A Service of Midwest Energy Cooperative

INTE

February 2014

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Line Clearing Means Fewer Outages

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WATERFURNACE UNITS QUALIFY FOR A 30% FEDERAL TAX CREDIT



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Change of Address: Please notify your electric cooperative. See page 4 for contact information.



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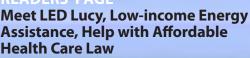


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READERS' PAGE







ON THE COVER Get used to seeing more people biking through the snow. Snowbiking is gaining

through the snow. Snowbiking is gaining popularity in Michigan for commuting, racing and riding, and resorts offering rentals and trails include those served by electric co-ops.

Photo Courtesy - Einstein Cycles, Traverse City, einsteincycles.com



Michigan's Electric Cooperatives countrylines.com



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Good Line Clearing Plan Means Fewer Outages

A s I write this column in January, snow is blanketing southern Michigan, with several more inches expected. Mother Nature also gave us a white Christ-

mas that was accompanied by an ice storm that caused over 500,000 of our Michigan neighbors to the north to be without power for a week or more. We sent six linemen to assist with restoration at an electric co-op serving central Michigan, and they shared descriptive stories and photos of both the beauty and massive devastation caused by this storm.

More stories of damage and days spent in the dark soon followed our northeastern friends again, as Winter Storm Hercules brought heavy snow and high winds.

The electric grid, an intricate system of transmission and distribution lines, is an amazing marvel of innovation and technology that powers our everyday lives with a very high degree of dependability and success. But Mother Nature is one force that can quickly bring this system and its dependent users to their knees especially with a major ice storm.

There is nothing we can do to completely shelter our distribution system from the weather, but we do take preventive measures that help us provide the highest safety and reliability levels to our electric co-op's members. A strategic, proactive line clearance program is one of

the best investments we make in our system, which therefore improves your service experience. For over a decade, we have invested millions of dollars in reclaiming and maintaining our system rights-ofway in order to improve reliability and safety. Line clearance work takes many forms,



Robert Hance President/CEO

from massive cutting to gain a 30 foot ground-to-sky clearance on areas that haven't been addressed for many years, to regrooming areas where we have

> previously cut. It's a never-ending cycle of proactive maintenance designed to reduce reactive outage restoration work when our system is attacked by nature's damaging forces.

I wish we could put hard and fast numbers on the outages we avoid as a result of our clearing efforts, but that's impossible to predict. But we do know that

you are noticing the difference. The Nov. 17 wind storm that ravaged our system resulted in a lot of downed trees and power lines, but many of you offered very public thanks through our social media platforms for line clearance work that likely kept the power on at your own home. Your affirmation and support of these efforts and acknowledgement of the results is the best reinforcement we could ask for!

Details on our line clearance methods and plan for 2014 are on page 5. Members in areas scheduled for clearance work receive notification before we begin, and we encourage you to contact us with any questions. Thank you for understanding our approach and supporting our efforts to create the best possible service experience for all Midwest Energy members.



4 | Michigan Country Lines

Why Your Co-op Clears Vegetation

eliable electricity is not just a luxury; it's an expectation. Our chief responsibility as your electric co-op is to provide a reliable and safe electric distribution system, and trees are a major obstacle. To improve your service experience, we employ an aggressive, proactive line clearance program proven to significantly reduce outage hours related to our distribution system.

What We Do and Why

Our line clearance standard is to obtain and maintain a ground-to-sky clearance of 15 feet, free from all obstructions, on each side of the power line. Where our facilities cross personal property, easement gives us the right to use that property to maintain our right-of-way. An easement can be recorded, meaning it is signed and on file at the Register of Deeds office in the county of service, or prescriptive, meaning the land has been used in a continuous and open manner for the statutory period of 15 years for utility purposes.

We employ a three-pronged approach to right-of-way maintenance:

1. Cutting: In areas that have not been addressed for at least 15-20 years, we must first reclaim our rights-of-way by using the 30 foot ground-to-sky approach described above. This is an aggressive approach, but an important first step to providing reliable, safe electricity.

2014 Plan: Between January and June, we will cut 71 miles of line in Flowerfield Township. We will mail notification to members in areas scheduled for cutting, and attempt at least two telephone contacts prior to beginning any work. We may be able to offer alternatives - such as burying or relocating the line - at the member's cost. If you receive a mailing and are interested in alternatives, please return the "Request for Contact" form.

