



Red River Valley Cooperative Power Association

# SPARKS

July 2022

Your Touchstone Energy® Cooperative 



## Harnessing the grit of the grass

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# SPARKS

Red River Valley Co-op Power is an equal opportunity provider and employer.

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Halstad, Minnesota (USPS 509-300)

## OFFICERS & DIRECTORS

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- Curt Stubstad ..... Sabin
- Trevor Sorby ..... Glyndon

Rich Whitcomb  
Chief Executive Officer

### Scheduled Board Meeting

Board meetings are held in Halstad at the cooperative office starting at 8:30 a.m. on the next-to-last Monday of each month.

**Outages:  
800-788-7784**

**On the cover:** MNL's Blaine Keller displays a growth of Echinacea, just one of the several native flowers and grasses that his team grows and harvests in Red River Valley Co-op Power's service territory.



## THE CEO'S REPORT Grid reliability

by Rich Whitcomb, CEO

Behind the scenes, the energy industry continues to change as societal goals – such as the desire for more renewable energy for example – clashes with the basic need for 24/7 always-on electricity. The impact of these changes is now being experienced on the Upper Midwest's electric grid and elsewhere in the United States as the likelihood that “controlled outages” could occur is increasing – even in our region.

To be clear, this likely won't be a common occurrence. For the first time, however, it is a small possibility. No longer is this type of scenario only something that happens (or could happen) in California or Texas.

While Minnkota Power Cooperative (which your cooperative is a part-owner of and receives its wholesale power from) has more than adequate generation resources to meet the needs of its member-owners (coal, wind, water and demand response), it is part of the Midcontinent Independent System Operator (MISO) regional grid. All utilities in the U.S. are connected to some regional grid operator, which are governed by a federal regulatory authority. These regional operators can take over the grid at times of extreme energy demand and strain on generation resources to ensure the stability of the whole interconnected system (even though we may have ample power within our own system).

The reasons why the margin for error is shrinking are varied and complicated, including:

- extreme hot or cold weather greatly increasing demand;
- more wind and solar (intermittent sources) without batteries that replace baseload power (coal, nuclear and natural gas);
- power generation offline for either planned or unplanned maintenance;
- not enough transmission lines, causing grid congestion at times; and
- transmission lines down for maintenance.

First, let me say that all power sources have their time and place to be valuable. In fact, the generation capacity of the power you receive through Red River

Valley Co-op Power is 42% carbon-free already. But, the capacity and reserve to withstand the bullet points I mentioned above is lessening.

This has caused the North American Electric Reliability Council (NERC) – the federal regulatory authority governing the nation's overall grid – to place MISO in the “high-risk” category this summer for the potential to be “facing capacity shortfalls in its north and central areas during normal and extreme conditions due to generator retirements and increased demand.”

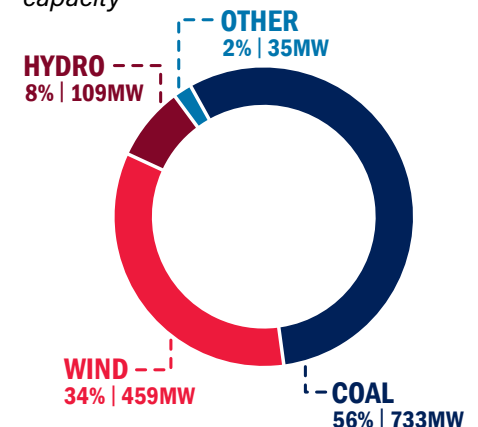
MISO CEO John Bear also has been quoted as saying, “As we move forward, we need to know that when you put a solar panel or wind turbine up, it's not the same as a thermal resource.”

To be clear, your cooperative through its wholesale power cooperative, Minnkota, has the resources to ably serve you now and into the future. Please keep in mind that we are all part of an interconnected system of generators, switches and lines that stretch for thousands of miles. Both Red River Valley Co-op Power and Minnkota support efforts to move toward a cleaner energy future. Just know that goal can't just happen at the flip of a switch. It will take decades of planning and significant technology developments.

