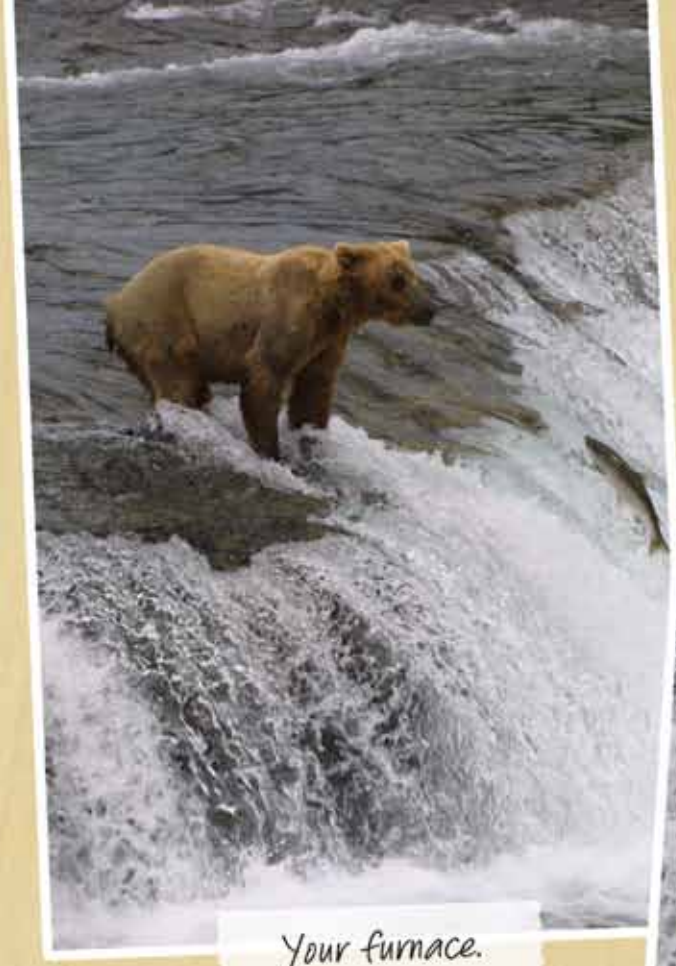
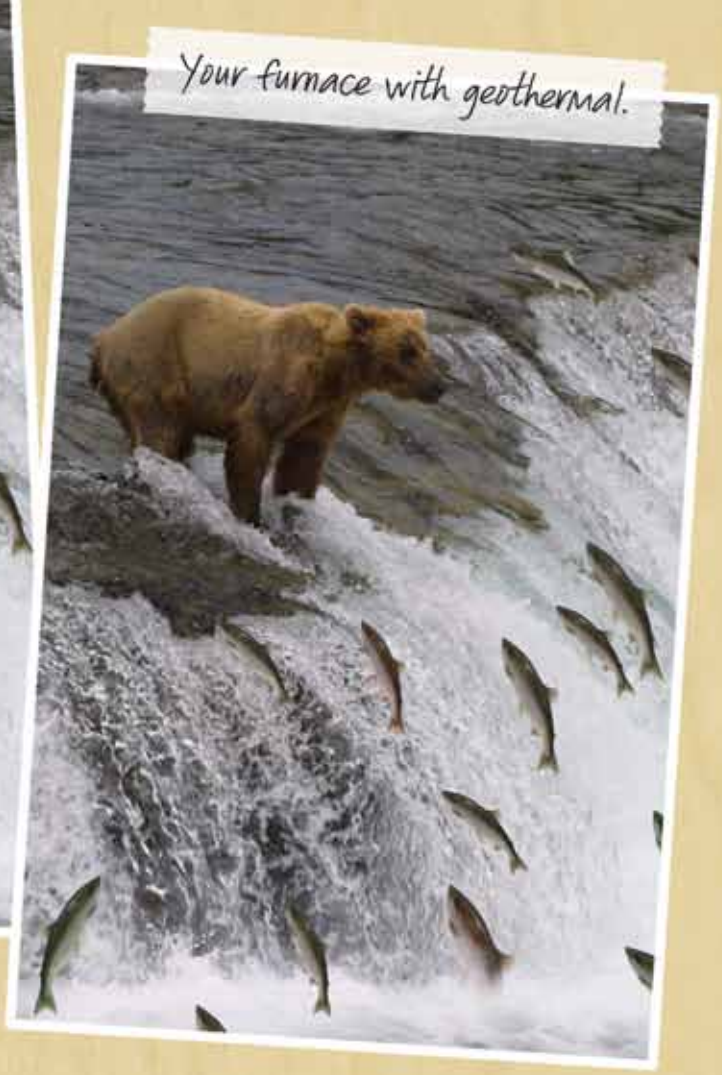
A Service of **Presque Isle Electric & Gas Co-op**

May/June 2013

Michigan COUNTRY LINES

Beaver Island
Michigan's 'Emerald Isle'





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A WaterFurnace geothermal split system works with **your existing furnace** to enhance your comfort and savings. It's smart enough to heat your home using the most economical fuel for any situation – whether that's fossil fuel or the **clean, renewable energy in your yard.** Even better, it also provides **savings up to 70% on cooling in the summer and hot water all year round.** And because WaterFurnace geothermal systems **don't use combustion or burn any on-site fossil fuels,** they help ensure your children will enjoy scenes like the one above. For more information, contact your local WaterFurnace dealer today.

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May 2013
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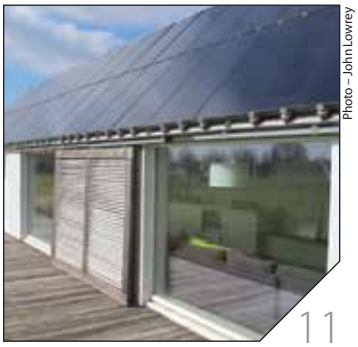
Michigan COUNTRY LINES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DEPARTMENTS

COLUMNS

FEATURES

YOUR CO-OP

Pages specific to your electric cooperative: Cover, 2-3, 6-7, 18-19, 22-23, back
*Not in all editions

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POSTMASTER: SEND ALL UAA TO CFS.

Letters to the editor should be sent to Country Lines, 2859 W. Jolly Rd., Okemos, MI 48864. Phone 517-913-3531. **Email: gknudtson@meca.coop**.

Association officers are **Tony Anderson**, Cherryland, chairman; **Ken Swope**, Midwest Energy, 1st vice chairman; **Robert Schallip,** Cloverland, 2nd vice chairman; **Eric Baker**, Wolverine Power, secretary-treasurer; and **Brian Burns**, PIE&G, past chairman. **Craig Borr** is president and CEO.

Unsolicited letters, photos and manuscripts are welcome. *Country Lines,* however, will not be responsible for their safe keeping or return.

Change of Address: Please notify your electric cooperative. See page 2 for contact information.

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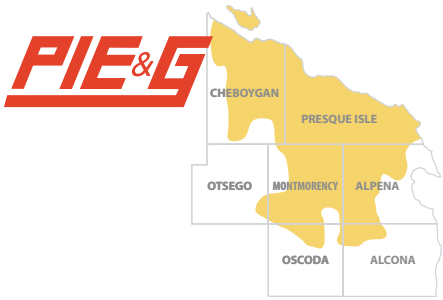
Michigan's Electric Cooperatives
countrylines.com

On the Cover
This serene shot of Beaver Island's Paradise Bay also shows the *Beaver Islander*, a smaller, older ferry boat, at her berth where she is most of the time because the newer *Emerald Isle* carries the majority of passengers.
Photo – Jeffrey Cashman, Island Design



PRESQUE ISLE ELECTRIC & GAS CO-OP

19831 M-68 Hwy., P.O. Box 308
Onaway, 49765

Business Office & Billing: **989-733-8515**

Toll-free: **800-423-6634**

pieg.com

PIE&G's natural gas operations are not regulated by the Michigan Public Service Commission.

Your Touchstone Energy® Cooperative

Co-op Membership: There's No Comparison

In 2013, Presque Isle Electric & Gas Co-op (PIE&G) expects to make over $3.75 million in capital investments to enhance the reliability of its local delivery systems. Since its inception, improvements totaling over $125 million have been made to your co-op's utility infrastructure to insure safe, reliable energy is delivered to you, its members.

This year, system investments include bringing electric and gas service to new members, extending power and gas lines, rehabilitating aging lines, upgrading existing lines, and installing new equipment to limit the duration and frequency of power outages. This work will be done throughout the entire service area.

Much is made these days of investments and jobs—as well they should be, since a community's vitality generally depends on both these factors. In the four core counties PIE&G serves—Alpena, Cheboygan, Montmorency and Presque Isle—few other organizations have a higher aggregate property tax or taxable value (one measure of an organization's investments) than PIE&G, except perhaps LaFarge or Consumers Energy (parent company CMS Energy), which are both multinational, multi-billion-dollar corporations.

As a not-for-profit with humble, rural beginnings, how does PIE&G compare to these two corporate giants? Other than possibly the taxable value within northeast Michigan, there is no comparison.

Brian J. Burns
President & CEO

The PIE&G corporate vision is "for our members and northeast Michigan to regard us as a trusted energy and community partner". LaFarge's goal is: "To create shareholder value."

The PIE&G mission is "to sustain and improve the quality of life for our members". The Consumers Energy mission is to be: "principally focused on utility operations in Michigan."

Presque Isle Electric & Gas Co-op is owned by the people it serves—the majority of whom live right here in northeast Michigan; the countless owners of LaFarge and CMS Energy, however, are located in distant places around the world.

PIE&G is committed to continue earning your trust as we fulfill our mission to you, our member-owners. That core mission is to deliver reliable, affordable energy that sustains and improves your quality of life. After all, that is the reason your co-op exists.

PIE&G will continue to invest in northeast Michigan and will seek to constantly improve performance, reliability and value. Locally-owned, locally-controlled, committed to community, not-for-profit: there is no comparison.

Natural Gas Rates Decreased Effective April 1

Natural gas rates changed effective April 1, 2013. The Gas Cost Recovery Factor (GCR) decreased for the fourth year in a row, down more than 3 cents from $0.5764 per ccf to $0.5417 per ccf. The monthly and distribution charges were unchanged.

	Residential	General Service	Industrial
Monthly	$12	$17	$188
Distribution (/ccf)	$0.4544	$0.3203	$0.2336
GCR (/ccf)	$0.5417	$0.5417	$0.5417
Total ($/ccf)	$0.9961	$0.8620	$0.7753

Notice to Members of Presque Isle Electric & Gas Co-op Electric Tariff and Rule Changes Effective June 1, 2013

The Presque Isle Electric & Gas Co-op Board of Directors adopted the following changes to the Cooperative's electric tariffs and rules at a Special Open Meeting held March 26, 2013, in accordance with P.A. 167.

a) Reconciled the 2012 Power Supply Cost Recovery (PSCR) Factor collections and ordered the continuation of the recovery of the net under collection of $95,903.74 for the remainder of 2013.

b) Accepted the 2012 Times Interest Earned Ratio (TIER) analysis and approved a revenue increase of $865,430.00.

