Is 100% carbon-free electricity possible?

LEARN MORE ON PAGE 6
It's mid-January and financial performance for 2020 is coming into focus. Purchased energy from Minnkota Power Cooperative, PKM's wholesale power provider, is down 4.4% as compared to 2019. The majority of this reduction is weather related. The wet fall of 2019 created additional crop drying sales, and the recent mild December reduced electric heating sales. Every Minnkota cooperative lost sales in 2020, the average being 3.5%.

Our margins continue to hold up. The years of 2016, 2017, 2018 and 2019 all produced margins slightly over $1 million. It looks like for 2020 the margin will be in the range of $870,000, which is down slightly but again, weather related. PKM remains in great financial condition.

PKM's last rate adjustment was in 2015. No rate increase is scheduled for 2021, so stable rates continue. Currently Minnkota is looking at a possible rate increase in 2022, but the amount and how it is to be implemented has not yet been determined.

PKM had another safe year. In the industry this is called “no lost time.” Our Minnesota-assigned workers compensation rate continues to hold way under the industry average, which saves us money on our workers compensation premium. At this time, all our lineworkers have completed the required coursework, testing and experience to obtain the journeymen lineman designation.

Over the past two years we have been testing a replacement metering system. Our existing system is PLC (power line carrier) technology. The system is becoming obsolete and faster systems offering more information are available. We have never been at the forefront of technology, as our conservative nature causes us to take a wait-and-see approach on the latest and greatest. The new metering technology has been out a number of years and has a track record for us to evaluate. We think it will be a good improvement and investment, and we are planning on phasing it in over the next few years.

COVID-19 has caused much longer lead times on sourcing materials and trucks. We pay attention to metal prices, such as copper and aluminum, that are used in our conductors. For 2021 we have been told to plan for a price increase of 15-25% on those two metals. This of course affects our conductor costs, probably in the neighborhood of 6-11% on underground cable, as there are more components to the cable than just the metals. The current cost to retire a mile of single-phase overhead and replace it with underground is just under $30,000.

This winter we continue with right-of-way clearing, pole replacements and line patrol. We continue to do our best to operate the cooperative in your best interest. Stay safe!
Stable warmth in unstable times

Uncertainty had been the name of the game for much of 2020. But as we slip into the first few weeks of the year, PKM Electric Cooperative feels certain about one thing – your continued warmth and comfort throughout the winter.

The energy planners at Minnkota Power Cooperative (power provider for PKM Electric) expect a standard season for members with electric heat on demand response. The voluntary program allows the cooperative to temporarily interrupt service to a member’s off-peak loads, like electric heating and large-capacity water heaters, in exchange for a lower electric rate.

For technologies like air-source heat pumps and plenum heaters, the system automatically switches to a backup fuel source such as propane, so there is no break in comfort.

Todd Sailer, Minnkota senior manager of power supply and resource planning, says he expects the level of winter demand response to be comparable to the past 4-5 years – less than 100 hours. Members should always be prepared for up to 200-250 hours of management, but have historically encountered much less. Last winter, Minnkota only logged 10 hours of interruption due to mild weather and low wholesale energy prices.

“The only things that are really going to drive that up are a shift in the energy market, which is typically going to be weather related,” Sailer explained. “If you get a polar vortex or a wind event where there’s simply no wind during high loads, that’s where that number suddenly goes from 70 to 250 hours really quick.”

Demand response doesn’t just happen during extreme cold. A planned generator outage or extended lack of intermittent resources across the region can push the program into action.

“When we see there’s no wind in North Dakota, Minnesota, Iowa and those areas where there’s often a lot of wind, that’s when we start to see high markets, and that’s when you’ll see more demand response,” Sailer said.

Although Minnkota expects a typical level of demand response this year, COVID-19 may change when it activates. When more people are working and learning from home, times of peak energy usage shift, which impacts the availability of excess resources to cover energy demand.

“Instead of demand response from 7-9 a.m., it might be from 8-11 a.m.,” Sailer said. “The load curve changes, so it might change how we actually implement our load management.”

To prepare for demand response, make sure your system is working properly and that you have adequate backup fuel before the coldest days arrive. If you are not a participant in the program but are interested in how to save money with an all-season air-source heat pump, a cost-effective plenum heater or zero-maintenance underfloor storage heat, call your energy experts at PKM Electric Cooperative.

The demand response program began as a way to manage power during peak seasonal need without building additional generation resources – a costly solution for only a few days a year. But the electric heating technologies that have evolved within the program are helping our members enhance their comfort and safety, things we could all use a little more of in 2020.

**NOTICE TO OFF-PEAK MEMBERS**

The off-peak program is designed to reduce electric load during peak demand times and pass energy savings on to participating members by controlling electric home heating and water heating equipment.