We all must be thoughtful as we try to navigate the realities of a carbon-constrained world with the practical and economical generation resources that are currently available.

### POWER GENERATION MIX\*

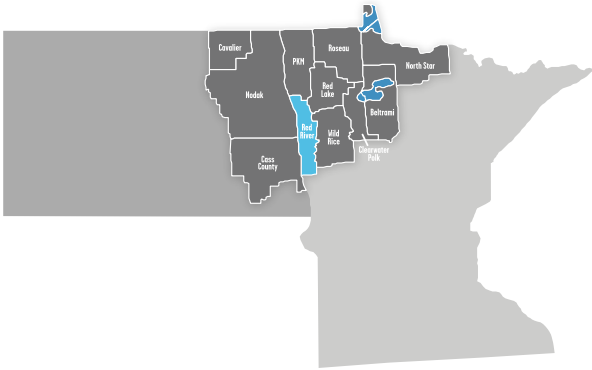
\*capacity



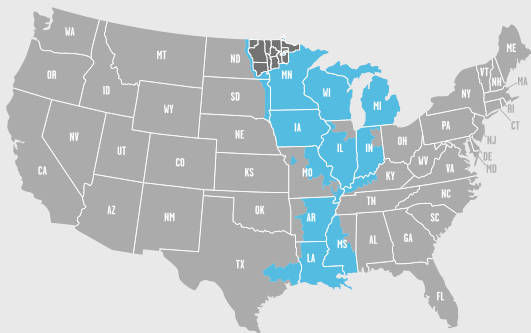
# How Minnkota and Red River Valley Co-op Power help manage the grid

## Understanding the grid

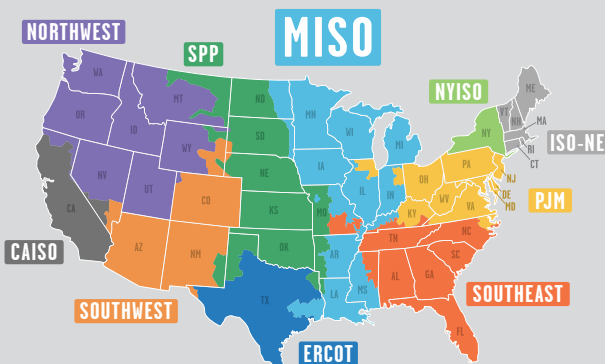
### Where you fit into the Minnkota Power Cooperative system



### Where Minnkota Power Cooperative fits into MISO (Midcontinent Independent System Operator)



### Where MISO fits into the nation's grids



While there are challenges, Minnkota (Red River Valley Co-op Power's wholesale power provider) supports efforts to reimagine how electricity can be produced, delivered and consumed. But the implementation of these ideas must be met with caution and common sense. After all, there is a lot on the line. A resilient and reliable electric grid that affordably keeps the lights on is the cornerstone of the American economy and our national security. Any missteps in an energy transition of this magnitude can have irreversible consequences.

Minnkota is taking its own steps to protect itself from power reliability challenges.

- **Training and education**

Employees are trained to respond to emergency grid events and continuously work to shield members from the volatility of the grid and markets. Minnkota and Red River Valley Co-op Power also invest significant time in helping member-consumers, lawmakers, business interests and others in the general public understand the challenges the industry faces and the complexity in providing reliable power to the region.

- **Maintaining a diverse energy mix**

Minnkota's energy portfolio consists of a diverse mix of coal, wind and hydro resources. Working together, these facilities help ensure 24/7 reliability on the system. Coal-based facilities remain the workhorse of the system and are routinely available to produce power during the vast majority of each year.

- **Upgrading our power delivery systems**

Minnkota is building, upgrading and replacing the power delivery resources that connect its communities. New technologies are being added to Minnkota's grid to provide enhanced data and communication capabilities – all in an effort to respond more quickly to issues and improve overall reliability.

- **Continuous cybersecurity evolution**

Minnkota continuously works to protect the electric grid from physical and cyber security threats. Energy experts in Minnkota's Control Center monitor the grid 24 hours a day to ensure the safety of the cooperative's employees, infrastructure and data.

