

NATIONAL LINEWORKER APPRECIATION DAY

Monday, April 8, 2019 | Remember to #ThankALineworker



Monday, April 8, is Lineworker Appreciation Day. Given the dedication of North Star Electric's linemen, both on and off the job, we encourage you to take a moment and acknowledge the many contributions they make to our local community. If you see their family members in the grocery store or out and about in the town, please offer them a thank you as well.

Front row: Preston Kennedy, lead lineman; Marty Mollberg, manager of operations; Darren Koschak, lead lineman. **Second row:** Cody Stuhau, journeyman lineman; Jesse Huot, journeyman lineman; Todd Thydean, line foreman. **Third row:** Glen Marcotte, line sub-foreman; Nick Horne, journeyman lineman; Tim Pelach, line foreman; Todd Higgins, line sub-foreman; and Nathan Zortman, journeyman lineman.

MANAGER'S REPORT

Ann Ellis, General Manager

Don't mess with my truck!

Guys and gals – how would you like it if you had to depend on someone you didn't know to drive you around in YOUR truck when THEY felt like it? And how would you feel if they were unreliable drivers, but you had no choice but to nervously sit in YOUR passenger seat while you write out YOUR check for the insurance, car payment, license and fuel?

Well, change the words "YOUR truck" to "YOUR power plant" and "when THEY felt like it" with "when the wind blows," and you get where I am going. So, take your "truck" back by speaking out to Gov. Tim Walz.

- Tell him you need RELIABLE electricity that doesn't cost more. Government renewable and environmental mandates and regulations have doubled your wholesale electricity costs since 2007. Ask him for no more increases!
- Tell him that every time the government creeps further into the business of locally controlled, member-owned rural electric cooperatives, the more expensive your electric bill gets.
- Tell him we are becoming decarbonized in a way that makes sense for us, but in a way that may not make sense for other utilities, and vice versa.

- Tell him you do NOT want him to sign a bill for a mandated increase in the renewable energy standard. Call 800-657-3717. Leave a voice mail if after office hours. Email using this link: <https://mn.gov/governor/contact>.

Your voice needs to be heard before they tell you that you need a brand new "truck" and TWO car payments.

(article continued on page 8)

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OFFICERS AND DIRECTORS

President Steve Arnesen
Vice President Michael Hanson
Secretary-Treasurer Lorraine Nygaard
Directors Shelley Spears, Randy Bergan,
Tom Smith, Bruce Sampson
General Manager Ann Ellis
Editor Wayne Haukaas

Office hours: 7:30 a.m. to 4 p.m.
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Baudette 218-634-2202 or 888-634-2202
Littlefork 218-278-6658 or 888-258-2008

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Electrical after-hours emergencies
1-888-6OUTAGE (1-888-668-8243)
or 634-2603
e-mail us at nsec@wiktel.com
Visit our website at
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' Feb. 6, 2019, meeting. All board members were in attendance. In addition to routine action, the board voted to appoint Steve Arnesen as the Minnkota representative and Mike Hanson as the Square Butte representative on the respective boards of directors, to approve the allocation of the 2018 margins (revenue in excess of expenses) to the cooperative members' capital credit accounts and to approve the transfer of final unpaid bills to uncollectible accounts.

Staff reports included the safety report, the financial report, billing demand measurements taken by Minnkota, rebates, distributed generation training, Operation Round Up, digger

and bucket truck inspections, a recent loan fund advance and the hiring process for a new master electrician.

President Arnesen, Director Hanson and General Manager Ellis reported on their recent visit with legislators in Washington, D.C., and Director Sampson reported on the Minnkota resolutions meeting he recently attended.

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.

Meter changeouts begin!

