

In this issue...



Great River Energy program for plug-in hybrid electric vehicles......7



Coal Creek Tour July 28-30.....8



Washington DC sign up for junior and seniors...8

Official publication of



Members may place free classified ads in NEWS

s a benefit for McLeod **Cooperative Power** Association (MCPA) members, the Cooperative will now allow members to place free want ads in the monthly newsletter. Only MCPA members may submit ads. Ads may be for giveaway, for rent, for sale or wanted items. The Cooperative is now accepting classified ads that will run in the January issue of McLeod Cooperative Power NEWS. Items for sale will be grouped into Miscellaneous, Agricultural and Automotive categories. This will be a cost-effective way for our members to be able to sell items they no longer want to other MCPA members.

Use the coupon printed (right) to submit your ad. Coupons are also available at the Cooperative office. Coupons may be returned to the Co-op in the same envelope with your monthly bill payment or you may mail the coupon separately to the address below. Ads will NOT be accepted over the telephone. Please limit your ad to nine words.

Ads will be printed for one month only. Please submit a new ad if you want it published more than one month. Include your name and address, which will be used for identification purposes only by our office staff. Please include the telephone number that you want to appear in the ad. Ads must be received by **December 27** to be included in the January issue. The Co-op reserves the right to edit ads to allow space for more ads if needed. Thank you.

Please run this ad in the next MCPA News

Name:			Please check	
Address:			ad category	
Telephone number:			Giveaway	
Remember to limit your ad to nine words!		For Rent		
			For Sale	
1	_ 2	3	Wanted	
4	_ 5	6		
7	_ 8	9		
Clip and Send to: McLeod Cooperative Power, ATTN: Classified Ads P.O. Box 70, Glencoe, MN 55336				

Holiday Treats Thurs., Dec. 12

Plan to visit the Co-op office at 1231 Ford Avenue in Glencoe on Thursday, December 12 if you want to partake of holiday cookies, cider and coffee. Holiday treats will be available from 8 a.m. to 4 p.m. on the 12th.

Members may also want to pick up their 2014 scenic calendar. Calendars are



provided on a firstcome, first-served basis, while the supply lasts. They include beautiful Minnesota scenic photos taken by employees of the Co-op.

Capital credits applied to December bills

embers of McLeod Cooperative Power Association (MCPA) may notice lower electric bills in December. A total of \$602,404 is being distributed this month in capital credit refunds. This amount includes all remaining capital credits from 1994 and 20% of operating margins allocated from 2012.

Capital credits are being applied to active electric accounts and will show as a line item credit on each bill that is supposed to receive a refund. Former members who no longer have an active electric account will be mailed their refund in the form of a check in December.



Please notify the Cooperative if you are heading south for the winter. Although the Turtle will send

us your meter reading, we still need to know what payment arrangements you prefer.

Options are:

- You can pay in advance.
- Have the post office forward your mail.
- You can sign up for auto pay and have the payment automatically deducted from your checking or savings account.
- You can call us with a credit card payment.

Be sure to make arrangements before you leave by calling 1-800-494-6272.

October Outage Summary

D uring the month of October, the Cooperative had a total of 46 outages, affecting 167 consumers.

An outage on Monday, October 14 at 3:15 p.m. affected 29 members near Buffalo Lake. Cause of the outage is not known. The outage lasted approximately 90 minutes.

The second largest outage for the month affected 23 members north of Silver Lake on Friday, October 11 about 9:45 p.m. It was caused by trees with ice or snow and windy conditions. The outage was repaired in less than one hour.

On Friday, October 25 an internal fault in a regulator (which could not be seen from looking at the outside of the regulator) caused power to go off twice for 15 members east of Plato. Power was out from approximately 6 to 8 a.m. The equipment was reset and power restored and then it went out again from 10 a.m. until 11 a.m. when the problem was resolved.

Most outages affect only one or two members. They are frequently caused by small animals, trees in the line, equipment failure, or motor vehicle/ machinery accidents. Larger outages affecting hundreds of members at a time are usually caused by transmission outages, storms, equipment failure to substation equipment, or accidents. Restoration time on weekend and evening outages, when line crews are called out from home, usually take a little longer to restore than outages when crews are already out working on the project.

