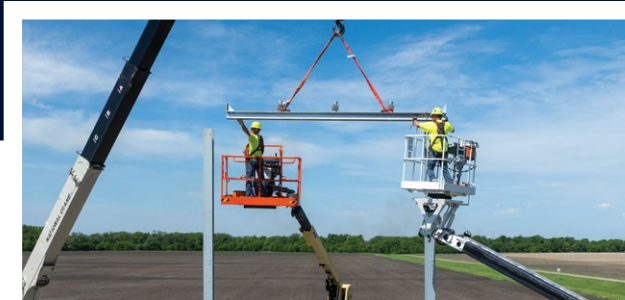
12 POWERING THE FRONT LINE OF THE COLD WAR

A preserved missile bunker near Cooperstown, North Dakota, offers a rare glimpse into Cold War America and serves as a reminder of how Minnkota helped power a critical piece of the nation's defense system.



16 SEE A DANGER, STOP A DANGER

It's always better to show than to tell – especially when it comes to power line safety. That's why Minnkota and Cavalier Rural Electric Cooperative brought kilowatts into the classroom for Langdon's Progressive Ag Safety Day.



20 NEVER SETTLE FOR SUB-PAR

A couple of feet can make a world of difference in the realm of electricity. We'll take a look at the new Minnkota substation design that enhances safety, reliability and worksite flexibility.



24 CLEANING UP THE CONCRETE INDUSTRY

Innovation, teamwork and real-world problem-solving were on full display at the 2026 Andrew L. Freeman Innovation Awards. Learn how UND engineering students are carrying forward the legacy of Minnkota's first general manager.

Also featured in this issue: 26 News Briefs

AMERICA AT 250 AND RURAL ELECTRIFICATION AT 90

As America celebrates its 250th anniversary in 2026, we have an opportunity to reflect on the people, ideas and innovations that helped shape our nation. It is a time to appreciate the spirit of determination that has defined our country since its founding.

This year also marks another milestone that holds special significance for rural America and the communities we serve. Ninety years ago, the Rural Electrification Act helped bring electricity to farms, ranches and rural areas that had been left in the dark for decades. The law, passed on May 20, 1936, sparked the creation of electric cooperatives across the country and transformed daily life for millions of Americans.

The stories are different, but the themes are much the same. Both America's founding and the rural electrification movement were driven by people who saw a need, worked together and built something that would benefit future generations.

In this edition of Minnkota Messenger, we explore the past and present role of Minnkota and its member cooperatives in supporting our nation. These stories demonstrate how the cooperative model and the reliable electricity it provides have quietly supported America's strength and security.

They also serve as a reminder of the lasting impact of the Rural Electrification Act, one of the most successful pieces of legislation in American history. Ninety years later, its influence can still be seen shining across rural America.



Minnkota Lineworker and U.S. Marine Corps veteran Heath James stands in the cooperative's Grand Forks fleet garage, where a large American flag is prominently displayed.

JOINING FORCES TO POWER NATIONAL SECURITY

Senior Airman Antoine Bastian successfully lowers a 120-pound training manikin to the ground during pole-top rescue practice.

Grand Forks Air Force Base partnership with Nodak Electric strengthens reliability, mission preparedness

By Kaylee Cusack // Photography Michael Hoeft

A small squad of Nodak Electric Cooperative lineworkers squinted up at a young Grand Forks Air Force Base (GFAFB) airman climbing his way to the top of a power pole. Above the airman's head hung a 120-pound manikin, dead weight in need of rescue. On the ground below, seven more service members waited their turn to strap climbing spikes to their boots and make the heroic ascent.

This pole-top rescue training day was coordinated by Nodak Assistant Line Superintendent and Safety Coordinator Derek Sondreal. Like many of the co-op's training sessions, it wasn't just for Nodak employees. It was another learning opportunity for the electricity partners serving our country.

"They're really not afraid to try anything," Sondreal said of the fatigue-clad Air Force technicians nearby. "You know, that's a big thing – any task you give them, they attempt it."

Sondreal has been leading high-voltage training with these airmen for over a year as part of a partnership formed in 2018 between Nodak and GFAFB. At that time, the entities signed a utilities privatization (UP) agreement, through which Nodak became the system owner of the electric infrastructure of the installation. Under the agreement, the cooperative is responsible for maintenance and repair, reliability projects and outage response. The collaboration also extends to safety and high-voltage training with Air Force electricians, so they can both serve their base and any sites they may visit during deployment.

Airman 1st Class Matthew King finds secure footing as he makes his way up a training pole.

Nodak lineworker Paul Gapp is part of the Grand Forks West crew that works and trains with the GFAFB airmen.



★ Grand Forks Air Force Base

Served by
NODAK ELECTRIC COOPERATIVE
Grand Forks, North Dakota

Incorporated: January 17, 1940
Board members: 9
Members: 21,303
Miles of line: 7,882

Contract for reliability

According to Melissa Cassanelli, the installation's energy manager and UP Contracting Officer's Representative, around two decades ago the U.S. Army and Air Force began to experience challenges with receiving the necessary funding to reinvest in base utilities, such as electrical, water and wastewater. Since much of the infrastructure had been built out in the 1940s and 1950s, systems were beginning to fail and were no longer meeting code.

"Across the board, we had a lot of issues with electricity being reliable," Cassanelli said. "A lot

of places, in the south especially, with their storms and heat, were really struggling."

Since GFAFB possessed one of the older systems in the nation, it was chosen by the federal government as one of the top priorities to privatize with a local utility. The UP process took around 10 years and was finalized in 2018. Nodak immediately invested in bringing the system back to the level of dependability that was needed on the base.

"We have very reliable power infrastructure now," said GFAFB

Electrical Foreman Mark Lawrence. "With all our deployments and military training and everything these airmen do, we don't quite have the manpower to focus on maintaining the exterior power of the base. That's one part of the mission that won't fail, because we have Nodak out here to maintain this infrastructure."