As you have read in previous Enlighteners, we will be installing a new AMI (Automated Metering Infrastructure) system. Here are some things you'll want to know:

- **When will I get my new meter?** This project to exchange 9,000 meters will take us a year to complete, but if you see new communications equipment being installed on 6-foot arms at the top of our poles near your home/business (see photo), we will install meters in that area soon.
- **What about my off-peak meter in my house?** When we are changing your main meter, we will knock on your door to see if we can change the off-peak meter at the same time. If you do not recognize the lineworkers and you want to verify their identity, just give us a call at the office (888-634-2202). If you are not at home, we will appreciate your help to coordinate an appointment to get your off-peak meter installed as cost-effectively as possible.
- **Will you still read the old meters?** Yes, we will do our best to continue to receive the readings from meters that have not been exchanged. The problems we have had with the old system have everything to do with the communications system and not the meter itself.
- **Will this cost me more?** No. The final depreciation of the old system coincides with the beginning depreciation expense of the new system.



What's it like being married to a lineworker?



When an electric lineworker walks out the door to go to an unusual job in hazardous work conditions at any time of day or night, it is often a spouse who is holding down the fort. Although not the only high stakes profession out there, often the public does not realize the potential hazards in the job of a lineworker.

Electric linemen often do their job in extreme or rugged conditions. Many love the excitement and variety of their job and take great pride in their work. Imagine for a minute doing your work outdoors in a hydraulic-powered bucket 40 feet up (or in some locations lineworkers must physically climb the poles). Add to that extreme weather conditions: for example, your sweat is freezing and your feet are numb while making precise repairs to an electric line that, when live, has thousands of volts of electricity running through it.

Mike Olson has been a lineworker most of the 24 years of marriage to his wife, Roxanne Olson. She is immensely proud of her husband and his passion for his profession, but the sacrifices she has made and her concern for her husband are palpable. Not that she ordinarily shares them or makes a big deal out of them, but it's apparent they are always with her even though they are camouflaged by her strong, have-it-all-together exterior.

When considering a possible job change from member services to the line crew at the electric co-op where he works, Roxanne Olson uses the word "concern" to describe her thoughts about her husband making that change more than two decades ago.

"Definitely concerned. Concern because it's a dangerous job," Roxanne said. "He can make a mistake at member services or (doing) any little thing at home and

"Next time the power goes out, remember that electric linemen are working as efficiently and safely as possible to get all of us back to business as usual."

he's OK, but you make a mistake with high voltage and that's it, there's no more," she added while trying to hold in her emotion.

"It's life or death. We know he's going to be working really long hours to get people's power up, but at what expense?" Roxanne asked rhetorically while keenly aware of the sobering possibilities. How has she dealt with the ups and downs of seeing her husband walk out the door for work hundreds of times, over and over again?

"You have to trust the process," Roxanne Olson said. "They train all the time. They watch out for themselves. They watch out for each other. Mike is definitely very good about that; he's thorough in watching over his team, his crew, but when he's working those long hours, it's just in the back of your mind," she shared. "They've been doing this a long time. They know what they're doing, but I always tell him to be safe. Be safe."

The flipside is how her husband's profession has impacted her. "I'm pretty independent," Roxanne said. "I feel like you have to be... He does a lot to provide for us, (so) I'm going to make sure he's not going to worry about us. I'm going to take care of everything here."

Next time the power goes out, remember that electric linemen are working as efficiently and safely as possible to get all of us back to business as usual. No one knows that better than their spouses.

AMONG OTHER SAFETY REQUIREMENTS, ELECTRIC LINEWORKERS MUST ALWAYS:

- Stay aware of their surroundings
- Use their tools appropriately
- Work in teams
- Take their time and work methodically, even in high-pressure situations; many accidents happen when workers try to rush a job
- Wear proper safety equipment

Electric grid delivers during Polar Vortex

As temperatures plunged well below zero in late January, the demand for electricity across the region surged to all-time highs.

