Questions on load control?

Check it out on the internet. Visit North Star's website: www.northstarelectric.coop.

(Click Load Group for Last Switching Cycle) Load Group Categories:

- 1 Short-Term Loads (water heaters)
- 2 Intermediate-Term Loads (storage heat)
- 3 Long-Term Loads (dual heating furnaces, back-up generators)
- 6 Summer-Only Loads (irrigation, cycled air conditioning)

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ant to follow load control activity in your area? Go to www.northstarelectric. coop and click on "Off peak control information." This web page contains the current status, today's control log, yesterday's control log, archives, load control plans and the last switching

cycle for each load group and double order number. On this site you can check the most current information on load control as well as past load control. Your specific load group information is on the lower left hand corner of your electric bill. Please remember this is Minnkota's current estimate for controlling load.

Control plans can and do change several times each hour.

Illustrated above is what Minnkota's website looks like for the current state of the load management system. All of load group 2.01 is controlled and double order 12, 13, 19, 20 and 24 of load group 2.02 are also controlled.

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Merry Christmas from all of us at North Star Electric





DECEMBER 2016

The Enlightener (USPS 024959), Vol. 61, No. 12 is published monthly by North Star Electric Cooperative, Inc., 441 St. Hwy 172 N.W., Baudette, MN 56623-0719. Subscription price \$1/year. Periodicals postage paid at Baudette, MN 56623. POSTMASTER: Send address corrections to The Enlightener, North Star Electric Cooperative, Inc., P.O. Box 719, Baudette, MN 56623-0719.

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www.northstarelectric.coop

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.

This institution is an equal opportunity provider and employer.

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 811 BEFORE YOU DIG.

Highlights from the BOARDROOM

These are the highlights from the board of directors' Nov. 2, 2016, meeting. All board members were in attendance. In addition to routine motions, the board voted to approve the 2016 Strategic Planning Goals Action Plan, to approve the 2017 board of directors budget, to approve the audit report for the year ending July 31, 2016, to move the April board meeting to April 6, 2017, to coincide with the Minnkota annual meeting date and to approve the delegate and committee appointments for the upcoming year.

Staff reports included the financial report, Conservation Improvement Plan (CIP) rebates, distributed generation, load management, three recent large commercial upgrades, contracted right-of-way clearing and widening in the Birchdale area, recloser and pole testing, work plan projects, outages, safety training, budgeting for the upcoming year, Minnkota's anticipated 2017 wholesale power rate increase and a summary of the first draft of North Star's budget.

Auditor Brian Stavenger from Eide Bailly was welcomed to the meeting via a phone and web conference. He presented the audit report for the year ending July 31, 2016. Visiting guest Teri Wallis from National Rural Utilities Cooperative Finance Corporation, one of our lenders, presented North Star's 2015 Key Ratio Trend Analysis (KRTA). Employee Brad Dolinski also visited with the board to give a report on the young member focus group meeting held in October at Baudette; a similar meeting will be held in Littlefork. The purpose is to learn what we can do to encourage more members to care about their co-op.

Board reports included an update from both the Minnkota and Square Butte board meetings.

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.

Beware of salespeople pitching energy savings from radiant barriers

The Minnesota Department of Commerce issued a consumer alert, encouraging Minnesota homeowners to think twice before installing radiant barriers in their attics. The Department's Division of Energy Resources (DER) has received reports of salespeople pitching radiant barrier products in flyers and at free dinners throughout Minnesota. The Commerce Department wants all local consumers to know that radiant barriers are not effective means to reduce heating or cooling loads in Minnesota homes.

"Many Minnesota consumers have been duped into installing radiant barriers based on false promises of substantial energy saving," said Commerce Commissioner Mike Rothman. "We strongly urge all consumers to be cautious, ask questions and explore other reputable means to make their homes and businesses more energy efficient."

Radiant barriers consist of a reflective film, usually aluminum, installed over the top of attic insulation in existing homes. They are sold as an energy-saving product, with claims

of significant reductions in both heating and cooling costs. However, their potential benefit is primarily in reducing air-conditioning cooling loads in warm or hot climates – particularly in southern states.

A report compiled by the Oak Ridge National Laboratory for the U.S. Department of Energy shows that the benefits of radiant barriers decrease significantly in northern climates. In southern cities like Miami, Florida, or Austin, Texas, radiant barriers could reduce a household's utility bill by as much as \$150 per year using average residential electricity prices. But in colder climate states such as Minnesota, where annual air-conditioning loads are considerably less, savings drop to only \$10 to \$40 a year.

