Project Tundra
Ready for Research
Learn more on pages 6-7

2019 electrical continuing education classes  - page 3
Apply for help with this winter’s heating bills  - page 8
Holiday greetings from PKM! The busy holiday season is upon us, full of activities and hopefully allowing time with family and friends. It’s also the time of year when we finalize our planning in the form of operating and capital budgets for 2019. No rate adjustments are planned, which is always good news.

Looking back on 2018, energy sales were up a little, revenues held solid and outage times were higher due to several mini storms. We are expecting a respectable year-end operating margin that will be finalized when December books are closed. The cooperative maintains a 52 percent equity level and remains on solid financial footing.

Some personnel changes occurred in 2018 at PKM along with the promotion of a couple of individuals to management level staff positions. Being a small rural electric cooperative means our employees wear more hats than in a larger organization, and proper training takes time and is critical to keeping things moving forward.

The weather this fall has kept our attention, with milder temperatures and threats of icing on the lines. Our maintenance programs operate continuously with pole testing and changeouts, tree clearing, OCR maintenance and testing, security lighting and ripple maintenance, along with line routine maintenance. We have also budgeted $1.7 million for new construction, line extensions, system improvements, meters, transformers and for replacement of a bucket truck.

The board and staff will be spending some time in January planning. Discussion will center around our Automated Metering Infrastructure (AMI) pilot project and converting our metering from power line carrier to radio frequency, 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.

Please keep PKM in mind as your energy partner, as we know there are choices in the marketplace. Best wishes for a safe and successful 2019!
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.

This marks the 31st year of the successful program, which is aimed at providing area trade allies with the latest information on electrical code and practices.

The electrical workshops will be held Jan. 22 and Jan. 23 at the DoubleTree Inn in West Fargo. The training then moves to the Bigwood Event Center in Fergus Falls on Jan. 31, and the Eagles Club in Bemidji on Feb. 1. The workshops conclude with classes Feb. 5 and Feb. 6 at Minnkota Power Cooperative’s headquarters in Grand Forks.

The registration fee is $75 for eight code credits. Taking the class on multiple days will not qualify for 16 code credits. Registration can be done online at www.minnkota.com. Registration must be completed at least seven days prior to the seminar.

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

For more information about the program, call (701) 795-4292 or email questions to contractortraining@minnkota.com.

2019 ELECTRICAL WORKSHOPS

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Address</th>
<th>City, State</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAN. 22, 23</td>
<td>DoubleTree Inn</td>
<td>825 E Beaton Dr</td>
<td>West Fargo, N.D.</td>
</tr>
<tr>
<td>JAN. 31</td>
<td>Bigwood Event Center</td>
<td>925 Western Avenue</td>
<td>Fergus Falls, Minn.</td>
</tr>
<tr>
<td>FEB. 1</td>
<td>Eagles Club</td>
<td>1270 Nielson Ave SE</td>
<td>Bemidji, Minn.</td>
</tr>
<tr>
<td>FEB. 5, 6</td>
<td>Minnkota Power Cooperative Headquarters</td>
<td>5301 32nd Ave. South</td>
<td>Grand Forks, N.D.</td>
</tr>
</tbody>
</table>

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 hazards.

- 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 hazards.

- 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 for more information.

Source: ESFI
Make your home more comfortable and energy efficient with help from the trusted energy advisors at PKM Electric Cooperative. Great incentives and rebate programs are available to assist you in the purchase and installation of qualifying heating and cooling systems and water heaters.

Not sure where to start? Check out the options below to see which rebates you qualify for and the appliances and equipment that best fit your lifestyle. Contact PKM Electric Cooperative today to learn more about how you can get the most value out of your energy dollar. Some restrictions apply. Offers may require inspection and are subject to change at any time.