Manager's Message by Kris Ingenthron, General Manager McLeod Cooperative Power Association

We Need an All-of-The-Above Energy Strategy

E lectric cooperatives are disappointed — but not surprised — that in September the Administration officially abandoned an all-of-the-above energy strategy for a new, all-but-one approach that effectively removes coal from the nation's fuel mix in the future.

The policy, proposed by the Environmental Protection Agency (EPA), sets stringent limits on carbon dioxide emissions from future coal or natural gas plants. Trouble is, the new standards are impossible to meet with existing technology.

For several years cooperatives have tested carbon capture and storage (CCS) as a way to reduce greenhouse gas emissions. Unfortunately, the technology doesn't make financial sense. It has never been used at a commercial scale at a power plant over a prolonged period to demonstrate its viability or cost. In a 2012 Congressional Budget Office report, engineers estimate it would increase the cost of producing electricity from coal-based plants by 75 percent.

The Administration's switch to an all-but-one energy approach would limit Americans' access to a plentiful and affordable resource. I don't think we should gamble with the economic well-being of future generations and our nation's economy.

Already worried about making ends meet, many of McLeod Cooperative Power Association members cannot afford the significant increases in electric bills that this policy would trigger.



Historically,

the price of coal remains affordable and relatively stable. The U.S. Energy Information Agency reports the United States has 236 years remaining of recoverable coal reserves. Coal generates 37 percent of the nation's electricity — our biggest energy source by far.

It seems the Administration lets history repeat itself. We saw this all-but-one game in 1978 when Congress passed the ill-conceived Power Plant and Industrial Fuel Use Act. Never heard of it? Few have, but for several years the government banned natural gas for power generation. Yes, natural gas — the fuel source being sold to the nation today as a cleaner fuel option. With gas off the table, electric co-ops were forced to choose between building coal or nuclear plants.

Back then, co-ops were in the midst of a major power plant building cycle. With few options, they invested heavily in coal-based generating plants in the late 1970s and early 1980s. Thankfully, Congress repealed its mistake, but not for nine years.

Let's not repeat past mistakes. Stand with us as we fight to keep electric bills affordable. Raise your voice through the Cooperative Action Network at **www. action.coop**. Tell the EPA we need an all-of-the-above energy strategy.

Cooperatively yours,

McLeod Cooperative Power News

Board of Directors

District 1 Oria Brinkmeier, **Lester Prairie**

District 2 Dale Peters, Secretary-Treasurer Brownton

District 3 Roger Karstens, Vice President **Hutchinson**

District 4 Doug Kirtz, **Hector**

District 5 Allan Duesterhoeft, Hutchinson District 6 Lester Ranzau Glencoe

District 7 Randy Hlavka **Silver Lake**

District 8 Keith Peterson, President Hector

District 9 Gerald Roepke, Asst. Secretary-Treasurer New Germany USPS 2220 Periodicals Postage Paid at Hutchinson, MN POSTMASTER: Send address changes to McLeod Cooperative Power News P 0 Box 70, Glencoe, MN 55336-0070

The **McLeod Cooperative Power News** is published monthly for \$4.80 per year for members and \$8 per year for non-members by McLeod Cooperative Power Association 1231 Ford Ave. North, Glencoe, MN 55336-0070

> General Manager: Kris Ingenthron Editor: Sue Pawelk

The McLeod Cooperative Power News is the official member publication of McLeod Coop Power Association and focuses on our members, programs and events. All member story ideas and comments are welcome. Send to Sue Pawelk at the address shown.

> **Office Hours:** Monday - Friday 7:45 a.m. - 4:30 p.m.

Phone: 320-864-3148 1-800-494-6272 24-hour outage: 1-800-927-5685 Fax: 320-864-4850

Web site: www.mcleodcoop.com

Gopher State One Call 1-800-252-1166

Water Storage Program is the best way to save money and have plenty of hot water too!

hen a family joins the Hot Water Storage Program, they begin to save money immediately, as they are paying 5 cents per kWh instead of 10-11 cents per kWh. For an average family of four persons that use 600 kWh for water heating each month, this means a savings of \$453 a year. It is like lowering your bill by almost \$38 a month! And if you have central air conditioning, that can also be controlled and added to your off-peak meter, for a 55% savings on all your summer cooling, just for letting the Co-op cycle your air conditioner on peak days.