If during the heating season you experience a control event that seems excessively long or have no hot water, please be sure to give us a call first to determine if further help is needed.

To know if load is being controlled, visit our website at [www.pkmcoop.com](http://www.pkmcoop.com), click on “Member Services” from the homepage, then the link “Load Management” and scroll down to the “Current Status” link. When viewing the Last Switching Status graph, cells that are the color green indicating “on” means there is no load control activity, and red cells with “off” indicate load is being controlled.

If you have any questions, please call 1-800-552-7366 or 218-745-4711.
All-of-the-above strategy ensures the best energy value

“Don’t put all your eggs in one basket.” It’s a familiar saying, and believe it or not, that age-old piece of wisdom is used by electric cooperatives to make sure you receive a reliable, affordable and environmentally responsible supply of electricity. Each of the primary generation resource options across the country has both advantages and disadvantages. This is why an all-of-the-above energy strategy is so crucial. If a utility ties itself to one resource, it is exposed to all the risks associated with that resource. By diversifying, utilities are able to take advantage of the pros and limit their exposure to the cons.

Through its membership in Minnkota Power Cooperative, PKM Electric Cooperative uses a diverse mix of coal, wind and hydro to meet your 24/7 electricity needs. Future power supply decisions take into account numerous factors, including permitting; capital, operating and maintenance costs; existing generation mix; reliability and resiliency; and projected consumer demand for electricity.

Decisions to build or purchase from new generation resources are carefully considered. Building any new generation resource at grid scale can cost hundreds of millions of dollars and require decades of investment and commitment. That makes it uneconomic to switch back and forth between power supply options over short periods of time.

### PROS AND CONS OF GENERATION RESOURCES

**DISPATCHABLE/BASELOAD INTERMITTENT**

- No fuel cost
- No air emissions

**SOLAR**

- Has intermittent production (produces about 15-18% of its potential on an annual basis)
- Requires investment in backup generation resources
- Solar panels take a larger footprint to produce the same energy as other resources
- Production affected by clouds, snow and extreme cold temperatures
- Costs are higher than other resources, but are trending downward

**BATTERY TECHNOLOGY**

- Technology is in its infancy at grid scale
- Can be dispatched when needed
- Pairs well with renewable resources
- Costly to deploy and requires investments in other generation resources to charge the batteries
- Can only dispatch for 2-4 hours at a time when energy can be needed for days
- Battery components require significant amounts of rare earth elements, which are almost exclusively produced by China

**WIND**

- No air emissions
- Cost-competitive with other resources
- Has intermittent production (produces about 45% of its potential on an annual basis)
- Requires investment in backup generation resources
- Turbines take a larger footprint to produce the same energy as other resources
- Wind farms can impact bird and wildlife populations
- Cannot operate in extreme cold or wind conditions

**NUCLEAR**

- No air emissions
- Can reliably run 24 hours per day
- High capital cost and increasingly expensive fuel
- Radioactive waste must be properly disposed of and monitored
- Nearly impossible to permit
- Cannot ramp up and down to accommodate renewable production

**HYDRO**

- No fuel cost
- Low-cost energy to consumer
- No air emissions
- Flexible operation
- Currently, almost impossible to permit
- Affects fish and wildlife habitat
- Alters the natural flow of rivers
- Virtually no resources in development (some dams being removed)

**NATURAL GAS**

- Lower CO₂ emission levels than coal
- Currently, natural gas is low-priced
- Can be run 24/7 or used during peak events
- Flexible operation
- Fuel costs have been historically volatile
- Pipeline infrastructure not adequate for projected demand
- Potentially more expensive to install CO₂ capture technology

**LIGNITE COAL**

- Abundant, domestic fuel source
- Can reliably run 24 hours per day
- Cost-competitive with other resources
- Currently, almost impossible to permit
- Can be difficult to ramp up and down to accommodate renewable production
- Higher CO₂ intensity than natural gas, although CO₂ capture technology is advancing
All-of-the-above strategy ensures the best energy value.

"Don't put all your eggs in one basket." It's a familiar saying, and believe it or not, that age-old piece of wisdom is used by electric cooperatives to make sure you receive a reliable, affordable and environmentally responsible supply of electricity. Each of the primary generation resource options across the country has both advantages and disadvantages. This is why an all-of-the-above energy strategy is so crucial. If a utility ties itself to one resource, it is exposed to all the risks associated with that resource. By diversifying, utilities are able to take advantage of the pros and limit their exposure to the cons.