Electric heating

Electric Heating Rebate Checklist

- **Electric plenum heaters**
  Easily converts your existing fossil fuel furnace into a dual-fuel heating system. You are able to use the most efficient, cost-effective heating source – fossil fuel or electricity – at any time.
  **Rebate of $40 per kilowatt (kW)**

- **Electric thermal storage heaters**
  Draws electricity during off-peak hours when it is cheaper. Heat is stored in specially designed bricks to provide comfort 24 hours a day.
  **Rebate of $40 per kW**

- **Air-source heat pumps (including mini-split ductless option)**
  Works just like a central air conditioner in the summer. In the fall and winter, they provide super-efficient supplemental heat.
  - Up to 16 SEER: Rebate of $300 per ton
  - 17 SEER or greater: Rebate of $500 per ton

- **Geothermal heat pumps**
  Provides the highest efficiency for space heating and cooling available today. The system transfers heat to and from the earth using only small amounts of electricity.
  - Closed loop: Rebate of $400 per ton
  - Open loop: Rebate of $200 per ton

- **Electric underfloor boiler**
  A popular off-peak option because the system transfers heat consistently across the floor to reach people and objects, providing both comfort and efficiency. Applications include electric boiler with hydronic tubing.
  **Rebate of $40 per kW**

- **Other electric heating systems**
  Options include electric baseboards, cove heaters, electric floor cable, mats and more.
  **Rebate of $40 per kW**
**Appliance energy usage**

The average monthly kilowatt-hour consumption figures in this chart are based on normal use. Your electrical consumption may be higher or lower, depending on how you and other people in your home and on your farm use the various appliances and equipment.

<table>
<thead>
<tr>
<th></th>
<th>Approx. average wattage</th>
<th>Estimated hrs. used per month</th>
<th>Estimated monthly kWh</th>
<th>Cost per month at $.12/kWh</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>KITCHEN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coffee maker</td>
<td>1,000</td>
<td>15</td>
<td>15</td>
<td>$1.80</td>
</tr>
<tr>
<td>Dishwasher - ENERGY STAR qualified</td>
<td>330</td>
<td>31</td>
<td>10</td>
<td>$1.23</td>
</tr>
<tr>
<td>Freezer - ENERGY STAR qualified</td>
<td>200</td>
<td>744</td>
<td>149</td>
<td>$17.86</td>
</tr>
<tr>
<td>Microwave</td>
<td>1,500</td>
<td>15</td>
<td>23</td>
<td>$2.70</td>
</tr>
<tr>
<td>Oven</td>
<td>2,400</td>
<td>31</td>
<td>74</td>
<td>$8.93</td>
</tr>
<tr>
<td>Refrigerator - ENERGY STAR qualified</td>
<td>225</td>
<td>744</td>
<td>167</td>
<td>$20.09</td>
</tr>
<tr>
<td>Toaster</td>
<td>1,100</td>
<td>3</td>
<td>3</td>
<td>$0.40</td>
</tr>
<tr>
<td><strong>ENTERTAINMENT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cable box with DVR (not turned off)</td>
<td>140</td>
<td>744</td>
<td>104</td>
<td>$12.50</td>
</tr>
<tr>
<td>Computer with desktop</td>
<td>100</td>
<td>186</td>
<td>19</td>
<td>$2.23</td>
</tr>
<tr>
<td>Nintendo Wii</td>
<td>40</td>
<td>31</td>
<td>1</td>
<td>$0.15</td>
</tr>
<tr>
<td>Sony PlayStation 4</td>
<td>150</td>
<td>31</td>
<td>5</td>
<td>$0.56</td>
</tr>
<tr>
<td>Television (LED) &lt; 40”</td>
<td>80</td>
<td>155</td>
<td>12</td>
<td>$1.49</td>
</tr>
<tr>
<td>Television (LED) &gt; 40”</td>
<td>100</td>
<td>155</td>
<td>16</td>
<td>$1.86</td>
</tr>
<tr>
<td>Xbox One</td>
<td>120</td>
<td>31</td>
<td>4</td>
<td>$0.45</td>
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<td><strong>LAUNDRY</strong></td>
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<td></td>
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<tr>
<td>Clothes washer</td>
<td>255</td>
<td>15</td>
<td>4</td>
<td>$0.46</td>
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<td>Clothes dryer</td>
<td>2,790</td>
<td>15</td>
<td>42</td>
<td>$5.02</td>
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<tr>
<td>Iron</td>
<td>1,100</td>
<td>8</td>
<td>9</td>
<td>$1.06</td>
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<td><strong>LIGHTING</strong></td>
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<tr>
<td>9-watt LED lamp 9 (based on 6 hrs/day)</td>
<td>9</td>
<td>186</td>
<td>2</td>
<td>$0.20</td>
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<tr>
<td>60-watt incandescent lamp</td>
<td>60</td>
<td>186</td>
<td>11</td>
<td>$1.34</td>
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<tr>
<td>100-watt incandescent lamp</td>
<td>100</td>
<td>186</td>
<td>19</td>
<td>$2.23</td>
</tr>
<tr>
<td>Incandescent mini holiday lights (100-count string)</td>
<td>40</td>
<td>155</td>
<td>6</td>
<td>$0.74</td>
</tr>
<tr>
<td>LED mini holiday lights (100-count string)</td>
<td>5</td>
<td>155</td>
<td>1</td>
<td>$0.09</td>
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<tr>
<td><strong>MISCELLANEOUS</strong></td>
<td></td>
<td></td>
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<tr>
<td>Electric blanket (5 hrs/day x 2 months)</td>
<td>400</td>
<td>70</td>
<td>28</td>
<td>$3.36</td>
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<tr>
<td>Hair dryer</td>
<td>1,500</td>
<td>5</td>
<td>8</td>
<td>$0.90</td>
</tr>
<tr>
<td>Vacuum</td>
<td>1,400</td>
<td>5</td>
<td>7</td>
<td>$0.84</td>
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<tr>
<td>Water heater</td>
<td>4,500</td>
<td>90</td>
<td>405</td>
<td>$48.60</td>
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<tr>
<td><strong>HEATING</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air conditioner - room (4 hrs/day)</td>
<td>1,000</td>
<td>124</td>
<td>124</td>
<td>$14.88</td>
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<tr>
<td>Air conditioner - 3-ton (4 hrs/day)</td>
<td>3,500</td>
<td>124</td>
<td>434</td>
<td>$52.08</td>
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<tr>
<td>Furnace fan - variable speed motor (24 hrs/day)</td>
<td>75</td>
<td>744</td>
<td>56</td>
<td>$6.70</td>
</tr>
<tr>
<td>Furnace fan - conventional blower (24 hrs/day)</td>
<td>400</td>
<td>744</td>
<td>298</td>
<td>$35.71</td>
</tr>
<tr>
<td>Space heater (8 hrs/day)</td>
<td>1,500</td>
<td>248</td>
<td>372</td>
<td>$44.64</td>
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</table>
Research on what would be the world’s largest carbon capture facility received invaluable support from the state of North Dakota in November.