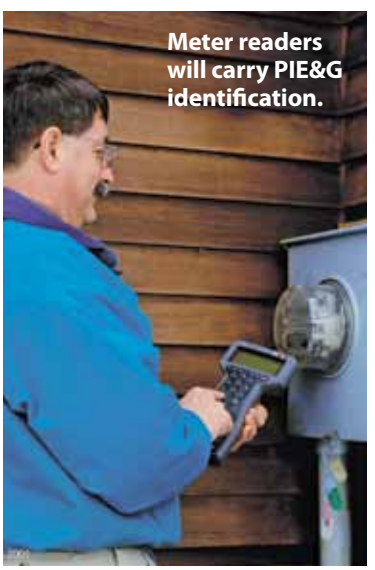
c) Revised the Cooperative's residential monthly, seasonal and outdoor lighting rates as indicated below to reflect the TIER analysis and the cost to serve.

RATE CLASS	CURRENT RATE	INCREASE	RATE EFFECTIVE JUNE 1, 2013	MONTHLY INCREASE/ AVERAGE MEMBER*
Monthly Residential	Availability - $16.00 Distribution - $0.02752/kWh Energy - $0.08601/kWh PSCR Factor - $0.00319/kWh EO Surcharge - $0.00229/kWh	$2.00 $0.0002/kWh	Availability - $18.00 Distribution - $0.02772/kWh Energy - $0.08601/kWh PSCR Factor - $0.00319/kWh EO Surcharge - $0.00229/kWh	$2.21
Seasonal Residential	Availability - $17.00 Distribution - $0.06901/kWh Energy - $0.08601/kWh PSCR Factor - $0.00319/kWh EO Surcharge - $0.00229/kWh	$2.00 $0.00434/kWh	Availability - $19.00 Distribution - $0.07335/kWh Energy - $0.08601/kWh PSCR Factor - $0.00319/kWh EO Surcharge - $0.00229/kWh	$2.86
Outdoor Lighting 175W MV 400W MV 100W HPS 250W HPS	 $11.65 $21.10 $ 8.30 $14.25	 $0.35 $0.64 $0.25 $0.43	 $12.00 $21.74 $ 8.55 $14.68	

* Rates shown are monthly and include all applicable charges and taxes. The average monthly residential member consumes approximately 640 kWh /month and the average seasonal residential member consumes approximately 173 kWh /month.

For specific details of any Presque Isle Electric & Gas Co-op tariffs or fees, please call 1-800-423-6634 or visit our website at pieg.com.

Annual Meter Readings Begin in May



Meter readers will carry PIE&G identification.

Over the next three months, PIE&G meter readers will begin reading electric and/or natural gas meters for our annual verification. Personnel will carry a PIE&G identification badge.

To help make this annual process easier, please:

- Have animals leashed and away from the meter location.
- Make sure the meter is clear from obstructions and is easily accessible for our meter readers.

Thank you for your cooperation!

Schedule by county:

MAY Cheboygan, Emmet, Mackinac

JUNE Alpena, Alcona, Presque Isle

JULY Montmorency, Oscoda, Otsego

Presque Isle Electric & Gas Co-op offices will be closed for Memorial Day

★ **Monday, May 27** ★

Payments may be made at the drop box, by calling 866-999-4571, or online at pieg.com and will be posted on the next open business day.

Have a safe Memorial Day Weekend!

VACATION OVER?

Please call to let us know you are back! We'll need your current meter readings on electric and natural gas accounts when you return. We'll also insure your billing address reverts back to your permanent local address.

Also, do you have a new cell phone or have you eliminated your landline? Be sure to update us with your current daytime number so we can reach you for important notices or during an emergency.

Letters & More

Reader letters, electricity is a good value, Mystery Photo, energy efficiency in churches, and more. It's all here on your Reader's Pages.

Mystery Photos

Well done magazine. Excellent regarding co-op and energy issues, and even more so, it has introduced us to info on unknown gems of people, places, things in this (shhhhh...) One-of-a-Kind(!) state.

Some of the best discoveries are from our reading more about any Mystery Photos that we're unaware of. But, I've missed some over the years and wonder if there is an archive of them or if there could be? Would be wonderful to have an online source to look back at past years of "Mysteries." It takes us to places we might not know or might be just around the corner, but waiting to be discovered. Thanks again for a great resource.

– VerJean Mirrielees, Shelby Great Lakes Energy Co-op

Editor's Note: *Thanks for reading with us. At countrylines.com Mystery Photos can be seen in archived issues back through 2010.*

Fish Decoy Carver

A perfect time to stop by Dave Kober's wood shop [April issue/Michigan Made products series], heading to McGuire's for my husband's plumbing inspector's seminar.

Dave greeted us at the door [of his Wooden Fish Gallery] and showed us his awesome fish carvings and his room of collectable fishing lures. He was so kind and we saw how proud he is of his carving talent in his conversation.

As we left on a snowy and icy day in late April, I even got a nice picture of Dave and I – well worth the stop!

– Tom & Jill Katich, Waterford Presque Isle Electric & Gas Co-op

HOW TO SEND A LETTER Readers are encouraged to submit thoughtful, courteously-worded letters, and we print as many as possible in the space and time allowed.

Country Lines reserves the right to print letters at the publisher's discretion, based on length, space and content, and to edit slightly for space and facts. Please limit comments to 240 words or less. Submit by posting online at countrylines.com, email gknudtson@meca.coop, or mail to: Editor, Country Lines, 2859 W. Jolly Rd., Okemos, MI 48864.

HOW TO CHANGE YOUR MAILING ADDRESS

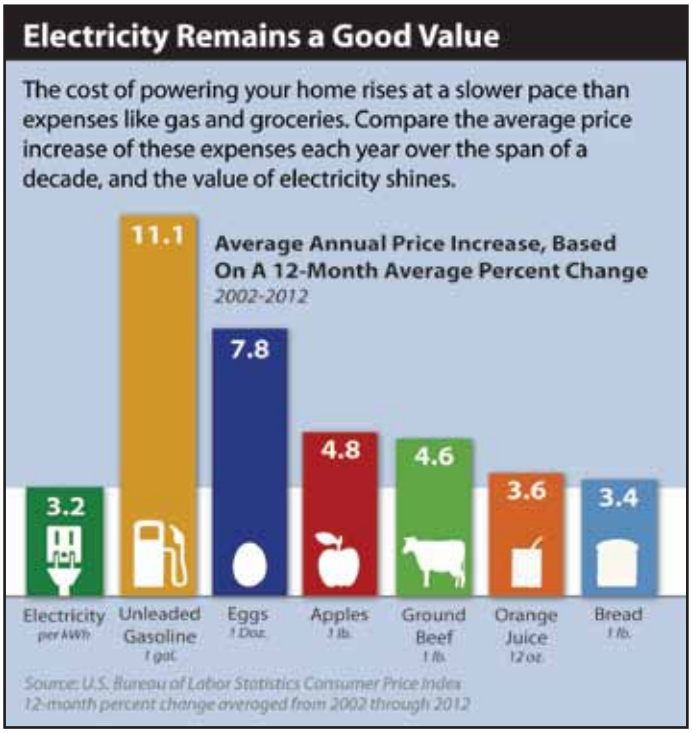
Contact your electric co-op—they maintain the mailing list. See page 2 for your co-op's contact information.

Costs for Consumer Goods Climbs

Popular demand and short supply drives the cost of everyday necessities higher. Some price tag changes—like the cost to fill your car's gas tank—are obvious to anyone driving down the road. Other increases at the grocery store are more subtle but still impact your family's bottom line. Compare the average price increase of a few household expenses to see how the rising cost of electricity stacks up.

The cost for a gallon of unleaded gasoline shot up 11.1 percent on average every year between 2002 and 2012, according to the U.S. Bureau of Labor Statistics. Eggs don't go over easy—the cost for a dozen eggs increased 7.8 percent. Bakers watched the price of flour rise 5.7 percent, and apples felt the crunch with a jump of 4.8 percent—every year.

The cost of electricity grew at a slower pace—3.2 percent a year, on average. The U.S. Energy Information Administration (EIA) reports homeowners across the nation pay an average of 11.7 cents per kilowatt-hour (kWh). In Michigan, electric cooperatives also keep costs affordable—the



DO YOU KNOW WHERE THIS IS?

Every co-op member who identifies the correct location of the photo at left by **June 10** will be entered in a drawing for a $50 credit for electricity from their electric cooperative.

We do not accept Mystery Photo guesses by phone! Email **mysteryphoto@countrylines.com**, or send by mail to *Country Lines Mystery Photo*, 2859 W. Jolly Rd., Okemos, 48864. Include your name, address, phone number and name of your co-op. Only those sending complete information will be entered in the drawing. The winner will be announced in the July/August 2013 issue.

The March contest winner is Judy Schaefer of Jackson, who correctly identified the photo from McCourtie Park in Sommerset Center, Mich.

average price for power is 13.3 cents per kilowatt-hour.

Unlike eggs or apples, electricity is a 24-hour-a-day commodity. Despite energy efficiency advancements, the average household uses more electronic gadgets—and needs more power to operate them—every year.

In the past 30 years, the amount of residential electricity used by appliances and electronics has increased from 17 percent to 31 percent according to the Residential Energy Consumption Survey by EIA. More homes than ever have major appliances and central air conditioning. Digital video recorders (DVRs), computers, and multiple TVs are common.

Your local electric cooperative works hard to keep your electricity safe, reliable and affordable. But you also play a role in the price of your power. Just as you might cut back on eggs if your budget is tight, we can work with you to cut your monthly electric bill. See how little changes add up atTogetherWeSave.com.

– Sources: U.S. Bureau of Labor Statistics, U.S. Energy Information Administration

Energy Efficiency

Tip of the Month

Properly installed shades can be one of the most effective ways to improve windows' energy efficiency. Lower them during summer; in winter, raise during the day and lower at night on south-facing windows. Dual shades, with reflective white coating on one side and a heat-absorbing dark color on the other, can be reversed with the seasons and save even more energy. Learn more at EnergySavers.gov.

Source: U.S. Department of Energy

Interfaith Group Helps Churches 'See the Light' of Energy Efficiency

Photo, from left: Frank Wilhelme, Michigan Interfaith Power and Light advisory board member; Temple Kol Ami members David Henig, Rhonda Kotzen, Kineret Gable, Rabbi Ariana Silverman and Sara Kravitz; and Larry Kaufman, Michigan Interfaith Power & Light vice president. The Temple received an award from IPL for their energy efficiency efforts.

Can the city of Detroit be saved? That is a difficult question, but there are a number of people and organizations trying to make that happen, and I want to tell you about one of them.

I am vice president of Michigan Interfaith Power and Light (IPL). This is an organization that promotes energy efficiency and renewable energy to houses of worship all over Michigan. We currently have about 200 churches that are members with over 150,000 people in their congregations. Our board has a priest, imam, nun, Jew, Quaker, Hindu, and non-believer on it. Michigan was the third state in the U.S. with an IPL, and today there are now over 40 states with IPLs.

In 2011, we received a grant from Detroit Edison to improve churches in downtown Detroit. In the past, we have done a number of energy audits for churches, but when we went back two years later, we found that none of the recommendations were done. Churches were too busy with other matters or didn't have the funds to make the suggested energy efficiency improvements. Organizations in Michigan have done thousands of these audits, but an energy audit itself has never saved one penny on a utility bill—only implementing the audit recommendations can save money on the bill.

