

## Line freeze expertise

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**MIKE SCHMIDT**  
CEO

*PKM Electric Cooperative*

# Mandates add cost

gas emissions come from a variety of sources. The four largest are:

- Transportation - 26.09%
- Electrical generation - 26.01%
- Agriculture - 25.69%
- Industrial - 13.30%.

My concern lies with where the legislature is going with the 26.01 percent of fossil fuel electrical generation. No matter what your feelings are on the issue, costs and system reliability are important factors. Electricity plays an important role in every sector of the economy.

Wind and solar are not firm power as the technology isn't there to store the energy produced. There has to be a spinning shaft somewhere when the wind isn't blowing or the sun isn't shining, or the lights won't stay on.

Currently Minnkota uses economical and abundant coal to produce this firm power.

What's the future of coal? Minnkota is currently studying a project called Tundra, which involves injecting carbon dioxide produced from the coal plants into wells in the Bakken. This would permanently store the carbon underground with the added benefit of increasing the oil produced by the wells.

I believe the market will pave the way into a cleaner energy future as economically as possible when the technology improves. Mandates are not needed and drive up costs. To live in our area of northwest Minnesota, we need abundant energy to heat our homes, travel the long distances in rural areas and feed the nation. A common-sense approach is needed and we have that representing us with Dan, Deb and Mark.

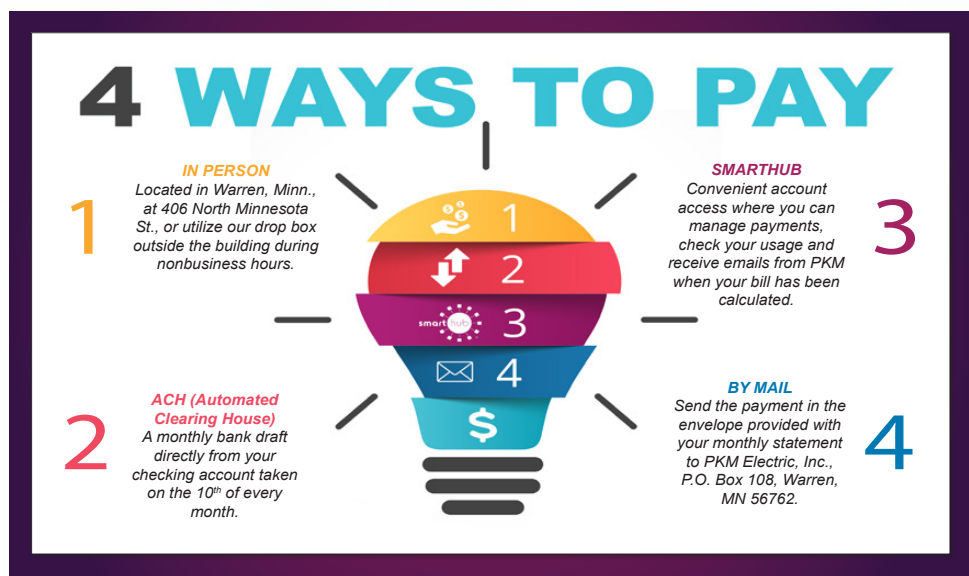
**A**s I write this article, we have been in a very long cold snap. We have been grateful that our distribution system has had very few issues during this severe and dangerous weather. Although the increased energy sales are welcome, I think everyone is ready for a break from the cold and snow.

The board and staff spent some time in January doing some long-range planning. Discussion centered around our AMI pilot project and converting our metering from powerline carrier to RF, our LED lighting programs, 10-year financial forecast and equity management. Proper planning is priority one as we recognize every dollar we spend comes from you, our member.

Three board members and myself recently traveled to St. Paul to visit with our legislators. Dan Fabian, Deb Kiel and Mark Johnson are very well versed in the issues facing rural electric cooperatives in the legislature. I want to thank them for their past and future support. The governor released his budget at the time we were at the capitol, which was keeping everyone hopping.

There is discussion in St. Paul of a 50 percent renewable standard by 2030. In 2007 the legislature passed a renewable energy standard of 25 percent renewable by 2025. The Minnkota system has exceeded that mandate, and Minnesota cooperatives overall are on track to meet this standard. I believe renewables are an important part of the energy mix, but mandates make them more expensive.

In Minnesota, greenhouse



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218-745-4711 or 800-552-7366

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800-552-7366  
e-mail: [info@pkmcoop.com](mailto:info@pkmcoop.com)  
website: [www.pkmcoop.com](http://www.pkmcoop.com)

### Next Board Meeting:

Tuesday, March 26, 2019

### Officers and Directors

President ..... Tom Woinarowicz  
Vice President ..... Michael Beaudry  
Secretary-Treasurer ..... Wayne Malm  
Directors ..... Paul Aakre, Jeffrey Folland, Steve Goodwin,  
Mark Hatton, Chris Mortenson and Blake Owens  
CEO ..... Mike Schmidt  
Editors ..... Jeff Rustad, Chelsy Davey

*This institution is an equal opportunity provider and employer.*

# Electrical Safety Checklist

Nearly half of all home fires occur during winter months. Take a few minutes to identify and correct any potential electrical hazards to ensure the safety of your home.

