

MINNESOTA VALLEY Co-OP NEWS

Volume 78 • No. 9 • September 2016



MANAGER'S MESSAGE • PAT CARRUTH



General Manager

We Are Not Against Renewable Energy

We have a handful of members of Minnesota Valley who have installed small scale renewable energy systems at their place—mostly small wind turbines and some solar facilities. We agree with the intent of Public Utility Regulatory Policies Act of 1978 (PURPA), which says that you should be able to self-generate to serve your own power needs if you wish. The State of Minnesota has taken this a step further saying that we should pay members for their excess generation something more than “avoided cost”, which is what PURPA requires. “Avoided cost”, for the most part, means the avoided cost of fuel, coal cost for example, on making that energy. Minnesota Valley pays members our average wholesale power rate for any excess energy brought back into our system. Today, that is 4.7 cents per kWh. PURPA would require us to pay 2.3 cents per kWh. Of course, we follow the state law.

Many times over the years when a member is considering a small self-generation project, they come in with the notion that we should pay more than what we do. We have a duty to all member-owners of Minnesota Valley. If we pay a member who self-generates more than what our wholesale power cost is, the rest of the members are subsidizing them. We are not against renewable energy. We are against one member being forced to subsidize another. If you are considering a small renewable project, please talk to our people in Member Services before you go ahead with the project. They can help you avoid many of the typically unforeseen issues these projects entail.

(Manager's Message is continued on page 2)

Make Time for Safety This Harvest Season

Harvest season often means putting in long hours, which can make it difficult to stay alert and on the lookout for potential hazards. The agricultural industry ranks as one of the most dangerous job sectors in the country, accounting for more than 500 deaths in 2014, according to the U.S. Bureau of Labor Statistics. Safe Electricity provides safety tips to help farmers make this harvest season a safe one.

Be prepared for potential emergencies before the rush of harvest season begins. Be sure that you can see well in work areas. Consider adding extra lighting around grain bins and augers.

Take the time to look up and look out for electrical lines. Always be aware of where they are in relation to your

equipment. Keep a minimum of 10 feet away from all electrical equipment and lower extensions before moving equipment. If you see a power line that is sagging or low, contact your utility. Also keep an eye out for guy wires. While these wires are not energized, they can bring down live lines.

In equipment with auto-guidance systems, less focus is needed on steering, which may lead some drivers to think that they do not need to be as aware of navigation issues. Yet, even while using a GPS with auto-steering, farm workers need to keep safety in mind and stay focused on their surroundings. Recognize when you need to take breaks so that you can be active and engaged in the farm work.

Additional electrical safety tips include:

- ❖ Use a spotter when operating large machinery near lines.
- ❖ Inspect the height of farm equipment to determine clearance.
- ❖ Look up and use care when moving any equipment such as extending augers or raising the bed of grain trucks around power lines.
- ❖ Always set extensions to the lowest setting when moving loads to prevent contact with overhead lines. Grain augers should always be positioned horizontally before being moved.
- ❖ Never attempt to move a power line out of the way or raise it for clearance.



Manager's Message *(continued from page 1)*

Electricity's Value

Reliability and service are always important factors in the equation used to determine a product's value. We at Minnesota Valley believe they are pinnacle in the task of providing electricity. We hope we are doing a good job in this area. Of course, you as members are the ultimate judge of that. For most people, price is a factor used in the equation to determine overall product value as well.

We recently received our 2015 year-end "score sheet" from one of our bankers, the Cooperative Finance Corporation (CFC). The score sheet is officially called CFC's Key Ratio Trend Analysis. It is a series of statistic and financial ratios based on your cooperative's numbers. They are then compiled with the ratios from all other cooperatives in the country. The purpose is to give you an idea of how you are doing compared to your peers.

Minnesota Valley's "electric revenue per kWh sold" was 9.2 cents in 2015. The state cooperative median was 11.1 cents. There are 43 rural electric distribution cooperatives in the state; 3 have lower rates than ours and 39 have higher rates. We feel that means our retail rates are in pretty good shape. This is especially true when one considers our investment per member is \$12,575 and the state cooperative median investment per member is \$6,872. This reflects the fact that we have just 1.6 members per mile of line and the state cooperative median is 4 members per mile of line. We have much more line to build and maintain per member than the average cooperative. For us to do a good job with that, while keeping our rates lower than the median, says things are going pretty well. In no way do we want to imply that other cooperatives are not doing a good job because they are. We just happen to be a bit more fortunate, rate wise, than the average cooperative at this point in time.

