

**WINTER IMPACTS ON
GENERATION RESOURCES**
PAGE 4

**NEW YEAR, NEW ELECTRIC
TECHNOLOGY REBATES**
PAGE 5

**MINNESOTA CHICKEN
RECIPE**
PAGE 7

PROJECT TUNDRA SELECTED FOR U.S. DEPARTMENT OF ENERGY FUNDING

Second CO₂ storage permit received

Read more on page 2



NORTH STAR ELECTRIC COOPERATIVE, INC. MISSION STATEMENT

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.



Article written by Ben Fladhammer with Minnkota Power Cooperative, North Star's wholesale power provider

PROJECT TUNDRA SELECTED FOR U.S. DEPARTMENT OF ENERGY FUNDING

Project Tundra reached major milestones in the fourth quarter of 2023 that help position the project for a final decision in the upcoming year.

The U.S. Department of Energy announced on Dec. 14 that it has selected Project Tundra as a recipient of funding through the Carbon Capture Demonstration Projects Program. The funding award is under negotiation for up to \$350 million.

"We're grateful that the Department of Energy recognizes the importance of developing carbon capture systems and is positioning the United States to be a leader in the advancement of this critical clean energy technology," said Mac McLennan, Minnkota president and CEO. "Innovation is our path forward through the energy transition. Project Tundra has the potential to help pave the way toward a future where electric grid reliability and environmental stewardship go hand in hand."

The project also received approval of

a permit on Oct. 4 that will provide additional space to safely and permanently store carbon dioxide (CO₂) near Center, N.D. The Dakota Carbon Center West storage facility has the capacity to store 122 million metric tons of CO₂ over a 20-year period. Combined with the already permitted Dakota Carbon Center East facility, Project Tundra has the capability to store 222 million metric tons of CO₂ over two decades in Oliver County.

The vision for Project Tundra is to advance next generation carbon capture and storage technologies at the Milton R. Young Station, a power generation facility located near Center, N.D. The project is being developed by Minnkota Power Cooperative, TC Energy, Mitsubishi Heavy Industries and Kiewit and its affiliates.

Through Project Tundra, up to 4 million metric tons of CO₂ are planned to be captured annually from the Young Station and stored in geologic formations

approximately one mile underground near the plant site. If Project Tundra moves forward into construction, it will be the largest post-combustion CO₂ capture project in the world.

"We remain grateful for the strong support we've received from area landowners, the city of Center and Oliver County," McLennan said. "The science has shown that we have ideal geology to store CO₂ in the region, but none of that matters if we don't build and maintain relationships with the people in the area. We look forward to continued engagement with these stakeholders as Project Tundra moves ahead."

Project Tundra is currently in its final development phase. The completion of advanced engineering and design work on the carbon capture facility is scheduled for the spring of 2024. A final decision on whether to move forward with the project is expected in mid-2024.

HIGHLIGHTS FROM THE BOARDROOM

These are the highlights from the Nov. 1, 2023, regular board meeting. All board members were in attendance. In addition to routine actions, the board voted to approve delegate and committee appointments for 2024, and to accept the audit report presented by CliftonLarsonAllen LLP.

Staff reports included the safety report, the monthly financial report, the 2024 budget preparation, work order inspections on projects completed over the last year, the Cold Weather Rule now in place, the new 2024-2027 construction work plan, new services, service upgrades,

service retirements, the Birchdale cable replacement project, contracted right-of-way clearing from Williams to Warroad, the new Roosevelt substation, outages, the anticipated delivery timelines for two replacement bucket trucks, summer load control reporting, ripple receiver inspections and repairs, a new solar installation, Generlink transfer switch installations, generator sales, the completion of the Littlefork pole yard fencing project, updates to the Littlefork sign and security camera system, and the future annual meeting format (783-29-020-02, Jenny Herman).

Auditor Craig Popenhagen from the firm CliftonLarsonAllen LLP was also a visiting guest at the meeting by teleconference. He presented the favorable audit report for the year ending July 31, 2023.

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.