2. Re-grooming: Once the line is cleared, we periodically return to trim and mow for any new growth. Maintaining cleared rights-of-way is critical.

2014 Plan: Between July and December, we will re-groom 108 miles of line in Covert and White Pigeon townships. We

will attempt telephone contact prior to beginning any work.

3. Integrated vegetation management (IVM): This is a long-term spraying and mowing strategy to manage continued regrowth in newly cut areas. It effectively controls tall-growing trees and bushes while promoting low-growing plants such as grasses, wildflowers and shrubs that are beneficial to wildlife. It offers longer term results in a more cost effective way, and is endorsed by a number of environmental, forestry and wildlife providers as offering benefits to many wildlife species.

2014 Plan: Between April and September, we will spray and mow 116 miles of line in Prairie Ronde, Texas, Hartford and Covert townships. An informational letter will be sent to all homeowners in areas where we use IVM prior to beginning any work.

Jobsite Cleanup

Our contract crews dispose of branches and limbs in the most economic and practical manner possible. During regular line-clearing activity, crews will remove branches and limbs within maintained or landscaped areas and leave the wood for use by the homeowner or resident. In unmaintained areas, crews will leave wood, branches and limbs for use by the homeowner or resident or to decompose naturally. Midwest does not remove stumps after tree removal. During emergency power restoration, crews clear trees from our facilities and move to the next location. Midwest does not return to remove wood, branches and limbs.

Our Commitment to Safety

Safety is another priority. Mother Nature provides an amazing playground for curious kids of all ages, but it can turn deadly when an unsuspecting hand reaches into a tree and contacts a power line. Any tree in close proximity to a line can present a safety hazard and will be removed.

Service Line Trimming

Midwest Energy will trim along the service line running from the transformer to your home when the tree is in contact with the power line. We do not remove trees



Before \blacktriangle and after \bigtriangledown shots of a line circuit in Dowagiac. A newly cleared right-of-way can look extreme at first, but as the growth returns the landscape regains its natural beauty.



▼ The ground-to-sky approach to line clearance helps to make sure that trees don't form a canopy over the lines.



located near service lines. If you want a tree removed, we'll be happy to drop the line so you can have the tree safely removed. Please contact us and provide at least a 24 hour notice before any work is to begin.

Planning Guide

Trees and power lines do not mix, which is why careful planning is important before you begin any landscape plan. It's important to note what's overhead, on the ground, and underground prior to beginning any work. Please contact us for information and resources.

For more information

For more information about our line clearance procedures, contact our Customer Care Department at 800-492-5989.



Cookies, pies, muffins, cakes, brownies, and more: Try these heart-warming, homemade recipes, and turn your kitchen into a bakery.

Layered Pumpkin Loaf

1 c. canned pumpkin 1 c. plus 2 T. granulated sugar, divided 1/2 c. packed brown sugar 4 egg whites, divided 1/2 c. low fat buttermilk 1/4 c. canola oil 2 c. all-purpose flour 2¹/₂ t. baking powder 1/2 t. baking soda 2 t. pumpkin pie spice 1 t. cinnamon ¹/₄ t. salt (optional) 1 8-oz. pkg. Neufchatel cream cheese (1/3 reduced fat), softened 1/4 c. pepitas, chopped (optional)

In a large bowl, stir pumpkin, 1 c. granulated sugar, brown sugar, 3 egg whites, buttermilk and oil, until combined. In a separate bowl, whisk together flour, baking powder, baking soda, spices and salt. Add to pumpkin mixture and fold gently just until moistened. In a small bowl, beat cream cheese, remaining granulated sugar and remaining egg white until well blended. Spoon half the pumpkin batter into a 9×5-inch loaf pan sprayed with cooking spray. Spread the cream cheese mixture in a layer over that batter. Top cream cheese layer with remaining pumpkin batter. Spread the top pumpkin layer a little bit with a silicone spatula, but it is okay if a little cream cheese is still visible. Sprinkle the top layer with chopped pepitas, if desired. It helps to gently pat the pepitas into the batter. Bake at 350° for 60-65 minutes, or until a toothpick inserted in the center comes out clean. Loosen bread from sides of pan; cool in pan for 10 minutes. Remove from pan to wire rack; cool completely. Yields 1 9×5 loaf (about 16 servings).