When a family joins the Water Storage Program the Co-op helps them size the water heater to make sure they will have sufficient hot water to meet their daily needs. A family of 2-3 people can usually join the program with an 85-gallon hot water heater.

A family of 4-6 persons will require a 105-gallon water heater or you could just add an 80-gallon alongside your existing 50 gallon to accomplish the same storage capacity. The Co-op provides a mixing valve at no charge. This device will give you another 30-40 gallons of hot water a day from your tank. The water heater operates from approximately 11 p.m. to 7 a.m. to heat your family's daily supply of hot water. The elements then remain off for the next 16 hours until they begin recharging overnight again. By heating water only at night when electricity is cheapest, you can save yourself some significant dollars each month. And you have plenty of hot water for laundry, baths and showers since the system is sized to meet your family's needs. Only if you have an over-sized or sunken bath tub may some extra storage capacity have to be added.

Snowmobile safely this winter



hether you are a recreational snowmobile rider or a diehard sledhead, a fresh snowfall is a taunting invitation to be the first to cut through the untouched powder. Snowmobiling can be a great way to enjoy the long winters we are blessed with - or cursed with — depending on your view, but comes with a number of safety considerations.

In addition to observing state snowmobile regulations and local laws, it's always a safe practice to drive at moderate speeds and drive defensively. Be especially careful if driving in a power line right of way. Reduce your speed and always be on the lookout for electrical transformer boxes and guy

wires — the cables that anchor power poles. Darkness, fog and deep snow can make them hard to see.

Still, it cannot be stressed enough to stay on marked trails. Marked trails offer signs that alert snowmobilers to trail changes. When you venture off of those marked trails, you put yourself and others with you at risk for coming into contact with objects, such as electrical equipment, hidden under the deep and undisturbed snow.

If you see a downed or sagging power line, notice missing or damaged guy wire covers or have other safety concerns regarding electrical equipment along your ride, contact the local utility or authorities right away.



Be alert Help prevent copper theft IF YOU SEE ANYTHING

unusual, or anyone other than utility personnel or contractors around electrical facilities, ent, or utility po call 911 immediately

COPPER THEFT IS A SERIOUS PROBLEM costing electric cooperatives and our members thousands of dollars each year.

Individuals who steal copper from electric utility equipment interrupt service and create life-threatening situations for themselves. our employees and the public

You can help prevent copper theft by being alert to suspicious activity and reporting it.

Great River Energy—The power behind your electric coope	rative
Appließ Extende Goorentre Bane - Annahesel Encirc Coorentrien Ac. Letters # BROD Extend Coorentre Bane - Bane Statistics and Annahese - Statistics and Annahese - Bane -	Mankato • Brown County ow Wing Power, Brainerd Ickson • Goodhae County ower Cooperative.
groatrivoroporgy com	GREAT RIVER E N E R G Y

Holiday Hours



The employees and directors of **McLeod Cooperative Power** wish you and your family a blessed Christmas and a prosperous New Year.

Our offices will be closed Tuesday and Wednesday, Dec. 24 and 25 and Wednesday, Jan. 1 so our employees may spend the holidays with their families.

For outages or electrical emergencies call 1-800-927-5685.

USE YOUR POWER

More than ever, electricity powers our lives. And in the years to come, it will be the smart use of electricity that plays a key role in solving our shared energy challenges. After all, the greatest source of energy for the future is using it as wisely as possible today.

It's your power. Read more about how to use it wisely at EnergyWiseMN.com/Power

ENERGY WISE - MN

New lighting standards call for solid lighting solutions

ongress called for improved energy efficiency standards for traditional incandescent bulbs under the federal Energy Independence and Security Act of 2007. By 2014, lightbulbs using between 40-W to 100-W must consume at least 28 percent less energy than classic bulbs. The change will save Americans an estimated \$6 billion to \$10 billion in lighting costs annually.

When the next wave of standards kicks in next month, traditional 40-W and 60-W incandescents will no longer be available. In their place, some consumers are filling the gap with a solid solution: LEDs.

'Solid' lighting

Incandescent bulbs create light using a thin wire (filament) inside a glass bulb—a delicate connection that can easily be broken, as frustrated homeowners can attest. In contrast, LEDs are at the forefront of solid-state lighting—small, packed electronic chip devices. Two conductive materials are placed together on a chip (a diode). Electricity passes through the diode, releasing energy in the form of light.