NOTICE TO COGENERATORS

In compliance with Minnesota Adopted Rules Relating to Cogeneration and Small Power Production, chapter 7835, North Star Electric Cooperative is required to interconnect with and purchase electricity from cogenerators and small power producers that satisfy the conditions of a Qualifying Facility. North Star has available and will provide free information to all interested members regarding rates and interconnection requirements. An application for interconnection is required for a Qualifying Facility to interconnect and operate in parallel with the cooperative's distribution system and is subject to approval by the cooperative. For more information, please call Kevin Holen at **218-634-2202**.

STATE LAW FOR ACTIVE DUTY MILITARY

State law offers active military personnel additional payment options for their electric bills. The law covers disconnection, payment arrangements, appeal and annual notice to cooperative members. Similar to the state's Cold Weather Rule, an application must be completed and income guidelines exist. It's available for active duty military personnel, deployed or completing a permanent duty station change.

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
Kevin Holen

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

Winter impacts on generation resources

Winter has a way of slowing us down. We have to set aside time to shovel the driveway, drive slowly on icy roads and bundle up the kids with extra warm layers. It's no different for electric generation resources. They all have an Achilles heel in the winter – some more detrimental than others (251-35-006-01, Jim Ney Jr). Minnkota Power Cooperative (North Star Electric Cooperative's power supplier) uses a diverse mix of several resources to ensure a reliable power supply during the coldest, darkest months.



Coal*

Winter impacts:

- In extreme cases, blizzard-like conditions may halt coal extraction and delivery to the power plant.

The good news:

- Many northern coal-fired power plants like Minnkota's Milton R. Young Station are mine-mouth, which means transportation to the plant is minimal (and a couple of weeks of coal is stored directly onsite in case of interruption). These plants are also fully winterized and prepared for subzero temperatures.



Natural Gas

Winter impacts:

- Gas supplies may be diverted to home and business heating during extended cold snaps.
- Natural gas generators, wellheads and pipelines face operating challenges during extreme cold.

The good news:

- Natural gas is often stored in underground reservoirs, which are less susceptible to extreme cold.



Hydro*

Winter impacts:

- Rivers and reservoirs can quickly ice up, and that ice buildup can slow water intake and affect turbine performance.
- In rare occasions, extreme cold may lead to reduced water flow due to frozen or reduced precipitation.

The good news:

- Hydropower is generally less affected by extreme cold compared to other forms of energy generation, as long as water flow is maintained.



Solar

Winter impacts:

- Shorter winter days mean fewer hours of sun hitting the solar panels.
- Snow and ice can accumulate on the solar panels, reducing overall generation.

The good news:

- Solar panels can still generate some power in freezing temperatures, but efficiency decreases significantly.



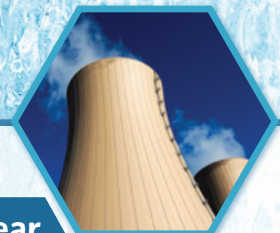
Wind*

Winter impacts:

- Wind turbines can go into shutdown mode when temps drop below -20 degrees.
- Blade icing can decrease a turbine's ability to catch wind efficiently.

The good news:

- Cold weather packages can be added to wind turbines, but they add cost and lower efficiency.



Nuclear

Winter impacts:

- Nuclear plants often use rivers or lakes for cooling purposes, and those water intake and discharge systems may freeze up if not weatherized.

The good news:

- Cold weather can enhance the efficiency of nuclear cooling systems by providing a cooler environment for heat exchange during fission.

*Found in Minnkota's power supply portfolio

NEW YEAR, NEW REBATES!

Word has it that 2024 is going to be a great year to electrify your life – and North Star Electric Cooperative is going to be here to help you do it! We have a new menu of rebates on the most popular electric technologies just in time for your New Year's resolution to **SAVE MONEY**.

TECHNOLOGY (ON OFF-PEAK PROGRAM)

EXPANDED IN 2024!

