

The Nodak Neighbor

July-August 2022

Official Publication of Nodak Electric Cooperative
www.nodakelectric.com

A Touchstone Energy® Cooperative 



An electric passion
for cars

Page 4

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Official Publication of the
Nodak Electric Cooperative, Inc.

746-4461 or 800-732-4373

www.nodakelectric.com

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The Nodak Neighbor (USPS 391-200) is published six times a year, February, April, June, August, October and December for \$1.00 per year by the Nodak Electric Cooperative, Inc., 4000 32nd Ave. S., Grand Forks, N.D. 58201-5944. Periodicals postage paid at Grand Forks, N.D., and additional mailing offices. POSTMASTER: Send address changes to NODAK ELECTRIC COOPERATIVE, INC., P.O. Box 13000, Grand Forks, N.D. 58208-3000.

Volume 72, No. 4
July-August 2022
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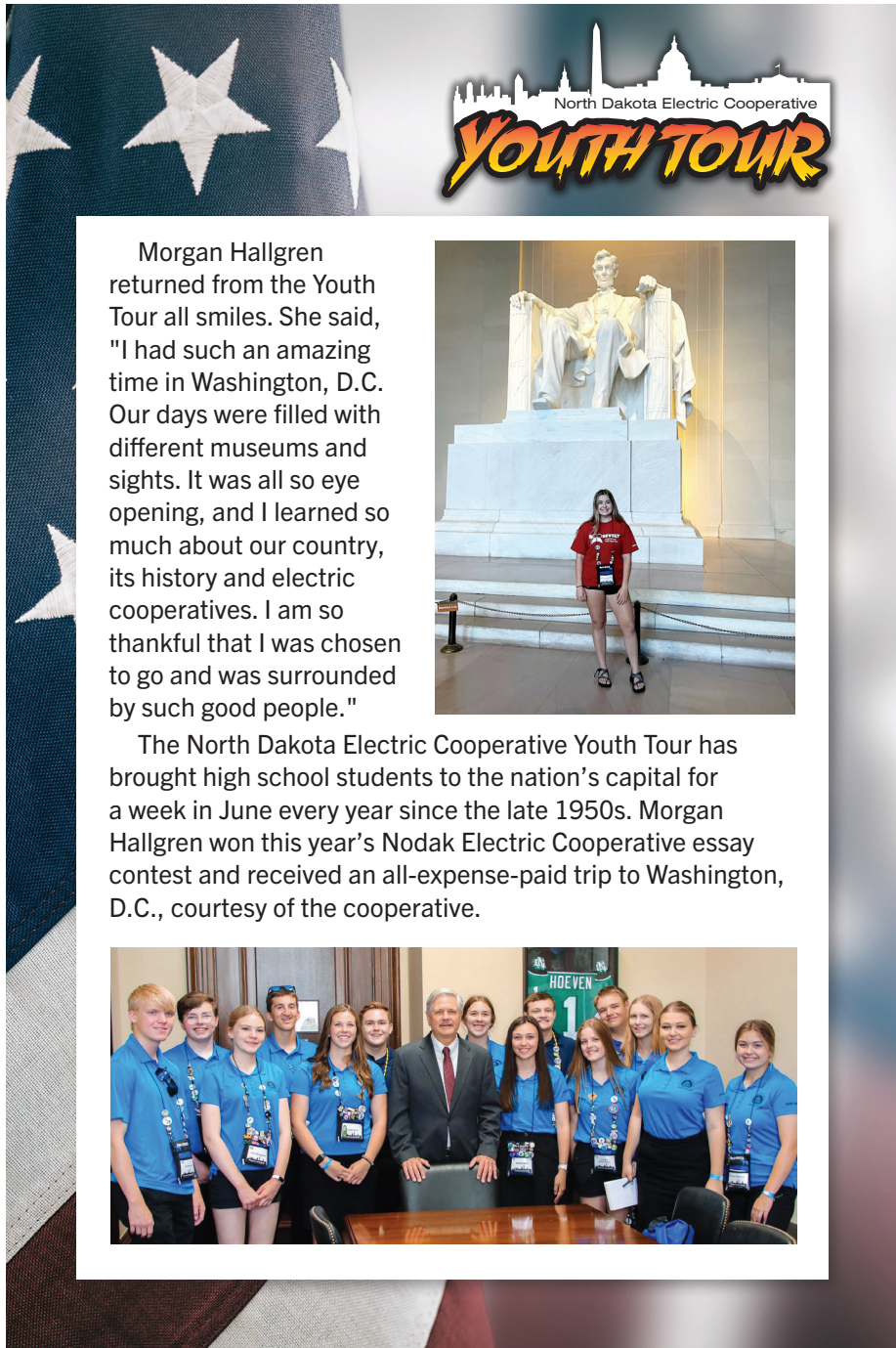
HAPPY
Labor Day