## SWITCHES AND OUTLETS

- **Are any switches or outlets warm to the touch?** YES NO  
Warm switches or outlets indicate an unsafe wiring condition.
- **Are any outlets or switches discolored?** YES NO  
Discoloration indicates dangerous heat buildup at these connections.
- **Do plugs fit snugly into outlets?** YES NO  
Loose-fitting plugs can cause overheating and fires.

## CORDS

- **Are any cords cracked, frayed or damaged?** YES NO  
Damaged cords can expose wires, causing shock or fire hazard.
- **Are any cords pinched by furniture or windows, or attached to anything with staples or nails?** YES NO  
Pinching and/or stapling cords can damage the insulation, causing shock or fire hazard.
- **Do you use extension cords on a permanent basis?** YES NO  
Extension cords should only be used temporarily.

## ELECTRIC PANEL

- **Do you have recurring tripped circuit breakers or blown fuses?** YES NO  
If yes, this could indicate you're exceeding a safe level of electrical current.
- **Do you have arc fault circuit interrupters (AFCIs)?** YES NO  
AFCIs provide greater fire protection.  
Check your circuit breakers for the AFCI label.

Please note this is not a comprehensive safety checklist.  
Visit [ESFI.org](http://ESFI.org) for more information.  
Source: ESFI



## Energy Efficiency Tip of the Month



**Laundry Tip:** Dry towels and heavier cottons separately from lighter-weight clothing. You'll spend less time running the dryer for lighter-weight items, which saves energy.

*Source: [energy.gov](http://energy.gov).*

## Electrical Inspectors

### Marshall and Polk Counties

Bryan Holmes  
218-686-1413

Wayne Bergstrom  
701-520-9771

### Kittson County

Wayne Bergstrom  
701-520-9771

## PKM nominating committee APPOINTED

At its December meeting, the board of directors of PKM appointed a nominating committee to nominate candidates for the board of directors, to be voted on by the members at the annual meeting on April 2, 2019.

The nominating committee will meet on Feb. 26. Members who may have an interest in being a candidate for the board of directors should inform the committee.

The bylaws of the cooperative provide for an additional method to become a candidate for the board of directors. If it is felt a potential candidate was not given due consideration by the committee, or if the potential candidate did not contact the committee prior to its meeting,

a member can become a candidate by having 15 or more members place his/her name in nomination by petition and delivering same to the cooperative 20 days prior to the annual meeting.

### Members appointed to the committee are:

Todd Johnston, *Angus*

Ron Goodyke, *Euclid*

Gary Jensen, *Drayton*

Jason Sobolik, *Drayton*

Carey Mortenson, *Kennedy*

Brian Jensen, *Stephen*

Alvin Nybladh, *Stephen*

Stanley DeMeyere, *Warren*





During the Christmas of 2014, line workers with Cavalier Rural Electric Cooperative (CREC) were pulled away from holiday festivities to clear the power lines after a major ice event. This lineman is using a special rolling device to remove the ice – often a grueling process.  
*Photo courtesy of Ron Hanson.*



# Line freeze expertise

MINNKOTA LEVERAGES ENGINEERING,  
MUSCLE AND TEAMWORK TO KEEP  
POWER ON DURING ICE EVENTS



The northeast region of North Dakota is especially prone to ice storms, so sights like this are common for Langdon-area line crews. CREC's Marty Tetraault says they have even buried some lines to avoid the recurring issue. Photo courtesy of Ron Hanson.

**T**he timing is never right.

A strange freezing event blows through during Christmas, or Easter, or the linchpin football game of the season – and Mother Nature wears no team's jersey.

"It's the game-winning field goal and the power goes out. It's happened," Minnkota Transmission Superintendent Pat Helling said, recalling just one instance of the frustration that can stem from ice or frost collecting on the power lines.

In Minnkota's corner of the world, ice buildup is a common problem that affects the lines at least a few times every winter. The cooperative's service area, comprising eastern North Dakota and northwestern Minnesota, is home to a climate that boasts wild seasonal swings, especially around December and April.

"It's that perfect mix of temperature and fog and rain and whatever else is going to happen," Helling said. "The line could be basically freezing, and then the air is warm enough to rain. It just sticks."

When the ice thickens enough, destruction swings in.

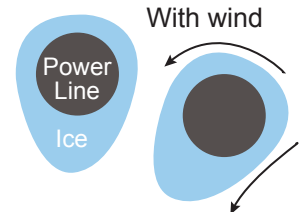
The heavy load on the wires leads to excessive sagging or a much more damaging situation – galloping wires. Minnkota Civil Engineering Manager Wayne Lembke ex-

plained that if there is a wind, it will create an ellipse-like ice shape around a normally round conductor, changing its profile.

"It tends to act like an airplane wing," Lembke said. "You get uplift forces because of that, with the wind going over and under the conductor. It will cause it to start lifting."