Through its membership in Minnkota Power Cooperative, PKM Electric Cooperative uses a diverse mix of coal, wind and hydro to meet your 24/7 electricity needs. Future power supply decisions take into account numerous factors, including permitting; capital, operating and maintenance costs; existing generation mix; reliability and resiliency; and projected consumer demand for electricity. Decisions to build or purchase from new generation resources are carefully considered. Building any new generation resource at grid scale can cost hundreds of millions of dollars and require decades of investment and commitment. That makes it uneconomic to switch back and forth between power supply options over short periods of time.

### PROS AND CONS OF GENERATION RESOURCES

#### DISPATCHABLE/BASELOAD

<table>
<thead>
<tr>
<th>Resource</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIGNITE COAL</td>
<td>Abundant, domestic fuel source</td>
<td>Currently, almost impossible to permit</td>
</tr>
<tr>
<td></td>
<td>Can reliably run 24 hours per day</td>
<td>Can be difficult to ramp up and down to accommodate renewable production</td>
</tr>
<tr>
<td></td>
<td>Cost-competitive with other resources</td>
<td>Higher CO₂ intensity than natural gas, although CO₂ capture technology is advancing</td>
</tr>
<tr>
<td>NATURAL GAS</td>
<td>Lower CO₂ emission levels than coal</td>
<td>Fuel costs have been historically volatile</td>
</tr>
<tr>
<td></td>
<td>Currently, natural gas is low-priced</td>
<td>Pipeline infrastructure not adequate for projected demand</td>
</tr>
<tr>
<td></td>
<td>Can be run 24/7 or used during peak events</td>
<td>Potentially more expensive to install CO₂ capture technology</td>
</tr>
<tr>
<td></td>
<td>Flexible operation</td>
<td></td>
</tr>
<tr>
<td>HYDRO</td>
<td>No fuel cost</td>
<td>Currently, almost impossible to permit</td>
</tr>
<tr>
<td></td>
<td>Low-cost energy to consumer</td>
<td>Affects fish and wildlife habitat</td>
</tr>
<tr>
<td></td>
<td>No air emissions</td>
<td>Affects the natural flow of rivers</td>
</tr>
<tr>
<td></td>
<td>Flexible operation</td>
<td>Virtually no resources in development (some dams being removed)</td>
</tr>
<tr>
<td>NUCLEAR</td>
<td>No air emissions</td>
<td>High capital cost and increasingly expensive fuel</td>
</tr>
<tr>
<td></td>
<td>Can reliably run 24 hours per day</td>
<td>Radioactive waste must be properly disposed of and monitored</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nearly impossible to permit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cannot ramp up and down to accommodate renewable production</td>
</tr>
<tr>
<td>WIND</td>
<td>No fuel cost</td>
<td>Has intermittent production (produces about 45% of its potential on an annual basis)</td>
</tr>
<tr>
<td></td>
<td>No air emissions</td>
<td>Requires investment in backup generation resources</td>
</tr>
<tr>
<td></td>
<td>Cost-competitive with other resources</td>
<td>Turbines take a larger footprint to produce the same energy as other resources</td>
</tr>
<tr>
<td>SOLAR</td>
<td>No fuel cost</td>
<td>Wind farms can impact bird and wildlife populations</td>
</tr>
<tr>
<td></td>
<td>No air emissions</td>
<td>Cannot operate in extreme cold or wind conditions</td>
</tr>
<tr>
<td>BATTERY TECHNOLOGY</td>
<td>Can be dispatched when needed</td>
<td>Technology is in its infancy at grid scale</td>
</tr>
<tr>
<td></td>
<td>Costs are higher than other resources, but are trending downward</td>
<td>Costly to deploy and requires investments in other generation resources to charge the batteries</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Can only dispatch for 2-4 hours at a time when energy can be needed for days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Battery components require significant amounts of rare earth elements, which are almost exclusively produced by China</td>
</tr>
</tbody>
</table>

January-February 2021 / PKM News 5
Is **100% carbon-free electricity possible?**

Major technology breakthroughs needed to reach ambitious climate goals

The year 2050 may seem far away, but for electric utilities it feels like tomorrow.

Many political leaders, large corporations and environmental groups are calling for the electricity sector to be 100% carbon-free by midcentury or sooner. While this goal is virtually impossible to meet in 2021, can we reach it in the coming decades without sacrificing electric reliability or affordability? One thing is certain: It will take every ounce of innovation the world has to offer.

The complexity and difficulty in achieving a carbon-free electric grid cannot be understated. No single technology, power source or approach will be sufficient on its own. It will take an all-of-the-above strategy and many technological breakthroughs occurring rapidly in the coming years.

PKM Electric Cooperative has made great strides toward reducing the carbon footprint of its generation portfolio. About 42% of the generation capacity provided is already derived from carbon-free resources, and methods to decarbonize even further are being pursued by Minnkota Power Cooperative, our wholesale power provider.