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

**Nodak Electric offices will be closed
Monday, Sept. 5, for Labor Day**

In case of outages, call
toll-free 1-800-732-4373

On the cover: The late Tony Telken (right) and his wife, Tracy, stand alongside their all-electric Ford Mustang Mach-E. Tony passed away shortly after we spoke to the Telkens about their electric vehicle experience – we share that conversation in his memory (and with the blessing of his wife) on page 4.



Morgan Hallgren returned from the Youth Tour all smiles. She said, "I had such an amazing time in Washington, D.C. Our days were filled with different museums and sights. It was all so eye opening, and I learned so much about our country, its history and electric cooperatives. I am so thankful that I was chosen to go and was surrounded by such good people."



The North Dakota Electric Cooperative Youth Tour has brought high school students to the nation's capital for a week in June every year since the late 1950s. Morgan Hallgren won this year's Nodak Electric Cooperative essay contest and received an all-expense-paid trip to Washington, D.C., courtesy of the cooperative.



Operation Round Up® thank-you note

What a wonderful day it was to receive the check for \$1,000 in the mail to help with Dean's hearing aids. It's so appreciated and a special blessing. His hearing aids have made life so much better for us and our family. We are so thankful for Leah Staven, RN, who told us of your program and helped us reach out to you. You have an amazing program – and again we thank you all from the bottom of our hearts.

– Dean and Leah Skjerven



*Mylo Einarson
President & CEO*

Balancing the energy transition

As I've noted before in past columns, the energy industry is undergoing a dramatic transformation as consumer demand for more renewable energy sources grows, and innovation and technology continue to advance. You're likely witnessing this energy evolution firsthand.

In driving across the region, you may have noticed a significant increase in the number of wind turbines dotting the landscape. Maybe you've heard about the impending changes in the transportation sector with most major vehicle companies announcing plans to offer more electric vehicles at more affordable prices.

Consumer interest in renewable energy is strong and growing. In addition, national studies indicate that consumers have an expectation that companies operate in an ethical and responsible manner – including when it comes to the environment.

To borrow a nautical analogy, it takes a long time to turn the direction of a large ship, and changing the energy mix we use to power homes and businesses doesn't happen overnight. While renewable energy use is increasing, we are still depending on traditional forms of energy to keep power flowing reliably to your home. After all, solar and wind energy are referred to as "intermittent" power since the sun does not always shine and the wind does not always blow. This fact, coupled with the grow-

ing demand for renewables, creates its own challenges. That's why there is real value in maintaining a balanced mixture of fuel types to ensure reliability and resiliency and meet the growing demand for electricity.

Our wholesale power currently comes from a diverse mix of coal, wind, and hydro sources. From a capacity perspective, that generation portfolio is comprised of 42% renewable sources. Transitioning to even more sustainable sources may be achievable and for some, even desirable, but it would not be done without decades of planning and a significant capital investment.

In this issue of the Nodak Neighbor, as well as on our website, you will find an article describing the instability of the region's electric grid. This instability has come about largely due to the replacement of coal, nuclear and natural gas baseload, and dispatchable

power plants with intermittent sources. The regional transmission operator has even predicted capacity shortfalls in the region this summer. This article highlights the reality of what we've been saying for a long time. If our nation transitions away from baseload thermal sources like coal and natural gas too quickly, reliability will suffer dramatically. At the end of the day, our mission will be to continue to do what we can to provide our member-owners with safe, affordable, reliable electricity.

At Nodak Electric, we have always put the good of our community and our members first. While our primary function is to provide reliable and affordable energy to our members, we are more than an electricity provider. Because we are a co-op, our mission is to enrich the lives of our members and to serve the long-term interests of our community. We feel we're doing both.