Therefore, we used a different model. In the updated program, Michigan IPL not only performed the audits, but subcontracted out the improvements and monitored the results. Basically, we provided a full-service program from soup to nuts. The churches' only job was to join Michigan IPL and provide us with utility bills to monitor the results.

A year later, the results are stunning. The $40,000 investment in the 50 churches has resulted in over $108,000 in energy savings in the first year. That is money the churches can use to feed the poor and help the needy, and this savings will continue every year as long as the churches are open.

We have also received a number of thank-you letters from these churches, as the lighting is now improved and the comfort increased, and it has been a huge customer satisfaction measure for a minimal investment.

Another sidebar is that Michigan is now ranked No. 1 in the country for the most houses of worship that are Energy Star® certified. That's one more step to moving Michigan forward.

Michigan IPL provides a number of services to churches all over the state, including the Upper Peninsula (visit miipl.org or contact me at energyczar@sbcglobal.net). So, keep the faith—there is help out there.

– Larry Kaufman, Executive Director
Michigan Geothermal Energy Association

Get Involved In Your Co-op

It's time to nominate potential directors.

In a cooperative, the "Democratic Member Control" principle means that co-ops are self-governing organizations controlled by their members who actively participate in setting policies and making decisions. Men and women serving as elected representatives are accountable to the full membership. Since Presque Isle Electric & Gas Co-op is a democracy, it works best when you participate in the organization.

Any qualified member can be elected to serve. The term of office is three years.

Any qualified PIE&G member-owner can be elected to serve on the cooperative's board of directors. The term of office is three years. In 2013, three directors will be elected: two from the Alpena district and one from the Presque Isle district.

Potential nominees must meet the qualifications for the office of director as set forth in Article III, Section 2 of the PIE&G bylaws (available on our website, pieg.com).

Any member interested in becoming a candidate is invited to visit the cooperative's office and learn about the duties performed by the directors. Board of directors meetings are typically held the fourth Tuesday of each month, commencing at 9:30 a.m.

To place your name on the ballot as a candidate for election to the board of directors, nominations may be made by the nominating committee, by petition, or from the floor at the annual meeting. You may submit a letter of interest by June 30, 2013, to: Nominating Committee, c/o PIE&G, P.O. Box 308, Onaway, MI 49765. All letters will be given to the nominating committee for review, and committee nominations will be made in July.

Watch upcoming issues of *Country Lines* about the annual meeting in Onaway on Friday Oct. 25.

Your Board In Action

At their February and March 2013 regular meetings, the PIE&G Board of Directors:

- Authorized up to 10 PIE&G teens to attend the Michigan Youth Leadership Summit, and up to three of the same to attend the Rural Electric Youth Tour to Washington, D.C.
- Acted to announce lower Home Rule natural gas rates effective April 1, 2013.
- Accepted Harris Group Certified Public Accountants' audit report of Presque Isle Electric & Gas Co-op for years ending 2012 and 2011.
- Amended the 2013 Work Plan (the utility plant capital budget) to include projects identified as beneficial in the aftermath of DRACO, the catastrophic storm in December 2012.
- Appointed director Wozniak and CEO Burns as directors to the Michigan Electric Cooperative Association for one-year terms.
- Appointed director Barr as a director to Wolverine Power Cooperative for a two-year term.
- Accepted the reports of CEO Burns and CFO Sobeck.
- Approved January and February regular meeting board minutes and new membership lists.

Ash Trees Infected with the Emerald Ash Borer

Presque Isle Electric and Gas Co-op Inc., is implementing a proactive program to address the northern Michigan infestation of the emerald ash borer.

All of the counties in PIE&G's service area are now affected to a certain degree with this infestation. The visual symptoms include a scaling of the bark by woodpeckers, with visible bare wood spots on the tree trunk and bark chips lying on the ground under affected trees. Upon request, a PIE&G representative will visit your property to inspect a tree or trees affected and make a determination as to whether or not we will remove them. As with any tree cutting performed by your co-op, PIE&G *does not* remove any wood with a diameter greater than 2 inches.

If the affected tree or trees are located in a maintained lawn area (that is, where grass is mowed regularly), PIE&G may chip the brush. Otherwise, the brush will be piled. Priority will be given to trees that pose the highest potential for danger of creating significant power outages that would affect large numbers of members.

For additional information regarding the emerald ash borer and the current quarantine of firewood, please search online for "Michigan.gov/dnr/ash" to access the link to the Michigan DNR forestry page.

Electrical Safety During and After Storms *Frequently Asked Questions*

Severe storms and natural disasters can cause a variety of electrical safety hazards in and around our homes and businesses. Unfortunately, many of these hazards remain long after the storm has passed.

Lightning

What should I do if I am caught outside in a lightning storm? Lightning hits the tallest available object, so get down low in a crouched position if you are in an exposed area. Also, stay away from trees and don't hold onto metal items. Stay away from metal sheds, clotheslines, poles and fences, as well as water, including puddles, and anything damp—even grass. Don't stand close to other people. Spread out.

Is there a warning before lightning strikes? Sometimes. If you feel a tingling sensation or your hair stands on end, lightning may be about to strike. Do not lie down; crouch, tuck your head, and cover your ears.

What should I do if I encounter a lightning storm while driving? Slow down, and do not drive over downed power lines. If possible, pull off the road into a safe area. Do not leave your vehicle. A vehicle is considered safe if it is fully enclosed with a metal top. While inside, do not use electronic devices.

Are we safe from lightning if we stay inside the house? Stay away from windows and doors. Unplug electronic equipment before the storm arrives. Avoid contact with electrical equipment and cords, as well as water and plumbing. Use corded telephones only for emergencies. You can use cordless or cellular phones. Also, bring pets inside—doghouses are not lightning-safe, and chained animals can easily become victims of lightning strikes.

Power Lines

What should I do if I encounter a downed power line? Move at least 10 feet away from the line and anything touching it. The human body is a ready conductor of electricity. The proper way is to shuffle with small steps, keeping your feet together and on the ground at all times. This minimizes the potential for a strong electric shock. Electricity wants to move from high voltage to low, such as through your body.

What can I do to help someone who has contacted with a downed power line? Do not touch the person! You could become the next victim. Call 911 instead.

Do not try to move a downed power line or anything in contact with the line by using another object, such as a broom or stick. Even nonconductive materials like wood or cloth, if slightly wet, can conduct electricity.

What if a power line comes down onto my car or I didn't see it until I've driven into it? Stay in your car and tell others to stay away.

If you must leave your car because it's on fire, jump out with both feet together and avoid contact with the live car and the ground at the same time to avoid being the path of electricity from the car to the earth. Shuffle away from the car.

Is a downed power line still dangerous in water? Any amount of water—even a puddle—could become energized. Be careful not to touch water—or anything in contact with it—near a downed line.

Flooded Areas

Is it safe to go into a flooded basement? Use extreme caution. Submerged outlets or electrical cords can energize the water.

Electrical items, such as circuit breakers, fuses, ground fault circuit interrupters (GFCIs), receptacles, plugs and switches can malfunction when water and silt get inside. Discard them if they have been submerged and have a licensed, qualified professional replace them.

Do not use electrical appliances that were wet until they have been examined by a qualified service repair dealer. Electrical equipment exposed to water can be extremely dangerous if re-energized. Damage to electrical equipment can also result from exposure to flood waters contaminated with chemicals, sewage, oil and other debris.

The National Electrical Manufacturers Association (NEMA) has a brochure, "*Guidelines for Handling Water Damaged Electrical Equipment*," that can be downloaded free at: nema.org/stds/water-damaged.cfm.

Can flooded outside areas be dangerous, too? Yes, downed power lines or submerged outlets from adjacent homes could energize the water. Use extreme caution when entering any flooded area.

Portable Generators

- A licensed electrician should install home generators to ensure they meet all electrical codes. Make sure it is properly grounded according to manufacturer instructions.
- Do not connect generators directly to the household wiring unless the proper transfer switch has been installed by a licensed, qualified electrician. Without this, power can "backfeed" along the power lines, creating an electrocution hazard for anyone coming in contact with the lines, including lineworkers making necessary repairs.
- Never operate a generator inside your home or any enclosed, or partially enclosed area. Generators very quickly produce carbon monoxide, a colorless, odorless and poisonous gas that can easily enter your home. Opening windows, doors or using fans does not provide adequate ventilation to prevent carbon monoxide build-up. Generators must be located outside, over 15 feet from windows, doors and vents, through which carbon monoxide can enter your home. Keep it a safe distance away from your neighbors' homes, too. Make sure there is at least one battery-operated or battery-backup carbon monoxide alarm in your home. Test it before using the generator.
- Place the generator on a *dry* surface under an open, canopy-like structure. Do not operate the generator in wet conditions or where there is standing water.
- Keep children away from portable generators and fuel at all times.
- Generator capacity varies. Follow the manufacturer's instructions carefully, and do not overload it.
- *Refueling the generator while it is running is a fire hazard.* Unplug all appliances from the generator before shutting it down; turn it off and let it cool down before refueling.

Post-Evacuation

First and foremost, do not return home until instructed by the appropriate local authorities. Once they give the go-ahead, return home during daylight hours, especially if power has not been restored.

If you smell gas, leave the premises and notify emergency authorities immediately. Do not turn on lights, light matches, or engage in any activity that could create a spark.

Source: Electrical Safety Foundation International

Colorful Beaver Island *America's 'E*

Photo – Jeffrey Cashman

Beaver Island's draw for most visitors is its remoteness. They say it can snap a vacationer from the real world in just a few minutes.

"You really feel like you've left the mainland and that you're on 'island time,' says Linda Gallagher, a frequent visitor. "Islanders make you feel like an old friend instead of a visitor."

One of the best ways to reach Beaver Island is the two hour-and-15-minute ferry ride from Charlevoix to St. James. The leisurely ride allows you to chat with islanders that call it home. They love to talk about their island and its relaxed way of life, and it's a great way to learn about interesting spots to visit.

You can also fly over in about 15 minutes (from Charlevoix) on Island Airways or Fresh Air Aviation, if you're in a hurry to slow down.

The Great Lakes' third largest island is home to about 650 year-round residents, many whose Irish immigrant ancestors made it a bustling 19th century fishing port.

The Irish were the first to arrive and settle at Whiskey Point, but in 1848, James Jesse Strang, a Mormon Church leader, brought his followers here after a split in the church, and Brigham Young took his followers to Utah.

Strang claimed that an angel visited and told him to seek a place surrounded by water with great forests. Beaver fit the bill, and the Irish were forced off the island when the "War of Whiskey Point" confrontation was won by Mormons firing a cannon at an unruly gang gathered at the trading post.

Strang won a seat in the fledgling Michigan Senate and declared himself "King" of the island. But his reign was short-lived, as a revolt in 1856 left him dead. Some say it was sparked by jealous husbands when he began taking additional wives. When word of the revolt and Strang's death spread to the mainland, the Irish quickly returned and drove the leaderless Mormons off.

During their eight-year occupancy, however, the Mormons left it for the better, according to Steve West, head of the Beaver Island Chamber.

"They cleared and cultivated ground, built roads, farms, houses, and changed it from a wilderness to a civilized outpost, but never got to reap the benefits. Today, it's the Irish heritage that's celebrated on the island."