The North Dakota Industrial Commission unanimously approved up to $15 million in state funding for Project Tundra, which aims to connect the state’s coal and oil industries to produce more energy, reduce emissions and generate long-term economic benefits.

Funding for the project, led by Minnkota Power Cooperative, PKM Electric Cooperative’s wholesale power provider, would help pay for the engineering and design study for a CO₂ capture system at the Milton R. Young Station located near Center, N.D. The funding is contingent on the project receiving an additional $15 million from the U.S. Department of Energy.

“The state of North Dakota has long been a leader in energy innovation thanks to strong support from its elected officials and the pioneering spirit of its companies,” said Mac McLennan, Minnkota president & CEO. “This research funding is essential to understanding how this breakthrough technology can be applied to North Dakota facilities.”

The project would capture CO₂ inside a large vessel using a solvent called amine. Once enough CO₂ has bonded with the amine, it would be pumped to a separate vessel where heat is applied to break the bond and create a pure CO₂ stream. The CO₂ is then delivered through a pipeline to area oil fields where it can be used for enhanced oil recovery. This process
includes injecting CO$_2$ into conventional wells to substantially increase oil production. The project, estimated to cost $1.3 billion, is not something Minnkota will take on alone. Other entities involved in Project Tundra include BNI Energy, Bismarck, N.D.; Eagle Energy Partners, Minot, N.D.; and the Energy and Environmental Research Center at the University of North Dakota, Grand Forks, N.D.