Thanks to dependable baseload plants

Faced with one of its most difficult tests in many years, the electric grid weathered the dangerously frigid conditions and delivered reliable energy to homes and businesses when they needed it most (664-11-014-01, Leon Ditsch). The integrity of the Upper Midwest's electric grid was maintained thanks in large part to the dependable operation of baseload power plants, the strategic use of demand response (off-peak) and successful coordination between utilities.

In spite of minimal wind/solar output

During the coldest days of the Polar Vortex, a Maximum Generation Event was declared by MISO – the entity that coordinates with the region's utilities to ensure the stability of the Upper Midwest's grid. The emergency order was issued due to the potential lack of power generation and transmission resources available to meet the rising demand for energy. Very little production was received from the region's wind and solar farms during this period due to cold and freezing conditions. The majority of the region's energy needs were met by coal, nuclear and, in some areas, natural gas.

Minnkota's coal plants kept our lights on

Minnkota Power Cooperative generates and transmits energy on the high-voltage electric grid for North Star Electric Cooperative. Minnkota worked closely with MISO to ensure the reliability of the grid was maintained during all hours. The coal-based Milton R. Young Station – Minnkota's primary generation resource – served as the backbone of the cooperative's system and performed well during the Maximum Generation

Event. The Young Station, located 40 miles from Bismarck, N.D., has an advantage over other generation resources because the power plant and coal mine are located adjacent to each other. This means that there are virtually no constraints in delivering fuel to the facility.

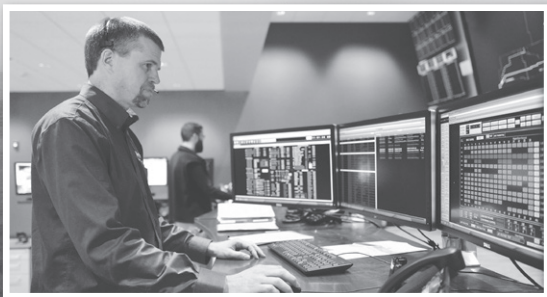
Off-peak program assisted

Minnkota was also required by MISO to fully utilize its demand response program to curtail electric consumption during certain periods. The demand response program is voluntary for North Star Electric Cooperative member-consumers and others who allow Minnkota to temporarily control dual-fuel heating systems, water heaters, storage heaters and commercial loads with backup generators. During these control periods, most consumers are automatically switched from electricity to an alternate fuel source, such as propane, fuel oil or large diesel generators. In exchange for voluntarily participating in the demand response program, the consumer receives a heavily discounted electric rate.

Having a well-developed demand response program helped shield electric cooperative members from the volatility of the MISO market. With a limited supply of electricity and rising demand, the cost of purchasing additional power would have been extremely high. In a cooperative structure, those costs would need to be directly passed on to consumers.

Many lessons were learned

The importance of baseload resources, like coal and nuclear, cannot be understated. These facilities played a pivotal role in stabilizing the grid during the extreme weather conditions. As the grid continues to evolve with the addition of more intermittent energy resources, it is essential that the true value of baseload resources be recognized in the energy market.



"The integrity of the Upper Midwest's electric grid was maintained thanks in large part to the dependable operation of baseload power plants."

DOES YOUR OLD AC UNIT NEED REPLACING? Replace it with an air-source heat pump



In size and appearance, a standard heat pump looks like a central air conditioner. But unlike a central air-conditioning system, which only cools a home, a heat pump provides heating and cooling. Heat pumps also dehumidify better than standard central

air conditioners, resulting in less energy use and more cooling comfort in summer months (795-21-010-53, Gary Reinking). One thing that you need to remember is an air-source heat pump works great in the spring, summer and fall but does not work in the winter.

Heating efficiency for air-source heat pumps (ASHP) is indicated by the heating season performance factor (HSPF), and cooling efficient by the seasonal energy efficiency ratio (SEER). Most heat pumps have a SEER between 14 and 24, and an HSPF between 8 and 11. Always remember the higher the number, the higher the efficiency.