Amy Breimayer, Westphalia

Photography by: 831 Creative

Submit your recipe! Thanks to all who send in recipes! Please send in your favorite "Southern" recipes by April 10 and "Picnic" recipes by May 10.

Mail (handwritten or typed on one side, please) to: Country Lines Recipes, 2859 W. Jolly Rd., Okemos, MI 48864; or email recipes@countrylines.com.

Contributors whose recipes we print in 2014 will be entered in a drawing and Country Lines will pay the winner's January 2015 electric bill (up to \$200)!

Peanut Butter Whirls

1 c. shortening 1 c. brown sugar 1 c. white sugar 1 c. peanut butter 2 eggs 2 t. vanilla 1 t. salt 1 t. baking soda 2 1/2 c. flour 4 T. milk 12 oz. chocolate chips, melted

Cream shortening, sugar, peanut butter, eggs and vanilla. Add sifted dry ingredients alternately with milk. Roll out cookie dough to rectangle 1/4 inch thick. Spread cooled chocolate on dough; roll dough in jelly roll fashion and chill one-half hour. Slice with sharp knife into thick slices – about 1/8 inch thick. Place on ungreased baking sheet. Bake at 350° for 8-10 minutes. Yields 5-6 dozen. This is an oldie but goody from my mom's cookbook.

Becky Schlatter, Chippewa Lake

Pumpkin Pie Cake Crust:

1 pkg. yellow cake mix, remove 1 c. ¹/₂ c. melted butter 1 egg

Filling:

1 lg. can pumpkin 1/2 t. nutmeg 1/2 t. ginger 2 t. cinnamon 1 c. light brown sugar 4 eggs 1 c. whole milk

Topping:

1 c. cake mix 1/2 c. softened butter 1 c. sugar

Combine crust ingredients and pat into bottom of a 13x9 pan. Pour filling over crust. Mix topping ingredients together and sprinkle over filling. Sprinkle with chopped nuts. Bake at 350° for 45 minutes.

Virginia Hosmer, Plymouth



Tightening the Net

Electric co-ops innovate to secure their members' digital data.

midst continuing cyber threats from crafty computer hackers, electric coops are mounting sturdy defenses to safeguard their members' digital data and ensure reliable power delivery.

One way co-ops are bulking up cyber security is with tools from the Cooperative Research Network (CRN), the research arm of the National Rural Electric Cooperative Association (NRECA). CRN's *"Guide* to Developing a Risk Mitigation and Cyber Security Plan," released in 2011 with funding from the U.S. Department of Energy (DOE), helps utilities of all types develop a process to shore up cyber defenses.

Three innovations promise to these security efforts: pattern recognition software, an update of CRN's revolutionary *Guide*, and securing data.

Cyber Cooperation

Most home and business computer networks use a firewall—a virtual barrier or hardware to protect linked computers from hackers, viruses and other virtual invaders. Utilities also use firewalls, but sophisticated cyber threats make firewalls an aging technology.

"Firewalls are less able to provide the level of security we require," shares CRN Program Manager Maurice Martin. "We want to make sure that our co-ops have the tools they need to work securely."

To meet the challenge, CRN is developing a way to replace firewalls with a security tool that monitors computer network traffic by memorizing the normal pattern of operation. When the system detects an abnormal pattern (a possible intrusion), it sounds an alarm.

A DOE grant of \$3.6 million, with an additional \$1.1 million from CRN and partner Honeywell Corp., funds the research. Allies such as Pacific Northwest National Laboratories, Carnegie Mellon University, and Cigital Inc. will work with CRN to develop the cyber security tool.

"We'll combine high-level functionality with an easy-to-use platform," predicts Craig Miller, chief CRN scientist. "The system will simplify cyber security management for small utilities with limited resources." All but one of Michigan's nine electric distribution co-ops

falls into the "small utility" category. The largest has over 101,000 members, and the smallest from about 4,000; the others range from 10,000 to 33,000.

Evolving Guidance

The CRN *Guide*, and an accompanying template, is being used



Electric co-ops have partners and allies in the war on cyber security, including researchers like those at the Pacific Northwest National Laboratory (PNNL). In 2013, these PNNL researchers took part in a national cyber security drill.

by utilities of all sizes—across America and in countries such as India and Italy—to craft cyber-security plans. The cooperativelydeveloped resources are free to any utility and have been downloaded over 8,000 times.

