

Red River Valley Cooperative Power Association

SPARKS

August/September 2019 Your Touchstone Energy® Cooperative 

Smart energy choices

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SPARKS

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

Sparks (USPS 509-300) is published nine times a year – January, February/ March, April, May/June, July, August/ September, October, November and December – by the Red River Valley Cooperative Power Association, 109 2nd Ave. E, Halstad, MN 56548. Periodical postage paid at Halstad, MN 56548. POSTMASTER: Send address changes to Sparks, Red River Valley Cooperative Power Association, P.O. Box 358, Halstad, MN 56548-0358.

Phone (218) 456-2139 or (800) 788-7784

www.rrvcoop.com

Subscription rates: \$1/year

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August/September 2019
Volume 63, No. 6

Halstad, Minnesota (USPS 509-300)

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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: Bob Anderson and family enjoy the comfortable living provided by the air-source heat pump in their Dilworth home. After four years in the newly constructed built house, the Andersons have experienced sustained efficiency, savings and performance from their heat pump. *Story on page 4.*



Rich Whitcomb
CEO

THE CEO'S REPORT

Off-peak meter changeouts

Your cooperative's orderly transition to a new metering system is progressing nicely.

Currently, about 65% of all meters have been changed out to the new system. Of the meters left to replace, about 40% are off-peak meters located inside homes (usually the basement). In the coming weeks, members with off-peak meters can expect a phone call, letter or door knocker asking to arrange a time for changing out these meters.



Actually changing out the meter takes little time. At the time of changeout, our technicians may also ask to test load management equipment to ensure it is still working properly. Our technicians will always be driving a pickup or bucket truck that has the cooperative's logo on it.

Please help us continue our progress in this area by calling us at 218-456-2139 to arrange an appointment if you have an off-peak meter that is located inside your home, garage or where access may be restricted.

These new meters help us provide better energy use information, outage notifications and hot socket detection. They are an important part of our new mapping software that we will be deploying in the coming months.

Pole testing complete for the year

Pole testing has served an important dual purpose the last few years. Not only has it identified areas of our distribution system that



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need to be strengthened via pole replacements or underground conversions, but it, along with our meters, will provide the backbone for our new mapping/outage system.

Crews are gathering GPS coordinates for each pole tested and each meter replaced. When this data is entered into the mapping/staking system, it will allow us to really combine many operational aspects of the cooperative.

This project is still in its infancy, but we are confident it will bear worthwhile fruit in the near future.

Look up and live

The fall harvest season is upon us and it is paramount that both farmers and other drivers stay aware and vigilant. For many years, the cooperative has passed out "Look Up and Live" stickers to farmers and beet harvest workers to remind them to be aware of their surroundings and power poles. Harvest is an important time here in the valley for cultural and economic reasons.

Please stay safe.



Electric transportation celebration

Red River Valley Co-op Power's wholesale power co-op hosts two days of electric vehicle education

Minnkota's Grand Forks campus was charged up Aug. 7-8 introducing local leaders and the public to the present and future potential of driving electric. The events revolved around a two-day visit from the West Fargo Public Schools (WFPS) all-electric Blue Bird school bus, purchased by the school district earlier this year.

Electric bus or bust

The morning of Aug. 7, Minnkota invited its employees and visiting representatives to tour the electric bus, ask the mechanic questions about its capabilities and take a short ride around town. Passengers experienced the surprisingly quiet and zippy ride of the 70-seat bus, which boasts a 120-mile range and zero emissions.

That afternoon, Minnkota welcomed city leaders, economic development groups, universities and public schools, transportation officials, lawmakers and others to check out the bus themselves. They came with many insightful questions about what it takes to incorporate an electric bus into a standard fleet and walked away with new transportation ideas for their organizations and neighborhoods.

Plugged In to the Future

On Aug. 8, Minnkota's visitor parking lot was packed with powerful plug-in cars, a battery-boosted bus and bikes, special guests and giveaways.

More than 275 people popped by the cooperative for "Plugged In to the Future" – a "Back to the Future"-inspired celebration of electric transportation. The event was the first of its kind in the Greater Grand Forks community and drew more than a dozen electric vehicle (EV) owners from around North



The West Fargo Public Schools 100% electric school bus will begin carrying students this fall.

Dakota and Minnesota, all of them thrilled to showcase their cars and answer questions for those interested in Teslas, Chevy Bolts, plug-in hybrids and other models.

One driver from Dickinson, N.D., traveled more than 350 miles in his Tesla Model S to take part and offered rides to curious attendees.

"Plugged In to the Future" featured the WFPS all-electric school bus, electric bike demonstrations provided by Scheels and an EV ride-along experience.