Minnkota is thoroughly evaluating Project Tundra – an effort to install carbon capture technology at the coal-based Milton R. Young Station near Bismarck, N.D. This power plant has reliably delivered electricity to PKM Electric members for decades and is well-positioned for technology advancements. The Project Tundra facility is designed to have a 90% CO₂ capture rate – which is the equivalent of permanently taking 800,000 gasoline-fueled cars off the road. The CO₂ would be safely stored more than one mile underground near the Young Station site. If the project moves forward, a substantial amount of the energy provided to you through PKM Electric Cooperative would be carbon-free.

As the energy transition continues, it is vitally important that electric utilities remain part of the conversation and that decisions are based on technological capabilities, reliability and affordability. Here are five things to consider during discussions on a carbon-free energy future.

**Need for carbon capture technology**

To maintain the reliability and stability of the electric grid, dispatchable resources, like coal and natural gas, will need to continue operation for the foreseeable future. That means that carbon capture technology will need to be rapidly developed and deployed across the country and the world. In fact, the United Nations’ Intergovernmental Panel on Climate Change (IPCC) – the gold standard in international climate change modeling – has determined that without carbon capture technology, it is virtually impossible to meet ambitious climate goals.

**Limitations of renewables and batteries**

While wind and solar resources provide zero-emissions energy, they are also limited by the fact that they cannot operate on a frequent-enough basis to stabilize the grid by themselves. Backup resources are still needed for when the wind doesn’t blow and the sun doesn’t shine. While many are optimistic about the future of battery technology, it is still in its infancy at grid scale. Large battery banks can currently only dispatch energy into the grid for a few hours at a time, when multiple days of backup power can be needed.

**Electric grid transformation**

As more non-dispatchable, intermittent energy comes onto the grid, power system operators will be challenged to meet real-time operational demands. The nation’s electric grid will undoubtedly need to be expanded and upgraded to ensure 24/7 stability. This will require a tremendous amount of investment, planning and coordination across multiple states. A recent study by the CapX2050 group anticipates the investment level to be in the billions in the Upper Midwest alone.

**Role of beneficial electrification**

As the electric grid continues to see lower emissions levels, electrifying everything – from transportation to heating and water heating – provides long-term economic and environmental benefits. Known as “beneficial electrification,” this concept highlights the opportunities to reduce emissions through increased use of electricity to power devices that would otherwise burn fuels like gasoline, diesel, fuel oil or propane. This will be an essential strategy in decarbonizing other sectors.

**Addressing other sectors**

Reaching climate goals requires a global strategy that extends well beyond electricity generation. According to the U.S. Environmental Protection Agency (EPA), the electricity sector only contributes about 25% of all global greenhouse-gas emissions. If the goal is to reach net-zero greenhouse-gas emissions, significant reductions must also be found from agriculture (24%), manufacturing (21%), transportation (14%), buildings (6%) and other miscellaneous sources (10%).

6 PKM News / January-February 2021
We all enjoy the vision of a blanket of white after a winter storm – but clearing your driveway and sidewalks can be downright aggravating. Whatever angers you most about snow removal, an electric snow blower is likely just the fix for your frustration.

**IT’S TOO LOUD!**
Do you find yourself waiting to clear your driveway in the morning because you’re scared to wake the neighbors? Since electric snow blowers don’t have rumbling machinery, your a.m. chore won’t upset the family next door.

**I HATE THE SMELL!**
The scent of exhaust can linger on your coat, scarf and gloves for longer than you’d like, especially if you have somewhere to be right after snow blowing. Electric snow blowers don’t emit exhaust or fumes, which is good for you and good for the environment.

**THE GAS IS A PAIN TO STORE!**
You not only have to worry about where and how to store your gas-powered snow blower’s fuel and oil, but you also have to worry about what is sitting unused in the tank. With electric, you simply need an outlet to plug in or charge up.

**IT’S TOO BULKY!**
A lightweight electric blower or snow shovel is a perfect tool for clearing the narrow corners of your deck and even the delicate heights of your roof. Try that with your standard gas-powered machine.

**I CAN’T START THE THING!**
If you’ve never been a fan of unpredictable pull-cord ignition, an electric snow blower offers a super simple push button start that everyone in the family can use – and it works every time.

Check out your local hardware store to see all of the latest corded and battery-powered options. Models become more powerful every year, with some able to throw snow more than 35 feet or at 500 pounds per minute!
Winter energy-saving tips

Keep the cold out and the warm in this winter with the following energy and money-saving tips from PKM Electric Cooperative.

Seal air leaks – Air leaks are among the greatest source of energy loss in a home. According to the Department of Energy, caulking, sealing and weatherstripping where appropriate can save 10-20% on heating and cooling.