Beaver was blessed to be near some of the Great Lakes' best fishing grounds, and the Irish wrote to family and friends back home about America's "Emerald Isle." The population grew to over 1,000 by the early 1880s, and the island became the largest freshwater fish supplier in the U.S. By the mid-1890s, overfishing caused the harvest to decline drastically and provided the impetus for Michigan to start a hatcheries program and close fishing seasons during fall spawning.

"Fishing and timber made Beaver Island one of the most important ports on the Great Lakes around the turn of the last century," West explains. "As commercial fishing dwindled and shipping entered the modern era bypassing the island, the population reached a low of 150 residents in the 1960s."

A visit today to the Mormon Print Shop Museum provides a vivid account of those times. It's located on Main Street in St. James, the only village, which gently curves around Paradise Bay, the largest natural harbor on the Great Lakes.

Take a stroll along the quiet harbor roads to a handful of other shops and galleries, or relax in the colorful Shamrock Pub (an island tradition) or hike to nearby windswept Whiskey Point to admire the 19th century lighthouse (today, the island gets its electric lighting from service provided by Great Lakes Energy Cooperative).

Whitefish dinners at the Beaver Island Lodge at sunset are a must, where a wall of windows frames Lake Michigan and distant islands.

Visitors don't need a car, but having wheels makes it easier to visit the undeveloped one-third of the island, which is mostly state-owned. "Gravel and sand roads lead through thick sugar maple forests along inland lakes and the Lake Michigan shoreline on the south end," West says. There are over 100 miles of roads, but only eight miles leading

Photo – Kevin Morlock

Photo – Jeffrey Cashman

Photos – Beaver Island Chamber of Commerce

out of St. James is paved.

"You'll see flocks of sandhill cranes, admire Fox Lake where beavers are reported to reach 60 pounds, and stop to climb Beaver Head Lighthouse on the southern tip. The lighthouse climb yields an impressive view of many of the smaller islands that form an archipelago around Beaver," he adds.

You can rent vehicles on the island, and West advises this for quick visits of a day or two, "but more than that, it's probably more economical to bring your own vehicle over on the ferry."

Bicycles (mountain style is best for the clay-gravel roads) are also popular, and easy to bring over on the ferry or plane. Riding from St. James, where most lodging is found, around the south end and back is about 40 miles. There are also a few campgrounds popular with cyclists—one on the north end and another half-way down the east side.

A shorter ride from the village to Donegal Bay, about 12 miles, is one of Keith Seeloff's favorites.

"You pass by old Irish homesteads with wooden and stone fence lines, century-old wooden cabins along dirt roads with names like Paid een Og's, Donnell Mor's Lane, Barney's Lane and Sloptown Road," says the mainlander. "Some of these lanes are lined by beautiful old oak trees, and Donegal Bay is a beautiful Cape Cod-like bay with white sand beaches and cottages tucked into dunes."

Following Kuebler Trail from Sloptown Road brings you to McCauley's Point, a state preserve with panoramic views of High Island. Hike the shoreline through low dunes to Mt. Pisgah, a towering sand dune rising 150 feet above the bay. It's along Donegal Bay Road on the way back to the village, and is one of the highest points.

"Climb up the dune for a nice view of the bay and islands nestled off-coast. Looking inland, treetops stretch as far as the eye can see, and it's a great place to watch a sunset!" Seeloff exclaims.

Other preserves to hike are Barney's Lake, Erber, Miller Marsh and Little Sand Bay, which is closest to St. James. A long trail and boardwalk traverses various wetlands and streams before arriving at a beautiful deserted sand beach. Knotted trillium, a rare sight on the mainland, lines the boardwalk.

The island has long been known for its smallmouth bass, but fly-fishing for giant carp along the flats has really taken off, says Kevin Morlock, of Indigo Guides Charters. It's been popularized as "golden bone fishing" by outdoor writers, and fly-fishers from California and Texas have made the pilgrimage.

"It's challenging. That's why it has become so popular," Morlock explains. "Bone fish are about 8 pounds, and you might get about 20 shots at catching one on a typical Florida outing. Carp weigh 20 to 30 pounds, put up quite a fight, and you'll get around 200 shots at hooking one on a typical Beaver outing. Europeans consider carp a prized game fish and we are starting to catch on."

After a trip to the island, Kirk Deeter wrote on his *Field & Stream* magazine blog, "Beaver Island is home to some remarkable smallmouth bass fishing. But, we were there to explore the flats fishing. And—I kid you not—I would rate the flats action on Beaver with any other flats experience in America. Yes, that also includes Florida, Louisiana, Texas, Nantucket and Hawaii. It's absolutely insane around Beaver Island."

Go, relax, and enjoy the experience, because after all, you're on "island time."

For more about Beaver Island, places to stay and all its amenities, click on beaverisland.org.

PHOTOS: 1) An aerial view of Whiskey Point, at the entrance to Paradise Bay/Beaver Harbor. In the background is Garden Island, second largest in the archipelago. **2)** Catching golden bonefish (carp family) on a fly rod is very popular around Beaver Island. This one is over 30 pounds. **3)** From McCauley's Point, on South Donegal Bay, you can see panoramic views of High Island, 4 miles west. **4)** St. Patrick's Day on the island includes events such as a frozen fish toss. **5)** A full *Emerald Isle* ferry makes an unusual early evening arrival on Beaver Island.

Photo: Steve West

Island Power

Keeping Beaver Island plugged in. **Howard Meyerson**

When the power goes out in the middle of the night on Beaver Island, Mike McDonough is the one who climbs out of bed. No matter that a blizzard may be raging over Lake Michigan on this remote island 32 miles offshore from Charlevoix.

McDonough (pictured above), a 27-year old Island native, will pull on winter clothes and head out to his truck at any hour. He is the Great Lakes Energy Cooperative lineworker tasked with making things right by keeping electricity flowing to 500 year-round residents, a population that swells to over 3,000 in the summer.

"I enjoy the work and seeing things get done," says McDonough, a fifth-generation Islander. "This year we had a rough time. The winter storms were hard and we had a half-dozen or more households that were without power for over a day.

"You can spend 16 to 18 hours a day working on lines and restoring power. It's a lot of work, but after it's over, everyone is really appreciative. They realize it's not the easiest thing to do."

Winter storms dumped an extra load of heavy ice and snow on the Island this season, toppling trees that in turn fell on power lines. The area gets its electricity from the mainland, but there is a backup generator just in case of an on-shore problem, or on the lake bottom, where three 27-mile long cables carry electricity to the Island's harbor.

Along with causing darkened homes and businesses, downed power lines present additional problems. Beaver Island is covered by thick forests, and is 13 miles long and about 6 miles across at it's widest point. So, line repairs—especially this ferocious winter—were made all the more difficult when trees fell across roads and blocked access to areas needing a power line fix.

"This was one of the worst times we have seen over here," says McDonough, who began working for the co-op in 2006 and later spent three years on the mainland as an apprentice training to become a lineman, a job that he started four years ago.

"He's the guy who does the day-to-day things like maintaining the lines on the Island," adds Dave Matz, operations director for Great Lakes Energy, which is based in Boyne City. Matz began his 32-year career with the company as a lineman, so he knows the job well.

"It's not a job for everyone," he says. "You learn how to climb poles and to respect electricity. When the weather gets nasty, these guys are out working. They're a special breed."

Mainland power was first extended to Beaver Island in the 1970s, but the system has since been upgraded. The latest underwater cables were installed in 1999, and the Island's 3-megawatt backup power plant was built in 2000. Three 20,000-gallon fuel tanks are also maintained to run the backup generators. Once winter arrives and Lake Michigan freezes, there is little chance of getting a fuel delivery, Matz explains.

Despite these preparations, other events also happen to cause occasional outages, such as squirrels chewing on things they shouldn't in the summer, Matz adds.

McDonough says he has the job covered, though.

"In the middle of the night you are on your own," he says confidently. "But if it happens early in the day, I hit the gas station and stock up on junk food; beef jerky and Mountain Dew get me through the day."

Getting Comfo Home Energy

Melanie wants her home to be comfortable and bright. Winter gusts send her to the thermostat to fight the chill, and in summer she nudges the temperature down to keep cool.

Meanwhile, Melanie's husband Scott finds comfort in lower utility bills, so he frowns on tweaking the dial and walks through their home, turning off lights.

Fortunately, a comfortable middle ground is both affordable and available. Energy-saving products combined with efficient design trends and building techniques are revolutionizing home energy use.

Regardless of location or residence type, people like Melanie and Scott are finding that being energy efficient brings comfort as well as positively impacting their wallets and the world.

"If you're concerned about the environment, being energy efficient is a priority," says Brian Sloboda, a senior program manager for the National Rural Electric Cooperative Association (NRECA). "But efficient energy use is also important for other reasons. First, you save money. Second, you save energy, which leads back to saving money."

If you can do things to reduce the cost of energy, you'll have more money to spend on other things.

It's easy to ignore being wise with our energy consumption. After all, electricity is a good value. Unlike other energy sources, electricity is very flexible—we can use it for everything from cooking and cleaning to powering entertainment devices and even automobiles. Regardless, it makes sense (and cents) to be more energy efficient in all areas.

"Energy efficiency is a pocketbook issue," adds Alan Shedd, residential/commercial energy director for NRECA's Touchstone Energy Home program. "If you can do things to reduce energy costs, you'll have more money to spend on other things." Sure, we can't control all energy costs (gasoline, for example), but we can make a difference in

ortable With Efficiency

Photo – John Lowrey

Experts predict that future homes and remodeling will focus even more on energy efficiency, including designs that take advantage of natural light and ventilation, as well as water conservation design and products. The windows above are installed in a demonstration solar home built by University of Illinois students (http://2009.solardecathlon.illinois.edu) and are Optiwin® triple-paned thermally broken, argon-filled, wood windows with cork interiors.

our own homes.

But *how* do we make that difference? Experts say future home construction and remodeling will focus even more on energy efficiency—especially proper sealing.

The best time to focus on energy savings, however, is at construction. "We've got to do a better job of sealing penetrations and gaps between the conditioned space—areas of the home that we heat and cool—and unconditioned spaces," explains Art Thayer, energy efficiency programs director for the Michigan Electric Cooperative Association. "Find and seal gaps, cracks and penetrations near plumbing, cables, utilities, furnace runs, fireplace installations, and electrical wiring—anything that may allow air to move from one space to another." When these gaps are sealed in a typical home, energy costs can drop between 20 and 40 percent.

Doing Detective Work

Home energy audits can help identify energy-loss areas, and audit professionals use special tools to identify potential improvements.

After a quick safety check on gas appliances, an energy audit expert will place a blower door on an exterior door. The device pressurizes the home, making air leaks easier to find. "The door simulates a 20-mile-per-hour wind coming at the house from all sides," Thayer explains. "It creates a negative pressure so we can find out what the biggest problems are when it comes to comfort and energy. When we fix the comfort problem, we save energy, too."

An energy auditor can also picture the home through an infrared camera to spot energy leaks, which most often occur in the attic. "Air escapes from places like the flue and chimney chase, plumbing stacks, electrical penetrations, and around kitchen and bathroom soffits," Thayer says.

But trouble spots can't be fixed just by rolling out more insulation. Specific spaces need to be sealed first. "Insulation is not air-sealing," Thayer says, noting that many states require the blower test on new construction.