"The content and ideas were important to share," explains Martin. The *Guide* and tools were developed as part of a \$68 million DOE grant three years ago.

But responding to emerging cyber threats is not a one-time effort. It requires constant education, awareness and vigilance. New resources—products, services and educational tools—are on the way. Expected early this year, an updated *Guide* will work in harmony with new DOE cyber security initiatives. The DOE also has a Computational Sciences Center that performs world-class computational science research—a helpful tool for calculating cyber security risks and creating tools to thwart hackers.

Securing Data

Threats to security—online and to the power grid—are real. Hackers take pride in undermining computer systems and finding a system's Achilles' heel. But thanks to innovative "cloud" computing, utilities are discovering ways of working together to strengthen co-op security and upgrade IT architecture. "NRECA turned to the Science Applications International Corp. (SAIC) for its solid understanding of the smart grid marketplace and how new technologies can be used to benefit the consumer member at the end of the line," explains Martin.

That project aims to shore up technologies that capture, store and secure information, and will benefit both co-ops and their members. The SAIC is also producing a series of reports to help utilities fully implement smart grid technology and evaluate IT developments (cloud computing, new databases, and more) with an eye toward how such developments can support the co-ops and solve their needs. The goal is for SAIC to map out an "IT architecture" to explain how the tools work to maximize reliability, customer service, and cyber security.

All utilities are vulnerable to digital invasions, but a continually evolving set of cyber security resources and innovations should help keep co-ops and their members a step ahead of the "bad guys."

Forget calculators. The U.S. Department of Energy has a Computational Sciences Center that performs world-class computational science research—a helpful tool when calculating cyber security risks and creating tools to thwart would-be hackers.

Midwest in the Community

Neighbor helping neighbor that's how your Midwest Energy Cooperative family approaches daily work and efforts to give back. We live, work and serve right here in your local community, and strive to actively live our Community value in meaningful, impacting ways. Here are just a few of our recent efforts to strengthen and support our communities.



Scan this with your QR reader to visit our online photo album and see more photos from these and other "Midwest in the Community" events.

Your Co-op Offers College Scholarships

As part of our commitment to strengthening and giving back to the community, Midwest Energy invites high school seniors to apply for one of four \$1,000 college scholarships to be presented this spring. The student's immediate family must currently receive monthly electric service from the co-op at their primary residence.

Scholarship selection is based on academic performance, extracurricular activities, community involvement and/or employment, and honors and awards. Applicants are also asked to submit a short essay. A minimum cumulative GPA of 3.5 on a fourpoint scale is required, and an official transcript must be submitted for final approval.

Scholarship applications and all pertinent information must be postmarked by *March 14, 2014*, and winners will be notified in April. Visit TeamMidwest.com to view and download or submit your application.



RACK Attack

In celebrating the spirit of Christmas, a team of Midwest employees set out in December to deliver Random Acts of Community Kindness (RACK). Activities during the day of giving were many, including delivering hot chocolate to local school-crossing guards, cooking dinner for families staying in the local Ronald McDonald house (Sara Hartsell and Mike Burrell), hiding surprises in favorite library books for readers to find, and ringing bells for the Salvation Army (Amber Mark). Many lives are touched through our RACK Attacks, with hopes that each recipient will pay it forward and keep random acts of kindness alive and well!



Feed the Hungry Campaign

Some Team Midwest employees and family members were among the dozens of community volunteers who braved cold December temperatures to help unload pallets of food for local food pantries. Feed the Hungry in Cass County is an annual month-long effort to raise money and collect food donations to support local residents in need. More than \$15,000 was raised through the 2013 campaign.

Outage Reporting is Easier with Smarthub's Latest Tool

when you're in the dark and trying to report a power outage, there's nothing more frustrating than a fast busy signal or waiting in a crowded phone queue for the next available customer care representative.

We've heard your frustration and are pleased to introduce a great new option!

Smarthub offers quick and easy outage reporting from the comfort and convenience of your computer or mobile device. It's the latest "power tool" in the Smarthub toolbox, which is designed to help you manage your energy service experience. A quick, one-time registration is required for first-time users.

Mobile users can download the free Smarthub app from the application store on your mobile device to begin using the many tools available. "Report an outage" is one of the icons available on the main screen from the mobile platform.

