

MINNESOTA VALLEY Co-op NEWS

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MANAGER'S MESSAGE • PAT CARRUTH



General Manager

Wholesale Power Increase

Our Basin Electric has announced a 7 mill increase in our wholesale power rates effective August 1st of this year. The staff at Basin, along with their board, have been trying to hold off on this increase as long as possible with a series of cost-cutting measures over the past couple of years. Several factors play a part in driving the need for an increase. Some of the more pronounced factors are Basin's sales to members have been down the past couple of years and excess sales to a depressed power market have not helped the bottom line. Basin is in a heavy and capital intensive construction phase of building transmission line and gas peakers to shore up wind. Also, natural gas prices have been extremely low causing our gasification plant to drag on Basin's overall margin.

Basin has done what they can to responsibly control costs and they needed to increase rates to keep the organization in good financial shape. We expect the increase to raise our wholesale power cost for this year by about \$380,000. We are in better than budgeted financial shape at this point and will be able to absorb this increase without adjusting your rates. We are \$357,000 in total margins ahead of budget through May. Through May of this year, we had budgeted a total margin of \$610,000 and our actual margin is \$967,000.

Basin expects this increase to take them through 2017 in good financial shape. We will know later in the year, as we go through our budgeting process, what this will mean for our retail rates in 2017.

Court Upholds Ruling that Minnesota Cannot Ban Coal-Fired Electricity

Minnesota overstepped its authority in a 2007 law that restricts buying electricity from North Dakota coal-fired power plants, a federal appeals court ruled this past month. They affirmed that The Next Generation Energy Act violates the U.S. Constitution's provision allowing only Congress to regulate commerce among states, the 8th Circuit Court of Appeals ruled. The statute's prohibitions had the effect of "controlling conduct" beyond Minnesota's state boundaries.

The ruling supports a 2014 lower court decision. In 2011, arguing that the law violated the U.S. Constitution's Commerce Clause, neighboring state North Dakota and three organizations that provide power to rural Minnesota—Basin Electric Cooperative, Minnkota Power Cooperative and Missouri River Energy Services—sued Beverly Heydinger, who was appointed chair of the Minnesota Public Utilities Commission by Governor Mark Dayton in 2012.

The Minnesota Public Utilities Commission had no comment to this recent ruling other than it was reviewing options. North Dakota Attorney General Stenehjem said that Minnesota's options are limited: ask the entire appeals court to take up the issue, appeal to the U.S. Supreme Court or accept the ruling and pay North Dakota \$1 million. The Attorney General said the first two options are rarely accepted by the court system and he prefers the third.

The court ordered Minnesota to repay more than \$1 million in attorney fees in the case.

Selecting the Proper Heating & Cooling System for Your Home

If you are considering upgrading your home's heating or cooling system, now is the perfect time to check out your options. Minnesota Valley is currently offering a double rebate heat pump promotion. New air source or geothermal heat pumps installed before September 5th, 2016 qualify for the co-op's double rebate heat pump promotion.

Take advantage of this limited time opportunity to both upgrade your system and save money on your future energy bills. Air source heat pumps currently qualify for a \$12 rebate per 1,000 Btus and geothermal heat pumps qualify for \$24 per 1,000 Btus.

(continued on page 2)



Summer
DOUBLE REBATE
Days

Don't forget to take advantage of **Summer Double Rebate Days** by installing a new air source heat pump or geothermal heat pump before September 5th!

Selecting the Proper Heating & Cooling System for Your Home (continued from page 1)

If your central air conditioner is older than 15-20 years or is starting to show wear, it may be time to consider shopping for a new unit. Today's new high-efficiency central AC units will save you money while enhancing the comfort level of your home.

According to the U.S. Department of Energy, homeowners can expect to reduce air conditioning energy use by 20 to 50 percent when switching to a high-efficiency air conditioner and taking other actions to lower home cooling costs.

Here are some tips for selecting the best system for your home:

Central AC Units

- Select the proper sized unit. Over-sizing an air conditioner is the most common mistake people make. Buying a unit that is too large can increase discomfort by not removing enough humidity from the air. A system that is too small will not cool the air sufficiently.
- Pay attention to the unit's seasonal energy efficiency ratio (SEER) rating. The higher the SEER rating, the more efficient it is for cooling. Energy Star qualified units must have a SEER rating of at least 14.