ENGINEERING & OPERATIONS • JOHN WILLIAMSON



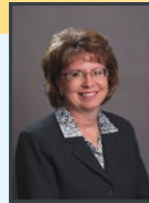
Manager of Engineering & Operations

We have had another stormy month with a lot of rain. Our summer pole treating crew has wrapped up for the year after inspecting/treating 2,500 poles. This program helps to extend the life of power poles on our distribution/transmission system.

Fall harvest will be in full swing soon. N two twelve zero two The electrical grid has all delivery points available, along with this year's planned improvements done and ready to handle expected loads. Please stay safe and alert during your long days in the fields.

We still have power poles we will be changing out in some fields once the crops are harvested. The poles are changed out when they are either rejected or retired due to conversions from overhead to underground construction during the year.

BUSINESS OFFICE • CANDICE JAENISCH



Office Manager

Financial Projection through December 2016

Beginning August 1st, we saw an increase in wholesale power costs of 7 mills. In dollars, this amounts to about \$480,000 based on our budgeted kWhs purchased. Even with this increase, we expect margins to remain steady for the remainder of 2016. Our budgeted *Total Margin* for 2016 is \$937,000. Currently, our *Total Margin* through July is just shy of \$1 million. Thus, if we can hold our current margin we will remain in good shape financially through the end of 2016. Operating expenses have remained steady overall. Interest rates and fuel costs remain favorable going into the fall.

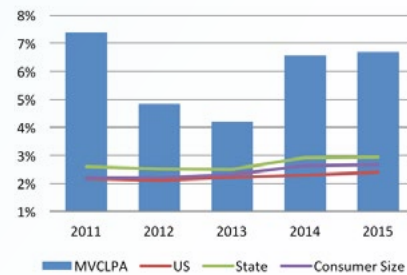
Total Cost of Electric Service Per Total kWh Sold (mills)



Minnesota Valley's cost of electric service is well below industry averages. Our power suppliers, Basin Electric and WAPA, have continued to provide Minnesota Valley with reliable power at an affordable cost. Even with the increase from Basin, Minnesota Valley's cost of power will remain below industry averages. We are fortunate to have partnered with Basin Electric and WAPA for our energy needs.

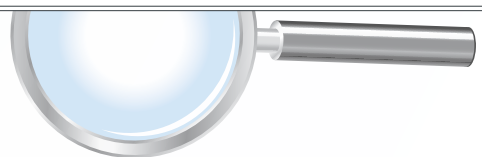
The culture at Minnesota Valley is to retire capital credits to you, the member-owners, as quickly as possible. We are currently on a 13-14 year, first-in first-out timeline. This means we are currently retiring capital from 2003. Compared to industry averages, Minnesota Valley exceeds their counterparts.

Annual Capital Credits Retired Per Total Equity (%)

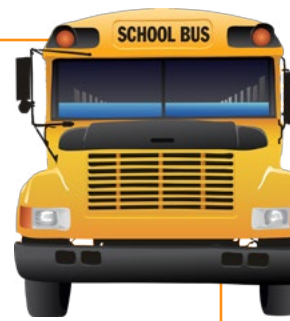


Spot Your Account Number!

As of this writing, no one has identified their hidden number in last month's issue of the Minnesota Valley Co-op News. Keep looking each month—next time it could be your number! There are two more hidden numbers in this issue, each worth a \$20 credit on your energy account if you are participating in Operation Round Up or \$10 if you are not a participant. If you find your number in the newsletter, call the office at 320.269.2163 or 800.247.5051.



Safety Tips for Students & Those Who Transport Them



Students get to school in a variety of ways—riding a bus, being driven by a family member, carpooling, walking or even driving themselves. Electricity is not usually the first thing on a student’s or driver’s mind on the way to school. Yet, it is vitally important to know what to do if there is a downed line or an accident with a power pole along that journey.

