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ANI PHARMACEUTICALS

GROWTH AND EFFICIENCY FOR THE COMMUNITY

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NORTH STAR ELECTRIC COOPERATIVE, INC. MISSION STATEMENT

To improve the lives of our member-owners and community by responsibly providing clean, affordable, electric energy and other beneficial services while maintaining the very highest standards of performance and member satisfaction.



Ann Ellis
General Manager

MANAGER'S REPORT – NEVER QUIT LEARNING

Save the date – tour the wind, hydro and coal generators

We are returning to the shortened version of what we call the “Center Tour” to

accommodate those who cannot be away for three days. If you are interested in where YOUR electricity comes from and you'd like someone to chauffeur you there, plan to join us June 16 and 17.



Scholarships for high school seniors



Start prepping your student now for North Star's Co-op Knowledge Scholarships and drawings totaling \$3,400. The study guide is on our website under FAQ's & Info, and here is a sneak-peek question:

Q. Does electricity sit on the power lines until it is needed?

Circle the only correct answer.

- a) No
- b) Yes
- c) Yes

(Note: Electricity does NOT just hang around on the power line until you need it. Unlike gas in your propane line, electricity must be used or stored at the moment it is generated.)

Cleaner air even with economic expansion, 1970 to 2018

Between 1970 and 2018, the combined emissions of six common pollutants – particulates, sulfur dioxide, nitrogen oxides, carbon monoxide, lead and volatile organic compounds – dropped by 74%. This progress occurred while the U.S. economy grew nearly three times, Americans drove more miles and population and energy use

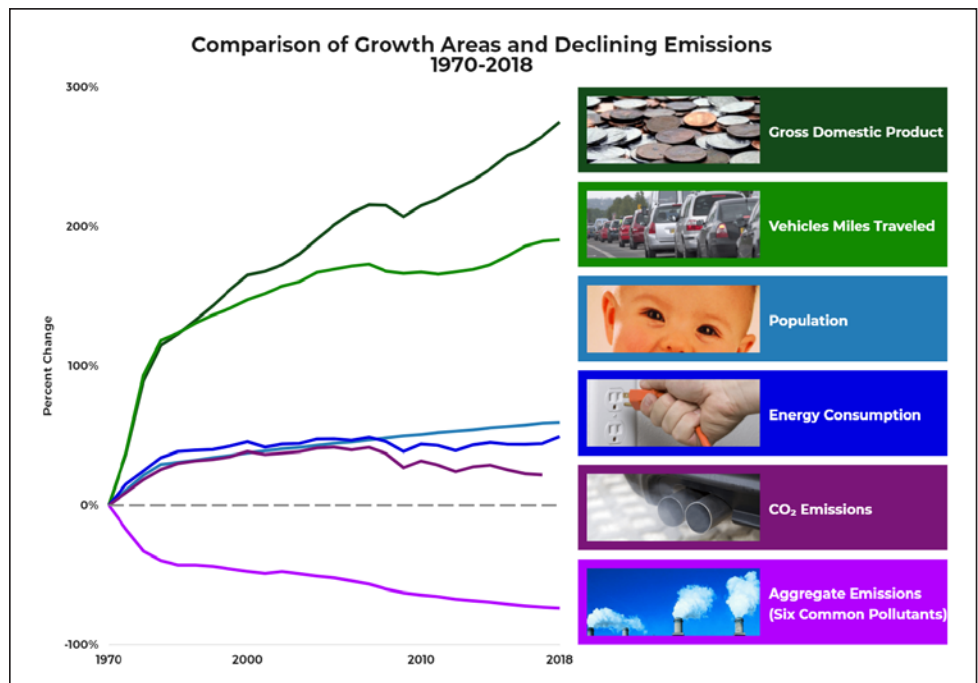
• Air pollution is declining, while the economy has nearly tripled.

• Electricity must be consumed at the moment it is generated.

• Visit the plants where YOUR electricity is generated.

increased. Keep in mind that the average retail rate was 1.7 cents/kWh in 1970 (7 cents after adjustment for inflation). The nation's average retail rate is now 13 cents, so this progress has a price.