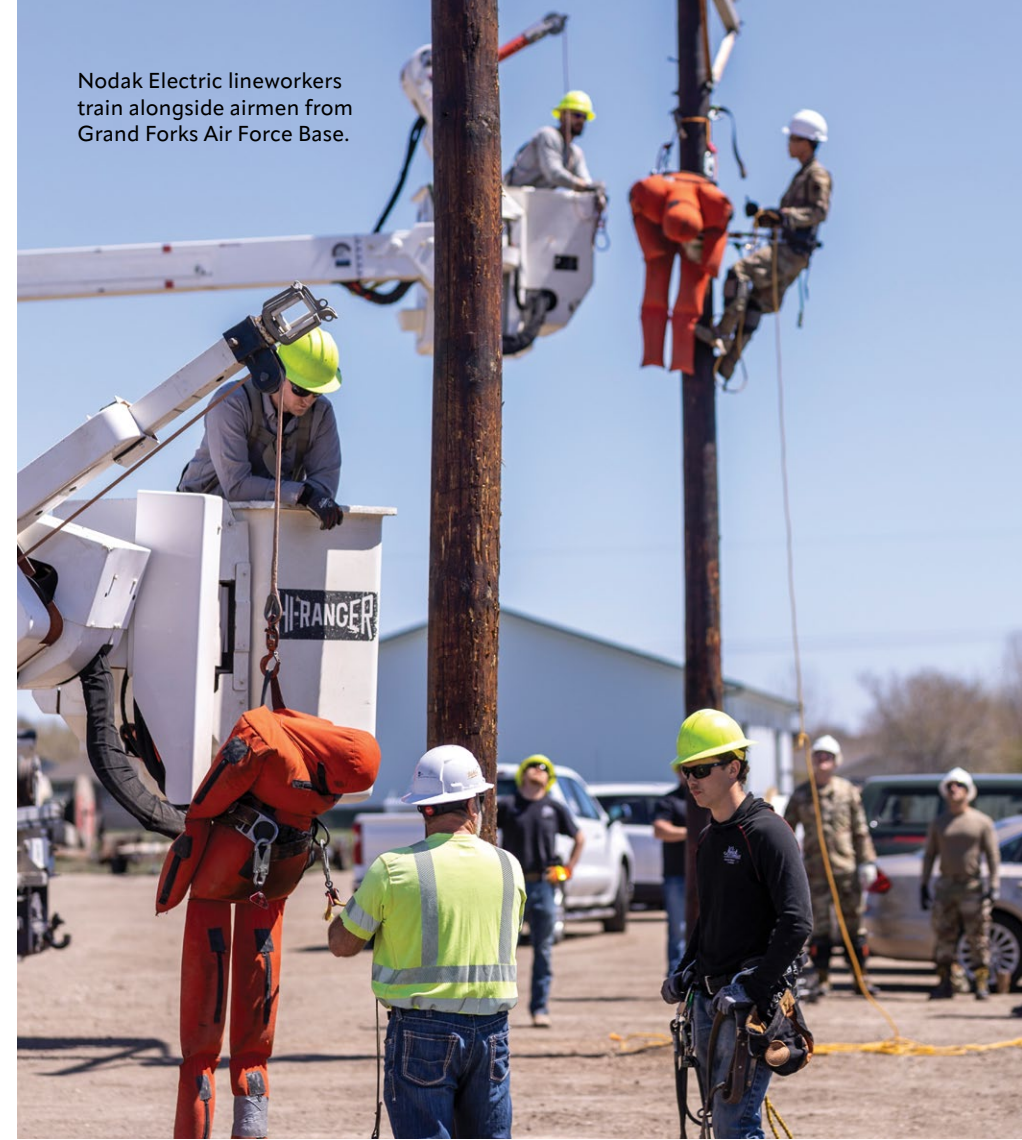
"The partnership with Nodak and their timeliness to respond, whether it's a new transformer coming in for a mission or anything else, it's exceeded anything I think we would have the capability to do in house," said Chief Master Sgt. Michael Benoit, who serves as director of operations for the 319th Civil Engineer Squadron. "The cooperation is one of the best I've seen out of 10 installations I've experienced."

Electric reliability is important to the housing, daycares, clinics and other amenities of the base. But it's utterly critical for the missions of the installation, which include a drone mission and High Frequency Global Communications System mission, both of which rely heavily on uninterrupted power. "We do have backup generators, but those facilities need power, and Nodak knows that," Cassanelli said. "They've done a lot of upgrades to those systems to make sure those facilities are always online."

The establishment of the UP contract took what was already a strong working relationship between Nodak and GFAFB and formalized it into something with a value greater than the sum of its parts.

"From our perspective, it allows us to better understand the mission-critical needs of Grand Forks Air Force Base and ensure our system is aligned to support those needs," said Nodak CEO Mylo Einarson. "At the same time, it's opened the door for more collaboration on training and preparedness, which ultimately strengthens reliability and resilience for the base."

Nodak Electric lineworkers train alongside airmen from Grand Forks Air Force Base.



Nodak Electric has a service center within GFAFB, which also contains classroom space for collaborative training.



Partners in training

As part of their training, Air Force electrical technicians go through six months of coursework to prepare them for all levels of electrical maintenance, from interior wiring to transformer repair. Only a few weeks of that training is focused on high-voltage infrastructure. That's where the Nodak team steps in, building hands-on

training experiences for the airmen to maintain their knowledge of the equipment.

"They can learn the intricacies of the system so they're prepared for when, heaven forbid, the day came when they're the person that people have to rely on," said Tech. Sgt. Brian Polk, who serves as electrical section chief. "We in

the military have a very strong belief that we train how we fight. So, it makes us more comfortable knowing, hey, I know how this exact piece works because they've shown me before."

Polk explained that the training relationship with Nodak also helps the airmen meet the qualifications for their Career Field

Education and Training Plan (CFETP). Nodak is able to integrate the requirements of the CFETP into monthly training exercises to ensure the electricians are getting exactly what they need.

Just weeks before pole-top rescue training, Sondreal joined the small crew of Air Force electricians at the Nodak service center on the base. He guided them through cutting and terminating underground primary cable, answering questions as they moved through each step of the process.

It's not a role he expected when he became a lineworker 17 years ago. But it's become a routine he can be proud of.

"It's rewarding to know that you're helping make a difference," Sondreal said. "I mean, they're making a difference for us, so it's one way to pay it back to them."

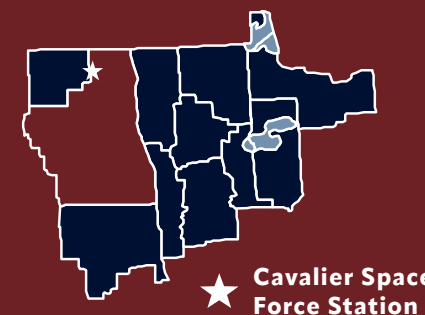


Nodak's Derek Sondreal (center) leads a GFAFB training session on working with underground primary cable.



CAVALIER SPACE FORCE STATION

Nodak Electric Cooperative also holds a UP agreement with Cavalier Space Force Station, located just west of Cavalier, North Dakota. Although it is a smaller installation, reliable electricity is just as crucial.



★ Cavalier Space Force Station



"Our relationship with Cavalier Space Force Station is very similar in

that it's built on trust, reliability and a shared understanding of how critical their mission is. They rely on us for highly dependable electric service, and we take that responsibility seriously. Over the years, we've worked closely with their team to ensure we understand their operational requirements and can respond quickly when needed."