Despite the initial capital cost, demand for carbon capture technology has been made even greater by the passage of 45Q tax credit reform. As part of legislation passed in February, the federal tax credits have been increased to $35 per ton for CO$_2$ that is captured and used for enhanced oil recovery and $50 per ton that is captured and stored in a geologic formation deep underground. These tax credits are projected to represent up to $1 billion in value to Project Tundra.

**Proven technology**

As Project Tundra transitions into the next phase of research, it has hired one of the world’s foremost experts in CO$_2$ technology and development. David Greeson joined the project team in October after previously serving as the vice president of development at Texas-based NRG Energy. In that role, he led the development of the Petra Nova initiative, which is the world’s largest post-combustion CO$_2$ capture and enhanced oil recovery project. Petra Nova was completed on schedule and on budget in December 2016.

Project Tundra is modeled after the Petra Nova initiative, which is capturing about 90 percent of the CO$_2$ emitted from a 240-megawatt (MW) flue gas slipstream. The captured CO$_2$ is then injected into mature reservoirs to release more oil. This process revitalized a diminishing oil field, increasing production by 1,300 percent.

Project Tundra aims to build on the success of Petra Nova by applying a similar, but much larger, set of technologies to Unit 2 of the Young Station. Unit 2 is a 455-MW generation facility that began commercial operation in 1977. The facility has previously been retrofitted with emissions control equipment that meets or exceeds all current air quality standards.

“David’s knowledge and expertise in the area of carbon capture development provide immeasurable value to the Project Tundra team,” McLennan said. “The project team has done an excellent job advancing the initial research projects. As we move forward, it becomes essential to have a dedicated project manager. David’s credentials indicate that he has the ability to guide this project to the finish line.”

For more information on Project Tundra, visit ProjectTundraND.com.
Minnesotans can apply now for help with this winter’s heating bills

For Minnesotans who struggle to pay their winter heating bills, now is the time to apply for financial assistance to help pay those bills.

Eligible Minnesotans are encouraged to apply for the state’s Energy Assistance Program, which helps low-income households earning less than 50 percent of the state’s median income ($49,698 for a family of four).

More than 126,000 Minnesota households received energy assistance during last year’s heating season. The average grant was about $545, paid directly to the household’s utility or heating fuel provider.

Funded through the U.S. Department of Health and Human Services, the Energy Assistance Program is administered by the Minnesota Department of Commerce, with 29 service providers throughout the state.

Households with seniors, disabled individuals and children are especially encouraged to apply for energy assistance because they are more vulnerable in low-heat situations and may live on fixed, low incomes.

Nearly 40 percent of Minnesota households that received energy assistance last year included seniors, but many seniors who are eligible still do not apply.

The Commerce Department encourages families to talk with older family members about applying for energy assistance if they qualify.

The Commerce Department recently sent applications to households that received energy assistance last year, but anyone who may qualify is encouraged to apply now.

To apply, contact the local service provider in your county and request an application. To find your service provider, visit the Energy Assistance Program on the Commerce Department website (mn.gov/commerce) or call 1-800-657-3710.

Minnesotans who qualify for energy assistance may also be eligible for the Weatherization Assistance Program, a companion program that uses the same application as energy assistance. The weatherization program helps permanently reduce energy bills for low-income Minnesotans by providing free energy-saving upgrades to ensure that their homes are warm, healthy and safe.

Other forms of assistance may also be available through county social service programs, community-based organizations and nonprofit agencies.

AUTHORIZATION FOR ACH (AUTOMATED DIRECT PAYMENT)

I authorize

and the financial institution named

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
Lighting Labels and Lingo
These days, consumers have endless options when it comes to purchasing light bulbs, but the labels can be confusing! Use the information below as a helpful guide for browsing bulbs.