Electric Vehicle (EV) Charging Equipment – Includes:

Light-duty (charger for sedans, SUVs, <3/4-ton vehicles) **\$50 per kW**

Medium-duty (charger for 1- to 2-ton trucks, vans, buses, etc.) **\$50 per kW**

Heavy-duty (charger for >2-ton trucks, vans, buses, etc.) **\$50 per kW**

Electric Heating Equipment – Includes:

Air-source heat pump or mini-split heat pump* **\$150 per ton**

Ground-source heat pump **\$250 per ton**

Plenum heater
Baseboard heater/cove heater
Forced-air furnace
Hanging/wall unit heater
Radiant underfloor heat **\$25 per kW**

Electric boiler
Brick storage room unit or furnace/boiler
Slab storage - electric cable **\$25 per kW**

Water Heating Equipment – Includes:

55 gallons or less **\$125 rebate**

56-99 gallons **\$200 rebate**

100 gallons or greater **\$300 rebate**

- Additional \$100 for new building construction
- Additional \$250 available for conversion from existing natural gas or propane to electric water heater

*Air-source and mini-split heat pumps do not need to be part of an off-peak heating system to be eligible for this rebate.

2024 MAX REBATE

\$750
\$1,500
\$2,250

\$1,500

\$500

Start the new year right by learning more about North Star's off-peak program options. Just call our friendly member services team at 218-634-2202 or browse the technology options at ValueOfElectricity.com!



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 – NO RATE INCREASE PLANNED IN 2024



Robyn Sonstegard
*Manager of Finance &
Administration*

As we finish up our 2023 financial reports, I'm pleased to report that we are ending the year with better-than-budgeted margins. This is despite the fact we sold fewer kWh throughout the year than we had projected. In February, these margins will be allocated to you, our members, based on the amount of electricity you purchased in 2023. We will use them for a time as working capital, and in future years they will be paid back to you when we process capital credit retirements.

No rate increase planned for 2024

As you may recall, we had an increase to the monthly fixed charge in April 2023. Our 2024 budget looks good this year with the same fixed and kWh rates, so we are not planning for any increase in 2024 (252-12-042-52, Tracy Sorrels). Minnkota's wholesale power pricing will remain the same next year also, which is the biggest factor helping us keep rates stable for our membership.

Sales tax exemption

If electricity is your primary source (meaning 50% or more) of residential heat, the off-peak portion of your bill is tax exempt from November through April. Most likely, we have a sales tax exemption form on file for you, so you don't need to send us one. But if you don't recall ever giving us a sales tax exemption form, please let us know so we can check our files. If you have questions about this subject, or any billing matter, please reach out to Brittany at **218-634-2202**.

Knowledge Scholarship

If you are a current member and a parent or guardian of a local high school senior, encourage them to participate in our Knowledge Scholarship competition this spring. The end of the school year will be here before we know it, and it gets to be a very busy time for senior students as they wrap up their high school careers. Please stay tuned to future Enlightener editions for more information and remind your senior students to watch and listen for school announcements this spring regarding this opportunity. Our scholarship competition is funded with unclaimed capital credits and is a great way for the cooperative to support youth throughout our service area. They will have the chance to win scholarships or cash prizes just for participating!

PARENTS OF HIGH SCHOOL SENIORS

If you are a current member and a parent or guardian of a high school senior, remember that along with encouraging your student to enjoy their last moments of high school, also encourage them to participate in our Cooperative Knowledge Scholarship competition this spring. This scholarship competition is funded with unclaimed capital credits and is a great way for North Star to support the youth throughout our service area. North Star will award one \$1,000 scholarship and four \$500 scholarships to the students who score highest on the test. Students scoring 60% or better on the test will be entered into a drawing for eight \$100 cash prizes. The odds are good based on the number of students who typically compete.