- Mylo Einarson, Nodak Electric Cooperative

POWERING THE FRONT LINE OF THE COLD WAR

Preserved missile site offers a look back at American history – and Minnkota history

By Ben Fladhammer
Photography Jennifer Erickson

The elevator groans before it moves.

Then, with a slow mechanical rumble, it begins its descent into the earth.

Fifty feet below the North Dakota prairie, the Oscar Zero Launch Control Center feels frozen in time. Behind steel blast doors and thick concrete walls, two Air Force officers once stood watch around

the clock during the height of the Cold War, prepared to carry out orders they hoped would never come.

“It was hours of boredom punctuated by seconds of terror,” said Rob Branting, supervisor of the Ronald Reagan Minuteman Missile State Historic Site near Cooperstown, North Dakota.

Fortunately, the true terror never came. Instead, what remains is one of the most remarkably preserved snapshots of Cold War America anywhere in the country.

For more than three decades, from the mid-1960s until deactivation in the late 1990s, North Dakota was home to one of America’s most important nuclear defense networks. Spread across eastern North Dakota were 150 Minuteman missile silos and 15 launch control facilities connected by hundreds of miles of hardened communications cable buried beneath farmland. The missile fields reported to Grand Forks Air Force Base as part of the nation’s nuclear deterrence strategy.

“Peace is our profession,” Branting said, recalling the motto of the U.S. Strategic Air Command. “It’s kind of a strange model when you’re in charge of thousands of nuclear weapons. But the whole idea was to provide nuclear deterrence and hopefully prevent a war.”

Life inside the bunker

For all the technology and geopolitical significance, daily life at the missile sites could be surprisingly ordinary.

Walking through the top-level of the facility feels less like visiting a museum and more like stepping into the 1990s. The bedrooms remain largely unchanged. Magazines and handwritten notes still rest on tables. Ashtrays sit where they were left decades ago. Everywhere you look, small details create the feeling that Air Force personnel simply left for a moment and never returned.

“We tried to keep everything as it was in 1997,” Branting said. “People obviously want to go see



Site Supervisor Rob Branting points out the missile site locations on a map.

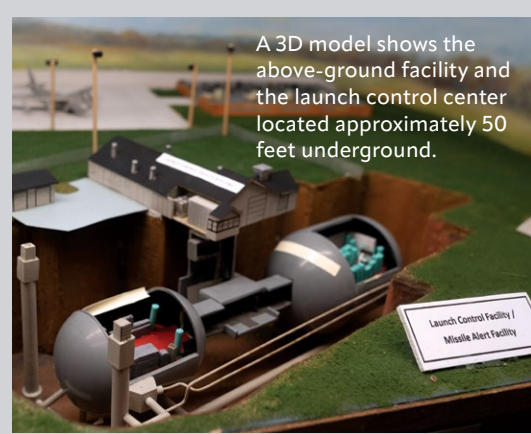


The November-33 launch facility stored the missile underground several miles from the launch control center.

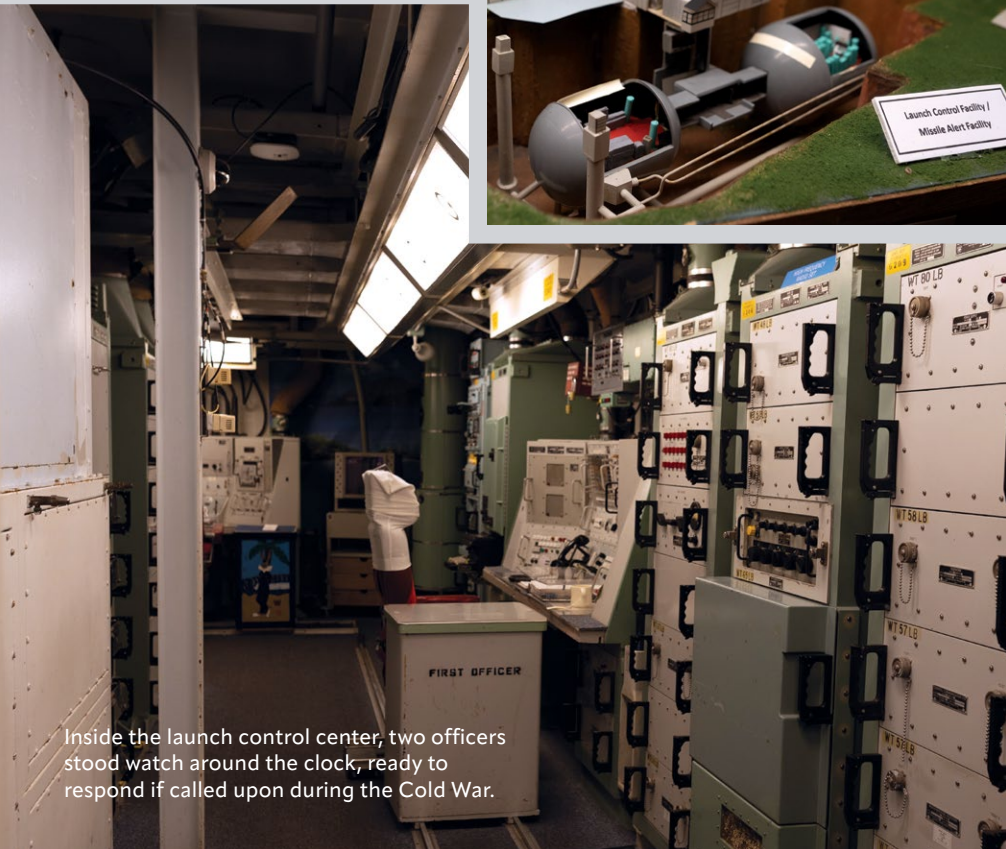


Stepping into the common area feels like stepping back to 1997, with the space preserved much as it was during the site’s final years of operation.

The site's diesel generator sits in the launch control center. The facility stored enough diesel on-site to run for six weeks if needed.



A 3D model shows the above-ground facility and the launch control center located approximately 50 feet underground.



Inside the launch control center, two officers stood watch around the clock, ready to respond if called upon during the Cold War.

the missile network. Minnkota and its members ultimately provided electric service to 144 of the state's Minuteman facilities. Doing so required an extensive substation construction program and significant expansion of the rural electric distribution system.

The impact on Minnkota was immediate. Energy sales increased 14.3% in 1965 and another 18.3% in 1966. By 1968, approximately one-quarter of Minnkota's energy sales were tied to national defense facilities.

"Keeping reliable electricity to these sites was critical to national defense," Branting said. "The Air Force couldn't have succeeded without that."