In 2009, two Indiana teenagers, Ashley Taylor and Lee Whitaker, were in a car accident with a utility pole. Fortunately, just days earlier, these teens had seen a



presentation about electrical safety at their school and had learned to stay in the car in such a situation. This incident could have ended in tragedy, but knowing what to do saved the lives of Lee and Ashley.

Severe storms, high winds and vehicular accidents with power poles can all cause power lines to fall. Just because a power line is down does not mean that it is not carrying electricity. While downed lines can sometimes show they are live by arcing and sparking with electricity, this is not always the case. Treat all down lines as though they are energized and stay far away from them. Call 911 to have first responders

and the utility notified of the downed power line.

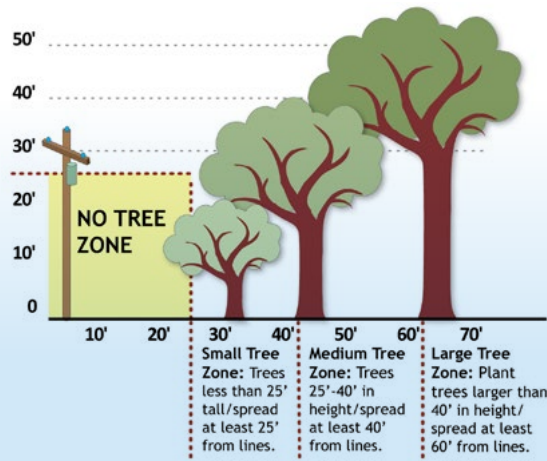
If you are in a vehicle that wrecks with a power pole, the vehicle may be charged with electricity. If this is the case and you step out of the car, you will become the electricity’s path to the ground and could be electrocuted. **Stay in the vehicle and tell others to do the same.** Call 911 to have emergency and utility services notified. Do not leave your vehicle until a utility professional has told you it is safe.

The only circumstance when you should exit the vehicle is if it is on fire—and those instances are rare. If you must exit, jump clear of it with your feet together and without touching the vehicle and ground at the same time. Continue to “bunny hop” with your feet together to safety. Doing this will ensure that you will not have different strengths of electric current running from one foot to another.

If you come upon or witness an accident involving power lines, **do not approach the accident scene.** If you see someone approaching, warn them to stay away from the accident until utility professionals and emergency responders have confirmed that there are no electrical dangers.

Plan Carefully Before Planting Trees

Trees can be a beautiful addition to your property, with the added benefit of increasing your energy efficiency. However, when planted in the wrong location, they can also pose a threat to power lines and become a safety hazard.



Consider these five tips before you plant:

- 1) Tall growing trees with a mature height of greater than 40 feet should be planted at least 60 feet away from lines to avoid future pruning. Some of these trees include: oak, white and blue spruce, most pines and most maples.
- 2) A mature height of less than 15 feet is recommended if planting near lines. Some trees that are generally not tall enough to interfere with lines are: crabapple, honeysuckle, juniper, flowering dogwood and hawthorn.
- 3) Trees should never be planted directly under power lines, near poles or too close to electrical equipment.
- 4) Make sure to call 811 (Gopher State) before putting a shovel in the ground. This free service locates and marks your public underground utilities.
- 5) Be sure no one climbs a tree near power lines. If branches are touching the wires, the tree could be energized. Even branches not touching power lines could become energized if a child’s weight is added.



Comparative Report

	Jan-Jul 2016	Jan-Jul 2015	Jan-Jul 1996
Kwh Purchased	117,436,769	121,272,686	83,963,279
Kwh Sold	111,545,017	115,090,472	77,059,930
Cost Of Purchased Power	\$5,331,500	\$5,620,557	\$2,580,351
Patronage Capital Margins	\$995,904	\$774,745	\$35,788
Reserve For Taxes	\$160,417	\$173,392	\$244,868
Cost Per Kwh Purchased (mills)	45.40	46.35	35.44
	July '16	July '15	July '96
Total Plant	\$67,994,557	\$65,704,108	\$28,248,068
# Of Members Receiving Service	5,259	5,268	5,155
Avg. Residential Bill	\$194.93	\$193.02	\$122.28
Avg. Residential Kwh Consumption	1,695	1,676	1,324
Avg. Kwh Usage All Consumers	2,884	2,902	1,844
Peak Kw Demand (Peak Load)	31,202	30,106	24,252



Ever Heard of an AFCI? It May Save Your Home Someday!