- **Strategically utilizing demand response**

Minnkota and Red River Valley Co-op Power have one of the most robust and effective demand response (also called off-peak) programs in the country. Through the program, Minnkota and its member-cooperatives can temporarily control electric heating, water heating and vehicle charging loads – shifting electrical demand when economical resources are not available.

# HARNESSING THE GRIT OF THE GRASS

Blaine Keller, MNL Glyndon site lead, describes how nibbling goats can be used to naturally control invasive buckthorn in wooded areas.



*Red River Valley Co-op Power member uses native landscaping to improve the ecology of the prairie*

**B**laine Keller joined the Marines after graduating high school in Grand Forks, N.D. A child of the Air Force, he knew the military was an opportunity to serve and see more of the world. When it was time to come back to the Midwest for college, he planted himself in an entirely new field – natural resources.

The outdoor kid was getting back to his roots, trading foreign lands for native prairies.

“My favorite native grass is the little bluestem, because of the fall color. It turns red,” he said in the warm calm of a greenhouse just south of Minnesota’s Buffalo State Park.

Keller is the site lead for the Glyndon outpost of MNL, an ecological restoration and native landscaping company. The mission of the organiza-

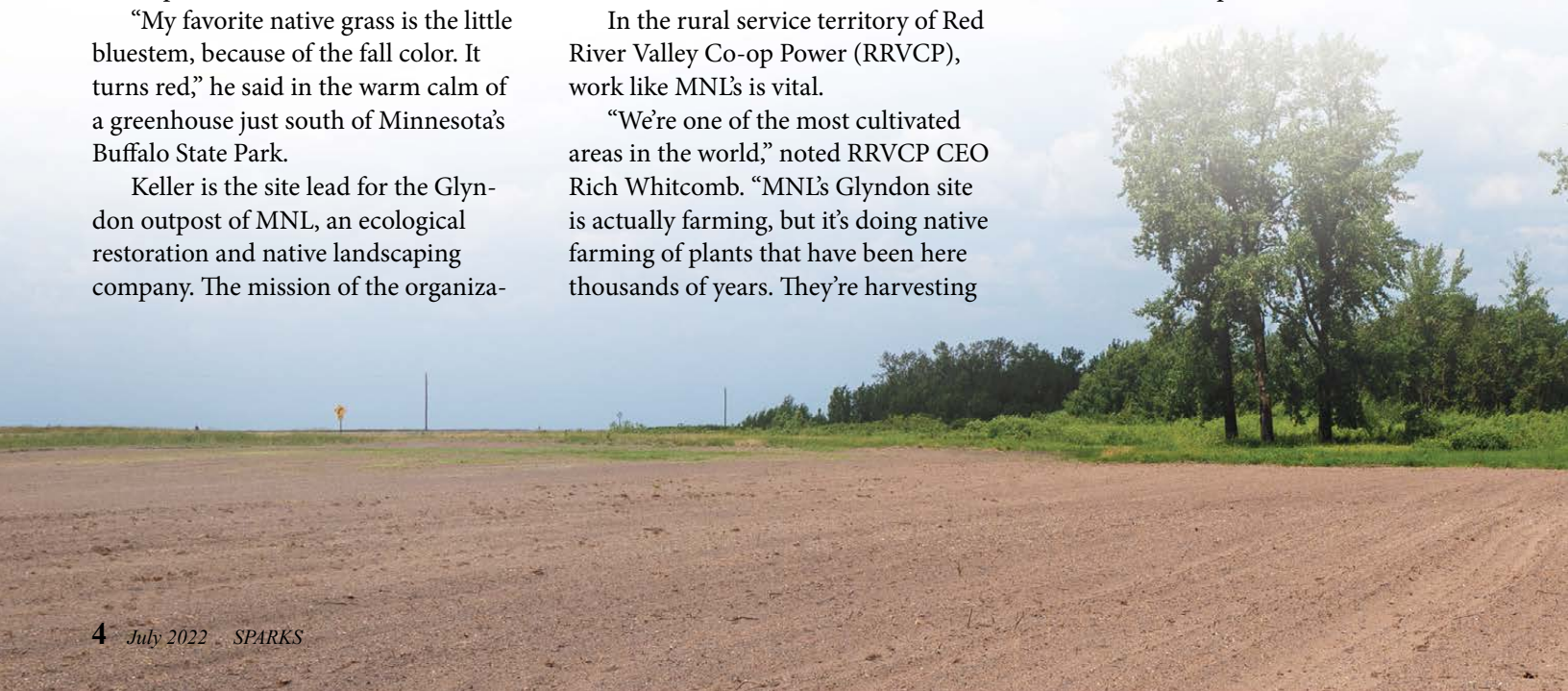
tion is simple: positively impact the environment through innovative, natural means. But MNL’s methods are multi-fold, including producing native grasses and wildflowers for land restoration, creating pollinator habitats, performing multifaceted restoration construction work, responsibly managing unwanted vegetation growth (sometimes with goats and sheep), implementing prescribed fires, and mitigating damage to wetlands and streambanks.