Look for air leaks in walls, ceilings, windows, doors, lighting and plumbing fixtures, switches and electrical outlets. One way to check for this is to hold a lit incense stick on a windy day next to the items mentioned above and other places where air may leak. If the smoke stream travels horizontally, you have located an air leak.

After finding the leaks, consider the following:
• Weatherstrip doors and windows.
• Caulk and seal air leaks where plumbing, ducting or electrical wiring comes through walls.
• Install foam gaskets behind outlet and switch plates on exterior walls.
• Use foam sealant on larger gaps around window trims, baseboards and other places.
• Check to ensure the fireplace damper is closed and fits properly when not in use.

Item to note: When adding insulation or air sealing, be sure to consult a professional if the job is complicated or the home is tightened so much that mechanical ventilation may be needed. There are professional services that offer a complete energy audit with blower door and thermal camera imaging for a fee.

Furnace filter – Replace your furnace filter as necessary or recommended. There’s a reason this is one of the most common tips mentioned. A dirty filter causes a furnace to work harder.

Put a timer on your block engine heater – If you have cars, trucks or tractors plugged in, a timer can help you save energy.

Change lights to LED – Save up to 80% on lighting by going to LED over incandescent. Just look on the box to ensure the lumen output is equal to the ones you are replacing.

Many more tips are available at www.energy.gov.

Estimating energy usage and cost

When it comes to energy use, every home is unique. Home construction, the number of appliances, how they are used and the length of time they are used all factor into your monthly electric statement. If you want to get a better handle on where your energy dollars are going, use the following information to begin estimating how much electricity your appliances use.

Step 1 – Since the wattage of an appliance or electrical equipment determines the electrical usage per hour, the first step is to determine the wattage. The wattage of an appliance is found on the serial plate. It is possible that electrical equipment may be expressed in volts and amperes rather than watts. If so, multiply volts and amperes together to determine the wattage.

Example: 120 volts x 12.1 amps = 1,452 watts

Step 2 – Use the formula to estimate usage and cost. The formula is (watts x hours of operation)/1,000 watts = kilowatt-hours. To find the cost, multiply the kWh by the rate. Keep in mind that you are billed in kWh, and 1,000 watts equals 1 kilowatt.

Example: A light uses 100 watts and is left on 15 hours. How many kWh are used and what does it cost you?

\[
kWh\ use = \frac{(100 \text{ watts} \times 15 \text{ hrs})}{1,000 \text{ watts}} = 1.5 \text{ kWh}
\]

Your cost = 1.5 kWh x $0.121 = $0.1815
Five things you’ll LOVE about an off-peak water heater

If you’re looking for that warm-and-fuzzy feeling during the month of love, look no further – your perfect Valentine’s Day match is a large-capacity water heater on off-peak. Electric water heaters offer the consistency and comfort of a soulmate at a price that won’t break your heart.

Bargain off-peak rate: When you set up your electric water heater on the off-peak program *(heating the water during lower-demand times of day)*, you can cut that electricity rate in half – and the savings add up fast.

Lower purchase price: Electric water heaters are simpler with fewer parts, so the equipment is often less expensive than other water heater technologies.

Easy setup: Every home is already wired with electricity, so you don’t have to worry about the expensive and complicated piping and venting setup that comes with fuels like propane.

More efficient: Electric water heaters are more efficient, because they don’t lose any heat in a venting process like gas water heaters do – all the energy goes directly to heating water.

Safe and clean: An electric water heater allows you to use the safe and clean power of electricity. Gas heater lines need to be inspected regularly to avoid gas leaks.

The cherry on top of these benefits is that you can get **HUGE REBATES** for installing a new electric water heater on off-peak. Contact the energy pros at PKM Electric Cooperative at 218-745-4711 to find out how.

### Electric Water Heater Rebates

*Must be on off-peak*

<table>
<thead>
<tr>
<th>Gallon Capacity</th>
<th>Rebate</th>
<th>Bonus rebates:</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 gallon or greater</td>
<td>$500</td>
<td>Add $250 if converting from natural gas or propane.</td>
</tr>
<tr>
<td>56-99 gallon</td>
<td>$400</td>
<td><strong>FREE</strong> 50- or 85-gallon Marathon water heater for new construction.</td>
</tr>
<tr>
<td>55 gallon or less</td>
<td>$200</td>
<td></td>
</tr>
</tbody>
</table>
A regular meeting of the board was held Tuesday, Nov. 24, 2020.

Mark Hatton, president who presided, asked for roll call. Upon calling the roll, the president reported that all directors were present with the exception of Director Goodwin. Directors Aakre, Woinarowicz, Mortenson, Owens and Peterson participated via phone conference.