Once the lines get lift, which may only take a 5-mph perpendicular wind, they can

## Galloping Aerodynamics

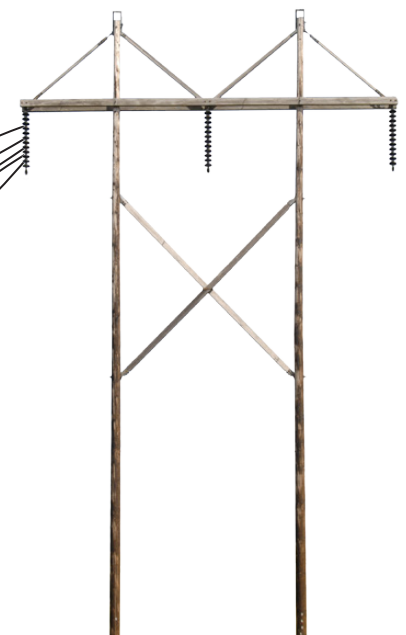


## Transmission Line Sag

Minnkota has several types of transmission lines that are impacted by ice in different ways.

772-foot span of 230-kV transmission line at 32°F

- ½ inch of ice: 3.2-foot drop
- ¾ inch of ice: 5-foot drop
- 1 inch of ice: 6.7-foot drop
- 1¼ inch of ice: 9-foot drop



begin whipping and sailing in all directions. Galloping wires may slap together and induce a fault on the line, or an arc can cause a line break and a subsequent blink outage. In severe cases, the violent motions cause forces on the structures themselves that can break off post tops or crossarms.

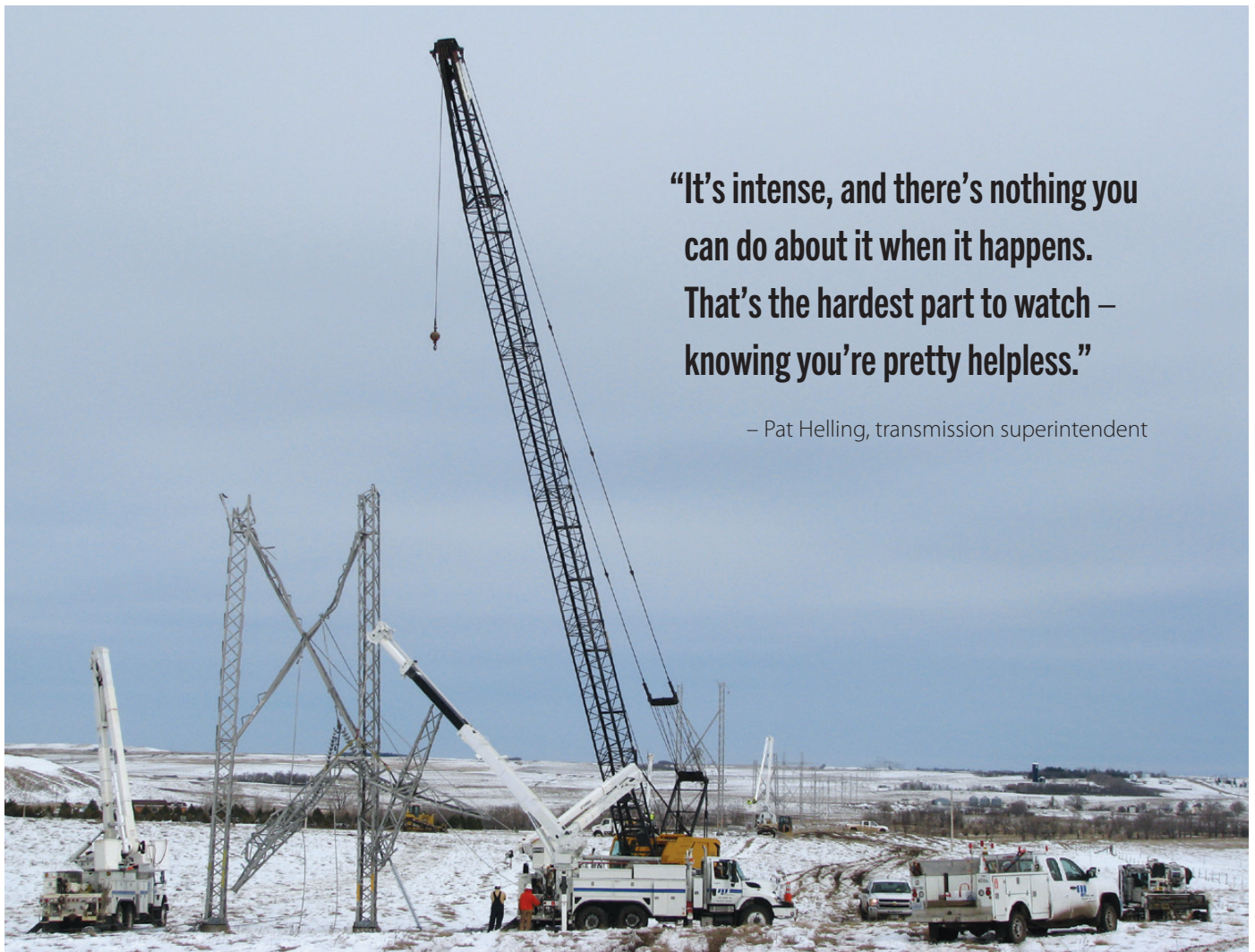
"It's intense, and there's nothing you can do about it when it happens," Helling said. "That's the hardest part to watch – knowing you're pretty helpless."

### Speed of destruction

Helling remembered back to Good Friday 2010, when Minnkota experienced one

of its worst ice event fallouts on a transmission line north of Bismarck, N.D. He was working as a contractor at the time, but was called to support Minnkota when a semi caught a sagging conductor over the highway.