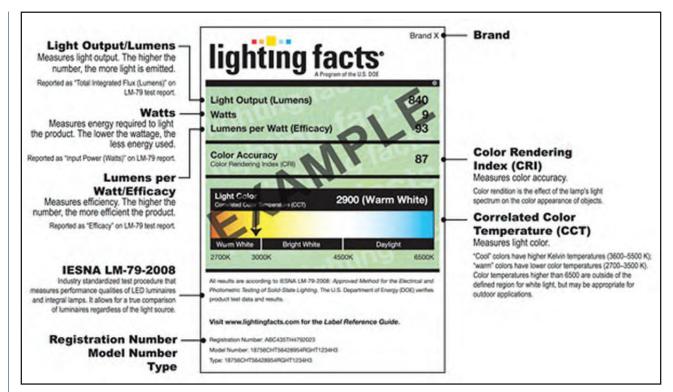
Measuring LED potential

The Arlington, Va.-based Cooperative Research Network has partnered with several electric cooperatives throughout the United States to test LEDs. Researchers are cautiously optimistic; LEDs offer several benefits:

- LEDs could last longer, perhaps for decades;
- The energy to use LEDs could be substantially less than that of compact fluorescent lamps (CFLs) or other fluorescents;
- With no mercury content, LEDs are more environmentally friendly;
- The products are rugged and more resistant to breakage;
- LEDs perform well in cold climates, especially outside; and
- LEDs can be dimmed and produce a more pleasing light.

LEDs are cooler

Online retailer EnergyCircle actually measured the difference and found that a halogen bulb, a type of incandescent bulb, ran at 327 degrees! A Cree LED downlight was measured at 107 degrees and a Philips Par38 CFL worked at 167



degrees. LED bulbs do get hot but the heat is dissipated by metal heat sinks that wick away the heat from the light source itself. Keeping them cool with heat sinks or even liquid cooling is important to ensure they last as long as advertised.

You get instant full light.

You get the full brightness of an LED bulb when you turn it on, which is an advantage over CFLs in a couple of ways. For starters, you don't need to wait for full light if you're running in and out of a room. Frequent cycling also degrades the life of CFLs, one of the reasons that CFLs in some cases don't last as long as expected.

However, some consumers avoid LEDs because the price tag exceeds normal lightbulb costs. But the true value lies in the lifetime of the bulb. It takes about 50 traditional incandescent bulbs, or eight to 10 CFLs, to last as long as one LED lamp.

Buyer Beware

Poor quality LED products are flooding the marketplace. Some are manufactured outside of the United States with components that produce low light levels, don't boast a long service life, or make exaggerated energy saving claims.

Don't be fooled. Look for the U.S. Department of Energy's ENERGY STAR logo for guaranteed color quality over time, steady light output over the lifetime, high efficiency, and a warranty.

You can also look for an LED Lighting Facts label (see example). The label helps consumers compare products to manufacturer claims and similar products with a quick summary of performance in five areas:

- Lumens: Measures light output. The higher the number, the more light is emitted.
- Lumens per watt (lm/W): Measures efficiency. The higher the number, the more efficient the product.
- Watts: Measures the energy required to light the product. The lower the wattage, the less energy is used.
- Correlated Color Temperature (CCT): Measures light color. "Cool" colors have higher Kelvin temperatures (3,600–5,500 K); "warm" colors have lower color temperatures (2,700–3,000 K). Cool white light is usually better for visual tasks. Warm white light is usually better for living spaces because it casts a warmer light on skin and clothing. Color temperatures of 2,700 to 3,600 K are recommended for most general indoor and task lighting.
- Color Rendering Index (CRI): Measures the effect of the lamp's light spectrum on the color appearance of objects. The higher the number, the truer the appearance of the light. Incandescent lighting is 100 on the CRI.

Shedding Light on LEDs

More lighting efficiency changes are coming. Congress' measure mandates lightbulbs become 70 percent more efficient by 2020.

Curious to know if LEDs are right for you?

Homeowners can visit www.energysavers.gov/ lighting to compare LEDs to new energy-efficient incandescent bulbs and CFLs.

Sources: The Association of Electrical Equipment and Medical Imaging Manufacturers, U.S. Department of Energy, Cooperative Research Network

Heartland Security's changes enhance services and customer satisfaction

Heartland Security hires Vern Zimmer as Regional Sales Manager

eartland Security of Melrose, MN, is pleased to announce its recent hire of Vern Zimmer of Willmar, who will join the Heartland team as Regional Sales Manager for Central MN.