Electric co-ops are also willing to help their consumer-members learn about energy efficiency, and this varies by co-op from providing Energy Optimization programs (see story and ad in this issue offering free recycling and appliance rebates) to *Country Lines* articles and holding educational seminars. Other co-ops sell highly efficient water heaters and provide low-interest financing for energy efficiency improvements.

As an example, Midwest Energy Cooperative (Cassopolis) has an "Energy Express" demonstration trailer it uses at fairs, festivals, trade shows and other community events. "It's an interactive educational tool that helps people understand some simple and inexpensive ways to increase home energy efficiency and maximize energy dollars," says Patty Nowlin, communications director for Midwest.

"Finding efficiencies house-by-house or business-by-business, is a good thing," Thayer adds.

Photo – Midwest Energy Cooperative

Midwest Energy Cooperative's "Energy Express" trailer has become a popular exhibit at home shows, fairs and other community events. It's an interactive demonstration unit that helps consumers learn how to save energy and money in ways that are practical, affordable and easy to understand.

Designed to Save

Older homes were built to a different standard, when energy was less expensive and efficiency less important, and some leak like sieves, Thayer continues. And, while these concerns are key for both remodeling and new home construction, it's especially important in new homes where it's a one-time decision about insulation, caulking and weather stripping. "With a little up-front investment you build-in lower overall operating costs," he says.

Energy efficiency can also come from a home's appliances, and many are

Continued on page 12

Getting Comfortable, *from page 11*

manufactured with this emphasis, such as clothes washers, refrigerators and other aids bearing the Energy Star® logo.

Energy Star is branded by the Department of Energy and the Environmental Protection Agency. This means the appliance is a better value, and was proven in testing to provide significant energy savings over comparable products. Over 75 percent of the public understands the importance of looking for the Energy Star label, Thayer notes, and realizes that just a little more money means long-time savings.

Geothermal Offers More Savings

Perhaps nothing is as valuable, however, as savings realized after installing a geothermal heat pump as an alternative to more traditional heating and cooling units, Thayer advises. Using liquid-filled loops buried about 5 feet underground, this system uses the earth's steady temperature to transfer heat.

Installation costs are high, but geothermal heat pumps deliver a 30 to 70 percent reduction in home heating and cooling costs. Plus, by using a desuperheater, they also deliver about 60 percent of a family's hot water heating needs for free.

Because of their connection to the earth, geothermal heat pumps represent an interesting application of renewable energy, and currently receive a 30 percent tax credit. "That really brings the cost down to a level that's par with high-efficiency systems," he adds. "For new home construction, it's a no-brainer. Why not do it?"

Heat pumps are also hard to beat because they can pay for themselves in just a few years.

The Future is Now

With today's stringent building codes, new homes are much more energy efficient than even just a few years ago, Thayer adds, and co-ops are increasing their educational efforts.

As another example, Midwest Energy is partnering with the Lenawee Intermediate School District's Center for a Sustainable Future and other southeastern Michigan groups to build a state-of-the-art Sustainable Energy Efficient Demonstration House (SEED). The planned SEED house would serve as a unique educational tool for the whole community.

"We're planning to build this house so that any of our co-op members, the community, and students can walk through and realize that energy conservation is practical, affordable and easy to understand in their own homes," says Roger Bowser, Midwest's energy programs and services manager.

Photo – Midwest Energy Cooperative

Roger Bowser (L), energy programs/services manager for Midwest Energy Cooperative, uses the "Energy Express" trailer at a county fair to show consumers how to save energy and money. For example, consumers can easily plug certain home air leaks themselves with proper caulking, insulation and sealants.

Plans are for the house to be a "cut-away" design so it can show that if a house is newly-built, remodeled or energy-retrofitted as a "system," it can be air-tight, comfortable and affordable, but still provide fresh, healthy, indoor air quality. "I want our members to understand if they are building, remodeling or energy-retrofitting their home, it should be very attainable and affordable for them," Bowser explains.

Another co-op, Cherryland Electric, is offering its members that are interested in energy efficiency the opportunity to buy solar panels. The plan is to build a community solar panel array near the co-op's office on U.S.-31 in Grawn. Now in the first phase, a total of 80 panels are being offered. Cherryland will retain ownership of the panels, then lease them to members for a one-time fee of $470 per panel. In return, members will receive an approximate $2 rebate per bill. Participating members can expect to break even on the investment in about 20 years, and that time frame could be shortened with energy optimization credits. The project's size could eventually offer 360 panels or more over the long-term.

"It's been very positive," say General Manager Tony Anderson. "I think people want to support our renewable energy, and they are interested in making it work."

Homes will soon be designed with future energy upgrades in mind, such as solar opportunities, Thayer adds. As we move to electric cars, we may begin seeing more solar panels on garages and carports, too.

Homes will also have "smart" appliances, energy efficiency controls, and a monitoring system. "Appliances will have a bigger impact because energy-efficient ones will be prevalent," Thayer says, adding that the move to LED lighting will quicken and TVs and computers will become even more efficient.

"From the outside, you probably won't see a lot of difference in the way homes look," Thayer notes, "but what's on the inside—from construction to appliances—will definitely be different."

Above: Plugging open spaces around plumbing and other air leaks is an easy fix that saves energy and money.

Photos – Illinois Country Living

Right: A blower door test should be a part of any professional energy audit. A temporary door with a pressurizing fan makes it possible to measure and find energy leaks in a home.

Trenary Wood Products:
White Cedar From the Heart of the U.P.

The incense of cut cedar fills the air; motes of sawdust drift through the sunlight that streams through large windows. The high-pitched whine of the saw makes conversation difficult as the four-man crew cuts, sorts, squares off, and packs.

Trenary Wood Products is in full production, crafting custom shingles and shakes from Upper Peninsula-grown white cedar logs. Their merchandise takes advantage of northern cedar's unique properties: insect and moisture resistance.

Owners Steve and Sharon Boyer have been Alger Delta Electric Co-op members for all 36 years of their marriage. Sharon's mother, Ruth Niemi Kaukola Holmquist, was born on the family farm where the Boyers also live, and remembers when they first got electricity in North Delta back in 1938.

"They were one of the first Alger Delta members around here because their house was so close to the road," Sharon explains.

The Boyers are also proud of the homegrown tradition of their business: they give full-time employment to eight Trenary residents, purchase only local cedar from area loggers, and have perfected a product for their customers that is made to survive harsh, snowy conditions. Their shakes and shingles can be seen on buildings in many U.P. state parks: Fayette State Park in the Garden Peninsula, Fort Wilkins in the Keweenaw, and Fort Michilimackinac in Mackinaw City, among others. They were surprised when their cedar shingles found national appeal, too. "I never know who'll be on the other end of the phone when it rings," Sharon says.

"Most of our shingles go to the U.P. or Wisconsin, but we've taken orders from all over the country—New Jersey to California," Steve says. Their biggest job so far was a stave church—a replica of a Norwegian church—built in Moorhead, Minn. "Those were custom cut 6-inch shingles," Steve remembers. The order called for 55 squares (275 bundles of 6-inch shingles), and the customers placed the order a year in advance.

"We can do anything—long as we have enough time to do it," Steve says.

The Boyers' operation is a study in utilizing every scrap of a natural resource. They prefer to buy older cedar logs that have rotted in the center because the outer edges of these trees don't have knots. "That's the stuff they can't get rid of," Steve explains. "And yet, that's the clear [knot-free] wood—we can't get that from the younger cedar because of the branch growth. The old wood is what makes the good shingles."

Trenary Wood Products sells three shingle grades in custom sizes ranging from 3 inches to 8 inches wide. But that's only the beginning: the trimmed-off scraps are sold in kindling bundles, and also used to heat the family's sawmill and home. The sawdust is baled and sold as animal bedding, spread on muddy farm paths, and used as bow targets. "An arrow won't go through it," Steve says. Any leftover scrap is then trucked downstate to be converted to cedar mulch. "The only thing we don't make is the mulch. We don't throw anything away from this operation—everything gets used," Steve says proudly.

If they could just bottle that woodsy cedar scent and sell it, they might find their biggest market yet.

Steve Boyer stands next to ready-to-ship bundles of shingles from the Trenary Wood Products business he owns with his wife, Sharon. Visit trenarywoodproducts.com to see more products, or contact them by e-mail at holmquist@tds.net or call 906-446-3326.

Inset photo: This shingled cottage perched on a sand dune overlooking Lake Superior is owned by an Alger Delta Co-op member, Judy Deboer. The cedar shingles, stained a gray tone rather than waiting for them to weather to that shade naturally, are installed with a small space in between each shingle because they absorb water and swell in wet weather. That's the reason cedar offers the best moisture protection and good energy efficiency—it swells and seals tightly.

▶ ***Tell us about your favorite Michigan-Made product!*** Please send a few short paragraphs describing the product and why you like it, along with your email and phone number to gknudtson@meca.coop or call 517-913-3531.

Use Your Own Money!

How to start your child on an allowance.

Photo – iStockphoto.com

A teen magazine caught my daughter's eye in the store recently. She wanted it, but not enough to spend her allowance. This is exactly the decision-making we were hoping to inspire when we began giving her an allowance.

Many Michigan schools are incorporating financial literacy, and giving children an allowance is one way to extend the learning at home.

There are several ways to go about giving an allowance, some basic factors to consider when determining what is right for your family.

How old is your child and what is their maturity level?

These factors will help steer your decisions in determining the allowance system. You don't want to make it so easy that your child takes an allowance for granted, but you want to set realistic expectations based on their age and maturity.

Visit a local library or bookstore with your child to help explain money management and the concept of receiving an allowance. "Michigan Jump $tart!" also has a website with activities to teach children of all ages about money management. "Money Smart Kids" offers fun games about financial literacy.

What purpose do you want the allowance to serve?

Is it to teach the value of money, be an incentive for chores, or simply provide some in-pocket cash? There is no right or wrong reason here, but having a clear concept of why you are giving it will help you plan. You should also explain to your child why they are getting an allowance and what you hope it will help them achieve.

Will the allowance be contingent on anything?

Some children need to complete all of their chores, meet behavior goals, earn certain grades, or meet other criteria in order to receive an allowance. In other families, the child receives it no matter what. Another option is to blend the two methods, so the child receives a small base allowance but has a list of "extra" chores he can choose to do for additional funds.

How will the money be administered?

Options include:

- Handing out cash every Friday
- Paying in a lump sum monthly
- Putting the money directly in your child's savings account
- Adding the funds to a prepaid debit card
- Holding onto the money and tracking your child's credits and debits for her

Will there be restrictions on how the money is spent?

If your family has specific rules, such as forbidding toy guns or candy, make sure your child knows the rules still apply even if he has his own money. Some parents require their child to devote certain percentages of the allowance to charity or savings. Others give their child free reign on how it is spent.

What will they be expected to pay for out of their allowance?

Will your child be expected to use the allowance for lunches, clothing or school supplies? A popular option is to give older children and teens a budget and allow them to keep any excess funds. For example, they may receive $20 a week, which includes lunch money. However, they can choose to brown bag it to school and use the money in other ways. Or, you may prefer to buy all of your child's necessities and give a small allowance to cover "wants."

How much should you give?