### Lighting Facts

<table>
<thead>
<tr>
<th>Per Bulb</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brightness</strong></td>
<td>655 lumens</td>
</tr>
<tr>
<td><strong>Estimated Yearly Energy Cost</strong></td>
<td>$1.08</td>
</tr>
<tr>
<td>Based on 3 hrs/day</td>
<td></td>
</tr>
<tr>
<td>11c/kWh Cost depends on rates and use</td>
<td></td>
</tr>
<tr>
<td><strong>Life</strong></td>
<td>22.8 years</td>
</tr>
<tr>
<td>Based on 3 hrs/day</td>
<td></td>
</tr>
<tr>
<td><strong>Light Appearance</strong></td>
<td></td>
</tr>
<tr>
<td>Warm</td>
<td>Cool</td>
</tr>
<tr>
<td>2700 K</td>
<td></td>
</tr>
<tr>
<td><strong>Energy Used</strong></td>
<td>9 watts</td>
</tr>
</tbody>
</table>

Source: U.S. Department of Energy

### Read the Label
Under the Energy Labeling Rule, all light bulb manufacturers are required to give consumers key, easy-to-understand information on bulb efficiency. Take advantage of the Lighting Facts label, which gives you the information you need to buy the most energy-efficient bulb to meet your lighting needs. The label includes information on the bulb’s brightness, energy cost, life, light appearance and energy used (wattage).

### Save Energy
Bulbs are available in many shapes and sizes to fit your home’s needs. Choosing more efficient bulbs can help reduce energy consumption and save you money:
- LEDs use 25%-30% of the energy and last eight to 25 times longer than halogen incandescent bulbs.
- Purchase ENERGY STAR-rated bulbs to maximize energy efficiency.

### Buy Lumens, not Watts
Lumens measure the amount of light produced by the bulb. Watts measure energy consumption. **Tip:** To replace a 100-watt incandescent bulb, look for a bulb that produces about 1,600 lumens.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Incandescent 100 watt</td>
<td>1,600 lumens</td>
</tr>
<tr>
<td>LED 14 – 20 watt</td>
<td>1,600 lumens</td>
</tr>
</tbody>
</table>

### Generator safety
Generators can be dangerous or deadly to the user and to PKM Electric Cooperative personnel working to restore your electric service. Here are some very important safety precautions to consider when using a generator:
- Never use a portable generator in an enclosed area. Generators produce a dangerously high amount of carbon monoxide very quickly. Carbon monoxide is odorless and cannot be seen. It can cause serious brain damage and even death. Even if you cannot smell exhaust from the generator, you can still be exposed to carbon monoxide. If you start to feel dizzy or weak, get to fresh air immediately!
- Never try to power a house by plugging the generator into a wall outlet. This is known as backfeeding and is EXTREMELY dangerous to yourself, your neighbors and cooperative personnel working to restore your power.
- Always keep the generator dry; do not operate in wet conditions.
- If you are connecting a generator to your home’s wiring system, a double-throw disconnect switch MUST be installed and working properly. Contact PKM Electric for more information.

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**Energy Efficiency Tip of the Month**

Heading out of town for the holidays? Remember to unplug electronics that draw a phantom energy load. Some gadgets, like TVs, gaming consoles, chargers and DVD players use energy when plugged into an outlet, even when they’re not in use.

Source: energy.gov

**Smoke & CO Alarm Safety at Home**

- Install smoke and carbon monoxide alarms on every level of the home, including the basement, and within 10 feet of all bedrooms.
- Test your alarms monthly and change batteries at least once a year. If an alarm “chirps,” warning the battery is low, replace the battery right away.
- Replace all smoke alarms when they are 10 years old or sooner if they do not respond properly when tested.
- Fire warning equipment is available to awaken people who are deaf or hard of hearing. This equipment uses strobe lights and vibration equipment (pillow or bed shakers) for people who are deaf and mixed-low-frequency signals for people who are hard of hearing.
- Two-thirds of deaths in homes that have a fire can be attributed to no smoke alarms or dead batteries, according to the National Fire Protection Association.
- Carbon monoxide is known as the “silent killer” because it cannot be seen nor smelled. Having your furnace and combustion appliances checked yearly by a qualified technician is an important step in preventing CO issues.
A regular meeting of the board was held Tuesday, Sept. 25, 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 Hatton.

The president discussed MREA activities. He mentioned that the newly hired staff are performing well, and operations are running smoothly.