"The price to install a radiant barrier can be as much as \$2,000 or more," Commissioner Rothman said. "But if the average household saves only \$20 per year, it would take 100 years to pay back your investment."

(continued on page 6) —



Ann Ellis General Manager

MANAGER'S REPORT

Electric rates under a Trump administration

Was electric rates one of the first thoughts that popped into your mind when you found out that Donald Trump would be our next president? Probably not, but it was on the top of my list. He

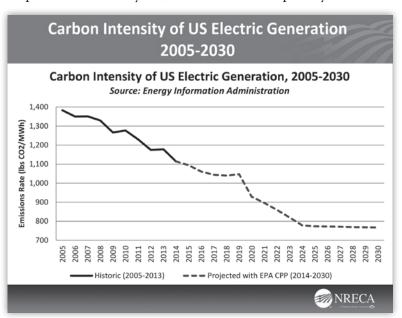
has been promising reduced government regulations, including the Clean Power Plan,

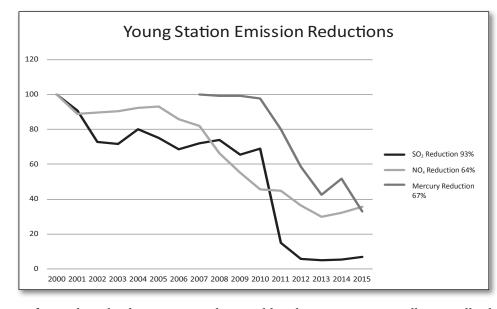
which is currently hanging in the balance after the U.S. Supreme Court said 'time-out.'

What's up? Or should I say DOWN?

I'd like to share some environmental things that have been happening without the Clean Power Plan. The graph to the right shows how the electric generation sector in the USA has positively impacted carbon emissions – about a 25 percent reduction since 2005.

The graph below shows Minnkota's emissions reductions of mercury, sulfur dioxide and nitrogen oxides. Notice that the bottom of the chart is ZERO emissions, meaning the progress is enormous. We are in total compliance with current ambient air quality requirements.





Your electric bill shows that these achievements all came with a cost, but what about the future?

What's next?

Looking forward, models suggest that the proposed Clean Power Plan, if implemented in its current form, would further increase wholesale power rates significantly. While we wait for a court decision, we are not idle. Minnkota is exploring several new carbon-reducing pathways. We are hopeful that moving

forward can be done at a pace that would make sense economically, yet still achieve the desired results.

Electric cooperatives have always, and will always, work hard with all elected officials in a nonpartisan manner because our mission is to keep the lights on and our members' electric bills affordable (444-36-001-02, Viola Mellum). We all really do have a lot in common, and when we can emphasize these commonalities, we can find agreeable solutions.

Electric generation falls to second place

I was recently at a meeting and heard a report suggesting that the electric generation sector is no longer the best target for reducing carbon emissions. The transportation sector appears to be taking first place.

All this information makes me very hopeful that your electric bill could stop suffering the consequences of one-size-fits-all mandates and regulations, because decisions relating to the generation (continued on page 4)

MANAGER'S REPORT

(continued from page 3)

of electricity are long term, expensive and usually irrevocable. What you can be sure of is that your cooperative will continue to work hard on your behalf.

LED and old-fashioned strings of Christmas lights don't mix

Stringing the above two types of lights together could cause a fire or ruin the lights. They can be plugged into the same surge strip, but they should not be mixed together in one long string.

Did you buy some new LED Christmas lights? We have rebates for them plus many other rebates! Check them out at www.nse.coop.

Merry Christmas

From all of us at your electric cooperative, we hope your holidays are bright (no pun intended), and especially blessed. From our homes to yours, have a very Merry Christmas!

Ann

Extremely cold temperatures will affect the operation of your rented security light



If you notice a problem with your security light this winter, such as intermittent failure or it remains dimmer than normal, you're not alone. Severe cold weather, specifically – 10 degrees or colder, may seriously affect the operation of security lights.

The problem involves the formation of a gas in the bulb, which can be hampered by the cold. Usually, when the weather warms up, the light will return to normal operation and will not have to be replaced.

If your security light is owned by North Star, we would appreciate it if you could bear with us during the coldest spells. If the light does not return to normal operation when the weather warms up, please notify our office and we will repair it for you (Baudette 634-2202 and Littlefork 278-6658).

SNOWMOBILERS

Beware of hazards! Respect property rights!