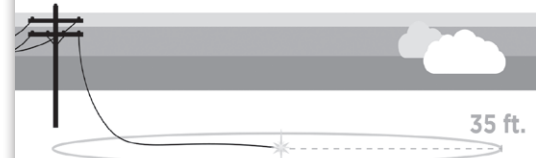
When selecting a new air-source heat pump, it's important to determine the proper size needed for your home. A properly sized heat pump will provide better comfort and humidity control for your home.

When choosing an air-source heat pump, it is best to look for the ENERGY STAR® label, although all heat pumps in 2019 will receive a rebate. Heat pumps that are ENERGY STAR-rated do qualify for higher rebates through our PowerSavers program. If the SEER rating is less than 17, the rebate is \$200/ton. If the SEER rating is 17 or greater, the rebate is \$400/ton.

In addition to the PowerSavers rebate, Minnkota has an extra rebate of \$100 per ton for heat pumps or \$20/KW of electric heat up to a maximum of \$600/account. Please give us a call for additional information about any of our rebates.

Downed and Dangerous

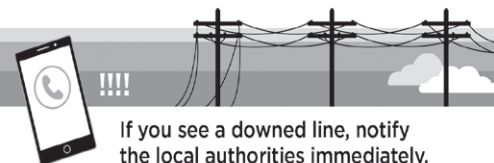
If you see a downed power line, always assume it is energized and dangerous. Avoid going near it or anything in contact with the power line.



Downed power lines can energize the ground up to 35 ft. away - so keep your distance.



Never drive over a downed line or through water that is touching the line.



Never try to move a downed power line, even if you think the line is deenergized or if you're using a nonconductive item - this will not prevent injury or death!

Source: ESFI.org

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 - Email: cgcoller67@gmail.com
Phone: (218) 966-5070
Call to set up an appointment between 7 a.m. - 8:30 a.m. (Mon. through Fri.)

• Roseau County:

Bryan Holmes
Phone: (218) 686-1413
Call to set up an appointment between 7 a.m. - 8:30 a.m. (Mon. through Fri.)

'LIKE US' ON FACEBOOK TO STAY UP-TO-DATE!



Like your cooperative at www.facebook.com/NorthStarElectric for outage updates during spring weather and other useful information.

Electric water heater rebate program

Enjoy reliable hot water and save money at the same time with help from our electric water heater rebate program.

Water heating is one of the largest energy expenses in most households, which makes it a smart area to improve efficiency. New electric water heaters are among the most efficient, dependable and durable products on the market today (251-29-003-01, John J. Staton). With great incentives from North Star Electric and Minnkota Power, it has never been more affordable to upgrade.

For the Minnkota Power rebate, water heaters must be on the load control program, which allows your water heater to draw electricity during times of low energy demand and temporarily turns off your water heater for a short period of time during high energy demand periods. During the time when your water heater is controlled, you should not notice any difference in the temperature of your hot water. Most members in this program receive a credit of \$4-\$6 every month on their electric bill.

Please give us a call today to find out more about the water heater rebate program or many other great programs available to you!

Note: If you ARE on load control, you are eligible for the Minnkota, PowerSavers and North Star rebates listed in the chart to the right. If you ARE NOT on load control, you are only eligible for the \$100 North Star rebate.



Rebate requirements:

- Must be a new purchased electric water heater installed on North Star Electric system.
- Must provide proof of purchase.
- Must be on load control (Minnkota rebate only).
- Must be 240 volts and hard-wired.
- Must be your primary water heating source.
- Must be 40 gallons or larger.
- Tankless water heaters do not qualify for rebate.
- Hybrid heat pump water heaters do not qualify for rebate.
- Multifamily dwellings do not qualify for rebate; however, exceptions will be considered on a case-by-case basis.
- Rebate limit of \$500 per member/customer account.
- Maximum \$300 rebate for the coupling of two water heaters in parallel or series.