In the rural service territory of Red River Valley Co-op Power (RRVCP), work like MNL’s is vital.

“We’re one of the most cultivated areas in the world,” noted RRVCP CEO Rich Whitcomb. “MNL’s Glyndon site is actually farming, but it’s doing native farming of plants that have been here thousands of years. They’re harvesting

it, and they’re using it to restore native prairies here in Minnesota and North Dakota.”

“Less than 4% of the native tallgrass prairie still exists in the U.S. today,” Keller said. He further described MNL’s goal of 10 20 30, through which they aim to positively impact 10 million acres by the year 2030. “That doesn’t mean we’re going to touch 10 million acres, but between us and our partners, those are the impacts that could be



made upstream and downstream. If we touch one piece of land, it affects the land around it.”

The production of native grasses and wildflowers is a key specialty of the Glyndon site, one of four locations in Minnesota. Keller and his team oversee 500 acres, popping with a rainbow of colors from blanket flower, yarrow, verbenas stricta, Echinacea and common ox-eye. The native plantings are harvested by machine or by hand, cleaned, determined to be wheat-free, sold to other vendors and customers, and used in MNL’s own restoration projects.

Native plants have deep roots that help stabilize soil in erodible, droughty or flood-prone areas. They withstand the harsh northern climate well, having evolved through four-season years dating back to pre-settlement times. Native grasses and flowers also act as nature’s clean-up crew.

“That deep-rooted vegetation captures a lot of carbon dioxide (CO<sub>2</sub>). It does a lot of transpiration and pulls a lot of CO<sub>2</sub> out of the air. Deeper roots do more work,” Keller said. “It’s a big deal for carbon sequestration, as well as sedimentation and chemical runoff. The water goes in and gets filtered through the root system, it will clean that surface water, and recharge groundwater as a clean product.”

### Partners in planting

MNL’s work doesn’t only impact private landowners on lakeshores and

large companies with a lot of acreage to maintain. MNL partners with entities across the map, whether they’re seeking the ecological benefits or simply trying to follow permit codes.

“There are so many good people who support what we do for different reasons,” Keller said. He referenced a project collaboration in which one partner sought natural native landscaping while the other hoped for cleared, green recreation space. “We found a compatible use design, so it helps everybody involved. There is less land to mow for recreation, and we could add native features along the bike paths. That’s the great part about it.”

MNL also works with electricity providers like RRVCP and Minnkota Power Cooperative, who have a history of respect for the lands they use and serve. From eco-friendly vegetation management around power lines to the

reclamation of coal mine regions, MNL is called in to help support the values shared between the organizations.

“Utilities provide something that’s greatly needed, and to mitigate that work, we can go back and bring the land back to something that may be better than when we started,” Keller said. “We’re doing our part to perpetuate environmental stewardship.”

One could say Blaine Keller likes to find balance in his world. People may know him as a courageous and tough-skinned Marine, but he recognizes that preserving the Minnesota he loves sometimes takes a light touch.