Director Woinarowicz provided highlights from Minnkota Power Cooperative business activities. He shared how Minnkota does its policy review. He praised Minnkota’s process and how the attorney briefs each policy, making the directors have an idea of what the policy is about. The next Minnkota meeting is scheduled for Thursday, Dec. 17.

Director Aakre gave the board an update. Square Butte has not had a meeting since the last time he gave his report in October. The next Square Butte meeting will be on Dec. 10, 2020.

Line superintendent Joe Marcotte presented the monthly safety and operations report, indicating no accidents and no lost time. Marcotte also shared praise for the linemen for doing a great job this fall getting things done and that the weather helped tremendously.

The manager of member services shared recent activities within his department. Chapman was here testing and that the weather helped tremendously.

The CFO presented the directors with a few changes that have been recommended by the USDA to be updated on the Redleg Revolving Loan. They discussed the changes that were updated after it was tabled last month. The board approved the Redleg Revolving Loan plan presented with the recommended changes from USDA.

The CEO mentioned CFC’s Integrity Fund was once again soliciting contributions. The CEO refreshed the directors to their previous sizable contribution with previous litigation and asked the board as to their desire for contributions in 2020. The board instructed management to donate to the CFC Integrity Fund in the amount of $500.

The manager reminded the board of NRECA’s International Program, which leverages contributions for electrifying third-world countries with federal development funds. The board authorized management to contribute $500 to the NRECA International Program.

The president reminded the directors that the 2021 ACRE and REPAC contributions are now being accepted. Please submit to the administrative assistant for processing.

The CEO tabled the 4-year work plan for 2021-2024, and the 2021 capital budget preliminary review was approved. The board approved the Redleg Revolving Loan plan presented with the recommended changes from USDA.

The 2021 operating budget preliminary review was presented and will be finalized at the December meeting for discussion and approval as the November reported financials will aid in accuracy for budget projections.

The 2021 capital budget preliminary review was presented and will be finalized at the December meeting for discussion and approval. Staff held several meetings to discuss capital needs going forward.

The 2021 capital budget preliminary review was presented and will be finalized at the December meeting for discussion and approval. Staff held several meetings to discuss capital needs going forward.

The CEO tabled the 4-year work plan for 2021-2024, after discussion of the operating and capital budget. It will be addressed and will be discussed the next meeting.

The CFO presented the directors with a few changes that have been recommended by the USDA to be updated on the Redleg Revolving Loan. They discussed the changes that were updated after it was tabled last month. The board approved the Redleg Revolving Loan plan presented with the recommended changes from USDA.

The CEO mentioned CFC’s Integrity Fund was once again soliciting contributions. The CEO refreshed the directors to their previous sizable contribution with previous litigation and asked the board as to their desire for contributions in 2020. The board instructed management to donate to the CFC Integrity Fund in the amount of $500.

The manager reminded the board of NRECA’s International Program, which leverages contributions for electrifying third-world countries with federal development funds. The board authorized management to contribute $500 to the NRECA International Program.

The president reminded the directors that the 2021 ACRE and REPAC contributions are now being accepted. Please submit to the administrative assistant for processing.

The CFO opened her report with an office update to the directors, highlighting that we had picked up with cross-training again in the office. She informed the directors that disconnect letters will be sent for the remainder of the year, however no late fees are being charged through the end of the year.

The CFO continued with the presentation of the Operating and Financial report for the cooperative, referencing her written report outlining details.

The CFO concluded her written report outlining recent meetings. Upon presentation of the reports from the management staff and CEO, questions and comments from the board concerning their reports were addressed. The monthly reports of the CEO and management staff of the cooperative presented at the meeting to the board were received.

The 2021 operating budget preliminary review was presented and will be finalized at the December meeting for discussion and approval as the November reported financials will aid in accuracy for budget projections.

The 2021 capital budget preliminary review was presented and will be finalized at the December meeting for discussion and approval. Staff held several meetings to discuss capital needs going forward.

The CEO tabled the 4-year work plan for 2021-2024, after discussion of the operating and capital budget. It will be addressed and will be discussed the next meeting.

The CFO presented the directors with a few changes that have been recommended by the USDA to be updated on the Redleg Revolving Loan. They discussed the changes that were updated after it was tabled last month. The board approved the Redleg Revolving Loan plan presented with the recommended changes from USDA.

The CEO mentioned CFC’s Integrity Fund was once again soliciting contributions. The CEO refreshed the directors to their previous sizable contribution with previous litigation and asked the board as to their desire for contributions in 2020. The board instructed management to donate to the CFC Integrity Fund in the amount of $500.

The manager reminded the board of NRECA’s International Program, which leverages contributions for electrifying third-world countries with federal development funds. The board authorized management to contribute $500 to the NRECA International Program.