Minnkota Power Cooperative Rebates

(Rebate limit of \$500)

Electric Water Heaters (MUST BE ON LOAD CONTROL)	Incentive Per Unit
40-55 gallon	\$100
56-99 gallon	\$150
100 gallon or greater	\$200
Additional rebate for new building construction	\$100
Additional rebate for conversion from existing natural gas or propane to an electric water heater	\$250
Additional PowerSavers rebate for 80-gallon or greater with Energy Factor (EF) equal to or greater than 0.91.	\$150

Don't let trees cause problems with power lines

Trees can provide your home with beauty, shade to boost your energy efficiency and a natural way to reduce your carbon footprint. However, if those trees are planted in the wrong location in your yard, they can also be expensive to maintain and even dangerous. The Energy Education Council's Safe Electricity program shares tips on how you can help keep trees healthy and your family safe.

Tree limbs can fall during bad weather and damage the electrical wires that provide you and your neighbors with power, resulting in power outages or "blinking light" interruptions.

Tall, growing trees with a mature height of greater than 40 feet should be planted at least 50 feet away from lines to avoid future pruning. Some of these trees include: oak, white and blue spruce, most pines and most maples.

A mature height of less than 15 feet is recommended if planting near lines. Some trees that are generally not tall enough to interfere with lines are: crabapple, honeysuckle, juniper, flowering dogwood

and hawthorn. Keep in mind, trees should never be planted directly under power lines, near poles or too close to electrical equipment.

Once you have a tree selected, make sure to call 811 before ever putting a shovel in the ground. The "Call Before You Dig" number is a free service that locates and marks

your public underground utilities. Make sure to call a few days in advance of when you want to dig in order to provide enough time for a professional to locate such underground utilities as electrical, (article continued on following page)



Don't let trees cause problems with power lines

(article continued from previous page)

gas, water, cable and telephone. If the established trees you already have in your yard are growing into power lines, contact your electric provider to determine whether the utility or you will be responsible for the work. If you are responsible, it does not mean you should do the work yourself. Only skilled professionals trained to safely prune and trim trees for electric line clearance should be hired to do the work.

Be sure no one climbs a tree near power lines. If branches are touching the wires, the tree could be energized. Even branches not touching power lines could become energized if a child's weight is added.

In order to help maintain safety and electrical service reliability, some trees that are at risk of damaging power lines during severe weather – like dead or dying trees or those with a shallow root system – may need to be removed completely.

For more information on the safe and efficient use of electricity, 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 12.2 cents/kWh + 6.875% sales tax	At 12.2 cents/kWh + 6.875% sales tax
Equals \$3.23/month	Equals \$0.48/month
Savings per bulb per month with LED = \$2.75	
Cost of LED bulb after rebate = \$4 (at either North Star Electric Cooperative 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.



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
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 877-687-1163
Direct 218-999-0800
Fax 218-999-0220

Arrowhead Economic Opportunity Agency

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

NORTH STAR ELECTRIC COOPERATIVE 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

720 Hart Senate Office Building
Washington, D.C. 20510
www.smith.senate.gov
202-224-5641
Contact: <https://www.smith.senate.gov/content/contact-senator>

Senator Amy Klobuchar

425 Dirksen 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

126 Cannon House Office Building
Washington, D.C. 20515
www.stauber.house.gov
202-225-6211

Congressman Collin Peterson

2204 Rayburn House Office Building
Washington, D.C. 20515
www.collinpeterson.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
Contact: <https://mn.gov/governor/contact>

Senator Tom Bakk

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

Senator Paul Utke

3403 Minnesota Senate Bldg.
95 University Avenue W.
St. Paul, MN 55155
651-296-9651
sen.paul.utke@senate.mn

Senator Mark Johnson

2105 Minnesota Senate Bldg.
95 University Avenue W.
St. Paul, MN 55155
651-296-5782
sen.mark.johnson@senate.mn

Representative Matt Grossell

227 State Office Building
100 Rev. Dr. Martin
Luther King Jr. Blvd.
St. Paul, MN 55155
651-296-4265
rep.matt.grossell@house.mn

