

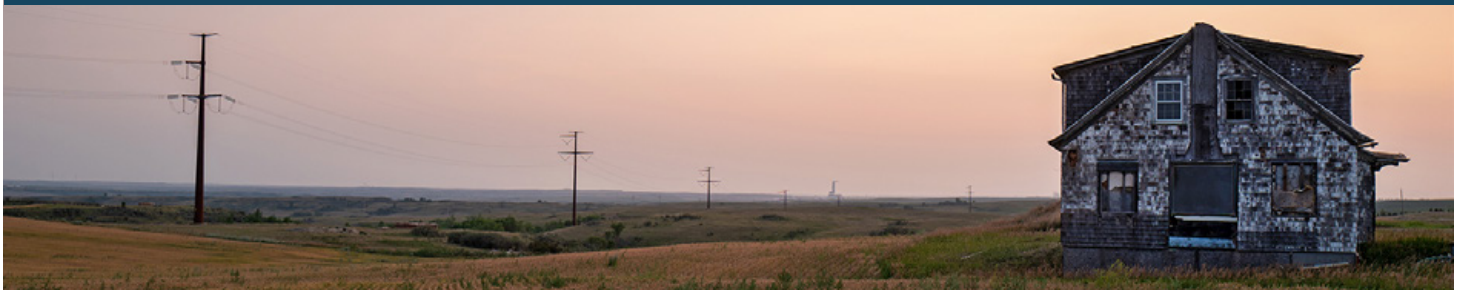
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SOUTHEAST

To improve the lives of our member-owners by providing reliable electric energy services while maintaining the very highest standards of performance and member satisfaction.



Josh Compton
General Manager

MANAGER'S REPORT

Is it me or does it always feel like summer seems to fly once we pass the Fourth of July? This past month we hosted booths at both fairs in Littlefork and Baudette as well as a digger truck in the Baudette Fourth of July parade. We've made substantial efforts at reengaging our members and we're exploring new ways to work across generations of members moving forward. It's very important to me that we reach out to newer members (and all members) and educate them as to who North Star is, their role as members and what sets us apart from the Xcel Energy or Minnesota Powers of the world. You hear this time and time again, but the cooperative business model is by far the most pro-member/consumer model in existence.

Switching gears, I want to discuss something you may have heard in the news or even seen correspondence from recently. MISO, short for the

Midcontinent Independent System Operator, who provides open-access transmission service and monitoring of the high-voltage transmission system in the Midwest, Manitoba, Canada and parts of the southern United States region, recently warned of potential energy shortfalls this summer, into 2023 and beyond. The reasoning behind this "potential energy shortfall" is due to a lack of firm generation, according to MISO.

Firm generation encompasses those energy sources which are controllable and reliable, in that they are not intermittent or reliant on environmental variables such as the wind and sun to produce electricity. These mainly include coal, gas and nuclear. As we continue to add more and more variable renewable resources such as wind and solar to our power supply mix, we run the risk of not being able to meet peak energy demand if and when a worst-case scenario plays out. Although the chances of this are unlikely, if there is indeed a max generation event, MISO has the ability to require Minnkota

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and other utilities to "shed load," which means cut power. Even though Minnkota has enough power to serve our members, the entire electric system is interconnected and they must follow suit if MISO instructs them to do so.

North Star, the other electric cooperatives within the Minnkota system and Minnkota have held numerous joint meetings and discussions surrounding this issue (251-27-009-01, James Holmquist). We've been mapping critical loads across our systems, developing communication plans to notify members if needed and are monitoring things on a daily basis. If we hear any new updates or developments, we'll be sure our members hear about them immediately. So, please continue to monitor our Facebook page and our company website.

Looking ahead, our next large-scale event will take place in October with the North Star Annual Meeting. More information on this will be available in the coming months. As always, if you have any questions or concerns about anything, I encourage members to call my cellphone directly at 240-499-4790 or the office. I'm always eager to speak with folks and want to ensure our members are well educated on the issues facing their cooperative.

Until next time,

Josh

COAL MINE

BOVINE

SHORELINE

COMBINE

TURBINE

GOAL LINE

INTERSTATE 29

BACK NINE

POWER LINE

GREEN PINE

SUNSHINE

FISHING LINE

This is your region.
These are your resources.

This is your reliable,
affordable, cleaner-than-ever electricity.