NORTH STAR ELECTRIC POLITICAL LEADERS

FEDERAL LEGISLATORS

President Joe Biden
The White House
1600 Pennsylvania Ave. NW
Washington, D.C. 20500
www.whitehouse.gov
202-456-1111

Senator Amy Klobuchar
425 Dirksen Senate Building
Washington, D.C. 20510
www.klobuchar.senate.gov
202-224-3244;
Fax: 202-228-2186

Senator Tina Smith
720 Hart Senate Office
Building
Washington, D.C. 20510
www.smith.senate.gov
202-224-5641

Congresswoman Michelle
Fischbach, U.S. House (7th
District)
1004 Longworth House Office
Building
Washington, D.C. 20515
fischbach.house.gov
202-225-2165;
Fax: 202-225-1593

Congressman Pete Stauber,
U.S. House (8th District)
145 Cannon House Office
Building
Washington, D.C. 20515
stauber.house.gov
202-225-6211

STATE OF MINNESOTA LEGISLATORS

Governor Tim Walz
130 State Capitol
75 Rev. Dr. Martin Luther King,
Jr. Blvd.
St. Paul, MN 55155
651-201-3400

Minority Leader
Senator Mark Johnson (01, R)
2401 Minnesota Senate
Building
St. Paul, MN 55155
651-296-5782
sen.mark.johnson@senate.mn

Senator Steve Green (02, R)
2319 Minnesota Senate
Building
St. Paul, MN 55155
651-297-8063
sen.steve.green@senate.mn

Senator Grant Hauschild
(03, DFL)
3111 Minnesota Senate
Building
St. Paul, MN 55155
651-296-1789
sen.grant.hauschild@senate.mn

Representative Matt Grossell
(02A, R)
371 State Office Building
St. Paul, MN 55155
651-296-4265
rep.matt.grossell@house.mn

Representative Matt Bliss
(02B, R)
311 State Office Building
St. Paul, MN 55155
651-296-5516;
Toll Free: 877-838-5537
rep.matt.bliss@house.mn

Representative Roger Skraba
(03A, R)
221 State Office Building
St. Paul, MN 55155
651-296-2190

CURRENT ELECTRICAL INSPECTORS

State law requires that every new electrical installation in any construction, remodeling, replacement or repair shall file a certificate for inspection and be inspected by a Minnesota electrical inspector. For more information, go to the Minnesota Department of Labor and Industries website (dli.mn.gov) and go to the electrical page.

ST. LOUIS and KOOCHICHING COUNTIES

Keith Tillotson
218.245.9087

Call to set up an appointment
7 a.m. - 8:30 a.m., Monday - Friday

LAKE OF THE WOODS and ROSEAU COUNTIES

Ronald Ditsch
651.368.2195

Call to set up an appointment
7 a.m. - 8:30 a.m., Monday - Friday

HOME COOKING

Minnesota Chicken

This simple chicken recipe is packed with flavor with ranch seasoning and sweet and tangy banana peppers – perfect for those busy weeknights.

Prep Time	Cook Time	Total Time	Servings
10 mins	40 mins	50 mins	4

INGREDIENTS

- 4 chicken breasts
- 1 package ranch dip mix
- 1 jar banana peppers, *reserve juice*
- 1 stick of butter, *cut into pieces*
- 1 package shredded mozzarella cheese

INSTRUCTIONS

1. Place chicken breasts in a 9x13 baking dish.
 2. Top chicken with banana peppers and some of the juice from jar.
 3. Dot with the pieces of butter and sprinkle all over with the ranch dip mix. Top with shredded mozzarella cheese.
 4. Cover dish with foil and bake at 350° until cooked through.
 5. Serve with your choice of rice and remaining sauce from the pan.
- From the kitchen of Ellen Breneman.*



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

COMMITMENT TO COMMUNITY

North Star Electric Cooperative donates unclaimed capital credits to local charitable programs and organizations



Mike Hanson, North Star Electric board director (*left*), presents an unclaimed capital credit check to Cori Horton, associate director with the Koochiching Historical Museum.

"Commitment to community is a driving force behind your cooperative as we support programs that improve the lives of those who live in the communities we serve."

UPCOMING DATES/EVENTS

07
FEB

North Star will hold its next monthly board meeting on Wednesday, Feb. 7. Please contact us ahead of time if you would like to be added to the agenda.

06
MAR

North Star will hold the following monthly board meeting on Wednesday, March 6. Please contact us ahead of time if you would like to be added to the agenda.

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 winter season and other useful information.

 [/northstarelectric](https://www.facebook.com/northstarelectric)

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