At your service we remain ... Ann



Source: U.S. Environmental Protection Agency annual “Air Trends report”

HIGHLIGHTS FROM THE BOARDROOM



These are the highlights from the Dec. 4, 2019, board meeting. All board members were in attendance. In addition to routine actions, the board voted to approve the 2019 Electric Load Forecast Study.

Staff reports included the safety report, the review of several policies, the review of the 2020 budget (which includes no rate increase), the financial report, demand response testing, corrected non-shedding off-peak load, rebates, new services, upgrades, right-of-way clearing, AMI (Advanced Metering Infrastructure) installations, staking construction work plan projects, outages and the future of the local M-State Lineworkers' Training

Program. A visiting guest to the meeting was Alison Deelstra, regional vice president of National Rural Utilities Cooperative Finance Corporation (NRUCFC). She presented North Star's 2018 Key Ratio Trend Analysis (KRTA) comparing North Star's financial performance to the rest of Minnesota and the nation, as well as presenting evolving rate structures.

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 Manager Ann Ellis at least two weeks in advance to be included on the agenda.

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 \$400 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. Last year only 23 students competed. The odds are good.

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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.
VISIT WWW.CALL811.COM FOR MORE INFORMATION.



LOOKING FOR SOMETHING?

Past issues of the Enlightener are on our website at

www.northstarelectric.coop

STAFF REPORT – WORK PLAN PROJECTS



Marty Mollberg

Manager of Operations

Are you tired of shoveling snow yet? If so, fire up those snowmobiles and get out and enjoy the trails near you, or take a spin out on the ice and view the thousands of different-colored ice castles.

Here's a look at what's ahead at your co-op.

Automated meter reading project

The rollout of the new Landis+Gyr RF mesh meter reading system is going very well and ahead of schedule. We are around 90% completion, meaning the off-peak meter change-outs continue to be our biggest challenge (140-06-037-02, Marlan Pearson). So, if we have changed out your main meter, please call and make arrangements to get your off-peak changed, also.

Line maintenance

West-end crews will change out rejected poles that were tested

last fall out of the Warroad substation this winter. East-end crews have changed out poles in the Ray and Ash River Trail areas.

Right-of-way mowing widening

The crews will work on right-of-way clearing on Van Lynn Road and around the Ericksberg areas on the east end. The west-end crews will clear on County Road 2 north of Williams between Sandy Shores and Birch Beach on the main 3-phase line and on the Birch Beach tap line.

Work plan projects in 2020

We will upgrade 3.4 miles of 3-phase underground cable south of Baudette between the Pitt substation and Erickson Timber Products (Jake's Sawmill).

We will upgrade the overhead line and poles through Loman and will replace 2.7 miles of 3-phase underground going north from County Road 82.

The projects are being done due to aging infrastructure.

Until next time, stay safe!



ENERGY EFFICIENCY TIP OF THE MONTH

Let the sunshine in! For additional warmth, open drapes over windows that receive sunlight during the day. Close them at night, which can reduce heat loss from a warm room up to 10%.

Source: energy.gov

SAVE THE DATE FOR THE CENTER TOUR

June 16-17, 2020

We are returning to the shortened version of what we call the "Center Tour" to accommodate those who cannot be away for three days. If you are interested in where YOUR electricity comes from and you'd like someone to chauffeur you there, plan to join us June 16 and 17. Stay tuned for more details and sign-up information.



ENERGY SAVING COMPARISON

INCANDESCENT | 100 watt

31 days/month

Equals 24,800 watts [24.8 kWh]

At 12.2 cents/kWh + 6.875% sales tax

Equals \$3.23/month

LED | 15 watt

31 days/month

Equals 3,720 watts [3.7 kWh]

At 12.2 cents/kWh + 6.875% sales tax

Equals \$0.48/month

Savings per bulb per month with LED = \$2.75 | Cost of LED bulb after rebate = \$4

ANI PHARMACEUTICALS RECEIVES REBATE

ANI Pharmaceuticals received a rebate for the amount of \$49,666 after spending over \$500,000 in electrical (chiller) upgrades.