ALL IN
ALL-OF-THE-ABOVE ENERGY

SEE VIDEO

HIGHLIGHTS FROM THE BOARDROOM

These are the highlights from the June 1, 2022, regular board meeting. All board members were in attendance. In addition to routine actions, the board voted to approve board policy 5.27 Termination, to approve submission of an application to CoBank's Sharing Success program for a \$7,500 matching grant toward the LakeWood Regional Healthcare Foundation's purchase of a new ambulance, to appoint Director

King as the Cooperative Response Center delegate, to move the September board meeting to Aug. 30, 2022, in conjunction with the strategic planning session and to approve the purchase of a new bucket truck to be placed into service in the next 18-24 months due to a delayed delivery timeframe.

Staff reports included the safety report,

the financial report, CoBank's Sharing Success grant opportunity for 2022, banking transitions with the closing of the Baudette Wells Fargo branch, implementation of a new payroll and timekeeping system, the recent RUS loan fund advance, red and yellow zone load control, ripple receiver inspections, water heater sales, off-peak inquiries, rebates, the upcoming Member Appreciation Days, new services and upgrades, right-of-way spraying, the hiring of temporary summer employees, outages, the Baudette septic system, Norris Camp and federal and state energy updates.

Detailed minutes are available at the cooperative for member review. Regular board meetings are generally held the first Wednesday of every month. If you wish to speak with the board or have an item that you would like to have placed on the agenda, please contact the co-op at least two weeks in advance to be included on the agenda.



UPCOMING DATES/EVENTS

30
AUG

North Star will hold the following monthly board meeting on Tuesday, Aug. 30, if you wish to speak to the board.

05
SEPT

North Star Electric's offices will be closed on Monday, Sept. 5, in observance of Labor Day.

OFFICERS AND DIRECTORS

President
Steve Arnesen

Vice President
Michael Hanson

Secretary-Treasurer
Lorraine Nygaard

Directors
Shelley Spears
Randy Bergan
Tom Smith
Douglas King

General Manager
Josh Compton

DIGGING SOON?

One free, easy call gets your utility lines marked and helps protect you from injury and expense. Safe digging is no accident.

ALWAYS CALL BEFORE YOU DIG: 811 or 800-252-1166.
VISIT WWW.CALL811.COM FOR MORE INFORMATION.



LOOKING FOR SOMETHING?

Past issues of the Enlightener are on our website at

www.northstarelectric.coop

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 North Star) 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 baseload 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.

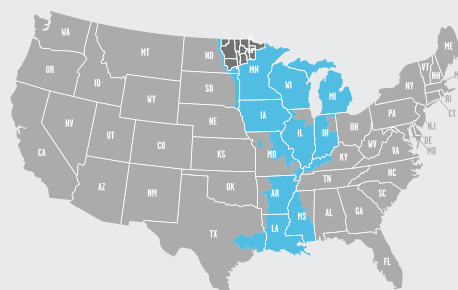
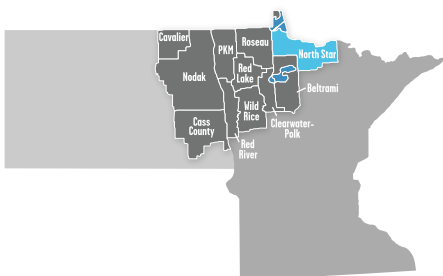
- **Strategically utilizing demand response**

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.

By Ben Fladhammer

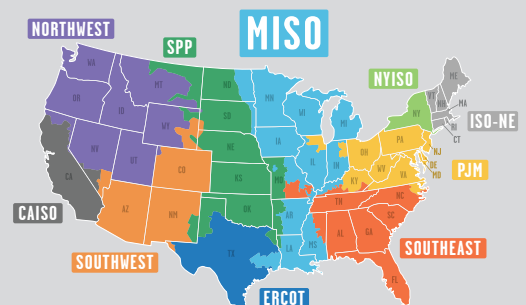
Understanding the grid

Minnkota Power Cooperative system



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

Where MISO fits into the nation's grids



PROBLEMS PAYING YOUR ELECTRIC BILL?

ENERGY
ASSISTANCE
MAY BE
AVAILABLE!

If you recently lost your job or had your hours cut, the following agencies may be able to help you with your electric bill. You may have never needed help before, but maybe today you do.

LAKE OF THE WOODS COUNTY SOCIAL SERVICES

206 8th Ave SE, Suite 200
Baudette, MN 56623-2895
218-634-2642

NORTHWEST COMMUNITY ACTION COUNCIL

PO Box 67
Badger, MN 56714-0067
800-568-5329

KOOCHICHING COUNTY COMMUNITY SERVICES

1000 5th St
International Falls, MN 56649-2243
218-283-7000

KOOTASCA COMMUNITY ACTION, INC.