The president reminded the directors that the 2021 ACRE and REPAC contributions are now being accepted. Please submit to the administrative assistant for processing.

The CFO opened her report with an office update to the directors, highlighting that we had picked up with cross-training again in the office. She informed the directors that disconnect letters will be sent for the remainder of the year, however no late fees are being charged through the end of the year.

The CFO continued with the presentation of the Operating and Financial report for the cooperative, referencing her written report outlining details.

The CEO referenced her written report outlining recent meetings. Upon presentation of the reports from the management staff and CEO, questions and comments from the board concerning their reports were addressed. The monthly reports of the CEO and management staff of the cooperative presented at the meeting to the board were received.

The 2021 operating budget preliminary review was presented and will be finalized at the December meeting for discussion and approval as the November reported financials will aid in accuracy for budget projections.

The 2021 capital budget preliminary review was presented and will be finalized at the December meeting for discussion and approval. Staff held several meetings to discuss capital needs going forward.

The CEO tabled the 4-year work plan for 2021-2024, after discussion of the operating and capital budget. It will be addressed and will be discussed the next meeting.

The CFO presented the directors with a few changes that have been recommended by the USDA to be updated on the Redleg Revolving Loan. They discussed the changes that were updated after it was tabled last month. The board approved the Redleg Revolving Loan plan presented with the recommended changes from USDA.

The CEO mentioned CFC’s Integrity Fund was once again soliciting contributions. The CEO refreshed the directors to their previous sizable contribution with previous litigation and asked the board as to their desire for contributions in 2020. The board instructed management to donate to the CFC Integrity Fund in the amount of $500.

The manager reminded the board of NRECA’s International Program, which leverages contributions for electrifying third-world countries with federal development funds. The board authorized management to contribute $500 to the NRECA International Program.

The president reminded the directors that the 2021 ACRE and REPAC contributions are now being accepted. Please submit to the administrative assistant for processing.
The monthly reports of the CEO and management staff of the cooperative presented at the meeting to the board were received.

The CFO opened her report with an office update to the directors, highlighting what she submitted in her written report. She informed the directors that disconnect letters will be sent for December, with late fees starting in January. The CFO continued with the presentation of the Operating and Financial report for the cooperative.

The CEO referenced his written report outlining recent meetings. Upon presentation of the reports from the management staff and CEO, questions and comments from the board concerning their reports were addressed. The monthly reports of the CEO and management staff of the cooperative presented at the meeting to the board were received.

At this time in the meeting the cooperative’s engineer, Randy Vetter of MEI Engineering, Inc., presented the 4-year work plan to the board. He began the work plan presentation describing the methodology and the various studies employed to complete the work plan. He reviewed each line item in the work plan and answered questions from the board on the work plan itself. The board approved the work plan, retained MEI Engineering, Inc., to complete a 4-year construction work plan covering 2021-2024 and accepted the 4-year work plan.

Randy Vetter continued with the benefits of replacing overhead line to single-phase underground line. He answered any questions from the board.

Randy Vetter continued with Jeff Rustad to share information on the RF metering. The board approved the upgrading to RF meters to be added to the current 4-year work plan and to be added to the 2021 Capital Budget. The 2021 Operating Budget was presented to the directors for consideration with the changes recommended from last meeting. Staff held several preparation meetings and shared their methods of recommendation with the directors. The board approved the 2021 Operating Budget.

The 2021 Capital Requirements Budget was presented to the directors for consideration. Staff held several meetings to discuss capital needs going forward and added the information asked of the board in November. The board approved the 2021 Capital Budget.

With the approaching NRECA Annual and Regional Meeting and NRTC Annual Meeting, voting delegates needed to be selected. Directors selected Blake Owens as the official voting delegate and Mike Beaudry to serve as an alternate for both NRECA and NRTC, and these selections were approved.

An engagement letter confirming the auditing services provided to PKM for the year ended Dec. 31, 2020, by Brady Martz was presented. The board understood and accepted the terms outlined in the Brady Martz engagement letter by signing the required document. The CEO concluded the meeting with miscellaneous information.

---

**Unclaimed capital credits list**

This is a listing of former members who have unclaimed capital credit checks. If you know their current mailing address, please contact us at info@pkmcoop.com, or by calling toll-free 800-552-7366 or 218-745-4711.