Computer users can visit TeamMidwest. com and click on the "Access my account" icon to be directed to the Smarthub online customer self-service site. Once you've logged-in, view the "Quick Link" menu on the left side and click "Report An Outage", and you will be on your way to restoration!

From the online self-service site, you can also sign up to receive outage-related

notifications by email or text. Just click on "Notifications" on the top menu and a submenu will appear on the right. Select "Manage Contacts" to add preferred email and/or text message contact information. Then select "Manage Notifications" and expand the Service option menu to set up your personalized notification options.

Smarthub, provided by

Midwest Energy Cooperative, provides access and two-way communication with Midwest online or via your chosen mobile device. It's a safe and secure method of managing your account and service experience. Besides outage reporting, there are many other power tools available through Smarthub, including:

Bill & Pay: Quickly view your current account balance and due date, manage recurring payments, and modify payment methods. You can also check your account history right from your mobile device.

Contact Midwest: Got a question or concern – we're just a quick click away!

Service Status: Report a service issue or



find out if there are any known issues related to your account.

My Usage: Find detailed information to better understand and manage your energy use.

Outage Map: Get a quick glimpse of outages across our service area, and a listing of outage numbers by zip code.

Social media: Check out what Midwest is up to on our YouTube Channel and Facebook page.

Map: Locate the nearest district service center.

Don't wait until you're in the dark. Visit your app store or TeamMidwest.com to sign up for Smarthub today!

Preferred Contractors Meet Co-op Quality Standards

hoosing qualified and reputable contractors can be difficult. To help, we have compiled a list of Midwest Energy Cooperative Preferred Plumbing Contractors. As part of the qualification process, we researched, interviewed and checked references on a regional pool of contractors, and included on our final list only those that we feel confident will provide the level of service that you have come to know and expect from your cooperative.

Please feel free to contact any of these contractors with confidence if you are interested in more information about their services.

Southwest Michigan Territory:

Advantage Plumbing Inc. 2400 North 5th Street Niles, MI 49120 269-687-7192

Aqua Plumbing Services

4508 E. Milham Portage, MI 49002 269-720-1364 or 269-903-AQUA (2782)

City Plumbing & Heating

407 State Street St. Joseph, MI 49085 269-983-6595

Pro Plumbing Service

P.O. Box 554 Stevensville, MI 49127 269-591-7414 or 574-213-5354

Southeast Michigan Territory:

Heritage Plumbing & Heating 3286 North Adrian Highway Adrian, MI 49221 517-263-4300

Shoemaker Heating & Plumbing 5310 US Hwy 223 Palmyra, MI 49268

517-263-9940 Whitcher Plumbing & Heating 1500 W. Maumee Street Adrian, MI 49221 517-265-1389



Fat Tire Biking is a New Winter Ride

et used to seeing more of something unusual this winter – people biking through the snow.

Whether you dub them "fat tire bikes" or "snow bikes," the popularity of this new winter sport is gaining across Michigan for commuting, racing or just ridin'.

Fat tire bikes first became popular in Alaska for commuting and recreational use on their many trails and ski pathways. They started showing up in the Lower 48 about three years ago, and have blossomed in popularity over the last few winters.

These bikes sell new

110 100



ity over the last few winters. Navigating the woods on 4-inch fat tires.

from around \$1,700 to \$3,000 and typically run on fat tires that are 4 inches wide. The tires use about 8 PSI or less of air pressure for on-snow use, leaving little print on a hard, groomed surface.

Crystal Mountain (Thompsonville), Timber Ridge Nordic Center (Traverse City), and Boyne Highlands (Harbor Springs) are all offering rentals and groomed trails this winter.

Crystal has about 10 groomed miles of both cross-country and single-track trails for fat tire bikes. Renting for about \$10 an hour, you can ride them on portions of the cross-country trail until 10 p.m. nightly since it is lit for night skiing.

At Timber Ridge, Einstein Cycles is handling rentals (about \$25, including a trail pass), and there's about 10 kilometers of groomed trail.

The Highlands offers a five-mile groomed loop. A daily trail pass is \$5, and rentals start at \$30 for two hours.

"We found them to be very popular last year at Crystal Mountain, our first winter," says Chris Remy, who oversees the resort's program. "We often had a waiting list and have added more bikes for this winter, and more sizes."