"It actually tore down the structures on both sides of the road, and then it cascaded both ways," Helling said, pulling up digital photos of the mangled aftermath – three miles of demolished 345-kV line. "We had to take down all of the structures that were damaged and rebuild them new. I think we were out there about two weeks, straight through, until it was done."



**"It's intense, and there's nothing you can do about it when it happens. That's the hardest part to watch – knowing you're pretty helpless."**

– Pat Helling, transmission superintendent

The Good Friday storm of 2010 led to the destruction of more than a dozen transmission structures on the Center to Maple River 345-kV line. The cost of repairs was more than \$1 million, with substantial support from FEMA. Photo courtesy of Pat Helling.



Sometimes the damage isn't so instant. Galloping and vibrations over time can fatigue the conductors and the connecting hardware, shaving years off of the transmission lines and causing premature failures and outages.

"It's weather, and we can't control the weather," Lembke said. "We can only design for what normally happens."

## Beating the ice

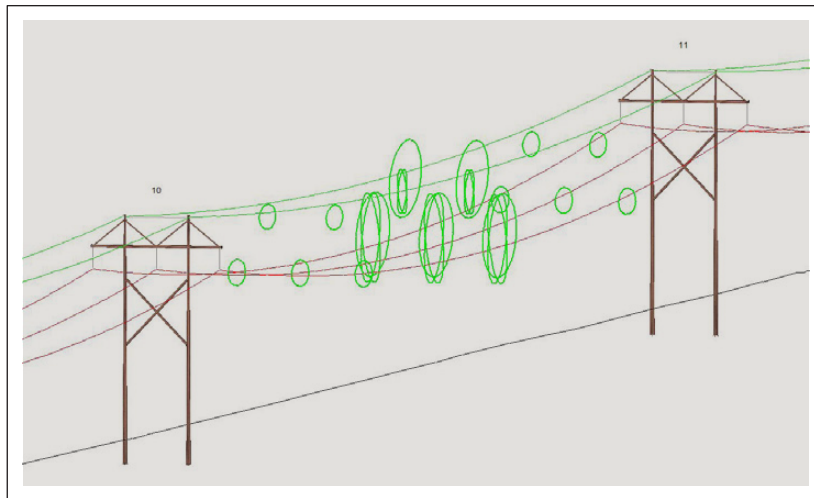
Lembke's engineering team has taken steps to minimize the effects that ice has on the lines. To battle long-term vibrations, the lines are equipped with dampers that either hang from the conductor or spiral around it, absorbing the vibration.

When it comes time to build new, the design element of prevention goes deeper. Minnkota has moved to decreased line spans, increased vertical spacing and wider crossarms to keep the conductors farther apart.

"The older lines were built with 10-foot crossarms – our new standard is 12 foot," Lembke said. "With our design software, we can actually look at the estimated ellipses of the conductor movement and make sure that, when we're designing, those won't be able to come in contact. They didn't have that back in the 1940s and 1950s when we started building our system."

Today, Minnkota follows National Electrical Safety Code guidelines to assure any new line will withstand up to a half-inch of radial ice in a 40-mph wind. If it appears the ice may push the limit without melting away naturally, it's time for Helling to wrangle his team.

Line workers first try to hit the poles with sledgehammers to vibrate the line enough for the ice to break up. If that doesn't work, they harness up for the bucket truck. With an insulated hot stick in hand, they hit the line until the ice falls, moving span-to-span until the problem area is clear.



Minnkota's engineers use special software to visually calculate the amount of gallop their lines can withstand. This image shows the potential gallop loop a line could follow. If the loops indicate the conductors could come in contact, the design is adjusted until there is zero percent overlap.

If a line is deenergized, they can hang a material over the line, connect it to a four-wheeler or snowmobile and drive down the spans, pulling off the ice.

"It's really hard work, and very time consuming," Helling said, adding that he never hears a complaint. "The guys know it needs to be done. We're out there for our members and we're working for the most reliable power we can provide, so it's just part of the job."

Sometimes one crew is not enough. Helling said that on especially tough jobs, Minnkota's member co-ops offer their resources and personnel to assist in clearing ice or repairing damaged lines. Even member-consumers jump in to help the team in any way possible, from providing pickups and ATVs to baking bars for the exhausted linemen.

"Our member co-ops have been hugely supportive of us, and we try to do the same for them with anything they need," he said. "We're out there to support them. It's a pretty cool community all together."



Sometimes clearing the lines just takes some muscle, with crews using insulated hot sticks to smash the ice. Photo courtesy of Ron Hanson.

By Kaylee Cusack / Photography Submitted Photos

# Those annoying blinking clocks

Don't you just hate those blinking "12:00" clocks? Manufacturers could build in a backup system to avoid this, but that would increase the cost and you may not want to pay the extra amount for the device.

The blinking is often set into motion by the cooperative's line safety devices used to avoid frequent and prolonged outages. The devices are called oil circuit reclosers. They operate by opening the circuit for an instant when the line is contacted by an object such as a squirrel, raccoon, tree limb blowing in the breeze, etc. The object usually frees the line on the

first blink. If not, the recloser will operate two more times. If the line is still not clear, the device will shut down the power until a serviceman clears the line and closes the oil reclosers.