Once you determine if your child will have to pay for certain items out of the allowance or not, you can determine how much to offer. There are many formulas used for this, such as a dollar a week per the child's grade. This is a starting point, but only you can determine the right amount for your child based on all of the above considerations.

It's important to allow some freedom in children's spending, so they learn the value of money firsthand. I don't always agree with how my daughter spends her money, but she's learning to splurge on the items that make her happy and skip the ones she can do without—like teen celebrity magazines.

Rachael Moshman is a mom, freelance writer, educator and family advocate. Find her at rachaelmoshman.com.

The Saskatoons Are Here

There's a new berry in town. It's called the Saskatoon, and it's been growing wild across the prairies of western Canada and the northwestern United States since the buffalo roamed. The Saskatoon "blueberry," as some catalogs call it, has the same look and nutritional value as a regular blueberry, but with a different, sweet-yet-nutty taste.

Saskatoons could become a hit with Michigan gardeners, commercial growers, landscapers and naturalists alike. They can be planted in the garden and trimmed to about 4 feet tall, used as a flowering shrub along a foundation, or allowed to grow wild, free and tall out in the "back 40."

"I think they'll be a lot of fun and easier to grow than blueberries," says Erwin "Duke" Elsner, an MSU fruit and viticulture specialist from Grand Traverse County, and a member of Cherryland Electric Cooperative. "They're also quite adaptable to northern Michigan."

The plants branch off from the trunk like a clump of birch trees and can reach 20 feet tall and about 4 feet wide. However, Elsner says they can be kept trimmed down for garden production or to form an attractive hedge. The pretty spring flowers make Saskatoons a wonderful landscape plant that doubles as a food source. White blooms show in mid-spring, and the deep-purple fruit appears about July.

Saskatoons are used for pies, jam, wine, cider and beer, and are good in cereal or trail and other snack mixes. These berries are healthy little buggers, too, as they're chock-full of protein, vitamin C, calcium, iron and cancer-fighting antioxidants. They're hardy as a polar bear, growing as far north as Alaska, and do well in most soils, except very wet clay. A similar species, known locally as juneberry, grows wild in our northern lower area and the U.P., mostly in upland, sandy areas.

How to Plant

Plant Saskatoons in full to partial sun and light sandy or sandy-loam soil that drains well. In the garden, space them about 3 to 4 feet apart. They're self-pollinating, but will bear heavier fruit if planted with other Saskatoons. Prepare the soil as for any tree or shrub by digging a hole about twice as wide and deep as the root ball. Back-fill with a mix of compost and good topsoil, water-in the plants well, and then mulch around the trunks. A slow-release or organic fertilizer applied moderately once or twice a year will keep them healthy. Unlike blueberries, Saskatoons don't require acidic soil.

It's a 'Super-fruit'

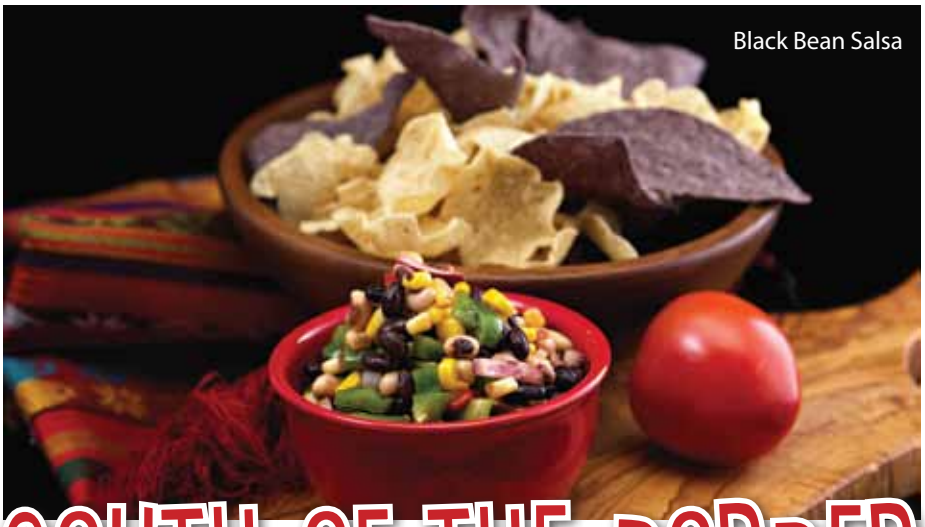
There is interest in this once-ignored berry out East, and Michigan farmers haven't overlooked them either, Elsner says. In fact, some call it a "super fruit" that is about to take our farm markets and roadside stands by storm. However, the exact amount in production is hard to estimate. Elsner's best guess is that 70 to 100 acres are scattered throughout Michigan, and MSU will conduct surveys to determine how much acreage is under production and what markets are interested in the berries.

"They are fairly simple to grow, they don't require machine harvesting—although they could be harvested with machines—and are not a huge up-front investment, Elsner explains. "They also follow a trend toward native plants and are good for you."

Like blueberries and other edibles, Saskatoons are tempting to birds, so using bird netting is worth considering. Rose chafer pests have also found these plants to their liking, adds Elsner, who is also a highly regarded entomologist. He's working with others at MSU to invent an appropriate insecticide to deal with the chafers.

Interest is also picking up on a commercial scale here, and a group has formed to support efforts to grow and market the fruit. "Because of the enthusiasm of local growers, we have started an organization called 'The Saskatoon Berry Institute of North America' to support the development of this new crop, which we all feel has a lot of potential," reports Jim Dixon of Williamsburg, also a Cherryland Electric Co-op member. Dixon has 250 Saskatoon plants in the ground and expects to eventually have berries for the farm markets.

If you're interested in growing Saskatoons, get involved or simply check-in with this enthusiastic group of growers by visiting the Institute on Facebook at facebook.com/SaskatoonBerryInstituteOfNorthAmerica.


Black Bean Salsa

SOUTH OF THE BORDER

These Mexican-style recipes will turn your dinner into a fiesta. Discover enchiladas, tacos and other creative variations of traditional Mexican dishes.

Black Bean Salsa

1 can black beans, drained and rinsed
1 can white and yellow corn, drained
1 can black-eyed peas, drained
1 jar diced pimentos, undrained
1 green pepper, diced
1/4 red onion, chopped
2-3 avocados, diced (add just before serving)
"scoops" tortilla chips
Dressing:
5 T. Tiger sauce (or Red Hot® sauce)
1/2 c. red wine vinegar
1/2 c. canola oil
1 T. sugar, optional
salt and pepper to taste

Mix beans, corn, peas, pimentos, pepper and red onion. Mix dressing ingredients together and pour dressing on bean mixture. Serve with chips. This is also excellent with BBQ or grilled chicken.

Mary Scodeller, Lansing

Enchilada Casserole

2 lbs. ground beef
chopped onion
salt and pepper to taste
1 package taco seasoning
1 can enchilada sauce (mild or spicy)
1 can water
1 can refried beans
1 c. cheddar cheese, shredded
1 c. mozzarella cheese, shredded
1 package flour tortillas
optional: chopped green pepper, green onion, lettuce, tomatoes, sour cream

Brown beef with salt, pepper and onion. Add taco seasoning, water and beans; mix well. Grease a 9 x 13-inch pan. Layer enchilada sauce, tortillas, meat and cheeses. Bake at 350° until heated through. Serve with chopped vegetables and sour cream, as desired.

Sue Kolean, Holland

Upside Down Sombreros

1 lb. lean ground beef
1 small onion, chopped
1 10-oz. can medium-spiced enchilada sauce
1 2.25-oz. can sliced black olives, drained
1 8-oz. can whole kernel corn with red and green peppers, drained
4 8-in. flour tortillas
1 16-oz. can refried beans
4 tomato slices
6 oz. (1 1/2 c.) shredded cheddar cheese or Mexican-blend cheese, divided
1/2-3/4 c. sour cream
1 medium avocado, peeled, pitted, sliced
4 oven-proof, 1 1/2 c. size ramekin dishes (about 5 1/2 in. wide and 2 1/2 in. deep)

In a medium skillet, cook ground beef and onion until meat is no longer pink; drain. Add the enchilada sauce, olives and corn; cook and stir 3 to 4 minutes or until heated through. Place one tortilla in bottom of each ramekin dish, allowing tortilla to overlap sides of dish. Spread refried beans equally among the four dishes, then spread meat mixture over beans. Place dishes on a baking sheet. Bake, uncovered, at 350° for 25 minutes. Place 1 tomato slice on top of each; sprinkle each with 1/4 cup cheese. Bake until cheese is melted, about 5 minutes; remove from oven. To serve, dollop each dish with sour cream; sprinkle with remaining cheese. Stand two avocado slices, one on each side of each dish, facing toward the center to resemble hat ties.

Marilyn Partington Frame, Traverse City

Slow Cooker Chicken Taco Soup

1 onion, chopped
1 16-oz. can chili beans
1 15-oz. can black beans
1 15-oz. can whole kernel corn, drained
1 15-oz. can tomato sauce
1 12-oz. can or bottle beer
2 10-oz. cans diced tomatoes with green chilies, undrained
1 1.25-oz. package taco seasoning
3 whole skinless, boneless chicken breasts
optional toppings: shredded cheddar cheese, sour cream, crushed tortilla chips

Place the onion, chili beans, black beans, corn, tomato sauce, beer and diced tomatoes in a slow cooker. Add taco seasoning, and stir to blend. Lay chicken breasts on top of the mixture, pressing down slightly until just covered by the other ingredients. Cook on low, covered, for five hours. Remove chicken from soup, and allow to cool long enough to be handled. Shred and stir chicken back into the soup; continue cooking for two hours. Serve topped with shredded cheddar cheese, a dollop of sour cream and crushed tortilla chips, if desired.

Jacquelyn Guisbert, Drummond Island

Peppery Meatloaf

2 lbs. ground beef
1/2 c. V-8® juice
1 t. cumin
1/4 c. onion, diced
1/4 c. jalapenos, chopped
1 c. oatmeal
1 t. salt
2 eggs
1/2 t. pepper
1/2 c. chili sauce
1 t. taco seasoning
1 c. pepper jack cheese, shredded

Mix in order and bake at 350° for 45-55 minutes. Top with cheese and return to oven until cheese melts. Great for next day sandwiches also.

Marie Danis, Pelkie

Photography by: 831 Creative

Crock Pot Picnic Pork Tacos

Combine in a crockpot:
1 picnic ham (not smoked)
2 T. Chili Ancho Powder (or chili powder)
1 white onion, chopped
1 t. rosemary
1 T. seasoned salt
2 whole garlic cloves
1 T. black pepper
1/4 in. of water in pot

Pico De Gallo:
2 fresh tomatoes, chopped
1 onion, chopped
1 t. minced fresh garlic
1/4 c. chopped jalapeno
1/4 bunch cilantro, chopped
2 avocados, chopped
juice from 1 lime

flour or corn tortillas
slices of queso fresco cheese
sour cream

Cover and cook on high for eight hours. Remove ham and shred with a fork. Chop all pico de gallo ingredients and mix in a bowl; add lime juice. Add meat to tortillas and top with cheese, pico de gallo and sour cream.