Within this role, Zimmer will sell a variety of security systems including residential, large and small commercial, video surveillance, and access control.

Guy Adams, Heartland's General Manager, states "Vern's proven background and overall level of experience will help ensure Heartland's success and growth in our area."

Zimmer comes to Heartland with 16 years of experience in the security industry.

"I'm excited to be a part of Heartland

Heartland Security acquires Peart and Associates Security Division

eartland Security of Melrose, MN, is pleased to announce its acquisition of Peart and Associates' electronic security division which has served the greater Willmar market for over 25 years.

Peart & Associates will continue their "ProAction Safety & Sales" business and all other business activities.

Guy Adams, Heartland Security's General Manager said, "Peart and Associates has built a great reputation for servicing their customers and like Heartland Security, has offered a variety of security systems including residential, large and Security. I know they are a well-organized company which provides excellent customer service and I look forward to being a part of their team," said Zimmer.



Heartland Security provides much more than residential burglar alarms. Whether it be a small shop, industrial warehouse, or large farm, Heartland has you covered. They offer video surveillance, access control systems, commercial fire systems, and temperature monitoring to keep your assets safe and secure, 24 hours a day.

Every Heartland Security

solution is unique and custom-designed for the customer. Heartland takes pride in delivering the best service, sales and installation, and in staying at the forefront of technology and advanced security offerings.

For more information, contact Heartland Security at 888-264-6380 or visit the Heartland website at www.heartlandss.com.



Heartland Security has hired two Peart and Associates employees —Terry Clark and Adam Hanson — as alarm technicians to assist in the company's growth and customer service expectations.

small commercial, video surveillance, and access control."

Heartland Security serves and protects over 7,000 families and businesses in the Midwest and is locally owned by 14 Rural Electric Cooperative, including Meeker Cooperative Light & Power of Litchfield and McLeod Co-op Power of Glencoe.

Members of these co-ops are eligible for discounts on both installation and monitoring services with Heartland Security.

Industry News

Co-ops to EPA: Keep power affordable

xpensive energy will hurt the economy. That's the message electric cooperative leaders gave government officials who are drafting regulations for carbon dioxide emissions from existing coal-based generation. And that's what lies ahead if coal is taken off the table, they told the U.S. Environmental Protection Agency at its Nov. 7 "listening session" at EPA headquarters in Washington D.C. EPA will propose carbon dioxide standards for existing power plants in June 2014.

"If EPA's approach causes our electricity rates to rise, it could force industrial consumers to close their production facilities," said Robert Richhart, vice president of management services at Hoosier Energy Rural Electric Cooperative. "This would dramatically impact jobs in the communities served by our members and drive rates up further for the remaining consumers." The Bloomington, Ind., co-op serves 300,000 businesses, homes and farms and 750,000 people in 59 central and southern counties in Indiana and Illinois.

Ed Short, CEO and general manager of Covington Electric Cooperative in Sanford, Ala., underscored that rural consumers served by co-ops will bear the brunt of unattainable standards for coal plants. The co-op serves more than 22,400 meters across six counties. Rural co-ops face higher costs because of the low density of their territories and most of the costs "will pass directly to those hard-pressed customers," he told EPA. "Most are on a fixed income."

"We respectfully ask the EPA to recognize and respect that we followed the law when constructing power plants and consumers cannot afford for us to switch again with so much investment on the line," Richhart said at the session, which was among the last of 11 sessions conducted.

 \sim Electric Co-op Today

Crews finish CapX tower work between St. Cloud, Alexandria

he last tower was erected this week for the CapX 2020 power line between St. Cloud and Alexandria. Crews had been working from Alexandria eastward to install the structures, which are 140-170 feet tall. The final one was completed Monday near the new substation west of St. Cloud.

Crews are using helicopters to string the wire on the structures for 78-mile second phase of the CapX high-voltage transmission line. They are more than halfway done and now working near Freeport, said Tim Carlsgaard, Xcel Energy's spokesman for the project.

The project is on schedule to be completed in 2015, Carlsgaard said. Crews are building foundations and erecting structures for the final phase from Alexandria to Fargo.