The launch control facilities were designed with multiple layers of redundancy. Cooperative power supplied the sites under normal conditions, while diesel generators stood ready if the grid failed. Branting said the facilities carried enough fuel to continue operating for up to six weeks.

"If we were under attack, the hope was you'd get the generators kicked on so they could launch the missiles if necessary," Branting said. "That was a big thing to advertise to the Soviet Union – that these missiles could still work if we lost the grid."

The rapid growth arrived at a pivotal moment for Minnkota. As demand surged across the region, the cooperative was evaluating the largest power supply decision in its history: construction of a coal-based generating station in western North Dakota. In 1966, Minnkota received financing for what would eventually become

the Milton R. Young Station, helping position the cooperative to meet the growing energy needs of its members and the region for decades to come.

Preserving a legacy

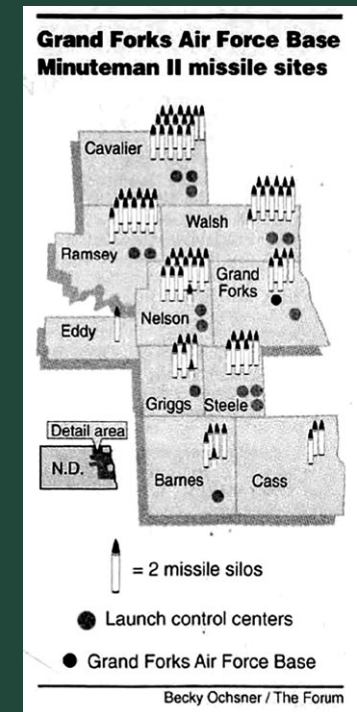
The Ronald Reagan Minuteman Missile State Historic Site welcomes approximately 4,000 visitors each year. The site continues to grow as a destination for history enthusiasts. In 2025, it added an HH-1H "Huey" helicopter – one of only 30 ever built. The aircraft supported missile field operations across the Northern Plains and serves as another reminder of the scale of the nation's Cold War defense effort.

For Branting, who has overseen the site for nearly a decade,

preserving the facility is about more than just showcasing military equipment.

"This facility is a part of North Dakota's legacy of protecting the United States," he said. "It demonstrates the first time when nuclear war could be moments away. It's an important period of history to remember."

The Ronald Reagan Minuteman Missile State Historic Site is available for tours from Memorial Weekend through Labor Day daily from 9 a.m. to 5 p.m., and by appointment during the winter months.



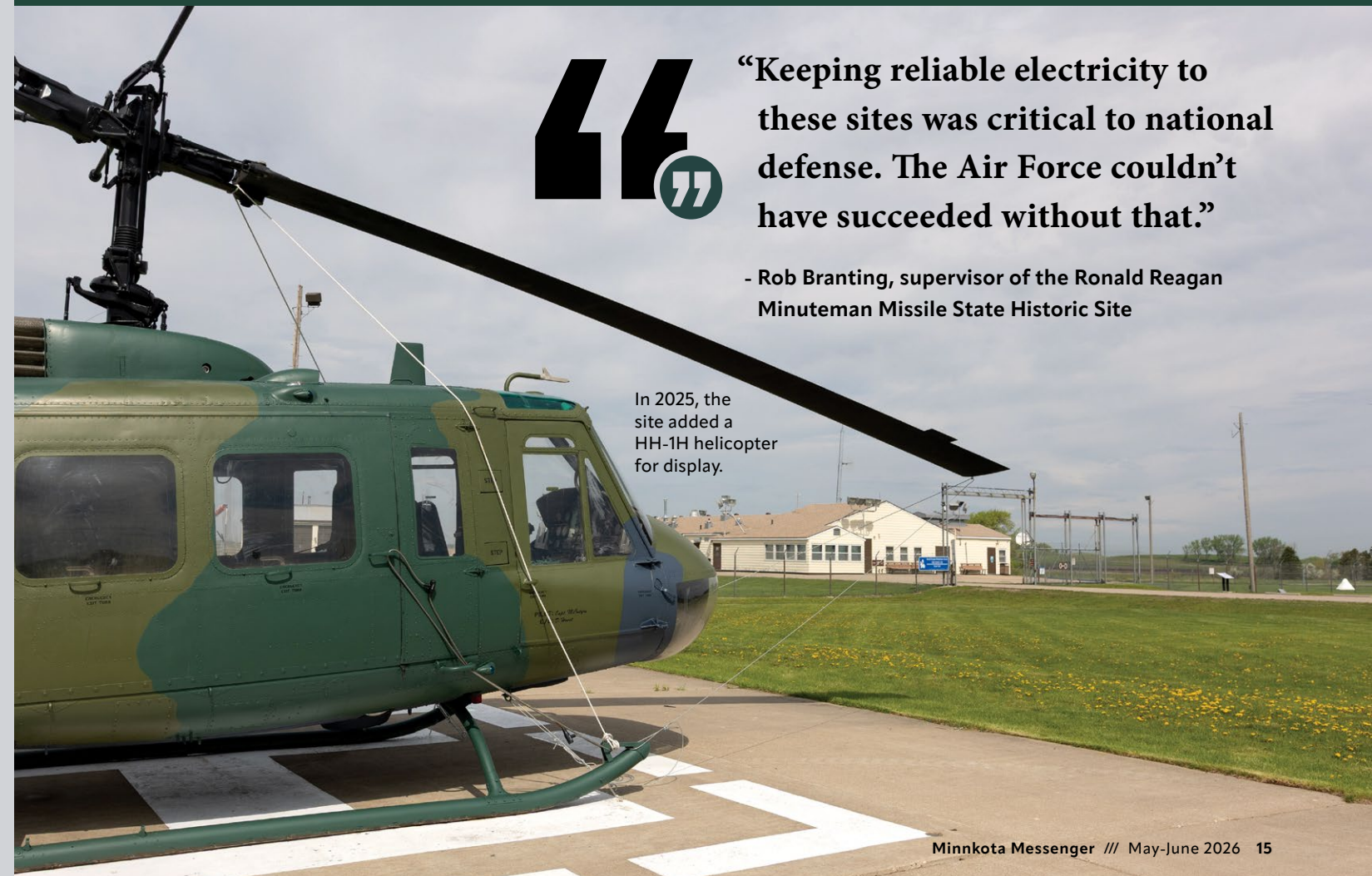
(Above) The electrical panel and the alarm panel show the various systems that depended on reliable electricity.

(Left) A clipping from the Forum newspaper shows the location of the missile sites throughout eastern North Dakota.

“

Keeping reliable electricity to these sites was critical to national defense. The Air Force couldn't have succeeded without that.”

- Rob Branting, supervisor of the Ronald Reagan Minuteman Missile State Historic Site



In 2025, the site added a HH-1H helicopter for display.