Representative Dan Fabian

287 State Office Building
100 Rev. Dr. Martin
Luther King Jr. Blvd.
St. Paul, MN 55155
651-296-9635
rep.dan.fabian@house.mn

Representative Rob Ecklund

409 State Office Building
100 Rev. Dr. Martin
Luther King Jr. Blvd.
St. Paul, MN 55155
651-296-2190
rep.rob.ecklund@house.mn



Ann Ellis
General Manager

MANAGER'S REPORT

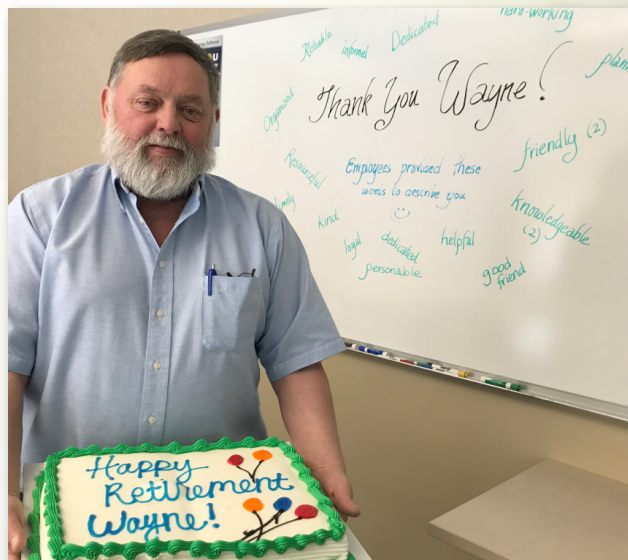
(article continued from page 1)

Best wishes, Wayne!

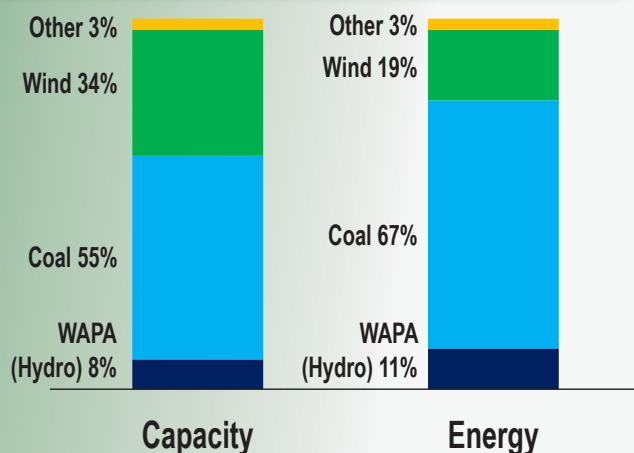
On a lighter note, we take this opportunity to wish Wayne Haukaas a very happy retirement! He has spent his 30-year career helping members identify why their electric bill is what it is and reduce future energy bills. He has visited with countless member-owners and others at a wide range of events, crossed all the "t's" and dotted all the "i's" on paperwork and suggested the best energy values to members contacting him. For the last couple of months he has also been working with Kevin Holen, who is becoming the new Manager of Member Services, to make the transition. Clayton Gubbels has been hired to take the Master Electrician spot vacated by Kevin.

We thank Wayne for his dedication to the member-owners and wish him the very best!

At your service we remain ... *Ann*



Where your power comes from



The difference between capacity and energy depends on how reliable the energy source is. For example, coal plants are not running when maintenance is being done, which is usually scheduled in the spring and fall when members need less electricity. In 2018, our largest coal plant ran at 94 percent capacity. Wind turbines don't spin all the time, and when they do, the energy produced at 8 mph is less than when it spins at 20 mph. A typical wind farm in the Upper Midwest will run at 40-50 percent capacity.