Air Source Heat Pumps

- Heating efficiency for air source electric heat pumps is indicated by the heating season performance factor (HSPF), which is the total space heating required during the heating season, expressed in Btus, divided by the total electrical energy consumed by the heat pump system during the same season, expressed in watt-hours. For pumps installed in cold climates, it is important to focus on getting the highest HSPF feasible.
- Remember that even though an air source heat pump can be more expensive to purchase up front, the cost difference will be paid back over time through lower energy bills.
- Carefully consider the placement of your air source heat pump to maximize its efficiency. Outdoor units should be protected from high winds when possible.

Geothermal Heat Pumps

- Familiarize yourself with the four basic types of ground loop systems. Three of these – horizontal, vertical and pond/lake – are closed-loop systems. The fourth type of system is the open-loop option. Which one of these is best depends on soil conditions, available land and local installation costs at the site.
- Specialized technical knowledge and equipment is needed to properly install the piping, so a geothermal heat pump system installation is not a do-it-yourself project. Installers should be certified and experienced. Ask for references from owners of systems that are several years old and check them.

Ductless Mini Splits

- Check with local heating and cooling contractors to find a qualified installer or service person with experience working on mini splits.
- The installer must correctly size each indoor unit and determine the best location for its installation. Oversized or incorrectly located air handlers can result in short cycling, which wastes energy and does not provide proper temperature or humidity control. A system that is too large is more expensive to buy and operate.

To learn more about the best system for your home, please contact our Member Services Department at 320.269.2163 or 800.247.5051.

Comparative Report

	Jan-May 2016	Jan-May 2015	Jan-May 1996
Kwh Purchased	86,282,413	90,686,148	64,160,305
Kwh Sold	81,920,451	86,261,732	58,403,929
Cost Of Purchased Power	\$3,649,532	\$4,032,532	\$1,890,052
Patronage Capital Margins	\$967,875	\$818,002	\$125,425
Reserve For Taxes	\$114,583	\$123,852	\$183,497
Cost Per Kwh Purchased (mills)	42.30	44.47	29.93
	May '16	May '15	May '96
Total Plant	\$67,475,075	\$64,843,180	\$27,811,334
# Of Members Receiving Service	5,256	5,273	5,129
Avg. Residential Bill	\$164.88	\$164.50	\$86.26
Avg. Residential Kwh Consumption	1,392	1,383	1,168
Avg. Kwh Usage All Consumers	2,488	2,496	1,790
Peak Kw Demand (Peak Load)	23,874	24,303	18,788

Find Your Location & Get a \$10 or \$20 Bill Credit!

There are two hidden account numbers in this newsletter. If you find your number, you will receive a \$10 energy credit or \$20 if you are an *Operation Round Up* participant. Call the office to claim your credit.

There were no winners last month. Keep looking!



ENGINEERING & OPERATIONS • JOHN WILLIAMSON



Manager of Engineering & Operations

This past month, we held our annual *Pole Top/Bucket Rescue Safety Meeting* where all linemen complete tests showing their ability to strap on hooks and climb a pole. These skills would be necessary to rescue a fellow worker if an accident were to occur. In these scenarios a dummy is used and rescued with the use of only a rope. In another scenario we utilize a bucket truck by using the override controls at the base of the truck turret.

During the last month, we have also been working on upgrading services, new services, transmission motor switch replacements and road job project line moves. The guys also donated some of their own time to community involvement to help straighten the old historic train water tower, which was leaning badly.



2016 Youth Tour Report

In June, I had the amazing opportunity to travel to Washington, D.C. as a part of the Minnesota Rural Electric Association Youth Tour. I traveled with 39 other students from all across Minnesota. While we were there, we got to meet kids from all across the United States.

On our first full day in Washington, we toured several memorials including the Lincoln Memorial, the Vietnam Veterans Memorial, the National WWII Memorial, the DC War Memorial, the Vietnam Women's Memorial, the Korean War Veteran's Memorial, the Martin Luther King Memorial and the Franklin D. Roosevelt Memorial. We also got to stand by the reflecting pool and see the Washington Monument. After touring all of the memorials, we had a trolley tour of the Arlington Cemetery and watched the changing of the guard. That was a somber and moving experience. In the afternoon, we explored the Smithsonians on the south side. The National Air and Space Museum was amazing! That evening we attended a presentation to learn more about how co-ops work and what they are. We finished off the night with a night tour of the 911 Pentagon Memorial, Air Force Memorial and Jefferson Memorial.