Director Folland provided a summary of Minnkota Power Cooperative business. He recapped the recent Straw Proposal Cost of Service Study discussion and final passing vote of 9-2.

Director Aakre reported that the next meeting for the Square Butte Cooperative will be on Oct. 7, 2018, with Project Tundra leading the discussion. He noted that margins are improved in comparison to 2017. At this time, the CEO presented the directors with a few miscellaneous informational items. In response to a request made at the August board meeting, he provided findings from a salary survey from neighboring cooperatives. He also shared some information from Boutique Air out of Thief River Falls, Minn. There is an option to purchase airfare vouchers for travels to and from scheduled meetings if there is interest.

Continued developments of the Workers’ Comp Group were discussed. The CEO mentioned this is worth conversation and continued investigation into the cost savings. Action to participate may come in January or April of 2019. The MPC Straw Proposal Cost of Service Study passing vote was recapped also.

A letter from OTP dated Sept. 24, 2018, was distributed to the directors in response to PKM legal counsel S. McGrane’s correspondence earlier in the month regarding the service territory dispute. Discussion ensued with the request made to report any future developments to the directors.

A sample policy bulletin from a neighboring cooperative was presented for consideration regarding incentives offered to employees for providing adequate written notice of voluntary separation of employment. Directors requested a PKM policy be drafted and included for discussion at the next board meeting.

Proposed changes to our IT-managed services provider and available subsidiary financials were discussed, concluding the informational agenda items.

The manager of operations presented the monthly report on activities in the line department. RAM will begin pole testing in the north end of the PKM system. This will keep PKM on an 8/10-year cycle. Crews remain busy with tile sump installations and are up to date with scheduled service upgrades related to bins/dryers. Reported connected members for the end of August are 3,879, representing a net gain of 40 from the same period last year.

The manager of member services reviewed items noted in his report, including the RF pilot update. Equipment to read the meters has been installed. Meter boards are currently at Ibby and the meters should arrive in a few weeks. Recent discussion with MPC regarding available rebates offered to Alvarado residents was reported on. Calls and inquiries regarding solar options continue to come in.

The administrative manager presented the recently attended MREA training, with the push from Federated to incorporate electronic tailgate in the line department being a topic of discussion.

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The manager of operations continued his monthly report on activities in the line department. RAM will begin pole testing in the north end of the PKM system. This will keep PKM on an 8/10-year cycle. Crews remain busy with tile sump installations and are up to date with scheduled service upgrades related to bins/dryers. Reported connected members for the end of August are 3,879, representing a net gain of 40 from the same period last year.

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A regular meeting of the board was held Tuesday, Oct. 30, 2018.

Tom Woinarowicz, president who presided, asked for roll call. Upon calling the roll, the secretary reported that all directors were present.

The president discussed MREA activities. He recommended the directors and staff review the MREA Legislative Updates emailed to MREA members as made available. He said the information published is well written and provides a clear summary of current legislative business.

Director Folland provided a summary of Minnkota Power Cooperative business. The recent meeting discussed the 2019 budget, recent rating review and the continuation of Project Tundra. The CEO also provided some additional points of interest to the directors and elaborated on items Director Folland mentioned. Capital credit retirements and the 5-year transmission upgrade plan were discussed.

Director Aakre reported on the recent Square Butte meeting. He highlighted Project Tundra and distributed information from David Greeson, who has been hired to assist with the project’s progression, and Director Aakre noted that Square Butte is operating under budget to date.

Director Hatton recapped his recent Washington D.C. legislative visit, noting the continued discussion of the proposed changes to the Farm Bill and cushion of credit impact.

The manager of operations presented the monthly safety report, indicating one first report of injury and no lost time. He recapped the Oct. 10th ice/snow storm impact on the PKM system. Power lines slapping together from the ice, snow and wind were the primary causes of approximately 30 line outages. The line crews worked through the night and had all power restored the following afternoon. The valuable assistance from CRC, the after-hours outage system, fielded the large volume of calls, allowing R. Bye to dispatch the line crews. The manager of operations commended the efficiency of the crews.