 \sim St. Cloud Times

Volunteers needed for Nominating Committee

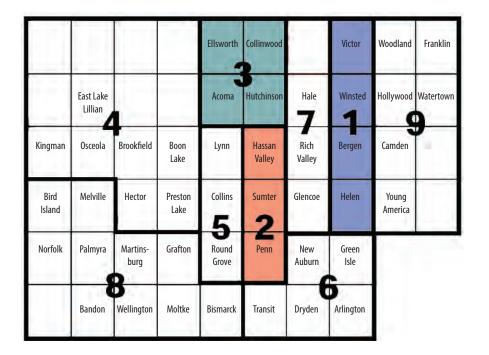
To elect directors in Districts 1, 2, & 3 at the 2014 Annual Meeting, we need members from those districts to serve on the Nominating Committee. Nominating **Committee members** participate in the election process by selecting director candidates and submitting their names to the Board for approval. They also assist with collecting and counting ballots at the Annual Meeting. Volunteers are needed from the following townships:

District 1 includes: Winsted, Bergen, and Helen Townships in McLeod County and Victor Township in Wright County.

District 2 includes: Hassan Valley, Sumter and Penn Townships in McLeod County.

District 3 includes: Acoma and Hutchinson Townships in McLeod County and Ellsworth and Collinwood Townships in Meeker County.

Call McLeod Cooperative Power no later than January 2, 2014 if you are willing to volunteer for the 2014 Nominating Committee. Committee meetings are scheduled for January 30 and February 13, 2014. The Annual Meeting is planned for April 8, 2014.



MCPA Director Candidate Application

The undersigned, a member of McLeod Cooperative Power Association, hereby applies as a nominee for director of McLeod Cooperative Power Association from District _____ and requests that my name be considered by the Nominating Committee to be placed on the ballot for the next election for director from said district to be held at the next Annual Meeting, April 8, 2014.

I certify that my account is current and I am a member in good standing with McLeod Cooperative Power Association from District _____. I certify that I am a resident of District _____ and am receiving electric energy from McLeod Cooperative Power Association.

I certify that I am not in a competing business with McLeod Cooperative Power Association.

If elected director, I agree to attend as many meetings of the Board of Directors as possible and to abide by the Articles of Incorporation and By-laws and Policies of McLeod Cooperative Power Association. Date:

Signature:_____

What makes a good director?

t McLeod Cooperative Power we believe that our Board of Directors comprises a pillar connection with our membership and the community at large. Besides meeting the legal requirements for Director nomination, we are seeking individuals who hold some important personal characteristics. We've summarized these attributes below.

Possess a sincere interest in preserving the strength of the Cooperative's operations and maintaining a productive relationship with its consumer-members. McLeod Cooperative Power has assets of about \$25 million, employs 29 full-time people and is responsible for providing quality electric service to more than 6,000 sites, as well as a variety of ancillary services. Our electric distribution system serves a diverse membership consisting of residences, farms, businesses and industries. While representing all members of the district, Directors must work with each other to ensure equitable treatment to all members across the entire distribution system.

Be willing and available to fully participate in the business activities of the Cooperative. Attendance is expected at all scheduled Board of Directors meetings. In addition, from time to time, Directors will be called upon to represent the Cooperative at other meetings and events where their presence is deemed to be beneficial to the Cooperative.

Remain accessible to the members whom they represent. Since the Directors are elected from and by the Cooperative's membership, it is important that they work to **maintain open lines of communication with their constituents. They should also strive to be knowledgeable about trends and circumstances that may impact the people and communities of central Minnesota, and be capable of using basic computer skills to receive electronic communications and reports from the Co-op.**

Be enthusiastic. During these times of accelerated change, we look for proactive, resourceful and inspired leadership.