Thus, the safety devices either avoid outages or shorten the outage time and decrease the area affected. They also prevent damage to the line, which is another way of keeping electricity at the lowest possible cost. When the clocks blink 12:00, keep in mind the manufacturer



is trying to save you money, and we are trying to provide you dependable service at the lowest possible cost.

## Congratulations on your years of service at PKM Electric Cooperative!

**10 years** – Nolan Buchner (*Journeyman lineman*)

**15 years** – Blake Owens (*Director*)

**25 years** – Scott Slusar (*Line foreman*)

**25 years** – Tom Woinarowicz (*Director*)

**30 years** – Karen Olson (*Administrative manager*)

**35 years** – Mike Schmidt (*CEO*)

## ACH & SmartHub promotion winners

**Amazon Echo:** Brady Stevenson – East Grand Forks, Minn. **\$100 Energy Credit:** Steele Bertils – Warren, Minn.

## AUTHORIZATION FOR ACH (AUTOMATED DIRECT PAYMENT)

STAPLE VOIDED CHECK HERE

I authorize \_\_\_\_\_ and the financial institution named \_\_\_\_\_  
(COMPANY NAME)

below to initiate electronic entries from my checking/savings account. This authority will remain in effect until I notify you in writing to cancel it in such time as to afford the financial institution a reasonable opportunity to act on it. I can stop payment of any entry by notifying my financial institution 3 days before my account is charged.

\_\_\_\_\_  
(NAME OF FINANCIAL INSTITUTION)

\_\_\_\_\_  
(BRANCH)

\_\_\_\_\_  
(CITY)

\_\_\_\_\_  
(STATE)

\_\_\_\_\_  
(ZIP CODE)

\_\_\_\_\_  
(SIGNATURE)

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
(NAME- PLEASE PRINT)

\_\_\_\_\_  
(ADDRESS- PLEASE PRINT)

Account Number \_\_\_\_\_

Checking ☐

Savings ☐

Financial Institution Routing Number \_\_\_\_\_

|

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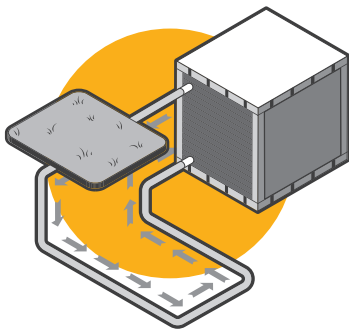
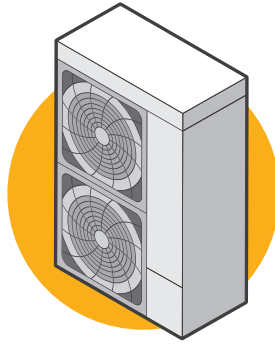
# Types of Heat Pumps

There are three main types of heat pump systems. Use the information below to determine the system that's best suited for your climate and home.

## Air-Source Heat Pumps

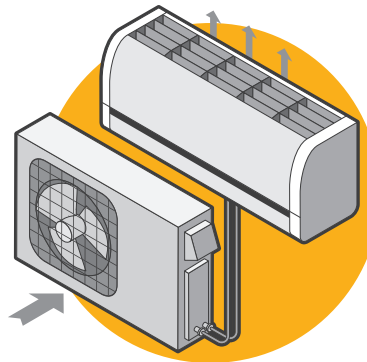
- Most commonly used heat pumps
- Moves heat rather than converting it from a fuel like combustion heating systems do
- Can reduce heating costs by about 50 percent when compared to baseboard heaters or electric furnaces
- Newer, more efficient systems now represent a legitimate space heating alternative in colder regions like the Northeast and Midwest.

**Note:** If temperatures in your area drop below 10 to 25 F, you will need an auxiliary heating system (depending on the size of the system).



## Geothermal Heat Pumps

- More expensive to install but provide more energy savings for heating and cooling
- Move heat through pipes buried underground
- When compared to a conventional heating system, can reduce energy use by 25 to 50 percent
- Effective in extreme climates
- Not ideal for smaller lots and certain soil conditions



## Ductless Mini-Split Heat Pumps

- Easier to install, quiet, small in size
- Flexible for heating and cooling individual rooms and smaller spaces
- No energy loss through ductwork, which accounts for more than 30 percent of a home's energy use for space heating/cooling.
- Installation can be pricey, but federal incentives may be available

Heat pump systems should be installed by a licensed professional. Contact your local electric cooperative for more information about options and potential incentives.

Sources: Dept. of Energy and Consumer Reports

## BE FIRE PREVENTION SMART DON'T GET BURNED!

Electricity usually makes life easier by powering kitchen appliances, gadgets and electronics we use for entertainment.

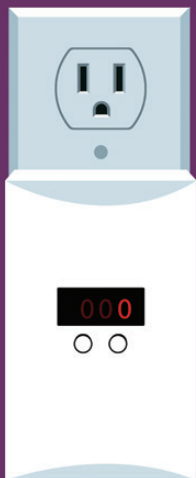
However, that same electricity contains the potential to destroy homes



and take lives. Electric fires are more destructive than any other type of fire, and they are twice as deadly. Safe Electricity has the following information to help you keep your electric system safe.