On Monday, we spent the whole morning touring around George Washington's Mount Vernon Mansion and Plantation. In the afternoon we toured the National Museum of the Marine Corp. In the evening we had a pizza party at the Hyatt

with students from across the U.S. We heard some amazing speakers that night as well!

On Tuesday, we went to the Newseum, the National Archives and the Smithsonian on the north side of the mall. It is incredible to see all of the history there! In the afternoon we went to the U.S. Holocaust Memorial Museum. That evening we attended the Broadway musical "Kinky Boots" at the John F. Kennedy Center for Performing Arts. It was very entertaining! After the show, we toured the Iwo Jima Memorial.

Our last full day was Wednesday. It was Capitol Day! In the morning we met Sen. Al Franken and Sen. Amy Klobuchar. They each spent about half an hour with us. Later in the day, we had the opportunity to sit in the House Gallery. We got to meet many of the Minnesota representatives or their staffers. It was really cool to meet them and be able to speak with them. On three twenty six zero four That evening we took pictures in front of the White House and then attended a dinner and dance at the Hyatt with other states.

This trip was an amazing experience and I am so grateful that I was able to be the Youth Tour delegate for this co-op. I'd encourage other eligible youth to apply if able. It was definitely the trip of a lifetime. Thank you to the Minnesota Valley Cooperative Light and Power Association for making it possible.

~Anna VanRavenswaay





An Air Conditioner Compared to a Heat Pump

Our featured article this month takes a look at central air conditioning. We have always promoted heat pumps over air conditioners for the simple fact that you can do so much more with a heat pump than you can with an air conditioner. Over the years there have been many misconceptions about air conditioners versus heat pumps. Although a heat pump has a higher purchase cost than a standard air conditioner, it operates all year at a more efficient level and produces more energy and cost savings over its lifetime. A standard air conditioner only cools during the summer months, whereas a heat pump functions both as an air conditioner and also a heat source during the heating months. *So what makes a heat pump different from an air conditioner and how do they work?*



Mechanical Components

The mechanical components common to both a heat pump and an air conditioner are a *compressor, expansion valve, evaporator coil* and a *condensing coil*. In a cooling cycle, the heat pump and air conditioner operate exactly the same by utilizing refrigerant to transfer heat from inside the house to the outside. During the heating season, a heat pump has a **special reversing valve** that allows the system to extract heat from the air outside the house and transfer it inside the house for heating purposes. So basically a heat pump is a standard air conditioner in the summer and has the ability to run backwards and heat your home for the heating season.

Applications

Air conditioners have a single purpose, which is to provide cooling. During the winter, they sit idle while a separate furnace provides heat for the house. Heat pumps are **dual-purpose**, functioning year-round for both heating and cooling. A heat pump works best at moderate temperatures that are not below 0° Fahrenheit. Heat pumps are normally equipped with supplementary electric resistance heat strips or fossil fuel backups to provide additional heating during colder temperature periods. The heat pump can heat your home during very cold periods, but defrosting the outside coil can become an issue that generally should be avoided. The unit can be equipped with an outdoor thermostat to automatically turn the heat pump off at a desired temperature.

Heat Pump Efficiency

The Seasonal Energy Efficiency Ratio (SEER) rates the cooling efficiency of the heat pump. Generally, the higher the SEER rating, the more the units cost. **However, gains from energy savings will compensate for the initial investment over time.** In our region with much cooler weather, air conditioning is not as big a factor as the heating efficiency of a heat pump. You want your heat pump to have a high Heating Seasonal Performance Factor (HSPF). Heat pumps in our region can run as much as five times more in the heating mode as they would in the air conditioning mode. Therefore, a heat pump that has a higher heating efficiency will help you save more money.

The efficiency of a heat pump can also be taken to the next level by installing a geothermal heat pump where the heat is transferred to and from the ground to make it much more efficient. Minnesota Valley currently has a double rebate promotion until **Labor Day** with the installation of any new heat pump. Also, you can still take advantage of the **30% federal tax credit** with the installation of a geothermal heat pump before **December 31st, 2016**. Please contact the Member Services Department for more information.

Summer DOUBLE REBATE Days



Office Hours

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

24-Hour Telephone Answering

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