As snowmobiling becomes more popular, accidents are increasing. Very few accidents occur on Minnesota's trail system. Most accidents occur along roads and ditches. Obstacles encountered along roads and other cleared rights of way can be very dangerous, especially in low-visibility conditions.

North Star Electric Cooperative and other Minnkota Power Cooperative-associated systems have poles, guy wires, metal enclosures and pedestals installed on hundreds of miles of rights of way. When snowmobiling, be aware of these obstacles. Guy wires need special attention as they can be difficult to see.

Some snowmobilers are mistaking the private property where electric

transmission lines are located for snowmobile trails. North Star Electric and other Minnkota-associated

systems have been granted easements to build and maintain lines in these cleared areas, but the land still belongs to the landowner. Be sure to check with the landowners before snowmobiling on their property.

Enjoy snowmobiling in Minnesota, but keep safety in mind. Slow down, don't drink and stay alert for obstacles.

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 Minnesota Department of Labor and Industries website (dli.mn.gov) and go to the electrical page.

Lake of the Woods, St. Louis and Koochiching counties:

Curt Collier (cgcollier67@gmail.com)
Phone: (218) 966-5070
Call to set up an appointment between 7 a.m. - 8:30 a.m. (Mon. thru Fri.)

Roseau county:

Scott Stenvik
Phone: (218) 689-5406
Call to set up an appointment between
7 a.m. - 8:30 a.m. (Mon. thru Fri.)





ENERGY STAR® bulbs highly recommended

(Rebates will not exceed 75 percent of purchase price)

Complete this form, attach a copy of your purchase receipt and mail to: North Star Electric Cooperative, P.O. Box 719, Baudette, MN 56623 Attn: Wayne

(Rebates will be in the form of a credit on your electric account)

Name of retailer:

Replacing 40-60W bulb: (\$4/bulb rebate)

Number of bulbs: _

Replacing 75-100W bulb: (\$8/bulb rebate)

(\$8/buib repate)

Number of bulbs: _

STAY SAFE AND WARM THIS WINTER



he U.S. Department of Energy reports that heating a home typically accounts for 45 percent of energy bills, making it the largest expense for most consumers. Being aware of potential hazards and using what will be the most efficient for your needs can make a big difference in safety and comfort. Safe Electricity offers tips for heating your home in safe and smart ways.

<u>Furnace</u> – Check your furnace at least annually. Removing built-up debris can reduce the risk of fire and make your furnace run

more efficiently (121-25-001-07, Stephen H. Olson). Also remember to replace your furnace filter during the winter. Replacing a dirty filter will increase the air flow and make your home more energy efficient.

<u>Thermostat</u> – Turning the thermostat down a few degrees when you are away from home or sleeping also helps to reduce your monthly utility bill. To help you do this automatically, consider investing in a programmable thermostat, which can lead to a 10 to 15 percent reduction in energy costs.

<u>Space heaters</u> – Space heaters are not more cost efficient when used to heat more than one or two small areas. However, they are a smart option when needing to heat one room. Make sure that you consider safety first and purchase only certified models that have been tested by an independent laboratory. According to the U.S. Consumer Product Safety Commission, space heaters spark more than 25,000 residential fires each year. Always place your space heater on a steady surface away from foot traffic to prevent it from being knocked over, and be on the lookout for units with a tip-off switch.

<u>Electric blankets and heating pads</u> – Make yourself aware of manufacturer's instructions, and use the product only as it is intended. Never use an electric blanket that is wet or folded, and perform regular checks of the product to look for scorch marks or visible damage.

<u>Fireplaces</u> – Always make sure that your chimney is clear, and open the damper if there are warm ashes in the hearth that could lead to a dangerous build-up of poisonous gases.

Remember not to overlook small-scale changes to help you stay warm this winter. When possible, dress in layers, with clothes that are tight and close to the skin so that they can trap heat near the body. Switch the rotation of your ceiling fan so it circles in a clockwise direction, blowing rising hot air down. Additionally, use curtains to help block out the cold air when closed at night and to let in the sun's heat when parted during the day. For more information, visit **SafeElectricity.org**.

Energy saving comparison

(Incandescent vs. LED light bulbs)





Incandescent	LED
100-watt	15-watt
8 hours/day	8 hours/day
31 days/month	31 days/month
Equals 24,800 watts (24.8 kWh)	Equals 3,720 watts (3.7 kWh)
At 11. 9 cents/ kWh + 6.875% sales tax	At 11. 9 cents/ kWh + 6.875% sales tax
Equals \$3.15 per month	Equals \$ <u>0.47</u> per month
Savings per bulb per month	
with LED = \$2.68	
Cost of LED bulb after rebate = \$4 (at either North Star Electric office)	

If you know of any other energy saving device that will pay for itself this quickly, please let North Star know about it and we will have it in a future Enlightener.