- Consider getting an electric inspection of your home, especially if it is an older home or you have never had an inspection.
- If an electrical fire starts in your home, do not use water to extinguish it. Water conducts electricity, and you could get an electric shock. Use an extinguisher that is approved for use on electrical fires.
- Flickering lights, warm, cracked or sparking outlets all indicate electrical problems.
- If circuits trip, fuses blow or someone gets a shock, your home has an electrical problem. Get an electric inspection.
- Do not overload outlets, use an extension cord as a permanent wiring solution, or use light bulbs that are not rated for the socket.
- Contact an electrician about installing an Arc Fault Circuit Interrupter (AFCI). An AFCI monitors the flow of electricity in your home. If the flow of electricity is irregular and could cause a fire, the AFCI shuts off electricity.
- Inspect electrical plugs and cords annually. If they are frayed or cracked, repair or replace them. Do not place cords under rugs or staple or nail them to the wall.

Source: [safeelectricity.org](http://safeelectricity.org)



## CARBON MONOXIDE SAFETY REMINDERS

- Install CO alarms on every floor of your home and outside each sleeping area.
- Test CO alarms monthly.
- Replace CO alarm batteries at least annually.
- Make sure your family knows the difference between CO and smoke alarm sounds.
- If your CO alarm sounds, immediately go outdoors.

# Board meeting highlights

November and December

## A regular meeting of the board was held Tuesday, Nov. 27, 2018.

Tom Woinarowicz, president who presided, asked for roll call. Upon calling the roll, the secretary reported that all directors were present, with the exception of Director Goodwin and Directors Aakre and Mortenson as they were attending NRECA Credentialed Cooperative Director training in Maple Grove, Minn. Director Owens participated via video conferencing.

Upon motion duly made by Director Beaudry, seconded by Director Hatton and unanimously carried, an executive session was called.

The president returned the meeting to regular order concluding the executive session at 8:48 a.m. He provided a briefing on the CEO performance discussion. The executive assistant will mail out the CEO and director performance assessments to each director for completion prior to the next board meeting with discussion to follow.

Proposed topics and dates were discussed for an upcoming planning meeting. The planning meeting will be held at the Minnkota Power Cooperative campus on Jan. 29-30, 2019, with directors and staff to attend. An agenda draft will be provided at the December board meeting.

The president reported on recent MREA activities. Government Affairs is currently meeting with legislative officials to discuss upcoming topics impacting Minnesota.

The CEO informed the directors that the next Minnkota Power Cooperative board meeting will be held on Thursday, Nov. 29.

Director Aakre emailed the Square Butte update prior to the meeting due to his attendance at the NRECA Credentialed Cooperative Director courses.

The manager of operations presented the monthly safety report, indicating no accidents and no lost time. MN Safety performed crew visits on Nov. 1, 2018. MREA will be on-site to complete the 2018 scheduled safety trainings on Nov. 28, 2018. The 2019 safety training schedule will soon be drafted with MREA and MN Safety. Director Malm recapped the Safety Committee meeting that was held immediately following the October board meeting. He acknowledged the invaluable safety training programs in place and their direct impact on the cooperative.

The manager of operations continued his monthly report on activities in the line department. EIR, PKM's OCR maintenance contractor, arrived on Nov. 5 to begin breaker maintenance and oil changing, looking to wrap up by early December. He also reported on the increased outage times. He attributed the increase to the weather-related troubles in July and the ice/wind storm in October. Prior to this, reported outage times were within

normal bounds. Tree maintenance and reliable, safe construction practices continue to mitigate outages. Reported connected members for the end of October are 3,896, representing a net gain of 39 from the same period last year.

The manager of member services reviewed items noted in his report, including MPC load management updates, scheduled voltage testing in December and the increased member inquiries for generators, likely contributed by the recent ice/wind storm.

The administrative manager presented her monthly report. The positive response from the current ACH/SmartHub promotion was discussed. The promotion has sparked conversation and interest from our membership on the convenience of the payment offerings.

The administrative manager continued with the presentation of the Operating and Financial report for the cooperative. She provided comparisons from the current and previous year, noting the impact of the recent storm in October.

The CEO reported on a recent meeting with the member services manager and a member regarding proposed construction of a housing development near Crookston. He also provided a recap of the MREA Legislative Summit conference call he participated in and a meeting with Mark Doyle held earlier this month regarding capital credits.

The donation request from the Alvarado Fire Department was discussed and the donation and setting services of a 45-foot pole for the installation of a new siren was approved.

## Apply now for a PKM Scholarship

Individuals in PKM's service area who are members of the cooperative, their spouses or children.

•Applicants planning to attend an accredited postsecondary educational institution in pursuit of their initial postsecondary degree. These institutions could include technical colleges, universities or colleges.

•Eligible applicants include high school seniors, active college students enrolled in an accredited institution in pursuit of their initial degree and nontraditional students who are initiating or resuming their initial postsecondary degree. Nontraditional students include "older than average students" or individuals who did not begin a program after high school. This could also include students whose first postsecondary degree was interrupted.