For prospective EV owners, Rydell Cars was on-site with a couple of hybrids from their sales lot and details on what additional EV models are available. Information was also provided on home charging incentives and the easy steps involved in getting a garage EV-ready.

A Drive Electric North Dakota representative drove a Tesla Model X – aptly named WATTS – from Bismarck and chatted with event-goers about the public charging stations in the state, as well as the opportunities for growing EV adoption in the next few years.

Organizers urged attendees to fill out a survey after the event to assess what they learned about electric vehicles. Nearly 99% of respondents said they felt more knowledgeable about EVs after the event and 91% said they were now more open to owning an EV of their own.



Whether it was buckling into a Bolt or going for a cruise on an electric bike, "Plugged In" had a demonstration for everyone.



The 16-foot LED screen was a perfect canvas for the 1985 hit, "Back to the Future."

Reprinted from the July/August Minnkota Messenger



Saving and simplifying with an air-source heat pump

Dilworth family gains efficiency and comfort with smart energy choices in new home

The Anderson household can be a hectic one. Between church events, sports practices and other after school activities, 9-year-old Kimberly and 12-year-old Alex have a packed weekly calendar.

Plus, their home is the social hot spot for neighbors and friends.

“There are always a lot of kids here,” said mom Tawny Anderson from her Dilworth, Minn., living room. “We have a lot of space, and we left the downstairs nice and open so they can run around and do things.”

When it came to planning their home four years ago, Tawny and Bob Anderson had some priorities – plenty of space for the kids, a well-built structure and maximum energy efficiency.



As a master electrician, Bob knew that final priority would come down to the right electrical choices. All of the lighting would be LED and the appliances would be ENERGY STAR certified. After a discussion with his heating and cooling contractor, the last piece of the power puzzle fell into place.

“We agreed that an air-source heat pump was the best option overall for efficiency,” he said. “He loves it in his own house, and I trust him 100%.”

The air-source heat pump was a perfect fit for their new two-level, 4,200-square-foot home. The Andersons immediately noticed a drop in their electric bill from their prior residence (without a heat pump). Additionally, the new house was substantially cooler in the summer and maintained a uniform temperature year-round.

“In our previous house, we were either too hot or too cold. It was never just right,” Tawny said.

In the winter, the heat pump has had no issues with keeping up with a Minnesota-style deep freeze. “And I’m usually always cold,” Tawny added with a laugh.

Off-peak and rebates

On top of the peak performance of the air-source heat pump, the Andersons – members of Red River Valley Co-op Power (RRVCP) – also take advantage of the off-peak power program, receiving a reduced electricity rate in exchange for allowing the co-op to control the heat pump during times of peak system usage.

Bob said that setting up off-peak was simple and it’s been fairly rare that the co-op has needed to remotely switch them to their natural gas backup.

“We get a way better price and it works really well,” Bob said. “We’re super happy with it.”

The savings didn’t end with an efficient heating and cooling system and an off-peak rate. With a smart buying plan, the Andersons also cashed in on significant RRVCP rebates. Their LED lighting, air-source heat pump and some appliances qualified for incentives.

“RRVCP came through and counted everything up. I don’t think I paid my electric bill for a year or two because of the rebates,” Bob said with a grin. “It worked out well.”

An accumulation of savings and a reliably comfortable house have made it easier for the perpetually busy family to worry about one less thing after a long day of school, practice or work.

“It’s nice to come back home and just be Mom,” Tawny said.

4 Heating Options

TO CONSIDER WHEN PLANNING A NEW OR RETROFIT HEATING SYSTEM

Stand-alone air source heat pump or mini-split heat pumps

Air source heat pumps (ducted or mini-splits) offer some of the highest efficiencies available for heating and cooling, offering homeowners both comfort and savings. Standard air source heat pumps are ducted and look like central air conditioners. Mini-split heat pumps are smaller, sleek and operate without ducting to provide zoned heating and cooling.



Great rebates up to \$500 per ton from your cooperative are also available due to the extreme efficiencies of the units. Heat pumps transfer heat instead of creating it and cold-climate models are available (ask your contractor for details).

Air-source heat pump with modulating plenum heater and gas backup

Air-source heat pumps are very efficient systems that transfer heat instead of creating it. In the summer, they work exactly like a central air conditioner, but in the winter they provide very comfortable and efficient heat until the temperature drops below the set point. Then the modulating plenum heater kicks in and works with the heat pump for extra savings. When controlled, a gas furnace kicks in.



What's nice about air-source heat pumps is how they provide year-round benefits and either pair nicely with a propane or natural gas furnace or in a heat pump/modulating plenum/propane furnace combination on the off-peak rate. This gives members the freedom to choose fuel sources.