Trails aren't the only place you'll see fat tire bikes, however. Jason Lowetz, owner of Einstein Cycles, sees a market for those dedicated commuters who prefer a bike over a vehicle. "I'm seeing a lot more people using them to commute around town and work during winter," he explains. "It's the safest bike you can ride this time of year and allows cyclists to commute year-round. The stability of the bike makes it a good choice."

Traverse City resident Jason Whittaker agrees.



Among others, Crystal Mountain (above), Boyne Highlands, and Timber Ridge offer fat tire biking this winter. These resorts also get electric service from member-owned co-ops. Boyne is served by Great Lakes Energy and Crystal and Timber Ridge by Cherryland Electric.

"We're a one car family with a 20-monthold son. My wife needs the car at home, and the fat-tired bike allows me to safely ride through the snow and slush on the TART (Traverse Area Recreational Trail) to get to work," he says. "Before they came along I couldn't ride the trail, which isn't cleared in the winter. I had to ride my mountain bike on roadways, which weren't that safe. I also ride on the VASA Pathway on Fridays for fun."

TART Trails, which spearheads VASA Pathway grooming, is asking riders to buy

a \$25 grooming badge. Fridays are set aside as "Fat Tire Friday," when cyclists and skiers mix on the 25-kilometer trail, and bikes are allowed on TART's Leelanau Peninsula, from Traverse City up to Suttons Bay, anytime.

There's a similar trend in the U.P., around Marquette. "We're seeing more commuter and trail use in our area over the last few years," notes Nicole Dewald, Noquemanon Trail Network director. "We plan to groom over 20 miles of single track this winter, and ask riders to support the project by purchasing a 'Support the Groom' card."

Other U.P. places to ride include the Keweenaw Peninsula, and Michigan Tech has 15 kilometers of groomed ski

trail and ungroomed single-track where bikes are permitted, and Swedetown Trails permits them after 6 p.m. on Tuesdays. Ishpeming's Al Qual Recreation Area ski trails also permit them anytime. A day pass is required for all three locations.

For racing, Einstein Cycle has organized a Northern Michigan Fat Bike Series with three races. Fat Chance was at Crystal Mountain in January; King VASA is at Timber Ridge, Feb. 8; and Fat Camp, Timber Ridge, March 1. Fun Promotions

Places To Ride On Fat Tires

Timber Ridge Campground & Nordic Center Traverse City • 877-978-3866

timberridgeresort.net

Crystal Mountain Resort

Thompsonville • 800-968-4676 crystalmountain.com

Noquemanon Trail Network

Marguette • 906-235-6861 noquetrails.org

Boyne Highlands Harbor Springs • 231.526.3000 boyne.com

in Grand Rapids has also organized races, with the next at Addison Oaks, Feb. 8; Shore Acres in Saugatuck, Feb. 16; and Pando Winter Sports Park, March 2. Pando also offers Fat Tuesday, a race every Tuesday night through February.

Another Traverse area fat tire rider, Eric Pollard, says, "Riding on snow has been a great alternative to my other winter love, Nordic skiing. Being able to hop on a snow bike is a great way to mix up winter activities and keep it interesting." Give it a try?



For competition, practical use, or just for fun, fat tire biking can be found around Michigan.

New, Increased Incentives for Businesses

Which the New Year in full swing, it's time to implement energy-saving strategies to help your business cut costs. As always, the Energy Optimization (EO) program offered by Midwest Energy Cooperative is here to help – with several new rebates and increased incentives (some have more than doubled) for Michigan business owners.

Custom C&I Rebates

Do you have an idea for an energy efficiency project not covered by an existing EO rebate? Custom rebates are available for the installation of unique energy-efficient equipment tailored to meet the needs of your business or farm. Custom rebates are based on expected annual energy savings (kilowatt hours/year). As of Jan. 1, 2014, approved custom projects are eligible to receive rebates covering up to 75 percent of the cost (previously 50 percent)! Contact the Energy Optimization program today at 877.296.4319 to get started.

Please visit **michigan-energy.org** for more details!