“I like to show people that just because you’re a conservative person doesn’t mean you can’t be concerned about the environment. There’s too much pressure put on that,” he said. “The main thing is just talking to people and making connections.”



A greenhouse holding pad stores plantlings ready for the field.



The MNL team plants certain grasses and flowers by hand to ensure ideal growth.



A swath of common ox-eye blooms in one of MNL’s native fields.

# Soak up the Summer SAVINGS!



## 6 WAYS TO SAVE ON YOUR SUMMER ELECTRICITY BILL

The summer heat can sometimes feel impossible to beat. Your air conditioner (A/C) is working overtime to try and keep your home or business cool and comfortable. The harder your A/C is working, the higher your electricity bill could be. Help out your home and your wallet by trying these six, simple ways to save on your summer electricity bill.



### CHECK YOUR AIR CONDITIONER

Regularly inspecting your A/C unit can ensure it is functioning as efficiently as possible. Vacuum air vents regularly to remove dirt, dust and pet hair build-up. Replacing a dirty A/C filter every month or two can lower your energy usage. If you suspect your A/C unit is in need of service, be sure to reach out to a certified HVAC technician.



### UTILIZE YOUR CEILING FANS

Don't let the savings a fan could offer breeze past you! A ceiling fan works great when paired with your A/C unit. The wind chill effect created by a fan allows you to keep your thermostat four degrees higher without a change in comfort.



### AVOID USING YOUR OVEN

You heard us right! A conventional oven can heat a house or apartment and force your A/C to keep up. This summer, bust out the crockpot and fire up the grill to enjoy some delicious summertime meals while also saving on your electricity bill!



### CLOSE YOUR BLINDS

The best thing you can do to avoid sunbathing in your living room is to keep the blinds closed on southern- and western-facing windows. Open northern-facing windows to allow natural light into your home without heating it up.



### SWITCH TO LED LIGHT BULBS

An LED light gives off significantly less heat and uses 75% less energy than incandescent bulbs. Soak up those cool savings by switching your home or business over to LED bulbs.



### UNPLUG

If you aren't using it, unplug it. Computers, toasters, gaming devices and other gadgets all generate a small amount of heat in a room. Unplug to save on your electricity bill all year-round.

Be prepared for

# SUMMER STORM SEASON

## GENERATOR SAFETY AND SIZING GUIDELINES



While not common, extended power outages can occur. Generators are an excellent way to provide standby power in the event of an outage, provided you follow safe practices. The following information provides tips for sizing a generator, the safe transfer of electricity and general safety rules for portable and automatic generators.

First, you need to decide whether you need a portable generator or an automatic generator with a code-approved transfer switch. The choice depends on lifestyle needs. For some, a portable generator for keeping the sump pump and refrigerator running is sufficient while crews work to restore power. Some members choose more encompassing solutions like a larger generator hooked up to a grade level transfer switch. In all cases, the generator manufacturer or an electrician are excellent choices for sizing the generator. In fact, most generator manufacturers have sizing calculators on their websites.

### Generator sizing

When sizing a generator, you need to know two key terms – startup watts and running watts. The generator needs to be sized for both.

Reactive loads (loads with a motor) require more power to start, but less power to run continuously. Examples of reactive loads are furnace fans, air conditioners, refrigerators, freezers, well pumps and sump pumps. Resistive loads require the same amount of power throughout. Examples of resistive loads include electric baseboard heaters, light bulbs, toasters and electric water heaters.

With generators, especially portable ones, you can still power key items of your home with a generator rated less than your overall startup load if you manage the times these loads are turned on based on their startup and running wattage.

So say you need to run a sump pump, refrigerator, furnace fan and a TV. The first three items have higher startup needs.

Item	Starting wattage*	Running wattage*
Refrigerator	1,600	200
Sump pump (1/2 hp)	2,150	1,050
Furnace fan (1/4 hp)	1,600	600
Television	300	300

\*Wattages are estimates only for this example.