**Postmark Deadline:  
April 15, 2019**

**Applications available at  
local schools, PKM office  
or online at [www.pkmcoop.com](http://www.pkmcoop.com)**

## PKM ELECTRIC COOPERATIVE POLITICAL LEADERS

### Federal Legislators

#### President Donald Trump

The White House  
1600 Pennsylvania Ave. NW  
Washington, D.C. 20500  
[www.whitehouse.gov](http://www.whitehouse.gov)  
[president@whitehouse.gov](mailto:president@whitehouse.gov)  
202-456-1111

#### Senator Tina Smith

309 Hart Senate Office Building  
Washington, DC 20510  
Phone: 202-224-5641

#### Senator Amy Klobuchar

425 Dirksen Senate Building  
Washington, D.C. 20510  
[www.klobuchar.senate.gov](http://www.klobuchar.senate.gov)  
202-224-3244  
1-888-224-9043 (Minnesota office)  
Fax: 202-228-2186

#### Congressman Collin Peterson

2204 Rayburn House Office Building  
Washington, D.C. 20515  
[www.collinpeterson.house.gov](http://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  
[tim.walz@state.mn.us](mailto:tim.walz@state.mn.us)

#### Senator Mark Johnson

2105 Minnesota Senate Bldg.,  
95 University Avenue W.

St. Paul, MN 55155

651-296-5782  
[sen.mark.johnson@senate.mn](mailto:sen.mark.johnson@senate.mn)

#### Representative Dan Fabian

287 State Office Building  
100 Rev. Dr. Martin Luther King Jr. Blvd.  
St. Paul, MN 55155  
651-296-9635  
888-727-0979  
[rep.dan.fabian@house.mn](mailto:rep.dan.fabian@house.mn)

#### Representative Deb Kiel

255 State Office Building  
100 Rev. Dr. Martin Luther King Jr. Blvd.  
St. Paul, MN 55155  
651-296-5091  
800-339-9041  
[rep.deb.kiel@house.mn](mailto:rep.deb.kiel@house.mn)



Upon presentation of the reports from the management staff and CEO, questions and comments from the board of directors concerning their reports were addressed.

At this time, the CEO introduced and welcomed CoBank Regional Vice Presidents Mark Doyle and Cliff Bolstad. Equity management capital credit retirement options were presented for discussion.

An addition to an existing policy bulletin regarding fees was discussed. The Policy Bulletin Committee will further discuss the contents and bring forward their proposal.

Preliminary Operating and Capital Budgets for 2019 were presented to the directors.

Recommendations from staff were discussed and questions from directors addressed.

Subsidiary financial and informational updates were presented.

#### A special meeting of the board was held Thursday, Dec. 20, 2018.

Tom Woinarowicz, president who presided, asked for roll call. Upon calling the roll, the president reported that all directors, with the exception of Director Folland, who was attending a Minnkota Power Cooperative, Inc. board meeting, and Director Owens, who participated via phone conferencing, were present.

Upon motion duly made, seconded and unanimously carried, an executive session was called.

The president returned the meeting to regular order, concluding the executive session at 9:52 a.m. The president reported on recent MREA activities. Legislator Wagenius spoke to the group regarding climate change and legislative discussion. Annual meeting preparations are under way with Adam Schwartz, NRECA contributor, to speak at the event. There are a few upcoming DG Interconnection meetings planned regarding required changes. MREA President D. Moe continues his involvement with the CIP to CEEP program development.

With Director Folland's attendance at the Minnkota Power Cooperative, Inc. board meeting, the CEO provided a few brief updates to the directors on his behalf.

Director Aakre provided a recap to the most recent Square Butte board meeting. Mac gave a report on the recent rating, and guest speaker David Greeson spoke of the current Project Tundra happenings. Delegates were elected, the 2019 budget and meeting schedule were approved.

Directors Mortenson and Aakre spoke of their recent completion of the CCD courses in November. They commended the instructors and the wealth of knowledge shared. It was also a great opportunity to network with other cooperative directors.

The manager of operations presented the monthly safety report, indicating no accidents and no lost time. PKM recently assisted CREC with mutual aid due to icing issues caused by a recent storm. Updates within the line department staffing were also discussed. He also noted reported outage times are down. Reported connected members for the end of November are 3,905, representing a net gain of 36 from the same period last year.

The manager of member services submitted his report in the board packet materials as he is attending the Minnkota Power Cooperative's board meeting on the CEO's behalf. The CEO highlighted a few activities in the department, including an update on the pilot project.

The administrative manager presented her monthly report highlighting the success of the SmartHub/ACH promotion and a recent Loan Fund transaction completed. She recently completed on-site training with CFC RVPs on the CFC Compass program, a financial forecasting tool. Together with the newly hired plant accountant, there has been one Work Order closing in November and one more to process in December, providing a good training opportunity.

The administrative manager continued with the presentation of the Operating and Financial report for the cooperative.

The CEO reported on his recent meeting

## Statistical and financial report

Year-to-date: December 2018

	Last Year	This Year	Budget
Total income	\$ 14,266,149	\$ 14,611,795	\$ 14,549,969
Total expense	\$ 13,970,901	\$ 12,706,442	\$ 13,477,627
Net operating margins	\$ 796,603	\$ 1,032,414	\$ 650,871
Total kWh sold	117,657,663	121,377,957	123,132,493
Avg. kWh sold per member	2,569	2,625	
Line loss	6.41%	4.62%	
Del. cost per kWh purchased	8.09¢	7.98¢	
Average sale price per kWh	12.13¢	12.03¢	
Percent kWh sales increase	(4.5%)	3.2%	
Members billed	3,815	3,854	
Miles of line in service	2,262	2,268	

attendance. He also led discussion regarding cushion of credit changes and their impact to the cooperative. Other points of discussion included bitcoin value, Project Tundra and seasonal transformer bank account changes.