Grand Rapids, MN 55744-3984
Toll free 877-687-1163
Direct 218-999-0800
Fax 218-999-0220

ARROWHEAD ECONOMIC OPPORTUNITY AGENCY

703 3rd Ave S
Virginia, MN 55792
800-662-5711

STAFF REPORT – WATER LEVELS



Tim Pelach
Operations Manager

We only had a couple instances where the high water caused extended outages. We were able to make timely repairs when the water went down. In the Lake of the Woods area, the high water is still a concern as it hasn't gone down much over the past few weeks. I'm hearing lots of stories about debris in the water, so be cautious out in the boats.

I've been in touch with our right-of-way contractors and we'll probably see them sometime in September. The bulk of the work will be in the Littlefork and surrounding areas. The summer construction is running at a brisk pace now that the weather is cooperating and the ground is drying out.

We have a new employee here in the Baudette office with the addition of journeyman lineman Blake Huwe. He comes to us with cooperative experience and is settling in with the crew. That's all for now, Tim

Greetings, everyone. I'll start with the water issues that have faced many members in the Rainy Lake and Kabetogama areas. It's been a stressful couple of months for a lot of folks in those areas, but thankfully it looks like the water is receding in most places. We're seeing firsthand some of the damage that has occurred to parts of the electric system. The pictures below are a before and after of the same transformer and service point – quite a difference. We'll be starting an inspection program in an effort to assess the damage caused and repairs needed for the affected equipment (429-03-012-02, Anthony Burke). If you notice something obviously wrong with the equipment, please call the office and let us know as this will take some time to complete.



BEFORE



AFTER

Fair Prize Winners!

Littlefork Fair

GRAND PRIZE	\$25 BILL CREDIT	\$25 BILL CREDIT	\$25 BILL CREDIT
Justin Dunbar	Sue Cole	Russell Marklund	Devon Hege



LITTLEFORK GRAND PRIZE WINNER
Justin Dunbar

Baudette Fair

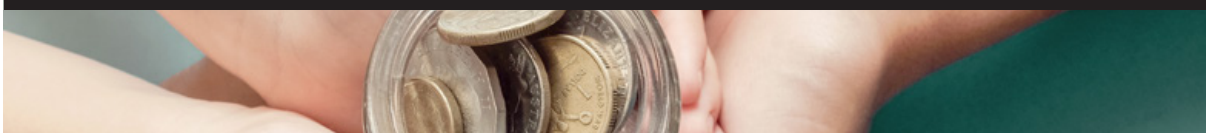
GRAND PRIZE	\$25 BILL CREDIT	\$25 BILL CREDIT
Mike Hovde	Lyndon Anderson	Rodney Boots
\$25 BILL CREDIT	\$25 BILL CREDIT	
Leah Larson	Michael Gubbels	



BAUDETTE GRAND PRIZE WINNER
Mike Hovde



Patsy Olson, North Star Electric's billing coordinator (46 years of service), greets members at the fair booth.



OPERATION ROUND UP® HELPS LOCAL ORGANIZATIONS

The North Star Electric Community Trust board met in July to review the Operation Round Up® applications, which it received requesting funding for various programs. The board awarded \$11,250, so it was not an easy task selecting which groups would get funding and what amount they would receive. Many local programs and organizations benefit from Operation Round Up, a voluntary, member-driven fundraising program of North Star Electric Cooperative, Inc., that is designed to provide financial assistance for worthwhile projects and charities in the area. Donations are given to organizations to help make the area a more pleasant and safe place to live. All funds for Operation Round Up are contributed by the member-owners of North Star, and the money is placed into a trust fund that is separate from electric accounts. The trust is administered by its own board of directors comprised of people from across the area.

Operation Round Up directors are appointed by North Star’s board members and must be members of the cooperative. The cooperative’s general manager is a nonvoting member of the board.

Organizations from the area may apply for a donation from the Operation Round Up Trust. The applicant must be charitable in nature and be working to meet a need in our area. The Operation Round Up board meets twice a year and decides if an application meets the guidelines of the trust and if funds are available.

If a member chooses to be part of Operation Round Up, their bill is “rounded up” to the next highest dollar (664-36-008-23, Jed Chalupsky). For example, if a bill is \$96.47, the computer will round up the bill to \$97. The additional 53 cents will be placed in the trust and distributed to local charitable and community-based programs.