An Arc Fault Circuit Interrupter (AFCI) is a fairly new device that was introduced to add another layer of protection to the electrical wiring system in your home. They are now required on certain circuits for new or upgraded wiring in your home.

Arc faults are common and cause many of the electrical fires in homes every year. When unwanted arcing occurs, the electricity raises the temperature, which can cause combustion to wood, paper, wallboard and carpet. Such faults occur where circuits have been damaged in some way—whether the wires were damaged or failed because the aged insulation deteriorated. Other reasons include improperly installed switches and outlets, cords mashed by doors or under furniture legs and various environmental conditions.



An AFCI monitors the current flow and when it senses an unwanted arcing condition, the circuitry trips the internal contacts and interrupts the circuit before a fire can occur. The Consumer Product Safety Commission says, “AFCIs are designed into conventional circuit breakers combining traditional overload and short-circuit protection with arc fault protection. AFCI circuit breakers (AFCIs) have a test button and look similar to ground fault circuit interrupter (GFCI) circuit breakers. Some designs combine GFCI and AFCI protection.”

Understanding the Differences Between AFCIs and GFCIs

While Arc Fault Circuit Interrupters (AFCIs) and Ground Fault Circuit Interrupters (GFCIs) both provide protection, they are each designed for different purposes. AFCIs are designed to protect against electrical fire and GFCIs are designed to protect against electrical shock and electrocution.

AFCIs help protect wiring from unwanted arcing, which could lead to an electrical fire. Dangerous arcs are created when an electrical current ignites with surrounding materials at very high temperatures. If an AFCI is installed, it monitors current flow and can distinguish between normal, working arcs and unwanted, dangerous arcs. When the AFCI detects dangerous arcing in the electrical system, it shuts off the electricity before the wiring overheats and starts a fire.

Damaged wires from nails driven into the walls, wiring that has deteriorated from ag-

ing, cracked insulation on wires due to stress, damage to wires at stress points (such as cords caught under furniture), loose/improper connections, faulty electrical equipment and overheated electrical wires are all risk factors for electrical arcing.

There are different types of AFCIs available: branch/feeder, combination and outlet circuit. H four nineteen zero two A There are differences among these types – including installation location and arc detection level. Since 2008, combination AFCIs have been required for new residential constructions.

GFCIs prevent electric shocks from ground faults, which occur when electricity travels outside its intended path to a grounded surface. As the U.S. Consumer Product Safety Commission explains, “If your body provides a path to the ground for this current, you could be burned, severely shocked or electrocuted.”

A GFCI constantly monitors the flow of electricity through a circuit and will shut the circuit down if it senses a ground fault. By doing so, this device reduces electrocutions, electrical burns and shock injuries. If an electrical current makes contact with a person, the GFCI is designed to shut down the power within 1/40 of a second to prevent shock.

After first being introduced in the 1970s, GFCIs have become a standard requirement in the new construction of all outdoor electrical outlets and in all areas near water sources. GFCIs come in the following forms: receptacles, portable devices and circuit breakers. Contact a qualified electrician to install AFCIs and GFCIs. Both devices should be tested regularly after installation, especially after a power failure. For more information visit SafeElectricity.org.

	AFCI	GFCI
What is it?	Provides protection from electrical fires that could result from arc-faults.	Protects people from shocks and electrocution.
What does it do?	Detects potentially hazardous arc-faults and quickly cuts off power.	Interrupts power if a ground fault is detected.
Where would I use it?	Used in kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, laundry rooms or similar rooms or areas.	Used in wet or damp locations such as kitchens, bathrooms, basements, laundry rooms, garages, porches and any other areas where water may be present.

Office Hours

8:00 a.m. - 4:30 p.m.
Monday through Friday

24-Hour Telephone Answering

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Minnesota Valley Co-op News

Published monthly by:
Minnesota Valley Cooperative
Light and Power Association

Website

www.mnvalleyrec.com

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Montevideo, MN 56265