NEW REBATES	REBATE AMOUNT
Commercial Refrigeration	REDATE AMOUNT
Vending machine controls for snack machines	\$20 per machine
Evaporator fan demand controls for walk-in coolers/freezers	\$20-\$60 per motor
Floating head pressure control	\$80 per ton
Combination oven/steamer (electric only)	\$1,500 per oven
Commercial Lighting	
ENERGY STAR® LED candelabra or globe lamp	\$8 per lamp
T5 fluorescent fixture	30 cents per watt reduced
Outdoor illuminated sign lighting	60 cents per watt reduced
Compressed Air	
Zero loss condensate drain	\$50 per drain
Air compressor outdoor air intake	\$4 per HP
Air Dryers (expanded offerings)	\$2.50-\$3.50 per SCFM
Commercial Agriculture	
Long-day lighting system retrofit for livestock barns	Custom rebate
MSU farm energy audit	\$500 per farm

INCREASED INCENTIVES	NEW REBATE AMOUNT
ENERGY STAR ice machines	\$150-\$500 per unit
LED lighting in reach-in coolers/freezers	\$30 per door
Occupancy sensors for LED lighting in reach-in refrigerated cases	\$15 per door
Anti-sweat heater controls	\$100 per door
ENERGY STAR steam cookers (3-6 pan)	\$1,000-\$1,750 per unit
ENERGY STAR hot holding cabinets	\$300-600 per unit
ENERGY STAR fryers and griddles	\$200-\$225 per unit
High-bay lighting (replacing existing equipment)	Up to \$65 per fixture or 30 cents per watt reduced
Engine block heater timer	\$20 per unit
Dairy refrigeration tune-up	100% of service cost, up to \$150



Dive in to savings in 2014

Looking for ways to improve your business's bottom line in the New Year? With increased incentives and a number of **new rebates from the Energy Optimization program,** saving energy – and reducing the costs associated with it – is easier than ever. Check out program updates online or contact us today to learn how we can help.

ENERGY TIP: Include energy efficiency upgrades in your planning for 2014. This smart investment will provide your business with energy savings throughout 2014 and beyond!

ONLINE: michigan-energy.org PHONE: 877.296.4319





Energy Optimization programs and incentives are applicable to Michigan service locations only. Other restrictions may apply. For a complete list of participating utilities, visit michigan-energy.org.



Wolverine Ends Generation Projects

Wolverine Power Cooperative recently announced that it is ending the development of two generation projects in northern Michigan.

Construction of a 600-megawatt (MW) power plant and a wind turbine farm near Rogers City was proposed by Wolverine in 2006. An air quality permit was approved in June 2011 for the proposed Wolverine Clean Energy Venture power plant, but the co-op significantly scaled back development of the project in late 2011 with the passing of new emissions rules for new plant construction.

"I am very proud of our efforts on the Wolverine Clean Energy Venture," said Eric Baker, Wolverine's president/CEO. "The project team worked diligently to develop a proposed state-of-the-art power plant to serve co-op members efficiently and costeffectively."

Wolverine has also brought its joint venture with We Energies (of Milwaukee, WI) at the Presque Isle Power Plant in Marquette to a close. The companies had proposed joint ownership of the plant in January 2012 in exchange for Wolverine's investment in an air quality control system.

"We're disappointed to end the joint venture with We Energies, yet that has become the best option for both parties," Baker explained. "We believe this joint venture would have brought economic and environmental benefits for the region, along with helping to ensure energy reliability."

We Energies plans to evaluate long-term options for the plant and may solicit other potential buyers for some or all of its output.

In keeping with its mission to provide outstanding service to its members, Baker noted that Wolverine will continue to seek reliable, competitively priced power supply that encompasses a mix of fuels and business partners.

Wolverine is the power supplier for Cherryland, Great Lakes Energy, HomeWorks Tri-County, Midwest Energy, Presque Isle Electric & Gas and Wolverine Power Marketing co-ops, and Spartan Renewable Energy.

Powering Up

When electricity goes out, most of us expect power will be restored within a few hours. But when a major storm causes widespread damage, longer outages may result. Co-op line crews work long, hard hours to restore service safely to the greatest number of consumers in the shortest time possible. Here's what's going on if you find yourself in the dark.

1 High-Voltage Transmission Lines

Transmission towers and cables that supply power to transmission substations (and thousands of members) rarely fail. But when damaged, these facilities must be repaired before other parts of the system can operate.

2 Distribution Substation

Each substation serves hundreds or thousands of consumers. When a major outage occurs, line crews inspect substations to determine if problems stem from transmission lines feeding into the substation, the substation itself, or if problems exist down the line.