At the July meeting, \$11,250 in Operation Round Up funds was distributed to various qualifying programs and organizations throughout the area, including:

- **LOW Food Shelf** – Purchase food supplies
- **Big Falls Food Shelf** – Purchase of non-food stamp items
- **Northern Options for Women** – Organizational shelving/bins
- **Roosevelt Recreation Association** – Roosevelt ballfield and playground
- **LOW County 4-H** – LEGO robotics
- **Moose Creek Quilters** – Spreading the Warmth
- **Servants of Shelter of Koochiching County** – Back to school/work haircuts
- **Paws and Claws Koochiching County** – Pet medical emergencies
- **LSS Meals of MN** – Health-sustaining meals
- **LOW Senior Citizens Council** – Refrigerator replacement project
- **United Way of Northern MN** – Imagination Library
- **Littlefork Fire Department** – Entrance lighting
- **LOW Senior Boating** – Defibrillator for senior pontoon
- **Lake Kabetogama Fire Department** – Fire/rescue skid for UTV

HOME COOKING

Frozen Fruit Cups

Individual servings of this rosy-orange fruit blend are a refreshing and attractive part of brunch or a sweet and healthy summertime snack.

Prep Time	Thawing Time	Total Time	Servings
10 mins + freezing	10 mins	20 mins + freezing	10-12 servings



INGREDIENTS

- (1) 15.25-ounce can sliced peaches in heavy syrup
- (1) 20-ounce can crushed pineapple in its own juice
- 1 large or 2 small firm bananas

- (1) 12-ounce can frozen orange juice or orange-pineapple juice

INSTRUCTIONS

1. Put all ingredients through a food chopper and mix well in a bowl.

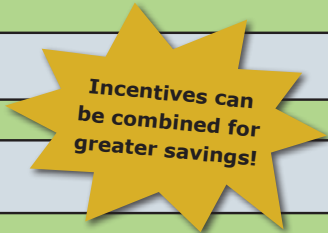
3. Pour 1/2 cup amounts into 6-ounce plastic cups.
4. Put cups on cookie sheet and freeze.
5. Thaw about 10 minutes before serving.

From the kitchen of Betty Berg.

Receive a \$20 energy credit if you submit a recipe and it is selected to run in a future issue of the Enlightener newsletter.

RESIDENTIAL ENERGY EFFICIENCY INCENTIVES

Save money and energy in 2022 with energy efficiency rebates (restrictions and requirements apply)

Equipment	Value of Electricity	PowerSavers
ELECTRIC HEATING EQUIPMENT		
Baseboard/cove heater, plenum heater, hanging unit heater, radiant underfloor heat	\$25/kW	
ELECTRIC THERMAL STORAGE HEATING		
Electric boiler, brick storage room unit, brick storage electric furnace/boiler, slab storage - electric cable	\$45/kW	
HEAT PUMPS		
Air-source heat pump (ASHP)	\$150/ton	\$300/ton (<17SEER) \$500/ton (>17 SEER)
Mini-split heat pump	\$150/ton	\$300/ton (<17SEER) \$500/ton (>17 SEER)
Supplemental heating source ASHP		\$500/unit
Ground-source heat pump	\$250/ton	\$200/ton (21.1 EER/open loop) \$400/ton (17.1 EER/closed loop)
THERMOSTATS		
Programmable thermostats		50% of purchase price, up to \$25
Energy Star® smart thermostats		50% of purchase price, up to \$50
HEATING, VENTILATION AND AIR CONDITIONING (HVAC) MEASURES		
Tune-up for central A/C (not window units)		\$25/unit
Tune-up for air-source/mini-split heat pumps		\$25/unit
WATER HEATERS*		
55 gallon or less	\$125/unit	\$125/unit
80-99 gallon	\$200/unit	\$200/unit
100 gallon or greater	\$300/unit	\$300/unit
New construction	\$100/unit	
Conversion from gas/propane	\$250/unit	
* NORTH STAR OFFERS AN ADDITIONAL \$100 REBATE FOR ANY NEW WATER HEATER PURCHASE GREATER THAN 40 GALLONS AND 240 VOLTS.		

OFFICE HOURS | 7:30 A.M. - 4 P.M. | MONDAY - FRIDAY

Baudette 218-634-2202 or 888-634-2202 | Littlefork 218-278-6658 or 888-258-2008

For credit card payment 855-874-5354 | Online billing info available via SmartHub app

Electrical after-hours emergencies 1-888-6OUTAGE (1-888-668-8243)

Email us at nsec@wiktel.com | Visit our website at northstarelectric.coop

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Like your cooperative for outage updates during the summer season and other useful information.

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