The manager of operations continued his monthly report on activities in the line department. RAM has completed pole testing in the north end of the PKM system; this keeps PKM on an 8/10-year cycle. The Department of Labor Apprenticeship Review has also been completed, showing PKM’s ratio to be in good standing. Reported connected members for the end of September are 3,891, representing a net gain of 48 from the same period last year.

The manager of member services reviewed items noted in his report including a recap of the recent Minnkota load management meeting and his recent attendance at the Canon Conference in Minneapolis. The RF pilot project is well underway with the installation of meters, and the manager is satisfied with initial reporting. If the transition and operation of this metering project presents favorable results, he recommends migrating the system by substations.

The administrative manager presented her monthly report. A recent MREA conference call regarding MN DOR property tax on infrastructure and its impact to the cooperative was discussed with continued updates to be presented as available. She recently visited North Star Electric Cooperative to review additional NISC software programs that they are currently utilizing and that PKM will be implementing.

The administrative manager continued with the presentation of the Operating and Financial reports for the cooperative. She distributed historical graphs displaying a comparison and/or trend of key financials over a 4-year period.

The CEO referenced his emailed monthly report recapitulating his attendance at various meetings through the month of October. Additional items in his report will be addressed in detail during the meeting.

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

An engagement letter confirming the auditing services Brady Martz will be providing PKM for the year ending Dec. 31, 2018 was signed.

Third quarter financials were reviewed by the board and found to be an accurate representation of the cooperative’s financial transactions.

The details of a meter-connection issue that was recently discovered were presented by the manager of operations. An outside third party has concluded their investigation and will continue servicing PKM Electric’s meter equipment testing. The billing amounts were disclosed, and the guidelines recommended were outlined. The board requested to have management contact the member and request payment for the previous 12 months’ electric service with open terms of repayment.

There has been continued conversation with the parties involved in the service area dispute near Lancaster. Estimated costs associated with building service and permitting have been disclosed and evaluated. Discussion of forthcoming action continues.

The CEO provided a Workers’ Comp Retention Group update. Twelve Minnesota electric cooperatives, currently not in existence, Minnesota workers’ compensation pool, have decided to pursue forming their own pool. It is predicted this change will create a substantial cost savings to the cooperative. Potential action will come in the first quarter of 2019.

A separation of employment policy bulletin was presented for consideration regarding incentives offered to nonunion employees for providing adequate written notice of voluntary separation of employment. The board approved Policy Bulletin No. 1-10, titled “Separation of Employment,” and a copy of this policy was appended to the official minutes of this meeting.

The CEO has requested feedback from the board regarding his performance as CEO of the cooperative. The president acknowledged his request and requested the directors review the expectations outlined in the acceptance of employment letter issued to the CEO in January 2018. In addition to CEO performance discussion and feedback, directors will also review possible planning meeting topics proposed by the CEO at the next meeting.

The IT-managed services transition to InvisiMax will begin on Nov. 6, 2018. Also, the final summer demand numbers from Minnkota have been received, and PKM will receive an increase. Discussion was held regarding the current layout and contents of the PKM News with no changes decided. The meeting concluded with a review of subsidiary financials and an acknowledgement of Director Mark Hatton’s completion of Credentialed Cooperative Director courses.

### Statistical and financial report

#### Year-to-date: October 2018

<table>
<thead>
<tr>
<th></th>
<th>Last Year</th>
<th>This Year</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total income</td>
<td>$11,431,446</td>
<td>$11,552,785</td>
<td>$11,472,295</td>
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<tr>
<td>Total expense</td>
<td>$11,254,151</td>
<td>$10,673,318</td>
<td>$11,022,411</td>
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<tr>
<td>Net operating margins</td>
<td>$574,184</td>
<td>$468,960</td>
<td>$294,142</td>
</tr>
<tr>
<td>Total kWh sold</td>
<td>92,374,761</td>
<td>94,329,733</td>
<td>85,326,772</td>
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<tr>
<td>Avg. kWh sold per member</td>
<td>2,424</td>
<td>2,453</td>
<td></td>
</tr>
<tr>
<td>Line loss</td>
<td>5.00%</td>
<td>5.07%</td>
<td></td>
</tr>
<tr>
<td>Del. cost per kWh purchased</td>
<td>8.22¢</td>
<td>8.22¢</td>
<td></td>
</tr>
<tr>
<td>Average sale price per kWh</td>
<td>12.38¢</td>
<td>12.25¢</td>
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<tr>
<td>Percent kWh sales increase</td>
<td>(3.11%)</td>
<td>2.11%</td>
<td></td>
</tr>
<tr>
<td>Members billed</td>
<td>3,810</td>
<td>3,849</td>
<td></td>
</tr>
<tr>
<td>Miles of line in service</td>
<td>2,261</td>
<td>2,267</td>
<td></td>
</tr>
</tbody>
</table>