Plus, great rebates are available that cover a large portion of an upgrade from a central AC to a heat pump.

In-floor heat

A popular option for off-peak due to its comfort is in-floor heat. The key is to install the proper heat storage base with sand and slab or install a dual-fuel system. Complete perimeter insulation is necessary for both styles. A \$30 per kW rebate is available (to a cap amount).



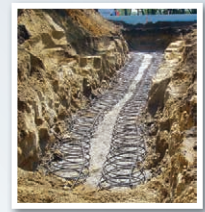
Example rebates

System	Benefits	Potential Rebates*
Air heat pump or mini-split	Versatile, great efficiency, save money	Up to \$500 per ton
Air heat pump w/mod. plenum	Ability to choose fuels, efficiency, off-peak rate	Up to \$2,100
Electric floor heat	Ultimate comfort, off-peak rate	\$30/kW
Geothermal heat pump	Year-round best efficiency, long-term savings	Up to \$2,500 or greater
Electric water heater >80 gallons	Large capacity for families, great warranties, no venting worries, lower install cost	Up to \$650

*Example based on size, efficiency, off-peak option. Some rebate amounts are capped.

Geothermal heat pumps

Geothermal heat pumps provide the highest efficiencies for space heating and cooling today. They use the constant temperature of the earth to transfer heat. Energy efficiency rebates of up to \$500 per ton are available as well.



When paired with a fossil-fuel furnace backup, geo heat pumps get the off-peak rate for a heating price that is hard to beat when you combine efficiency with the 6.5 cents per kWh off-peak rate.

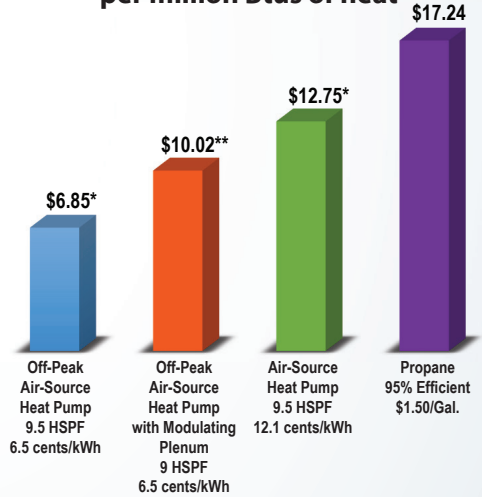
Bonus option

A large-capacity water heater on off-peak credit is another option. Purchase an electric water heater 80 gallons or larger and get great upfront rebates (up to \$650), plus the option of an \$11 recurring monthly credit for letting us control that water heater when energy demand is high.



For more information about off-peak, heat pumps and electric water heaters, contact Member Services at 800-788-7784 or email info@rrvcoop.com.

Price difference in heating fuels per million Btus of heat



* Outside temperatures fluctuate, affecting the heat pump's efficiency. Efficiency and price per million Btus is estimated at 47 degrees F. Need additional heat like plenum heater in winter.
 ** Heat pump with modulating plenum assumes a coefficient of performance of 1.9 at 10 degrees F using information provided and reviewed by Electro Industries, Monticello, MN.

Insulating for comfort and energy savings

By Pat Keegan and Brad Thiessen

Dear Pat and Brad: We're dreading winter. It feels like every year, no matter what we do, our home still feels cold and our heating bills go through the roof. We think our home may need more insulation. Any advice before winter hits? – Grace

Dear Grace: There's a good chance you are right about the problem. Most older homes, and many newer ones, are not properly insulated, and adding insulation can be a good investment year-round since it can help keep out the summer heat as well.

There are many types of insulation, but I'll focus on the three most common types in residential buildings: batt, loose-fill and rigid.

Batt insulation can be made with several kinds of fibers, including fiberglass and wool. It's cut to fit between the framing in your ceilings, walls or floors. Loose-fill insulation is made with small pellets or particles. It can be added by hand or blown in by machine into attic floors or exterior wall cavities. Rigid insulation comes in light sheets and is installed against a solid surface like an exterior wall or foundation.

All insulation is measured by its R-value. A higher R-value is more effective. The amount of R-value you need depends on your climate and where the insulation is being added in your home.

If your heating costs are too high, there's a good chance the attic is part of the problem. Finished attics are usu-

ally under-insulated, and correcting the problem can be a challenge. If your attic is unfinished, solutions will be simpler and more cost-effective.

You can inspect your unfinished attic, but be cautious. Loose-fill insulation in older homes may have harmful asbestos that you absolutely do not want to disturb. It's probably best to just poke your head in enough to look around, since it's easy to damage wiring or ducts, or step through the ceiling.