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Crew Foreman Ben Haarstad and Apprentice Lineworker Kaden Jaeger

“Concern for Community” is one of the cooperative principles that Nodak Electric is committed to. Our team demonstrated that commitment by helping out the Sertoma Club of Greater Grand Forks. They installed poles for a new archway in Sertoma Park.

Electric vehicles – more savings, more convenience, more fun

Nodak Electric Cooperative members know the benefits of off-peak charging firsthand

First published October 2021

Editor's note: Nodak Electric Cooperative was saddened to learn of the sudden loss of Tony Telken in 2021 – our hearts are with his family and friends. He was a terrific member of the community and of our co-op. Tony had a passion for cars, and we, with the blessing of his wife Tracy, hope to honor him by sharing that passion with our readers.



It's safe to say Tony Telken knows cars. He's the service manager at a Grand Forks Ford dealership, so he understands what makes a well-oiled machine. He also understands some of the best machines don't need oil. Or gas.

Early in 2021, Tony and his wife Tracy became the owners of an all-electric 2021 Ford Mustang Mach-E. They were one of the first 5,000 in the country to reserve one, allowing them to acquire the coveted First Edition model.

"Everything you read about it is true – it's spunky, and Tracy is a spunky driver," Tony said with a nod to his wife.

"Just a smidge," she replied, smiling.

By the time the electric vehicle (EV) rolled into their garage, these Nodak Electric Cooperative members were set up to plug in. Tony had called his cooperative after reading about their off-peak EV charging program and rebates, and Nodak sent a representative to the Telken home to see what they might need in their garage. The couple purchased a charger and an electrician stopped by to route the right wiring. It was a fast process, and the cooperative's \$500 rebate took care of the entire cost of the charging unit.

With a 250-mile range, the Telkens only have to charge the Mach-E once a week. They can do that overnight when electric demand is lower, earning them the reduced off-peak electric rate – approximately half of the standard rate. They barely even notice it on their bill.

"A tank of gas at today's rate would cost us about \$50. And we don't have that anymore. We've probably paid that much in electricity the whole time we've had it," Tony said. "It's huge savings."

The Telkens' EV has already conquered the Grand Forks winter. Each wheel on the all-wheel-drive model has its own electric motor that determines how the car should react. "The traction has been fantastic in the snow. You don't sit and spin. You GO," Tracy said. "I had that fear before, and I love it."

Tony knows auto manufacturers like Ford have spent a lot of time and investment perfecting EV technology for every kind of driver – from vehicle service managers to first-time drivers.

"It's way easier than you think, and the investment is minimal," he said. "It's so nice to drive right by the gas pump."

Nodak helps Northern Thunder Air Show take flight

Latest example of ongoing relationship between co-op and Grand Forks Air Force Base community

More than 13,000 visitors flooded the tarmac of the Grand Forks Air Force Base (GFAFB) on June 18, many totting camping chairs and rocking aviator sunglasses. Flight enthusiasts had traveled from across the region to experience the 2022 Northern Thunder Air Show, including Michael Auker and his family and friends from Devils Lake, N.D.

“We wanted to come look at a bunch of cool airplanes,” Auker said as he waited in line to see the inside of one of dozens of military planes staged on show grounds. “This really gets the kids involved and lets them see the stuff that they usually only see in the sky.”

The event, supported in part by Nodak Electric Cooperative and Minnkota Power Cooperative, was to feature food truck vendors, informational sponsor booths, and a full afternoon of physics-defying flights from airborne acts like the famous Thunderbirds. However, sustained high winds forced every set of wings to remain grounded.

“Even though the windstorm was a challenge,” said Lea Greene, chief of public affairs for the 319th Reconnaissance Wing, “it was incredible to open the gates to our friends and neighbors to show off their Air Force base, tour aircraft and look at some of the technology we use every day.”

“The GFAFB and the personnel living and working there have been such a big part of our community and the state of North Dakota over the years,” said Nodak Electric CEO Mylo Einarson. “Anything we can do to support them so they can focus on their mission is the least we could do.”

Nodak’s support of the GFAFB doesn’t stop with event sponsorship. The co-op has been a proud partner of the base for decades and, in 2018, signed a utilities privatization (UP) agreement with GFAFB to make Nodak the owner and operator of all of the community’s electric infrastructure. This partnership allows faster, safer, and

more thorough electric service to the base’s residents.