Mary Gorshe, Suttons Bay

Taco Soup

1 lb. ground turkey or beef
1 large onion, chopped
1 package dry Hidden Valley® dressing mix
1 package taco seasoning mix
1 15-oz. can pinto beans
1 15-oz. can hot chili beans
1 15-1-oz. can whole kernel corn
1 15-oz. can stewed tomatoes, Mexican flavor
1 15-oz. can stewed tomatoes

Brown meat and onions; drain. Mix dressing and taco seasoning mixes into meat and add all other ingredients. Simmer 1 hour. If desired, serve with baked Tostitos® chips.

Thomas Anderson, Cheboygan

Taco Lasagna

1 lb. ground beef
1 package taco seasoning
jar of salsa, optional
1 can refried beans
8 soft flour tortillas
3-4 packages shredded taco or Colby Jack cheese

Fry ground beef and add taco seasoning and salsa, to taste. For the first layer, place two tortillas on the bottom of a baking dish, spread with one-half of the meat mixture and top with one package of cheese. For the second layer, place two tortillas on top of the first layer, spread with one-half of the refried beans and top with a package of cheese. For the third layer, place two tortillas, spread with the remaining meat and a package of cheese. For the final layer, place two tortillas, spread with remaining refried beans and the last package of cheese.

Bake at 350° for about 30 minutes, or until cheese is melted and starts turning a golden brown. Let cool for a few minutes and serve with your favorite toppings (tomatoes, lettuce, sour cream, jalapeno, avocado, etc.) and enjoy.

Tami and John Smith, Boyne City

Enchilada Crepes

Crepes:
1 c. baking mix (Bisquick®)
3/4 c. milk
1/2 t. chili powder
2 eggs
1/4 c. green onions, finely chopped
Filling:
3 c. cooked chicken, finely chopped
1 c. shredded Monterey Jack cheese
1/2 c. salsa
1 avocado, peeled and cut up
1/2 c. sour cream
1/2 c. water
1/4 t. salt
1/8 t. pepper
1 clove garlic, crushed
chopped tomato
shredded cheddar cheese

To make the crepes, beat baking mix, milk, chili powder and eggs with wire whisk until almost smooth; stir in onions. Pour 1/4 cup batter into hot, lightly greased 10-inch skillet; rotate skillet until batter covers bottom. Cook until golden brown. Gently loosen edge; turn and cook other side until golden brown. Place between sheets of waxed paper.

Mix chicken, cheese and salsa and spoon mixture down center of crepes. Fold ends of crepes over chicken mixture; place folded sides down on greased cookie sheet. Bake at 350° for 15 minutes. Place avocado, sour cream, water, salt, pepper and garlic in blender container; cover and blend on high until smooth, about 1 minute. Pour into saucepan. Cook and stir over low heat until hot. Serve over crepes. Garnish with tomato and cheddar cheese. Serves 6.

Janice Harvey, Charlevoix

King Ranch Mexican Chicken

1 boiled or rotisserie chicken, deboned and cut into small pieces
1 can cream of celery soup
1 can cream of mushroom soup
1 can cream of chicken soup
1 can Rotel® diced tomatoes and green chilies
1 small can diced green chilies
1 16-oz. package soft corn tortillas
2 c. grated Mexican cheese

Combine chicken, soups, tomatoes and chilies and place in a 9x13-inch baking pan sprayed with nonstick spray. Cut tortillas into bite-size pieces and layer over chicken. Sprinkle cheese over top and bake at 350° for 20 to 30 minutes, or until cheese is bubbly. Let sit for a few minutes and serve.

Nancy Abbott Wilson, Traverse City

Crock Pot Picnic Pork Tacos

Submit your recipe! Contributors whose recipes we print in 2013 will be entered in a drawing to win a prize: *Country Lines* will pay their January 2014 electric bill (up to $200)! The 2013 winner will be announced in the Jan. 2014 issue.

Thanks to all who send in recipes! Please send in **"No-Cook Meal"** recipes by **June 10** and **"Diabetic Favorites"** by **July 10**.

Mail to: Country Lines Recipes, 2859 W. Jolly Rd., Okemos, MI 48864; or email recipes@countrylines.com.

That Old Fridge or Freezer is Too Costly to Keep!

Recycle now to earn a $30 rebate.

Do you have an old refrigerator or chest freezer taking up valuable space in your basement or garage? While you may not think much about these secondary appliances that are typically out of sight, refrigerators or freezers that are over 10 years old are most likely costing you hundreds of dollars per year to power.

You can eliminate unnecessary energy use and costs by recycling these old appliances with the help of Presque Isle Electric & Gas Co-op and the Energy Optimization (EO) Appliance Recycling program! *Earn a $30 rebate* by contacting us when you are ready to turn in your old ones (rebate limited to two refrigerators or freezers per home).

What qualifies for a recycling rebate?

The appliance(s) must currently be in your home or garage and in working order. Sorry, but rounding up trashed or curbside refrigerators or freezers won't earn you rebates! A few other things to keep in mind:

- To be eligible for pick-up and a rebate, the refrigerator or freezer must be a secondary unit.
- The refrigerator or freezer must be between 10 and 30 cubic feet.
- Side-by-side refrigerators count as one appliance for recycling.

How does it work?

1. Call **877-296-4319** to schedule your appliance pick-up between 9 a.m. and 6 p.m., Monday through Friday. Or, visit **michigan-energy.org** and click on "Appliance Recycling".
2. The refrigerator or freezer must be clean, empty, and defrosted by pick-up day.
3. Your appliance(s) must be plugged in and running on pick-up day.
4. Disconnect your appliance(s) from water lines prior to the pick-up crew's arrival.
5. Provide clear and safe access to remove your appliance(s).
6. Our service provider, JACO Environmental, will come to your home and haul your old appliance(s) away.
7. An adult must be present to sign off on the appliance(s).
8. Feel good knowing your old appliances are being recycled properly!
9. Best of all: enjoy your energy savings and extra spending cash!

Have any other old appliances lying around?

While we're at your home, we can also pick up outdated (yet functioning) air conditioning units or dehumidifiers for free recycling. Receive a *$15 bonus rebate* per item!

Use an EO rebate as a valid excuse to finally get rid of these old appliances. And, if you have any questions about appliance recycling or residential, business or farm rebates, don't hesitate to give us a call. Saving energy and claiming rebates is easy with the Energy Optimization Program!

2013 Vegetation Management Schedule by County*

MECHANICAL BRUSHING

Cheboygan	Montmorency	Presque Isle
Aloha	Albert	Bearinger
Ellis	Briley	North Allis
Grant	Avery	
Koehler	Hillman	
Mullett		
Nunda		
Walker		
Waverly		

HERBICIDE APPLICATION

Alpena	Cheboygan	Emmet	Montmorency	Presque Isle
Green	Beaugrand	Carp	Briley	Bearinger
Wellington	Benton		Montmorency	Belknap
Wilson	Burt		Rust	Bismarck
	Grant			Krakow
	Hebron			Metz
	Inverness			Ocqueoc
	Mullett			Presque Isle
	Munro			
	Tuscarora			
	Waverly			

**** You will receive a notice by mail indicating a tentative date for scheduled maintenance in your area.***

Why We Send You *Country Lines*

We send *Country Lines* to you because it is the most economical and convenient way to share information with PIE&G members. It takes the place of many mailings we would otherwise make to get information to you about our services, director elections, member meetings, and the staff and management decisions you should know about as an owner of the co-op. The magazine also carries legal notices that would otherwise have to be placed in local media at a substantial cost.

And, sending *Country Lines* to you helps the co-op fulfill one of its basic principles—to educate and communicate openly with its members.

The board of directors authorizes the co-op to subscribe to *Country Lines* on your behalf at a cost of $2.98 per year, paid as part of your electric bill. The current magazine cost is 50 cents per copy, little more than the cost of a first-class stamp.

Country Lines is published for us, at cost, by the Michigan Electric Cooperative Association in Okemos. As always, we value your comments about your magazine.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * * *

In the matter of the Commission's own motion, regarding the regulatory reviews, revisions, determinations, and/or approvals necessary for Presque Isle Electric & Gas Co-op to fully comply with Public Act 295 of 2008.

Case No. U-16596

NOTICE OF OPPORTUNITY TO COMMENT

On December 6, 2012, in Case No. U-15825 et al, the Michigan Public Service Commission (Commission) ordered Presque Isle Electric & Gas Co-op to file a renewable energy plan on or before May 12, 2013 to comply with the "Clean, Renewable and Efficient Energy Act" (2008 PA 295, MCL 460.1001, et seq.) and MPSC order in Case No. U-15800 dated December 4, 2008. On April 15, 2013, Presque Isle Electric & Gas Co-op filed its Notice of Intent to File an Application for a Renewable Energy Plan with the Commission.

Any interested person may review the filed Renewable Energy Plan on the MPSC website under Case No. U-16596 at: www.michigan.gov/mpscedockets and at the offices of Presque Isle Electric & Gas Co-op, 19831 M-68 Highway, Onaway, Michigan, or at the office of the Commission's Executive Secretary, 4300 West Saginaw, Lansing, Michigan, between the hours of 8:00 a.m. and 12:00 p.m. and 1:00 p.m. and 5:00 p.m., Monday through Friday.

Written and electronic comments may be filed with the Commission and must be received no later than 5:00 p.m. on June 12, 2013. Written comments should be sent to the: Executive Secretary, Michigan Public Service Commission, P.O. Box 30221, Lansing, Michigan 48909, with a copy mailed to Presque Isle Electric & Gas Co-op, 19831 M-68 Highway, Onaway, Michigan 49765. Electronic comments may be e-mailed to: mpscedockets@michigan.gov. All comments should reference Case No. U-16596. Comments received in this matter become public information, posted on the Commission's website, and subject to disclosure. Please do not include information you wish to remain private.

The Commission will review the renewable energy plan together with any filed comments and provide a response within 60 days of the filing of the application indicating any revisions that should be made. If the Commission suggests revisions, Presque Isle Electric & Gas Co-op will file a revised RPS plan no later than 75 days after the filing of the application. A Commission order will be issued on or before the 90th day following the filing of the application.

Any proposed Renewable Energy Plan Charges may not exceed $3 per meter per month for residential customers, $16.58 per meter per month for commercial secondary customers or $187.50 per meter per month for commercial primary or industrial customers.

PRESQUE ISLE ELECTRIC & GAS CO-OP

Harvest Wind Farm's Output Down Slightly in 2012

The Harvest Wind Farm completed its fifth year of operation in 2012, generating 136,806 megawatt hours (MWh) of electricity. Total generation in 2012 was slightly lower compared to 2011 output of 142,819 MWh. Wolverine Power Cooperative, of Cadillac, is buying the total output of the wind farm's 32 turbines under a long-term contract and supplying that electricity to its members.

Weather conditions and wind speeds in the state's Thumb area, where the wind farm is located, drive the operation of the turbines. A minimum wind speed of eight miles per hour is needed to generate electricity at Harvest.

"This is the first year since Harvest began generating electricity that we've seen a reduction in annual output," says Tim Martin, manager of energy operations for Wolverine. "It's a direct reflection of weather conditions near Elkton where the turbines are located."