ANI Pharmaceuticals' containment facility in Baudette, Minn., installed a new high-efficiency chiller to replace an existing process chiller. The air-cooled screw chillers are used for processing cooling, manufacturing, packaging and HVAC.

The existing chiller has a nominal capacity of 272 tons at design conditions. The equipment runs 24/7, except for some downtime periods for maintenance.



Clayton Gubbels, North Star's member services master electrician, presents a check in the amount of \$49,666 to Seann Hawkins, ANI process and facility engineer.

"The new chiller will increase efficiency and still provide for future expansion of the manufacturing/packaging building, and possibly a new warehouse building."

The current chiller is locked out below approximately 32°F outside air temperature, at which point dry coolers take over to provide "free" cooling from ambient surroundings.

The new air-cooled screw compressor chiller has a nominal capacity of 348 tons at design conditions. It has two screw compressors driven by VFDs with 26 condenser fans, also driven by VFDs. Variable speed compressor

and condenser fan control allows the machine to efficiently run at part-load conditions. The new chiller will work down to an outside ambient temperature of -10°F.

The new chiller will increase efficiency, reduce electrical utility consumption and still provide for future expansion of the manufacturing/packaging building, and possibly a new warehouse building.

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 (654-32-010-04, Wallace Pelland). For more information, go to the Minnesota Department of Labor and Industries website (dli.mn.gov) and go to the electrical page.

LAKE OF THE WOODS, ST. LOUIS and KOCHICHING COUNTIES

Curt Collier
cgcoller67@gmail.com
218.966.5070

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

ROSEAU COUNTY

Ronald Ditsch
218.779.6758

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



PROBLEMS PAYING YOUR ELECTRIC BILL?

ENERGY ASSISTANCE MAY BE AVAILABLE!

If you are receiving a low income or are suffering from a temporary financial shortfall, the following agencies may be able to assist you with your electric bill. We urge you to contact them immediately to avoid disconnection if you feel you are eligible for aid.

LAKE OF THE WOODS COUNTY SOCIAL SERVICES

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



PLUG IN ... AND PLOW OUT

Add an electric snow blower to your winter tool kit

Your new partner for fighting Minnesota winters is light, compact, quiet and low maintenance – but packs a punch after a snowfall.

Electric snow blowers are becoming a sought-after option for those who want to quickly and easily clear driveways and sidewalks without the need for hauling a gas can. With an all-electric corded or cordless blower, homeowners can avoid the common challenge of storing a gas-powered machine with the fuel still in the tank (795-07-027-01, David Lapointe). Michael Emmons, store manager of Lowe's in Grand Forks, says his team frequently sees starting issues with gas-powered units as a result of improper storage.

"Electric snow blowers start with the push of a button and don't need as much maintenance as gas models. They're usually lighter and more compact," Emmons said.

Cordless blowers run on a powerful rechargeable battery and the corded models are fitted with an extension cord that remains flexible in the bitter cold. Both options ring up a smaller "fuel" bill

than a gas blower and don't require the same annual service maintenance.

Because of their efficient construction, electric blowers are incredibly easy to store when garage space is limited. Their smaller size often gives them a lower available clearing width and intake height than their gas counterparts, but that doesn't mean they can't get the job done. Emmons says electric blowers can throw snow up to 30 feet.

"An electric snow blower will work well on a single-car garage driveway and does well on sidewalks," he said. "Electric blowers are also very handy for clearing snow from house and garage roofs."

There are many electric models on the market and Lowe's stocks several at their stores with varying powers and price points. Emmons said one of his most popular models is the Kobalt 80-volt MAX cordless blower, which provides a 22-inch clearing width and costs \$399. However, he recommends doing some personal research or talking to a store associate to find the model that best fits your needs.