### Where your power comes from

- **Other 3%**
- **Wind 34%**
- **Coal 67%**
- **WAPA (Hydro) 8%**
- **WAPA (Hydro) 11%**

**Capacity**

**Energy**

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2018 uncashed dividend checks

Listed below are capital credit checks of former members of PKM Electric Cooperative, Inc. that have not been cashed or that the U.S. Post Office returned with no forwarding address. If you know the current address of these former members, please contact our office, or please cash the check if you received it. All members are reminded that they should keep the cooperative informed of their current address for sending capital credit payments after they leave our system.

Agri Fam Corp. Raul Delacruz Jr. Arthur Hulteng
Stephen D. Allen Donovan D. Donarski Gregorio Ibarra
American Legion Post 539 Jeff Driscoll Adeloyde V. Johnson
Craig Amiot Jason Dybedahl Corey L. Johnson
Florence H. Anderson Emanuelson Bros. Lorne K. Johnson
Grace Anderson C.M. Evans MD Norman E. Johnson Estate
Mark Anderson Bruce Fanfullik Reidus Johnson
Spencer Anderson Wayne Feuillerat Vern Johnson
Augsburg Town Hall Foerster Gravel Ronald A. Jones
Paul M. Baier Wayne Gabbert Kevin Jopp
Shelly Bakke Douglas Gallaway Carol Kostrezewski
David Bartholomew Emilia Garza Leon Krueger
Joel Bedard GF Cong Jehovah Witnesses Adam Kuznia
Byron Bengtson Martin Glynn Gregory Kuznia
Keith D. Bisson Darin Grandstrand Valeria Leclair
Greg L. Bogestad Mrs. Gordon Grandstrand Arthur J. Lesmann
Wallace Bolduc Susan Grant James Lindgren
Mary Broten Pam Grochowski Darrell Loock
Darlene Bushaw Robert Hanson Daryl Lofstrom
Inez Carlson Hapka Bros. Wayne Mager
Michael D. Carlson Gladys M. Haugen Michael McGrath
Shawn Carlson Farms Inc. Eric Heath Gerald Medenwald
Lowell Cedergren Roylene Hebert Rodger Miller
Sandra E. Clark Scott Hebert Lisa Mills
Neil Coulter Randy Helgeson Randy Murray
Anna Dagen Richard Hernandez Elaine S. Myrfield
Corinda K. Davis Richard Hockstedler Brad Nelson
Andrew S. Deitz Ron Huderle Holly Nelson
Nan Netterlund
Daryl A. Nikle
Pedro Oliva
Darryl Olson
Lyle Quade
Radio Station KKXL 14
Ron Ranstrom
Leonard Riopelle
Ruby Rodda
Yolanda Rodriguez
Tom Ryan Farms
Carl Sandahl
Marion Setterholm
Melvin Simonson
Larry Smith
Soo Line RR Co
Heidi Spilde
Melvin Steward
David Strandquist
Arvin Sundby
Myron Swanson
James Swenson
Mark Symington
Michael L. Szklarski
Matt Thompson
Ordean H. Thompson
Melinda Volker
Teresa J. Vonasek-Riske
Jeff Wanek

PKM’S CO-OP MONTH PRIZE WINNERS

Tom Docken, Hallock, Minn. $250 energy credit
Douglas Thompson, Karlstad, Minn. $100 energy credit
Wesley Staie, Karlstad, Minn. $50 energy credit

Kelsey Spilde – Kids coloring contest, Kindle Fire HD