“Over the last several years since we’ve become the GFAFB’s utility privatization contractor, our already strong relationship has developed further on more of an individual level with the servicemen and women and their families,” Einarson said.

The base is hoping for better weather for their next air show event, which is tentatively planned for 2025. Until then (and beyond), Nodak will continue to be there to light up the lives of the folks who serve our country. “I’m excited about the future of the GFAFB, and am looking forward to Nodak being a part of it,” Einarson said.



Sounding the alarm on grid reliability

NORTH DAKOTA, MINNESOTA AT RISK OF POWER OUTAGES THIS SUMMER

America's electric grid has become increasingly unstable – and it could begin impacting Minnkota Power Cooperative's members this summer.

That's why Minnkota is joining many of our nation's grid operators and regulators in sounding the alarm on the vulnerabilities that are affecting power reliability. As the pace of change in the energy industry continues to accelerate, so does the risk of rotating power outages and other extended service interruptions. Minnkota's eastern North Dakota and northwestern Minnesota service area is no longer immune to the large-scale grid challenges that have been experienced in Texas and California in recent years.

Minnkota takes its responsibility to provide reliable, resilient and responsible electricity seriously. The cooperative has more than enough generating capacity to meet the demands of its members (including Nodak Electric) through its coal, wind and hydro resources. But Minnkota does not operate on the grid alone. Utilities across the Upper Midwest are connected through Midcontinent Independent System Operator (MISO). Emergency events experienced in other parts of the MISO region can and do have impacts back into the Minnkota system.

One of the most significant industry issues is the retirement of base-load and dispatchable power plants – including coal, nuclear and natural gas – without adequate replacements. Wind and solar make up the majority

of the new resources being added to the grid, but they are limited by the fact that they are only able to operate intermittently – when the wind is blowing or the sun is shining. While Minnkota supports moving toward a cleaner, more sustainable energy future, it is not something that can happen with the flip of the switch. It will take decades of planning and unprecedented technology development to achieve significant carbon reduction.

MISO expresses concerns

Minnkota is not alone in coming to these conclusions. MISO issued a dire warning in April that it does not have enough reliable power plant capacity on its system to meet its projected peak demand this summer. The result is an increasing risk of power outage events.

Minnkota both buys and sells surplus power in the MISO system, which estimates a 1,230-megawatt (MW) shortfall in power plant capacity to meet its reserve margin. For context, one megawatt-hour (MWh) is enough electricity to serve more than 800 homes with an hour's worth of power.

“Due in large part to decarbonization goals set by our members and the states in our region, our resource fleet is increasingly reliant on intermittent and weather-dependent resources,” said Wayne Schug, vice president of strategy and business development at MISO. “As this trend continues in the future, MISO needs to evolve the grid, our markets, and

our operational capabilities, which is just as complex as it sounds.”

In a recent interview in the Wall Street Journal, MISO CEO John Bear added to this point by saying, “As we move forward, we need to know that when you put a solar panel or a wind turbine up, it's not the same as a thermal resource.”

MISO's peak demand for electricity typically occurs in the summer months during the hottest days of the year. The organization is conducting training and exercises to prepare for worst-case scenarios and is also implementing lessons learned and best practices. Likewise, Minnkota's energy marketing team is working to ensure it's ready to respond to volatile market and reliability conditions.

NERC issues grim report

The North American Electric Reliability Corporation (NERC) – the federal regulatory entity responsible for the reliability of the nation's electric grid – is also expressing concerns heading into the summer season. According to NERC, MISO is in the “high risk” category, and has the potential of “facing capacity shortfalls in its north and central areas during both normal and extreme conditions due to generator retirements and increased demand.”

NERC's Summer Reliability Assessment notes that reliability challenges are being compounded by evolving demands on the power grid, which has grown increasingly complex as renewable energy assets are added.

“There’s clear, objective, inclusive data indicating that the pace of our grid transformation is a bit out of sync with the underlying realities and the physics of the system,” said John Moura, NERC’s director of reliability assessment.

Along with the changing power supply mix, NERC also identified extreme weather conditions, high seasonal demand for electricity, supply chain issues and cybersecurity threats as other risks impacting reliability.

What is Minnkota doing?