Tamper-resistant outlets provide safeguard

lectricity can often appear much like magic to children. By flipping a switch or plugging an electrical cord into an outlet, appliances come alive and lights illuminate rooms. There are electrical hazards in the home that children need to be aware of, including electrical outlets. Safe Electricity provides steps that adults can take to help guard curious minds from an accident with an electrical outlet.

According to the National Fire Protection Association, approximately 2,400 children each year are shocked or burned severely after sticking items into outlets, and six to 12 of these shocks and burns are fatal. Most outlet-related electrical accidents occur with children, with 89 percent of the annual injuries occurring in children who are age 6 or younger, according to the National Electrical Manufacturers Association.

However, older children are at risk for electrical outlet accidents as well. News

(continued on page 6) –

Tamper-resistant outlets provide safeguard

(continued from page 5)



Channel 3 WREG in Memphis, Tenn., reported on an incident in which an 8-year-old child stuck a hair pin into a socket. In this case the resulting injury was minimal, as the boy received only a

burn on his hand and was reported to be alright after receiving treatment. However, the results of this type of accident can be much worse, including shock and electrocution.

You can help protect children by making sure your outlets are tamper resistant. Tamper-resistant outlets or tamper-resistant receptacles (TROs or TRRs) have shutters that stay closed unless a plug with two prongs is inserted into the outlet. Both springs on the shutters must be compressed at the same time to allow an object to gain access. If a child attempts to stick an object in the outlet, the shutter prevents the object from entering and no contact with electricity is made.

Since 2008, the National Electrical Code requires all new and renovated dwellings to be equipped with TROs. Therefore, if your home was built before 2008, there is a good chance your outlets are not tamper resistant.

TROs are strongly advised for household safety, but there are some other safety alternatives, including outlet caps or sliding covers. Outlet cover caps and sliding covers are simple and low-cost alternatives that cover up the outlet, however they are not fail-proof. Outlet caps can be lost and can pose a choking hazard for some children. Many children can also figure out how to remove the caps and sliding covers.

For more information on electrical safety, visit **SafeElectricity.org**.

Beware of salespeople pitching energy savings (continued from page 2)

It's also important to note that radiant barrier products have negligible benefit in reducing heating costs. It is unlikely that most Minnesota consumers would realize any measureable energy saving from radiant barriers in attics.

The U.S. Department of Energy (DOE) and the Minnesota Department of Commerce agree that, in Minnesota, implementing air sealing and adding conventional attic insulation is a cheaper and more effective means for saving energy than installing a radiant barrier. In fact, as attic insulation levels increase, the potential benefits from a radiant barrier decrease.

Sources: Minnesota Department of Commerce

Staff Report

I hope your winter season is off to a wonderful start! When you think of the Christmas and New Year holidays, you probably don't think about phone scams and web security. (Me either!) But, with the hustle and bustle of the approaching holidays, we don't want to be caught off guard. Here is some important information!

Scam alert

Recently, we have been hearing reports from other co-ops that scammers have been targeting both businesses and individual residents in Minnesota. An example would be a phone caller posing as a



Robyn Sonstegard Manager of Finance & Administration

utility employee, telling you they need payment on your account within a short amount of time or your home or business power will be cut off. Please remember, we will NEVER call you and ask you for your banking or credit card number for a payment over the phone. If you are suspicious of any call threatening disconnection without immediate payment, please hang up and call North Star Electric directly at 218-634-2202 or 888-634-2202. If you or someone you know becomes a victim of such a scam, it should also be reported to your local police department.

Web browser security

Cybersecurity is becoming more critical than ever before. You use web browsers not only to access news and social media, but also to access applications that can help you accomplish daily tasks, like North Star's SmartHub * website for online payments, and MyMeter for monitoring your daily usage and receiving texts or emails when your usage isn't what you expect.

We want to ensure that SmartHub and MyMeter are as secure as possible for our customers. This means that for a secure connection, these applications require the latest version of your preferred web browser, such as Google Chrome, Microsoft Internet Explorer, Mozilla Firefox or Apple's Safari. If you are not able to access SmartHub or MyMeter, navigate to the website of your preferred web browser to update to the latest and greatest edition.