Upon presentation of the reports from the management staff and CEO, questions and comments from the board of directors concerning their reports were addressed.

At this time, updates to the proposed Operating and Capital Budgets for 2019 were presented to the directors. Recommendations from staff are reflected in the newly proposed budgets.

The board, having heard the presentations of the Capital and Operating Budget and further having their questions answered, approved the 2019 Capital and Operating Budget.

MEI Engineering performed a Work Order Inspection, which resulted in a very good report. The line crews are continuing with tradition of quality.

The CEO spoke of his attendance at a Listening Tour for the newly elected Minnesota Governor Walz in Hallock. He also informed the directors that the outstanding balance from a metering issue has been paid in full.

The CEO stated that in accordance with the bylaws it would be appropriate for the board of directors to appoint a nominating committee to

meet prior to the annual meeting for the purpose of nominating candidates to the board of directors. The board of directors caucused and with completion of their caucus, selected members.

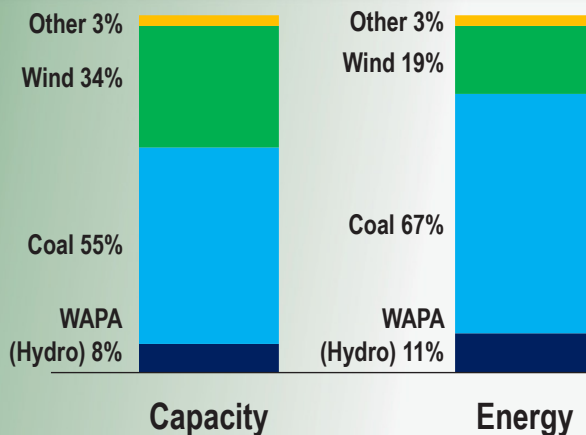
The board selected the following members to act as the committee on nominations prior to the 2019 annual meeting proscribed by the bylaws: Todd Johnston, Angus; Merle Stinar, Warren; Ronald Goodyke, Euclid; Gary Jensen, Drayton; Jason Sobolik, Drayton; Carey Mortenson, Kennedy; Brian Jensen, Stephen; Alvin Nybladh, Stephen; Stanley DeMeyere, Warren. The nominating committee will be reimbursed a \$25 fee and mileage for their attendance.

Board resolution is required to approve the administrative manager, Karen Olson, as an authorized signatory for CoBank business.

The board certified administrative manager Karen Olson as an authorized signatory for CoBank agreements, notes, instruments and other documents required for transacting business on behalf of PKM Electric Cooperative, Inc.

The topics for the upcoming planning meeting were confirmed. The CEO reminded the Directors with ACRE moving to a calendar year, that membership dues for ACRE and REPAC can be accepted at this time. Finally, the meeting concluded with presentation of subsidiary financials.

### Where your power comes from



# Say goodbye to your old electric blanket

If your electric blanket has seen its better days, especially if it's a decade old or more, it's time to replace it. Throw it out and don't donate it, as it could be a fire hazard. Older electric blankets are more apt to be worn through or damaged, and they and their 100 feet of wiring account for thousands of worldwide injuries and deaths each year.

Fans of toasty and warm beds should inspect their electric blanket frequently, regardless of its age. Occasionally, a newer blanket or even one that's fresh out of the bag, could have a wiring issue, so always test your blanket before using it for the first time, and once you start using it, inspect it often.

When inspecting your plug-in blanket or throw, the U.S. Consumer Product Safety Division recommends looking for cracks or breaks in wiring, plugs and connectors. Also look for dark, charred or frayed spots on either side of the blanket. If your electric blanket has any of these characteristics, throw it away, as it may be a potential fire hazard.

When purchasing a new one, make sure it has been tested by a reputable testing laboratory such as

Underwriters Laboratories (UL). Also be sure to read and follow the manufacturer's instructions. When using, it's better to warm your bed with the blanket before going to bed (don't leave it unattended, though), and turn it off before climbing in.



Safe Electricity reminds you even if your electric blanket is in good shape, it still requires a little extra care compared to a traditional blanket:

- Don't allow anything on top of the blanket when in use, like a comforter, bedspread or even pets, which may cause the blanket to overheat. In addition, pet claws can cause rips and tears, which may expose the wiring and create shock and fire hazards.
- Do not use an electric blanket that is wet, soiled or wrinkled.
- Do not tuck in an electric blanket, which can cause excessive heat build-up.
- Don't store the blanket folded; instead, roll it for storage, which puts less stress on the internal wires. A better option is to store flat if you can, such as on a spare bed.
- Do not leave any heating appliance unattended.
- Don't wash it often. Repeated washings can damage the electrical circuitry. (Follow proper instructions when washing; usually the spin cycle is not recommended.)
- Do not sleep or lounge on top of the electric blanket.

Learn more about heated appliance safety and other safety tips at [www.safeelectricity.org](http://www.safeelectricity.org).