SEE A DANGER, STOP A DANGER

Minnkota, Cavalier Rural Electric demonstrate electric safety at Progressive Agriculture Safety Day

Minnkota's Brandon Greene prepares Langdon students for another demonstration of electrical dangers.



By Kaylee Cusack
Photography Michael Hoeft

A handful of third graders sat on a tiled classroom floor in Langdon, North Dakota, enraptured by the miniature scene playing out before them. A small power line hugged the edge of a rural highway, with a tiny substation and

transformer box nearby. In this moment, two Minnkota Power Cooperative safety representatives were demonstrating what could happen if a grain auger were to contact that power line.

"Now, he's backing up and getting really, really close. What's going to happen?" Safety Administrator Brandon Greene asked the students. His safety colleague, Seth Baune, slowly rolled the toy auger

toward the power line. The children watched, a current of anticipation flowing through them.

Then – the hot, bright snap of electrons leaping from line to equipment.

"It's going to create an arc of electricity," Greene said over the murmured wonder of his audience. "And remember, that electricity's trying to find a way to the ground."

The power line safety presentation was one of eight safety sessions presented to Langdon Area Elementary School's third- through sixth-graders during Progressive Agriculture Safety Day on May 18. The program, coordinated by the Cavalier County Health District and supported by the Progressive Agriculture Foundation, is held annually at one of the county's three school districts. It was Langdon's turn to dive into topics ranging from how to safely use bikes, ATVs and lawnmowers, all the way to mental health, gun safety and proper fire response.

Marty Tetrault, general manager of Cavalier Rural Electric Cooperative, has been involved with Safety Day for several years. In the past, he has shown students how to locate dangerous underground utilities before digging in the backyard. But when he saw his partners at Minnkota had developed a tabletop power line safety demo, he figured he'd bring a new spark to his presentation.

"I thought it was something the kids would really enjoy," Tetrault said, remembering the first time he saw the demo. "I was standing there and when it zapped, I backed up. I've worked with electricity for 30 years, and even I was like, 'Oh, geez.' It gives more of a real-life experience of what, hopefully, none of them will ever experience."

The demo box, which is an element of Minnkota's "Watch the Wires" power line safety campaign, was constructed in 2025 by Baune himself. Since then, it's made its way to co-op annual meetings, classrooms, safety camps and other events in North Dakota and Minnesota. Greene



Cavalier Rural Electric's Marty Tetrault describes a recent dangerous close call between a lawnmower and a CREC transformer box.

Langdon students raise their hands when asked, "How many of you live on a farm or have been to a farm?"



and Baune use real electric current to visibly (and audibly) show what can happen if people, ladders, trucks or farm equipment contact power lines.

Wherever the case ends up, the buzz soon follows.

"This is a kind of training you don't see everywhere. If we can

introduce it to the younger generation, they can pass it along to their families, which is huge," Greene explained. "We just need to keep getting the word out there, whether it's kids, whether it's adults, it doesn't matter. But the kids really seem to hold onto it, and they like to spread the word."



The Cavalier County Sheriff's Office speaks to a class about gun safety.



A class joins the Langdon Ambulance Service on a short tour.



The Langdon Fire Department offered opportunities to shoot a fire hose.



NDSU Extension shares tips on safe lawn mowing.



Students practice the Stop, Drop, and Roll technique of fire safety.

A day of safety

Progressive Ag Safety Day has been held in Cavalier County since 2007, but it wasn't always a classroom activity. It started as a community-wide summer program and reinvented itself four years ago to make a greater impact.

"We found that it was hard, because not all kids or parents could get kids to a camp in the middle of the day in the summer. We realized that was a barrier for busy working parents," said coordinator Stephanie Welsh, a registered nurse with the Cavalier County Health District. "So, we started offering it at each school in our county, rotating every three years."

"This way, we can make sure all the kids in Cavalier County are getting those safety tips and precautions," added Langdon Area Elementary Principal Jacy Bata. "We know they're experiencing it, even if it is only once every three years."

Even before bringing its Safety Day to North Dakota, the Progressive Agriculture Foundation has been spreading the message of rural safety around the nation since 1995, reaching more than 2 million children and adults. The Foundation partners with local coordinators to create Safety Days that integrate subject matter experts from the community.

Jana Davidson, program manager for the Progressive Agriculture Foundation, says that local coordi-

ners and volunteers are the "heart and soul" of the program.

"If we save or protect just one life, it is all worth it," Davidson said. "While we love talking about our program, seeing is believing. Watching the faces of the children light up when they are learning through engaging, hands-on experiences, you know these lessons will stick and keep them safe as they grow."

According to Welsh, incidents are one of the top causes of morbidity and mortality in children. In Cavalier County's rural setting, there are a lot of opportunities for incidents, which means a lot of room for injury prevention. "This day is a really nice way for all of our community partners who are really invested in keeping

kids safe, whatever their scope of work, to highlight those practices to kids directly," she said.

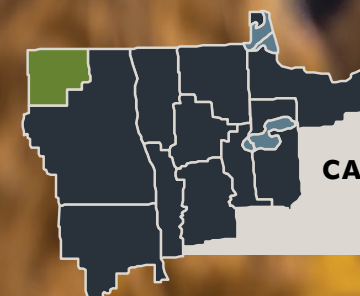
As the students made their way to a new station every 15 minutes, they asked unique questions and shouted out responses, volunteering to put on safety gear or shoot a fire hose. They were engaged. They were ready to protect themselves and those around them.

"I want them to take away the importance of being the big brother or the big sister. Let your little siblings or cousins know something that you learn," Bata said. "I hope they go home, have a little talk about it at the dinner table, and let their parents know something that they learned. But ultimately, I hope they have fun while learning."

“

Cavalier Rural Electric has been a wonderful partner for our Progressive Ag Safety Day, going back even to those summer camps of the earlier structure. They do a really nice job of coming in and teaching kids about safety around electricity and what those risks are when you live on the farm or if you're a visitor to a farm.”

- Stephanie Welsh, RN, Cavalier County Health District



Served by
CAVALIER RURAL ELECTRIC COOPERATIVE
Langdon, North Dakota

Incorporated: September 5, 1945
Board members: 7
Members: 1,620
Miles of line: 1,387



NEVER SETTLE FOR SUB-PAR

Minnkota leverages new substation design to enhance site mobility, reliability

By Kaylee Cusack
Photography Michael Hoeft

Foreman Dean Swatowski was ready to work. After a couple of cold and drizzly May days, his Minnkota Power Cooperative crew of electricians pulled up to the site of the Sabin substation just

east of Moorhead, Minnesota, sun shining and temperature climbing.