Holiday wishes

This is the time of year where we should take extra moments to count our blessings (242-08-003-06, Randall Brynteson). May your holiday season be filled with the warmth, joy and love of family and friends.

Fixing up your home?

We can help.

Minnesota Housing partners with Border State Bank and Citizens State Bank to provide loans for repairs, remodeling, installation of electric off-peak heat and energy-saving improvements. The Minnesota Housing Fix Up loan program offers affordable fixed interest rates with loan amounts up to \$50,000.

Go green and save! Make energy-saving improvements to your home with a loan up to \$15,000. This loan has no income limit and no equity required. Plus, you'll save money with low interest rates.

Looking for energy-saving ideas? Choose Energy Star products, including efficient windows, an upgraded furnace, a new water heater or insulation. Contact your local bank to apply for a Fix Up loan today!



Housing

www.mnhousing.gov







Anna Stewart NMLS# 1003973 Roseau - 463-3888 Christine Modahl NMLS# 530663 Badger - 528-3255 Lisa Bergsnev NMLS# 504770 Greenhush - 782-2151

Electric heat rebates available Powerful

orth Star Electric is now offering Powerful Value rebates in addition to the PowerSavers Conservation (CIP) rebate program. These rebates are for the installation of new off-peak equipment or replacement of existing off-peak equipment. This is part of Minnkota Power's Powerful Value campaign.

Members can receive a rebate of \$20 per kilowatt (kW) of electric heat or \$100/\$200 per ton of heat pump equipment installed. The Powerful Value rebates are limited to \$600 total per off-peak meter. Please note that the Powerful Value rebates can be paired with the PowerSaver incentive to create an even larger rebate total.

The Powerful Value rebates are designed to assist members adding more off-peak electric heating equipment to our system. The qualifying equipment includes items such as plenum heaters, baseboard, cove, ETS, furnaces, boilers and airsource/ground-source heat pumps. This, in turn, will increase the system utilization or load factor, which is a measure of the efficiency of the

electrical system required to meet peak demand.

The higher our load factor, the lower the average cost per kWh delivered or sold by the system. Minnkota Power Cooperative, our wholesale power supplier, pays out these rebates. The PowerSavers incentives are designed to meet Minnesota legislative mandates to encourage residential and commercial members to save kWh by installing energy-efficient electrical equipment. These rebates/incentives are paid out by North Star Electric. As a member of North Star Electric, you can benefit from both of these programs, which can offset a portion of the equipment cost.

For more information, please contact North Star Electric's member service department at 218-634-2202. The rebate form for the PowerSavers rebates is available on our website at www.northstarelectric.coop or at our office. North Star Electric will complete the paperwork for the Powerful Value rebates when it inspects the new or replacement electrical heating equipment.

Electrical contractor continuing education sessions set for January, February



Minnkota Power Cooperative and the associated systems will again provide an opportunity for area electricians to obtain credits for license renewal by attending one of the six continuing education classes being offered throughout Minnkota's service area.

The registration fee is \$75 for eight code credits. Taking the class on multiple days will not qualify for 16 code credits. Online registration is preferred through **www.minnkota.com**. Registration should be completed by Jan. 12.

For residential building contractor continuing education workshops, contact your local home builders association.

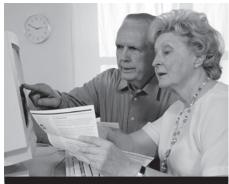
For more information about the program, contact Sue Black, Minnkota communications/member services specialist, at (701) 795-4292 or email questions to sblack@minnkota.com.

Jan. 17-18 **Alerus Center** Grand Forks. N.D.

Jan. 24-25 Cambria Hotel & Suites West Fargo. N.D.

Feb. 7 Eagles Club Bemidji, Minn.

Feb. 8 **Bigwood Event Center** Fergus Falls. Minn.



Problems paying your electric bill?

Energy assistance may be available!

If you are receiving a low income or 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 634-2642

Northwest Community Action Council

P.O. Box 67 Badger, MN 56714-0067 800-568-5329

Koochiching County Community Services 1000 5th St.

International Falls, MN 56649 283-7000

Kootasca Community Action, Inc.

2232 2nd Ave. E. P.O. Box 44 International Falls, MN 56649 283-9491 or 800-559-9491

Kootasca Community Action, Inc.

Grand Rapids, MN 55744-3984 Toll free 1-877-687-1163 Direct 1-218-999-0800 Fax 218-999-0220

Arrowhead Economic Opportunity Agency

702 3rd Ave. S. Virginia, MN 55792-2797 800-662-5711