The attic will likely have loose-fill insulation or batts on the floor. Look carefully to see if the insulation is spread evenly with no gaps or voids. To determine whether there is enough insulation, you can start by researching the recommended amount for your climate. The Department of Energy publishes that information, which you can find on www.energy.gov/energysaver. After measuring the depth of the insulation, you can calculate the R-value. Different types of insulation have different R-values per inch. If your attic insulation is far short of the recommended levels, you will likely see major energy savings by having a professional add enough to reach that level.

The next place to check is the walls. Many homes built before 1980 have

little or no wall insulation, and even newer homes may lack proper insulation. You might be able to see if the walls are insulated by carefully removing an outlet cover.

The most common technique for adding insulation to walls is to have it blown in through holes drilled from inside or outside the home. These holes can be easily patched. An alternative, if the house is being re-sided, is to add rigid insulation to the exterior, underneath the new siding.

Finally, if your floor gets cold in winter, and you have a crawl space, you can install batt insulation between the floor joists. If your home is built on a concrete slab, rigid foam can be installed around the perimeter.

Insulation works great if you choose the right approach and the work is done carefully. Contact the energy experts at your electric co-op for more information or professional contractors in your area.

This column was co-written by Pat Keegan and Brad Thiessen of Collaborative Efficiency. For more information on home insulation, please visit: www.collaborativeefficiency.com/energytips.



Take control of your account with SmartHub!



Now you can see your daily and monthly usage, pay/view your bill online, plus a whole host of other useful services with SmartHub. SmartHub is a free and secure online energy portal at www.rrvcoop.com that allows members to do the following things:

- View daily and monthly energy use.
- View and pay your bills online.
- Go paperless and receive an email notice when your bill is ready to view.
- Compare energy use to changes in temperature.

If you have questions regarding SmartHub, call us at 218-456-2139 or send an email to info@rrvcoop.com.

Insurance coverage

While not common, sometimes we receive reports that a member may have sustained electrical damage after an outage due to natural occurrences, equipment or cars hitting a powerline or equipment failure.

For many, your homeowner's insurance will cover the damage after the deductible has been met. The only way Red River Valley Co-op Power's insurance would pay is if we were negligent in handling service work.

An outage caused by a storm or equipment failure does not constitute negligence. If you feel you have a claim, we would turn it over to our insurance company and they would determine any liability. It is a good idea to check your homeowner's insurance policy.

Is your off-peak heating system

Ready for winter?

It's hard to believe winter is right around the corner. Since weather conditions and future wholesale power market prices make the amount of load control hours hard to predict, all our off-peak members are encouraged to have a reliable, automatic dual heating system in place and ready to use.

To ensure total comfort this winter, consider the following questions about your backup heating system:

1. Is the system sized to heat your entire home or business?
2. Does it maintain an adequate comfort level?
3. Is it reliable?
4. Is it fully automatic?

Check current fuel prices and be sure to fill your propane or fuel oil tank at the beginning of the season. Also, make sure your tank is large enough to hold an adequate supply. Remember, prices typically rise as demand increases during the heating season.

Our member services department is glad to answer any off-peak questions you may have. A loan program is also available to assist you in replacing your old, inadequate off-peak heating system.

Rebates! for ELECTRIC WATER HEATERS

Buy a new electric water heater and get an up to \$650 rebate!

Gallon size	Rebate
80-99 gal.	\$300
100 gal.	\$400
Additional rebate for new construction	\$100
Additional rebate for conversion from existing natural gas or propane	\$250

Rebate requirements:

- Must be a new electric water heater installed on Red River Valley Co-op Power's system
- Must be on load control/off-peak
- Must be 240 volts, hard-wired
- Tankless water heaters do not qualify
- Hybrid heat pump water heaters do not qualify
- Multifamily dwellings do not qualify for rebate – exceptions on a case-by-case basis

We sell 85 & 105-gallon Marathon water heaters!

Call for pricing and details.

218-456-2139 or 1-800-788-7784
www.rrvcoop.com



80-gal. minimum, must be on load control



**RED RIVER VALLEY
CO-OP POWER**

HARVEST SAFETY TIPS FOR FARMWORKERS

- **Maintain a 10-foot clearance** around all utility equipment in all directions.
- **Use a spotter and deployed flags** to maintain safe distances from power lines and other equipment when doing field work.
- **If your equipment makes contact with an energized or downed power line, contact us immediately** by phone and remain inside the vehicle until the power line is de-energized. In case of smoke or fire, exit the cab by making a solid jump out of the cab, without touching it at the same time, and hop away to safety.
- **Consider equipment and cargo extensions of your vehicle.** Lumber, hay, tree limbs, irrigation pipe and even bulk materials can conduct electricity, so keep them out of contact with electrical equipment.

Source: Safe Electricity