Popular electric snow blower models (courtesy of Lowe's)



Kobalt 80V MAX Cordless Snow Blower (\$399)

- 22-inch clearing path
- 30-foot snow discharge
- 2-speed auger for light/heavy snow



Snow Joe 40V iON Cordless Snow Blower (\$299)

- 18-inch clearing path
- Only 32 lbs.
- Moves 500 lbs. per minute



Greenworks 60V Cordless Snow Blower (\$149)

- 12-inch clearing path
- Clears up to 6-inch snowfalls
- 45 minutes of runtime

NORTH STAR ELECTRIC POLITICAL LEADERS

FEDERAL LEGISLATORS

President Donald Trump
The White House
1600 Pennsylvania Ave. NW
Washington, D.C. 20500
www.whitehouse.gov
president@whitehouse.gov
202-456-1111

Senator Tina Smith
309 Hart Senate Office Building
Washington, D.C. 20510
www.smith.senate.gov
202-224-5641
Fax: 202-224-0044

Senator Amy Klobuchar
302 Hart Senate Office Building
Washington, D.C. 20510
www.klobuchar.senate.gov
202-224-3244
1-888-224-9043 (Minnesota
office)
Fax: 202-228-2186

Congressman Pete Stauber
2366 Rayburn House
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Washington, D.C. 20515
www.stauber.house.gov
202-225-6211

Congressman Collin Peterson
2204 Rayburn House Office
Building
Washington, D.C. 20515
www.collinpetersen.house.gov
202-225-2165
Fax: 202-225-1593

STATE OF MINNESOTA LEGISLATORS

Governor Tim Walz
Capitol Building, Room 130
75 Rev. Dr. Martin
Luther King Jr. Blvd.
St. Paul, MN 55155
800-657-3717
Gov.elect@state.mn.us

Senator Tom Bakk
2221 Minnesota Senate Bldg.
95 University Avenue W.
St. Paul, MN 55155
651-296-8881
www.senate.mn/members

Senator Paul Utke
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St. Paul, MN 55155
651-296-9651
sen.paul.utke@senate.mn

Senator Mark Johnson
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sen.mark.johnson@senate.mn

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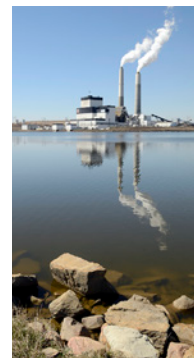
WHERE YOUR POWER COMES FROM:

CAPACITY

34% wind
8% hydro
55% lignite coal
3% other

ENERGY

19% wind
11% hydro
67% lignite coal
3% other



HOME COOKING

LARRY'S CHOCOLATE CAKE

Rich in chocolate flavor and easy to make, this cake will keep them coming back for more, and it's from Shirley's kitchen to yours.

Prep Time

15 mins

Cook Time

30 mins

Total Time

45 mins

Servings

16 servings

INGREDIENTS

- 3 cups sifted flour
- 2 cups sugar
- 2/3 cup oil (Mazola)
- 2 Tbsp. vinegar
- 2 tsp. vanilla
- 2 tsp. baking soda
- 1 tsp. salt
- 2/3 cup cocoa
- 2 cups cold water
- 2 egg yolks

For the frosting:

- 1 cup sugar
- 2 egg whites
- 4 Tbsp. water
- 1 Tbsp. white Karo syrup
- Pinch of salt
- 1 tsp. vanilla

INSTRUCTIONS

For the cake:

1. Mix all ingredients together in one bowl.

2. Pour into cake pan and bake at 350 degrees for 30 minutes.

For the frosting:

1. Mix all ingredients well on top of a double boiler.
2. Let boil vigorously for 3 to 5 minutes.
3. Remove from heat and beat until very stiff.
4. Cover the cake with the frosting once the cake has cooled.

Recipe submitted by Terri Poppitz and from the kitchen of Shirley Furcht.



COMMITMENT TO COMMUNITY

North Star Electric Co-op donates unclaimed capital credits to local charitable organizations.



Kevin Holen, North Star member services manager (left), presents an unclaimed capital credit check to Kabetogama fire chief Larry Warrington.



Lorraine Nygaard, North Star board member (right), presents an unclaimed capital credit check to Joan Nelson, representing Big Falls Community Education.

UPCOMING DATES/EVENTS

17
FEB.

North Star Electric Cooperative will be closed Monday, Feb. 17, in observance of Presidents' Day.

04
MAR.

North Star will hold its next monthly board meeting on Wednesday, March 4, if you wish to speak to the board.

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 info.

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