3 Main Distribution Lines

If the problem cannot be isolated at a distribution substation, distribution lines are checked. These lines carry power to large groups of consumers in communities or housing developments.

4 Tap Lines

If local outages persist, supply lines, called tap lines, are inspected. These lines deliver power to transformers, either mounted on poles or placed on pads for underground service, outside businesses, schools, and homes.

5 Individual Homes

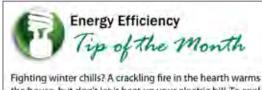
If your home remains without power, the service line between a transformer and your residence may need to be repaired. Always call to report an outage to help line crews isolate local issues.

New Bulb on the Block: Meet LED Lucy

here's a new mascot in town. It's LED Lucy, and she's a dazzling, spunky mascot who's lighting the way for even brighter lightbulb savings. She joins CFL Charlie, and both are cartoon mascots for Touchstone Energy Cooperatives[®], a national brand for the nation's nonprofit, consumer-owned electric co-ops that helps families become "Super Savers" by switching to energy efficient lightbulbs.

Lighting standards moved away from traditional lightbulbs in 2012, and the mascots want to make sure electric co-op members know about all lighting options.

"I'm older than I look," LED Lucy confides. "The first LED was created in 1927. Since then we've added stylish colors, and



the house, but don't let it heat up your electric bill. To cool energy costs, keep the fireplace damper closed when not in use, Caulk around the fireplace hearth, Double up on wood-earned warmth by lowering the thermostat setting to between 50 degrees and 55 degrees Fahrenheit. Learn more at www.energysaver.gov.

Source: U.S. Department of Energy

costs have dropped. I love bargains, and LED prices get lower every year!"

Following, the mascots share a few pointers on their energy efficiency namesakes.

Compact Fluorescent Lamps (CFLs)

CFL Charlie—and bulbs like him—are the most common and economical efficient lightbulbs on the market. The swirly style is linked to the concept of efficient lighting, but some consumers haven't warmed to the design.

"Not everyone likes to see my swirls," explains Charlie. "That's fine by me—everyone has a different sense of style, but several of my friends are designed to look just like a traditional lightbulb."

> CFLs offer 75 percent energy savings over traditional bulbs and pay for themselves in nine months, notes the U.S. Department of Energy.

Light Emitting Diodes (LEDs)

Light emitting diodes (LEDs) have been used for years in cell phones and other electronics, and most are small—about half the size of a pencil eraser. By banding several small diodes together, a bright, dependable light emerges. As popularity



CFL Charlie & LED Lucy

grows, some companies are making light with a single, bright LED chip. New ways to build LEDs will help drive costs down.

"It's going to be fun to watch LED Lucy gain fans," laughs Charlie. "She uses a little less energy than me, and lasts 25 times longer than traditional incandescent bulbs." Lighting adds up to 10 percent of a home's electric bill, so every bulb counts.

Visit kidsenergyzone.com for fun ways to help kids learn about lighting and electrical safety, too.

Energy Assistance Available for Low-Income Utility Customers

s extreme weather continues and the promise of more snow puts a strain on utility customers' budgets, the Michigan Public Service Commission (MPSC) is urging lowincome customers to inquire about heating assistance. "I encourage customers to call 2-1-1 or their utility to inquire about assistance that may be available to them," says MPSC Chairman John D. Quackenbush.

The MPSC reports that \$89,615,000 in grants have been made available to 14 organizations that are now assisting eligible low-income utility customers, including some electric co-ops. Not all utilities participate in the grant-funded programs, but consumers can call 2-1-1 (see map, right), which is a free community health and human services information and referral service for people in need. Nearly all low-income help is distributed during the "crisis season" that began Nov. 1, 2013, and ends May 31.

By simply dialing 211, available 24/7, callers are connected with a trained, caring professional who will confidentially assess their situation, identify their needs and refer them to local resources for help. Or, visit uwmich.org/2-1-1 (nationwide, visit 211us.org).

Funding for the grants comes from \$50 million collected through a lowincome energy assistance funding factor approved by the MPSC; and \$40 million in Low-Income Home Energy Assistance Program (LIHEAP) funds provided by the Department of Human Services (DHS). Visit Michigan.gov/ BeWinterWise for more information, including tips for reducing energy use during the heating months, and how to avoid a service shut-off and receive assistance with bills.



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