Director qualifications per the Co-op Articles of Incorporation

Article 3, Section 2 of the McLeod Cooperative Power Association Articles of Incorporation states the following about director qualifications. No person shall be eligible to become or remain a Director of the Cooperative who:

A. is not a member in good standing of the Cooperative receiving service at the member's primary residence or principal place of business in the district from which the Director is elected;

B. within five (5) years preceding a Director candidate's nomination was or during service on the Board of Directors is finally adjudged to be guilty of a felony;

C. within five (5) years preceding a Director candidate's nomination was an employee of the Cooperative;

D. is or becomes, or at any time during the five (5) years preceding a Director candidate's nomination shall have been, employed by a labor union which represents, or has represented, or has endeavored to represent any employees of the Cooperative;

E. is a child, grandchild, great-grandchild, parent, grandparent, great-grandparent, brother, sister, aunt, uncle, nephew or niece, whether by blood, or in law, of an employee of the Cooperative; F. is a person that is child, grandchild, great-grandchild, parent, grandparent, great-grandparent, brother, sister, aunt, uncle, nephew or niece, by blood, or in law, of an incumbent Director that is not up for re-election at that time;

G. is in any way employed by or substantially financially interested in an enterprise competing with the Cooperative or any Cooperativeaffiliated business;

H. is or becomes the full-time employee or agent of, or who is or becomes the full-time employer or principal of, another Director; or

I. is absent without cause from three (3) or more regular meetings of the Board of Directors during any twelve (12) month period.

A member that is an authorized farm corporation, family farm corporation, regular corporation, partnership, limited liability partnership or other business entity may select an individual member residing on or actively operating such business entity to be eligible for election to the Board. A member that is not a natural person may select one of its officers to be eligible for election to the Board, provided that not more than two (2) such officers may serve on the Board at the same time.

Fact or Fable? Smartphones Use More Energy Than a Refrigerator

Source:www.energystar.gov

A number of recent headlines have suggested that a smartphone uses more energy than a home refrigerator. It seems hard to believe that a tiny mobile device can gobble up more power than the big refrigerator sitting in your kitchen. So, is it true?

From the standpoint of your home energy consumption, it is no contest. It takes only about 3.5 kilowatt-hours (kWh) per year to charge an iPhone 5, according to the Electric Power Research Institute (EPRI), while an ENERGY STAR rated high-efficiency refrigerator has an annual energy use of 322 kWh, nearly 100 times more.

If you consider the entire energy footprint, according to researchers, the picture becomes less clear. While each device requires a certain amount of energy to manufacture, your refrigerator operates as a standalone device once it is plugged in. A smartphone, however, requires an energy-using support network of cell towers, data centers and other equipment. When you factor in wireless connections and data usage with battery charging, the total energy footprint of an average iPhone is 361 kWh, according to a new study by Mark Mills, CEO of the Digital Power Group.

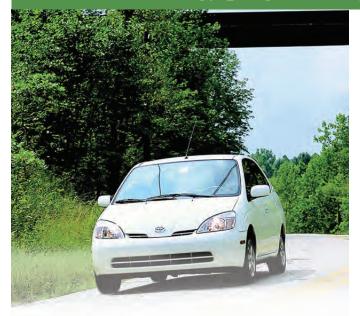
Other researchers are skeptical of the findings in the Digital Power Group study. Bryan Walsh, senior editor at Time magazine, notes smartphone energy usage varies widely depending on wireless connections and data; the calculations used by Mills imply very heavy usage. For example, Mills assumes a high usage rate of 19 gigabytes per year, while other surveys have indicated a much lower average annual usage rate, as low as 2.3 gigabytes.

Gang Zhou, an associate professor of computer science at the College of William and Mary, told MSN News that Mills' measurements for the power consumption of smartphones were "higher than they should be," but "data center energy usage is an important issue."



While your smartphone may not use more energy than your refrigerator, its energy and environmental impact goes beyond the charger. That might give you something to think about the next time you send a text or look up a piece of trivia. The iPhone is just one reason why the digital economy demands such a large and growing amount of energy. The global information technology system includes everything from smartphones to laptops to digital TVs and especially the computer-server farms that make up the backbone of what we call "the cloud." It's the same amount of electricity that was used to light the entire planet in 1985. One data center can use enough electricity to power 180,000 homes. As our lives migrate to the digital cloud and as more and more wireless devices of all sorts become part of our lives the electrons will follow. And that shift underscores how challenging it will be to reduce electricity use and carbon emissions even as we become more efficient.

Great River Energy program for plug-in hybrid electric vehicles



ChargeWise will charge batteries with off-peak electricity

program from Great River Energy and a number of its member distribution cooperatives will make it easier for people to transition from the gas pump to the plug-in.

Great River Energy's member distribution cooperatives have incentives available to help install 240-volt ChargeWise outlets for installation in consumers' garages to provide low-cost, off-peak energy for charging plug-in hybrid electric vehicles (PHEVs). The program has been in place for a few years. McLeod Cooperative Power believes it might become more popular in 2014 as many major auto manufacturers are introducing new PHEVs.