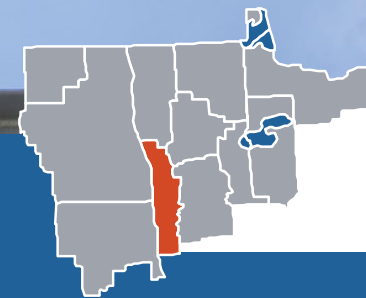
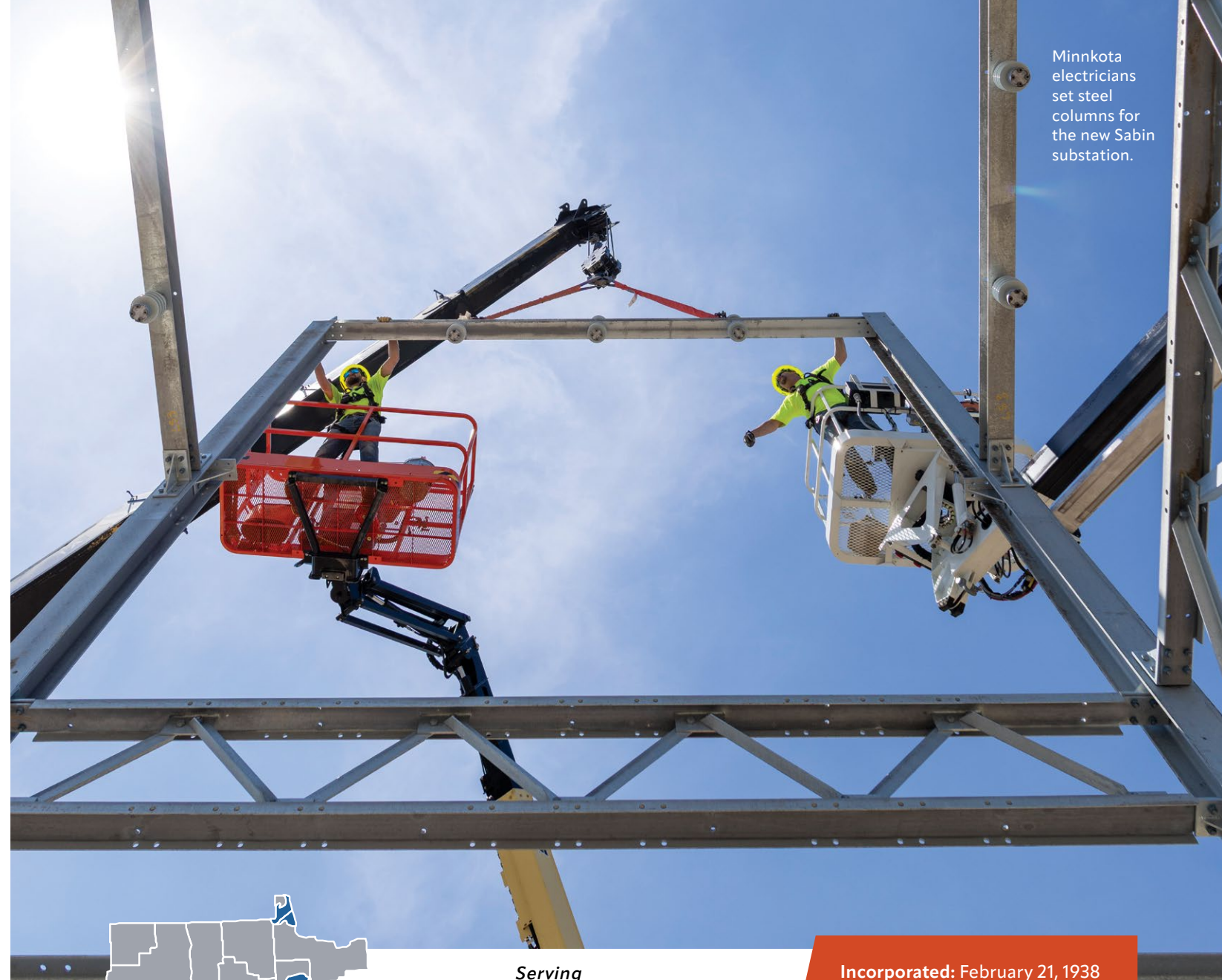
Swatowski just had to wait for his lineworker counterparts to string the new switch tower, one part of a full rebuild of the aging substation. Then, his team could get rolling on the newly designed “low side” of the fresh facility – the first of its kind constructed by Minnkota crews.

“I like getting out here. I like to see the progress as it comes along,” he said, sidestepping mud left from yesterday’s rain. “Every year it’s busier and busier, so you have to stay on track.”

Heavy Crew Foreman Dean Swatowski is one of the first to construct Minnkota’s new low side substation design.



Minnkota electricians set steel columns for the new Sabin substation.



Serving
**RED RIVER VALLEY CO-OP
POWER ASSOCIATION**
Halstad, Minnesota

Incorporated: February 21, 1938
Board members: 6
Members: 4,894
Miles of line: 1,857

The Sabin distribution substation, which serves the members of Red River Valley Co-op Power Association, is the latest project in Minnkota’s multiyear substation rebuild program. Kicked off in the fall of 2025, the new substation will be energized at the start of summer 2026, at which time the aging substation next to it will be decommissioned and torn down.

But this isn’t a one-for-one swap. After more than 60 years of the same template, Minnkota engineers reevaluated the low side design of the standard distribution substation (the side of the transformer connected to the lower-voltage system, containing equipment that feeds electricity to Minnkota’s distribution co-ops). Leveraging 3D drafting

technology and a lot of collaboration, they discovered small changes that could make construction faster, maintenance safer and easier, and reliability higher as the rebuild program continues.

The new low side utilizes deeper pier foundations instead of spread footings, improved clearances and shielding (for lightning protection),



Minnkota Substation Engineer Jeff Johnke (right) reviews the Sabin substation plans with fellow engineer Jay Bushy.

the original engineering lead on the low side redesign. He added that the new design also creates an additional foot of spacing between phases, the conductors that carry electricity. "Another reason why we went to the larger phase spacing is sometimes birds or rodents get in there, and that additional clearance allows them space. That helps with preventing outages."

An additional benefit of the new low side design is the preassembled nature of the substation's steel components. Before, electricians would have to build many of the pieces in the shop during the winter and then haul those sections to the worksite and construct them further. Now, those parts and pieces are more modular, which will ultimately cut down on assembly time.

"With the new design, we have one clip instead of like five different clips to hold the steel together," Swatowski said. "That makes it a lot easier."

However, the Sabin substation is the team's first time trying out the new low side build. They'll use the experience to see what works well, and what can be changed for the better. "We're interested to see the feedback from our crews," Brorby said. "They've seen it in the presentations and drawings, but to get their actual feel for it will be very valuable."