Looking at the chart, you would think you need a 5,650-watt generator. However, you could get by with a lesser generator if you started the first three items at different times. That's because once the initial startup occurs, the wattage drops considerably. You could start your sump pump, then your furnace fan, then your refrigerator and finally the TV using a 4,000-watt generator. In this example, keep in mind the thermostat controlling the gas furnace needs to be set to "ON" so the furnace fan doesn't cycle. If it did cycle, the startup load could be too much for the generator to handle with other loads running.

As you can see, the choice of whether to purchase an automatic generator to power your whole house or purchase a portable and manage the load depends on your needs. Especially if you choose an automatic standby generator, it is critical that an electrician or dealer sizes the generator to meet your home's load requirements and connects it safely.

### Grade level transfer switch

Double-throw transfer switches are extremely important for safety reasons if you decide to use a generator to operate hardwired equipment like furnaces and water heaters (loads that are directly wired into a breaker on your service panel). They ensure the power lines do not become energized when the generator is operating. Backfeeding is extremely dangerous and can kill lineworkers working on power lines, or damage equipment, including your generator.

Transfer switches serve as a service disconnect for standby generators. They safely disconnect utility lines and transfer load to the generator, which is wired into the transfer switch. The member can then safely use the generator to power their electric load.

Red River Valley Co-op Power will lease a grade level transfer switch to members for the following one-time lease payment:



200 Amp – \$1,100 (tax not included)

400 Amp – \$2,200 (tax not included)

The price includes a 50-amp twist lock receptacle and cord end for generator source. Lineworkers will make the appropriate connections to the co-op's power lines. The member's electrician makes the connections to member lines. The cooperative will maintain this equipment at no charge for five years after the date of installation except for overload, accidents or vandalism. After five years, the member must hire an electrician or the cooperative to maintain, repair or replace the equipment.

It is a good idea to color code circuits on the service panel that are necessary to operate during an outage. That way, when an outage occurs, you can make sure those breakers are on in the panel and all the other breakers are off. This way, a properly sized generator can handle the load of those necessary circuits.

There are other options for acceptable and safe transfer of load to a generator. You will need to contact a licensed electrician to discuss those options.

### Generator safety

Proper use of a standby or portable generator is a must! A standby generator installation must have an approved double-throw transfer switch for two reasons:

- It does not allow electricity from the generator to flow back into the power lines. Without this, 120/240-volt electricity may feed back to your transformer, where it would be stepped up to 7,200 volts. This would put crews, and anyone who assumes the line is de-energized, in danger.
- It protects your generator from damage when power is restored.

Always follow manufacturer's instructions and contact a licensed electrician.

### Portable generators

- Under no circumstances should portable generators be used indoors, even with ventilation. The primary hazards are carbon monoxide, toxic fumes, electric shock or fire.
- Always follow the directions supplied with the generator.
- Plug appliances directly into the generator, or use a properly rated outdoor extension cord.
- Never try powering the house by plugging the generator into a wall outlet, known as backfeeding. This is extremely dangerous and puts lives at risk.



# SAVE MONEY AND ENERGY IN 2022 WITH ENERGY EFFICIENCY REBATES

## Sample 2022 Electric Rebates for Members

Equipment	Specifications	Rebates
Air-source heat pump	≥ 16 SEER	\$500/ton*
Ground-source heat pump	Energy Star-rated	\$500/ton*
Electric water heater	Min. 80-gallon capacity, must be on load management program	\$300-\$650 per unit
Off-peak electric heat (plenum, baseboard, hanging heater, etc.)	Must be resistance electric on off-peak program	\$25/kW*
Electric boiler, brick storage, slab storage	Must be on off-peak program	\$45/kW*
Electric vehicle (EV) charger	240V-rated Level 2 charger on load control	\$50/kW/limit \$500 per account



**Energy efficiency rebates for members remain in effect for 2022. Please see the chart for a sample of incentives.**

All incentives, criteria and guidelines for resident and business members can be found at

**[rrvcoop.com](http://rrvcoop.com)**

or by calling

**800-788-7784**

**All criteria are listed on the rebate form.**

*Every install must be new equipment and provide proof of purchase unless site verification is approved.*

*\*These amounts include a rebate from Minnkota Power Cooperative, which has a capped rebate, so call for details.*