The 240-volt ChargeWise outlets will charge PHEV batteries between the hours of 11 p.m. and 7 a.m. when demand for electricity is at its lowest and the price for wholesale electricity is also at its lowest. Charging the batteries during these hours also allows Great River Energy to "store" wind energy allowing PHEVs to receive a significant amount of power from renewable sources.

"It's cleaner, greener and cheaper than gasoline," said Gary Connett, Great River Energy's director of member services and demand side management. "As more wind energy is added to the electric grid, plug-in hybrid electric vehicles will get even greener."

McLeod Cooperative Power currently offers several programs designed to maximize the use of electricity that is generated overnight, including off-peak "storage" water and space heating. Members considering the purchase of a PHEV should consult with the Co-op's energy management specialists on recommendations for charging stations and wiring before making a purchase.



Operation Round Up donation applications are being accepted until March 1

ommunity and civic groups, emergency responders and other 501(c)3 non-profit organizations are welcome to apply to McLeod Cooperative Power's Operation Round Up Trust for donation assistance. The trust is able to donate funds to worthy local projects in McLeod, Renville, Sibley or McLeod Counties. Funding is from the generosity of electric cooperative members who round up their electric bills.

Application forms are available by calling the Cooperative at 1-800-494-6272. Applications for funding must be completed and returned to the Cooperative by March 1, 2014.

Energy consumption cost for electronics that are plugged in but turned "Off"

Cable Box with DVR	¢44/woor
	•
Desktop computer in sleep mode	
Laptop computer in sleep mode	\$16/year
Television	\$6-\$13/year
Modem or router	\$7/year
DVD Player	\$5/year

A plugged in cell phone charger with a fully-charged phone comes out to about \$2/year. Plugged-in chargers without a phone are \$.25/year



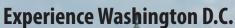
GET A **\$100** GIFT CARD HIGH SPEED INTERNET JST IN TIME FOR THE HOLIDAYS!





Recycle holiday light strings

Ithough the Cooperative is not offering a discount coupon this year for LED holiday light strings, we are still serving as a collection site for you to dispose of your old light strings. A box from Adult Training and Habilitation (ATHC) will be available in the Co-op's office. We will collect old light strings and provide them to ATHC where all the components are recycled. ATHC provides jobs for disabled persons sorting and recycling light strings, old electrical cords, appliance and telephone cords. There is no charge to drop off your cords. Only battery chargers and adapters are not accepted.





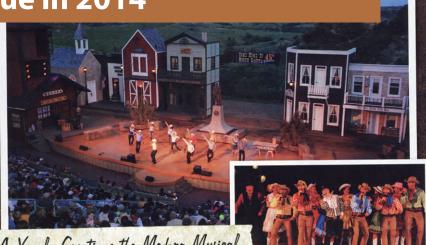
Time for high school juniors and seniors to apply

igh school juniors and seniors have until March 3, 2014 to apply for the Cooperative's Washington Youth Tour competition. One local youth will win an all-expense-paid trip to Washington D.C. June 14-19, 2014 from the Cooperative.

For over 40 years, electric cooperatives have sponsored the annual Rural Electric Youth Tour by sending their high school students to experience first hand, the essence that is our republic. An information packet is available upon request to any high school junior or senior. Just call the Co-op at 1-800-494-6272. You will have until March 3, 2014 to submit your application. Students complete a questionnaire and application to qualify. Please encourage your child or grandchild to apply. They need only attend a high school in or reside in McLeod, Renville, Sibley or western Carver County.

Coal Creek Tour to include Medora Musical & Pitchfork Fondue in 2014

he Coal Creek Tour is scheduled for July 28-30, 2014. Coal Creek Generation Station and Falkirk Coal Mine are again on the itinerary, but added to the tour is a trip to Medora. Participants will spend a night in Medora, take in the Medora Musical and eat at the Pitchfork Fondue experience. Last year was the first time



A Yearly Creation: the Medora Musical

Medora was included in the tour and it was a very popular addition and seats filled up fast.

Cost will be \$400 per person double occupancy or \$500 per person single occupancy. If any members are interested, we are starting to take reservations. Call the Co-op at 1-800-494-6272 and ask for Katie.