As Minnkota strategically moves forward in its substation rebuild program, reconstructing 2-3 substations annually according to age and condition, crews will become more familiar with the new design. The 3D blueprint will

also translate to any entirely new substations under development to meet the needs of new load. Through it all, Minnkota's Engineering and Operations teams will be in constant conversation to ensure their substations are meeting

the timing, safety and reliability goals of their members.

"That's a part of good communication," Swatowski said. "You figure out what works and what doesn't, and you make changes."



Apprentice Electrician Bron Morrison tightens a brace from the lift.



Electrician Adam Streitz secures a bolt on the new steel infrastructure.

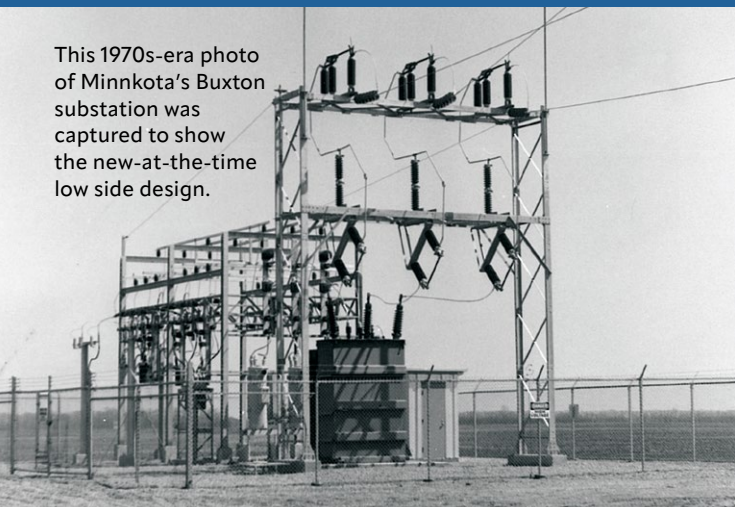


Foreman Dean Swatowski assesses the steel's alignment on a concrete footing.



Minnkota Messenger // May-June 2026 // 23

This 1970s-era photo of Minnkota's Buxton substation was captured to show the new-at-the-time low side design.



Decades later, 3D renderings illustrate a new style of low side at the Sabin substation.



and stouter steel for better structural loading capacity. This helps Minnkota better meet current loading criteria, or protection from forces like wind, ice and overhead distribution lines.

"Globally, our hope is that the redesign will better serve not only Minnkota but all the co-ops well into the future in terms of flexibility, growth and reliability," said

Substation Engineering Manager Ryan Brorby. "With the new, increased clearances, there's more space for us and our co-ops to work in there. And then we're hoping, long term, that we save on labor, because it's quicker to construct."

The new clearances Brorby speaks of don't seem all that substantial: A 14-by-14-foot bay

will increase to a 16-by-16-foot bay, and steel columns that used to be 23 feet tall will now stand at 25 feet. But those few feet can mean a lot to those working within the gates.

"We took feedback from Operations. They wanted the bays bigger and they wanted a little more height because equipment's getting larger," explained Jay Bushy,

CLEANING UP THE CONCRETE INDUSTRY

Construction tool cleaner takes first place at Freeman Awards

By Ben Fladhammer /// Photography Michael Hoeft



First-place team members Brady Nelson and Joelle Heinz stand near the prototype of their concrete tool cleaner.

The winning idea at this year's Andrew L. Freeman Innovation Awards didn't come from a futuristic lab concept or a complicated theoretical problem.

It came from concrete stuck to a trowel.

Inspired by the everyday frustrations faced by construction workers, a team of University of North Dakota mechanical engineering students developed a portable ultrasonic cleaner capable of removing hardened cement from tools in seconds. The project captured the top award – and \$3,100 – at UND's annual senior engineering design competition on May 8.

The competition honors the legacy of Andrew Freeman, a UND engineering alumnus, Minnkota Power Cooperative's first general manager and a long-time innovator who helped drive the rural electrification effort across eastern North Dakota and northwestern Minnesota. In addition to leading Minnkota from 1940 to 1982, Freeman also invented the Freeman Headbolt Heater, a device that helped vehicles and machinery start reliably during brutal winter conditions.

Since 2000, the Andrew L. Freeman Innovation Awards have recognized UND's top senior engineering design projects, celebrating ideas that combine technical achievement with practical, real-world impact.

Kasey Borboa, Minnkota's senior manager of power delivery engineering, served as a competition judge and spoke to students about Freeman's legacy. Borboa said Freeman's success was rooted



Kasey Borboa (top left), Minnkota senior manager of power delivery engineering, and Ryan Brorby (top right), Minnkota engineering manager, present certificates to the top two teams in the Freeman Awards competition.

not only in engineering and innovation, but also in working collaboratively.

"One of the most impressive things about these projects was seeing how the students worked together," Borboa said. "There was a lot of creativity and technical talent on display, but the teamwork really stood out. The students leaned on each other's strengths to solve difficult problems, and that kind of collaboration was a huge part of Andy's legacy and successful engineering."

This year's winning project was developed by UND students Brady Nelson, Joelle Heinz, Ethan Rasset and Matt Wahlers. The project concept itself came from local contractor Craig Knutson, who had experienced the problem firsthand on construction sites.

"Particularly on hot days when you have concrete that's setting up quicker than you want it to, your tools are the last thing that you get to at the end of the day," Knutson said. "A lot

of times it can be insanely hard to clean a tool, and sometimes you just have to abandon it."

The students' goal was to create a portable system that could quickly clean concrete tools without requiring hours of scraping, soaking or harsh chemicals. From there, the team produced a fully functioning prototype designed specifically for the demands of construction work.

"Basically, there are these ultrasonic transducers that are mounted to the tank," Nelson explained. "We apply power to those. It's going to vibrate the tank, which puts pressure waves in the water and that creates these little bubbles that pop. It's called cavitation. As those bubbles collapse, they generate enough force to break loose hardened cement stuck to submerged tools."

The results were impressive. Freshly coated tools could often be cleaned in under 30 seconds. Even tools left dirty for extended periods were still cleaned effectively.

The portable design was another major breakthrough. According to the team, the system currently runs between 30 minutes and an hour on battery power depending on the cleaning cycle being used.

For the students, the project offered something different from traditional classroom assignments.

"It's pretty cool to see something start from nothing and grow the whole year and see that the concept actually works and could potentially be a shelf product," Heinz said.