<table>
<thead>
<tr>
<th>Bowen, Oren K.</th>
<th>Lancaster, Minn.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DuBois, Michael, Argyle, Minn.</td>
<td>Johnson, Randy G., Bloomington, Minn.</td>
</tr>
<tr>
<td>Knutson, Winton, Grand Forks, N.D.</td>
<td>Amundson, Morris, Reynolds, N.D.</td>
</tr>
<tr>
<td>Bacon, Dan, Oslo, Minn.</td>
<td>Barber, Dorothy G., Redwood Falls, Minn.</td>
</tr>
<tr>
<td>Fink, Ronald, Arizona City, Ariz.</td>
<td>Everson, Eric, Little Falls, Minn.</td>
</tr>
<tr>
<td>Gilmen, Times, Bentley, Minn.</td>
<td>Gowan Jr., James, Mesa, Ariz.</td>
</tr>
<tr>
<td>Hopper, Myrtle, Silkston, Mo.</td>
<td>Knoff, Roger, Fargo, N.D.</td>
</tr>
<tr>
<td>Kozel, Lee, Grand Forks, N.D.</td>
<td>Kulas, Irene, Underwood, Minn.</td>
</tr>
<tr>
<td>Litzkowski, Chris, East Grand Forks, Minn.</td>
<td>Martinez, Andy, Mission, Tex.</td>
</tr>
<tr>
<td>McWalter, Mark S., East Grand Forks, Minn.</td>
<td>Merdink, Alan, Exton, Pa.</td>
</tr>
<tr>
<td>Rick, Leslie, Albuquerque, N.M.</td>
<td>Rodriguez, Jacobo, Stephen, Minn.</td>
</tr>
<tr>
<td>Svingny, Genevieve, Forest River, N.D.</td>
<td>Stensrud, Florence, Hallock, Minn.</td>
</tr>
<tr>
<td>Bumgard, David, Crookston, Minn.</td>
<td>Sunday, Shelly, Queen Creek, Ariz.</td>
</tr>
<tr>
<td>Sundvall, Larry, Minnetonka, Minn.</td>
<td>Swanson, Rodney, Kennedy, Minn.</td>
</tr>
<tr>
<td>Swenson, Craig, Perham, Minn.</td>
<td>Terral International Inc., Grand Forks, N.D.</td>
</tr>
<tr>
<td>Thureen, Gordon W., Minneapolis, Minn.</td>
<td>Urbanik, James J., Grand Forks, N.D.</td>
</tr>
<tr>
<td>Uhlman, James, Osage, Minn.</td>
<td>Viness, Kenneth, Drayton, N.D.</td>
</tr>
<tr>
<td>Wulikievicz, Stephen, East Grand Forks, Minn.</td>
<td>Weland, Philip, Euclid, Minn.</td>
</tr>
<tr>
<td>Whalen, Mark, East Grand Forks, Minn.</td>
<td>Wilson, David S., East Grand Forks, Minn.</td>
</tr>
<tr>
<td>Woinarowicz Jr., James, Alvord, Minn.</td>
<td>Wolf, Barbara J., East Grand Forks, Minn.</td>
</tr>
</tbody>
</table>

---

**Trading Post**

**Wanted**

Small wooded acres, up to 40 acres or old farmstead with trees. Ph. (218) 745-0007.

**Rules**

Ads for PKM members only. Limit your ads to two items. No commercial ads. Submit ads by the 18th of Jan., March, May, July, Sept. and Nov.

---

**Energy Efficiency Tip of the Month**

**Use wool or rubber dryer balls in the clothes dryer to reduce drying time and static.**

Wool dryer balls can also absorb extra moisture. These are an efficient alternative to dryer sheets, which can create buildup on the dryer’s filter and reduce air circulation. If you prefer dryer sheets, scrub the filter once a month to remove buildup.

---

Source: www.energ.gov
Small electric cooperatives have big goals these days. Our biggest goal is reliability. Renewable resources are part of our diverse energy strategy. But when it’s this cold, we need 24/7 coal power to keep our grid strong. And as a leader in carbon capture research, our resilience is becoming even more responsible. Reliable. Affordable. Cleaner than ever. We’re all in on all-of-the-above energy.

PKM Electric Co-op director earns Board Leadership Certificate

Mark Hatton from PKM Electric Cooperative recently earned the Board Leadership Certificate (BLC) from the National Rural Electric Cooperative Association (NRECA).

An ever-changing business environment has imposed new demands on electric cooperative directors, requiring increased knowledge of changes in the electric utility business, new governance skills and a solid knowledge of the cooperative principles and business model. PKM Electric Cooperative has a commitment to work through Minnesota Rural Electric Association (MREA) and NRECA to sharpen this knowledge for the benefit of their electric cooperative consumer-owners.

The BLC recognizes individuals who continue their professional development after becoming a Credentialed Cooperative Director (CCD). Directors who have attained the BLC have completed 10 credits in advanced, issues-oriented coursework.

Congratulations to Mark for his achievement and commitment to PKM Electric Cooperative and the member-owners.