While there are challenges, Minnkota supports efforts to reimagine how electricity can be produced, delivered and consumed. But the implementation of these ideas must be met with caution and common sense. After all, there is a lot on the line. A resilient and reliable electric grid that affordably keeps the lights on is the cornerstone of the American economy and our national security. Any missteps in an energy transition of this magnitude can have irreversible consequences.

So, what can be done? Minnkota is only one of thousands of utilities

across the country, but it is taking its own steps to protect itself from power reliability challenges.

- **Training and education**

Minnkota’s employees are trained to respond to emergency grid events and continuously work to shield members from the volatility of the grid and markets. The cooperative also invests significant time in helping member-consumers, lawmakers, business interests and others in the general public understand the challenges the industry faces and the complexity in providing reliable power to the region.

- **Maintaining a diverse energy mix**

Minnkota’s energy portfolio consists of a diverse mix of coal, wind and hydro resources. Working together, these facilities help ensure 24/7 reliability on the Minnkota system. Coal-based facilities remain the workhorse of the system and are routinely available to produce power during the vast majority of each year.

- **Upgrading our power delivery systems**

Minnkota is building, upgrading

and replacing the power delivery resources that connect its communities. New technologies are being added to Minnkota’s grid to provide enhanced data and communication capabilities – all in an effort to respond more quickly to issues and improve overall reliability.

- **Continuous cybersecurity evolution**

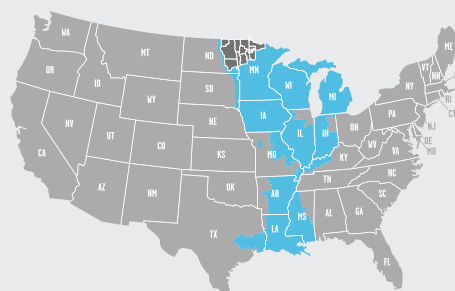
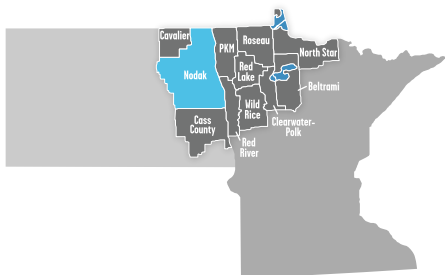
Minnkota continuously works to protect the electric grid from physical and cyber security threats. Energy experts in Minnkota’s Control Center monitor the grid 24 hours a day to ensure the safety of the cooperative’s employees, infrastructure and data.

- **Strategically utilizing demand response**

Minnkota has one of the most robust and effective demand response (also called off-peak) programs in the country. Through the program, Minnkota and its members can temporarily control electric heating, water heating and vehicle charging loads – shifting electrical demand when economical resources are not available.

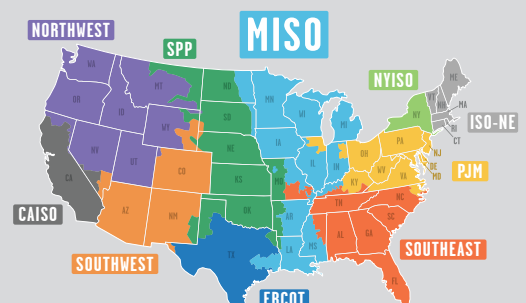
Understanding the grid

Where you fit into the Minnkota Power Cooperative system



Where Minnkota Power Cooperative fits into MISO (Midcontinent Independent System Operator)

Where MISO fits into the nation’s grids



POLE TOP RESCUE TRAINING

Nodak Electric pole top rescue training was held in June. Training is facilitated through NDAREC (North Dakota Association of Rural Electric Cooperatives).

Each year our lineworkers, along with the GFAFB airmen, review what to do in the case of an emergency that involves a fellow crew member. At this time, lineworkers re-certify their climbing skills and practice different emergency scenarios. If a lineworker was to have an emergency while climbing a pole, the training would ensure another lineworker would be able to rescue them, lower individuals safely to the ground, and begin first aid. Using different rigging combinations lets the lineworkers practice for a variety of situations. Nodak always puts safety first, and by performing safety training, the cooperative is assuring that our employees are properly trained to handle any situation.



Crew Foreman
Cory McKelvey



Journeyman Lineworker Trent Edens



Apprentice Lineworker Jordan Johnson,
Journeyman Lineworker Alex Schultz and
Crew Foreman Derek Sondreal



Grand Forks Air Force Base lineworkers