The ultrasonic cleaner was one of several notable projects showcased during this year's competition. The second-place entry came from UND chemical engineering students Madeline Vettel, Blake Kajewski and Aleece Devine, who developed a concept for producing boutique liquid hand soap from recycled cooking oil collected from Midwest restaurants. Their project explored the feasibility of transforming waste cooking oil into a profitable and environmentally friendly soap production process.

For Nelson, first place in the Freeman Awards served as validation for the team's work throughout the year.

"It's very special," Nelson said. "I was very proud of the work that the team had done beforehand. We've gotten a few compliments from our professors and faculty advisors about how far this has come, and it's very validating to be recognized externally for it as well. It's a very proud moment for us."

MINNKOTA JOINS NORTH PLAINS CONNECTOR UTILITY CONSORTIUM

On June 1, Minnkota joined the North Plains Connector project as the eighth member of its utility consortium. The cooperative has signed a non-binding memorandum of understanding (MOU) with North Plains Connector LLC, a wholly owned entity of Grid United, to secure 150 megawatts of capacity on the 3,000-megawatt, high-voltage direct current (HVDC) transmission line once it begins operations, subject to successful negotiation of definitive agreements.

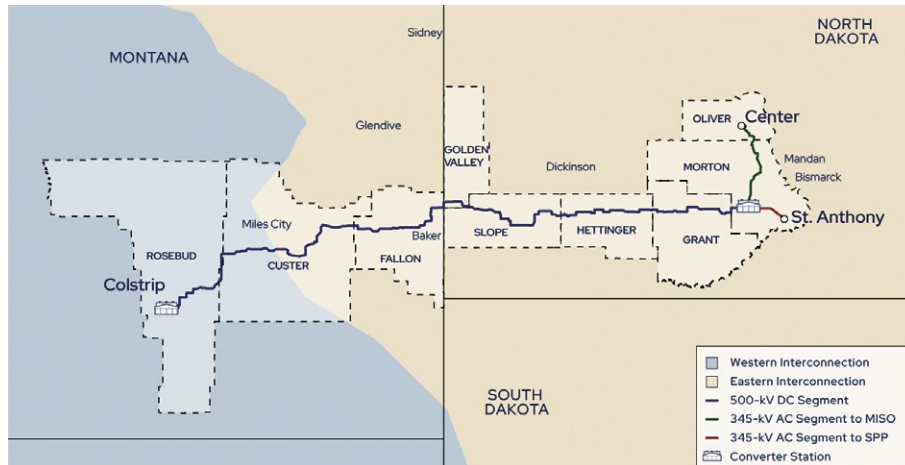
“The North Plains Connector represents a promising opportunity to strengthen the regional grid and support long-term energy reliability and flexibility,” said Mac McLennan, Minnkota president and CEO. “This project would create another strong transmission connection near Minnkota’s generation resources, expanding market opportunities for that power while also enhancing our ability to serve members with reliable, affordable electricity. Just as importantly, the line would create another pathway to bring power resources from the west into our

system, giving Minnkota additional flexibility to move electricity where it’s needed and respond to changing energy demands.”

Once completed, North Plains Connector will be the first HVDC transmission line in the United States to connect three regional electric energy markets – the Midcontinent Independent System Operator, the Western Interconnection, and the Southwest Power Pool – improving the reliability and resiliency of the electrical grid across the region while broadening market connections.

North Plains Connector represents a multi-billion-dollar investment in Montana and North Dakota and is expected to create over 800 jobs during construction. The transmission line will bidirectionally move electrical power of all generation sources based on market needs.

Construction on North Plains Connector is planned to commence in 2028, with expected operations in 2032. More information can be found at www.northplainsconnector.com.



MORE THAN \$13,000 RAISED FOR EMPLOYEE GIVING FUND



The generosity of Minnkota employees was on full display June 4 as they raised more than \$13,650 for local charitable organizations through the annual Minnkota Cares giving campaign and employee golf tournament. More than \$10,000 was contributed during the committee’s annual fundraising drive, with an addi-

tional \$3,650 raised at the Minnkota Cares Employee Golf Open later that evening. The Minnkota Cares Committee, formerly known as the Jeans Day Committee, is supported entirely through employee donations. Since 2011, the committee has contributed more than \$90,000 to charitable organizations throughout Minnkota’s service area.

MINNKOTA FEATURED IN NORTH DAKOTA WSI SAFETY VIDEO

North Dakota Workforce Safety and Insurance (WSI) recently highlighted Minnkota’s commitment to workplace safety in a new video produced as part of its Get Home Safe Initiative.

The video features interviews with Safety Manager Jason Uhler, Executive Vice President and Chief Administrative Officer Jami Hovet, and Senior Electrician Sean Metzger. Together, they discuss how careful planning, clear communication and strong teamwork help create a safer work environment across the cooperative.

WSI’s Get Home Safe Initiative focuses on preventing workplace injuries and encouraging organi-

zations to make safety a priority every day.



MINNKOTA, MEMBERS ACTIVE DURING MN LEGISLATIVE SESSION

The 2026 Minnesota legislative session concluded on May 18 after a year defined by divided government. With a tied House, a one-seat Senate majority and an election approaching, bipartisan support was required for nearly every proposal. Despite those challenges, Minnesota’s electric

cooperatives saw meaningful progress on key priorities while helping stop several costly proposals.

One notable development was movement on nuclear energy. Lawmakers approved a state study examining the costs, benefits and potential role of nuclear power in supporting affordability, reliability and emissions reductions. While Minnesota’s 1994 nuclear moratorium remains in place, the study represents the most significant step forward on the issue in more than 30 years and could help inform future decisions about the state’s energy mix.

The session was equally notable for what did not pass. Several proposals that would have imposed new costs, mandates or regulations on electric cooperatives failed to advance. Cooperative advocates worked throughout the session to explain how policies designed for large investor-owned utilities can have different impacts on locally governed, not-for-profit cooperatives. Bills affecting solar policy, affordability mandates and utility operations stalled, while priorities such as net metering reform saw little movement.

Protecting local decision-making and preventing unnecessary costs remains an important part of serving cooperative member-owners.



MINNKOTA WELCOMES MEMBERS FOR THIRD ANNUAL EDUCATIONAL EVENT

On May 14, Minnkota welcomed 20 employees from its member distribution cooperatives for the third annual Member Watts Up at Minnkota. Employees ranged from accountants to member services professionals to lineworkers. The experience and knowledge of each person in the room made the day of learning unforgettable.

Throughout the program, attendees explored Minnkota's power supply and power delivery operations, learned about economic development initiatives, and

received an overview of the cooperative's history. The day also included tours of Minnkota's control center and operations facilities, along with visits to two local substations, providing a firsthand look at the work that keeps power flowing across the region.

Minnkota is so thrilled to continue offering this award-winning experience to our members and their employees. Their excitement and engagement throughout the day was electric!