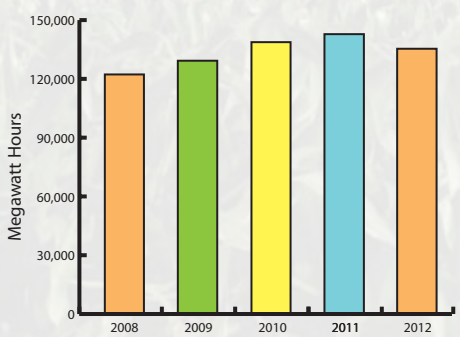
Wolverine and its electric co-op members rely on generation from the Harvest Wind Farm to meet the state's renewable energy requirements. Public Act 295 of 2008 requires Michigan electric providers to have 10 percent of their total power supply come from renewable resources by the end of 2015, and in years thereafter.

Wolverine's long-term commitment to purchase power from the Harvest Wind Farm, in addition to power it buys from a small hydro project, allows the cooperative and its members to meet the current requirements of Public Act 295.

"We committed to Harvest prior to the passing of Public Act 295 because we believed then and continue to believe today that renewable energy has a place in our power supply portfolio," Martin explains.

Harvest, the state's first commercial-scale wind farm, is owned and operated by Exelon Wind. Each turbine stands 393 feet tall—from its base to the tip of one of three blades—and is capable of generating 1.65 megawatts of electricity.

Electricity Generated Annually by the Harvest Wind Farm



Wind Energy Stats for Our State

Under Public Act 295, the Michigan Public Service Commission (MPSC) must issue an annual report on implementation of the state's renewable energy requirements. Highlights from the most recent report, completed in February 2013, include:

- Michigan had 978 megawatts (MW) of wind energy from 14 operating wind farms at year-end 2012.
- More than 800 MW of new wind capacity was added in 2012.
- Energy from renewable resources, including wind, is approximately 5 percent of Michigan's total power supply portfolio.
- Nearly $1.8 billion has been invested in renewable energy in Michigan since the passage of Public Act 295.
- Electric providers in the state are on pace to meet renewable energy targets required by Public Act 295.

Visit michigan.gov/mpsc to view the MPSC report in its entirety.

Cut Through Sales Hype Before Replacing Windows

Q: *We need replacement windows for our home, but every salesman makes his sound like the best and most efficient. How do I choose among the various frame materials, styles and glass types?*

A: It can be extremely difficult to sort through all the sales and marketing hype to make the proper replacement window decision, and there are many absurd claims out there.

First, it's important to note that because windows are expensive, energy efficiency should not be the only reason to buy new ones. Other efforts will save more money, and you can visit EnergySavers.gov to find ways to make your existing windows more energy efficient. But if you truly need new windows, there are some other considerations.

Proper selection depends on the characteristics of the window, the specific house, and your lifestyle. What is best for your next door neighbor may not be best for you. For example, you may want a view of a particular outdoors area or springtime ventilation, whereas your neighbor may keep the blinds closed and use air-conditioning continuously.

The main criteria for selecting replacement windows are frame material, window style, and glass type. From the energy efficiency standpoint, the glass type and window style are more important than the frame material, which has a greater effect on functionality, durability, maintenance and appearance.

FRAME MATERIALS The most common frame materials for residential windows are vinyl, fiberglass, wood, and clad wood.

Vinyl is energy efficient, virtually maintenance free, and made to the precise dimensions of the window opening instead of having to shim out standard sizes.

To attain adequate rigidity, the vinyl frame extrusions have many internal webs and chambers that create natural insulation. Plus, the vinyl material itself is a poor heat conductor. For greater R-value, several vinyl window manufacturers inject expanding foam insulation inside the chambers as the frame is assembled.

Always look for sash frames that have welded corners for strength. Because the outer window frame is screwed rigidly into the framing for the window opening, welded corners in it are not as important as with sash frames. If you select vinyl frames for large windows, especially in hot climates, they should have internal steel reinforcement. When vinyl gets hot in the sun, it loses strength and rigidity.

Fiberglass frames are extremely strong and can be painted any color to match interior or exterior house colors. Because the primary component is glass, these frames expand and contract with temperature changes at about the same rate as the glass panes to minimize stress. This characteristic is an advantage for dark frame colors exposed to the sun, which can create a substantial temperature range throughout the day and night. The strength of fiberglass frames is also an advantage for smaller windows because narrower frame cross-sections are acceptable. With other frame materials, a thicker frame can reduce the glass area too much.

Wood window frames have been around forever, and when properly maintained, have a very long life. Wood frames are also the most attractive, even if you choose to paint them. It's easier to cut more complex and sharp detail into wood frame surfaces.

The drawback of wood is some regular maintenance is required for appearance and energy efficiency.

Exterior vinyl- or aluminum-clad wood frames greatly reduce the maintenance requirements. The natural wood can still be exposed on the indoor surface so they look like wood windows indoors. Some vinyl and fiberglass frames are also available with natural wood indoor cladding to provide the appearance of real wood frames.

Further reading on windows:

- *Tips on style, including energy considerations:* **thehousedesigners.com/articles/selecting-the-right-window.asp**
- *Shopping tips:* **energy.gov/energysaver/articles/tips-windows**
- *Code requirements for new home construction and details on U-factor and SHGC:* **energy.gov/energysaver/articles/energy-efficient-windows**
- *Window ratings from the National Fenestration Rating Council:* **nfrc.org/WindowRatings/index.html** *and ratings label:* **nfrc.org/WindowRatings/The-NFRC-Label.html**

Source: Weathershield

Double-hung windows have hidden latches that allow each sash to be tilted in for easy cleaning.

STYLE The proper style of window depends primarily on the appearance and features you desire. For example, people often select double-hung windows because they can be tilted inward for easy cleaning from indoors.

Windows that close on a compression seal, such as casement and awning types, tend to offer the best long-term airtight seal. Casement types can also catch breezes and direct them into the house for natural ventilation.

GLASS Because glass is most of the window, the type you choose is the key to its energy efficiency. Double-pane glass with low-E (low-emissivity) coatings and inert gas in the gap between the panes is adequate for most climates. Triple-pane glass may make sense for severely cold climates.

The location of the low-E coating on the various pane surfaces, often more than one, affects whether the glass is better for winter or summer savings. You may want to select different glass options for different windows in your house.

James Dulley *is a nationally recognized mechanical engineer writing about home energy issues for the National Rural Electric Cooperaive Association.*

Keep Safety in Mind With Do-It-Yourself Projects

If you are a homeowner, you know that there is always a project to complete around the house. Building a new deck, remodeling the basement, fixing the garage door, planting a tree…the list seems endless. But there's one item that needs to be at the top of your list, no matter the project, and that is electrical safety.

Photo – iStockphoto.com

Safety tips to keep in mind when tackling DIY projects include:

▼ Take a few minutes to prepare. Make sure you have the right tools, and check cords for cracks or frayed insulation and proper connections.

▼ Take note of potential hazards in the work area. Be sure to look up and around you. Always be aware of the location of power lines, particularly when using long metal tools like ladders, pool skimmers and pruning poles; when installing rooftop antennas and satellite dishes; or doing roof repair work.

▼ Be especially careful when working near power lines attached to your house. Keep equipment and yourself at least 10 feet from the lines. Never trim trees near power lines—leave that to the professionals. Never use water or blower extensions to clean gutters near electric lines. Contact a professional maintenance contractor.

▼ Use only extension cords that are rated for outdoor use when working outside. Keep your work area tidy and do not allow power cords to tangle.

▼ Use heavy duty, three-prong extension cords for tools with three-prong plugs. Never remove or bend back the third prong on extension cords. It is a safety feature designed to reduce electrocution or shock risks.

▼ If your projects include digging, like building a deck or planting a tree, call 811 to have utility lines marked before you begin. Never assume the location or depth of underground utility lines. This service is free, prevents the inconvenience of having utilities interrupted, and can help you avoid serious injury.

▼ Electricity + water = danger. If it is raining or the ground is wet, do not use electric power or yard tools. Never use electrical appliances or touch circuit breakers or fuses when you are wet or standing in water. Keep electric equipment at least 10 feet from wet areas.

▼ Make sure outdoor outlets are equipped with ground fault circuit interrupters (GFCIs). If your outdoor outlets do not have them, use a portable GFCI. It is also a good idea to have GFCIs professionally installed in wet areas of the home—such as kitchen, bath and laundry.

For more tips on staying safe around electricity while you finish your projects, visit SafeElectricity.org.

Batteries *ARE* Included

Electric co-ops are testing energy storage systems to better harness renewable energy.

One of the main obstacles to widespread use of wind and solar power production is nature itself: The wind doesn't always blow, and the sun doesn't always shine. But electric co-ops are on the cusp of efforts to develop technology aimed at storing excess renewable energy for when it's needed most.

Battery storage systems were developed in the 1970s and have become more viable on a large scale, thanks to recent chemistry breakthroughs that increase the longevity while lowering the cost of batteries. If battery energy storage at the utility level can be made commercially viable, it could result in a revolution for the aging American electric grid.

Wind and solar energy are called "intermittent" power sources—meaning they don't provide a steady supply of electricity like traditional generation fuels, such as coal or natural gas. Even in the best situations, the wind blows an average of only about 30 to 40 percent of the time and usually not during hot, humid weekday afternoons or extremely cold mornings when electricity use spikes. Meanwhile, solar energy production can dramatically drop even when a band of fluffy clouds briefly passes over the sun.

That's where battery energy storage comes in. For example, this technology can store electricity produced when the wind blows at night and the sun shines for use during times of "peak demand"—the electric utility industry's version of rush-hour traffic, when power use skyrockets—to avoid buying expensive supplemental power.

So far, a handful of electric co-ops across the country are testing various ways to use these batteries.

Harnessing Energy Saves Money

Battery storage systems are a big investment for any electric co-op, but the good news is that benefits exist beyond leveling out renewable energy supply.

"Properly managed battery storage systems can delay the need for building expensive transmission lines that are difficult to get permits for in the first place," says Dale Bradshaw, a senior program manager with the Cooperative Research Network (CRN), the research and development arm of the National Rural Electric Cooperative Association (NRECA). "It also reduces wear-and-tear on baseload power plants, which operate year-round to provide dependable electricity at a low cost, and can make electric distribution systems run more efficiently. All these opportunities add up to cost savings for consumers."

At present, pumped-storage hydro—a hydroelectric plant that generates power by using water previously pumped to an elevated reservoir during off-peak hours, when electricity is less expensive—remains the largest-capacity form of energy storage available. Another option, compressed-air energy storage—power plants "fueled" by air pushed into an underground cavern during times of low electricity consumption—has received increased attention because it can be expanded relatively cheaply. PowerSouth Energy Cooperative, a generation and transmission co-op based in Andalusia, AL, operates one of only a few compressed-air energy storage facilities in the United States.

"Pumped-storage hydro and compressed-air energy storage facilities generally operate when electric use soars," mentions John Holt, former NRECA senior manager of generation and fuels. "But geography limits where they can be located."

This means development of better batteries could be the key to wide use of energy storage technologies.

Before central station electric service came to rural America via the electric cooperative movement in the 1930s, farmers used "battery sets" that were recharged with windmills and ram pumps. In this situation, the ram is often useful—especially for pumping water uphill—because it is self-powered. A ram pump requires no outside power source other than the gravity from flowing water. Like conventional, sealed lead-acid car batteries, those contraptions could go only through a limited number of discharge/charge cycles before they were exhausted.

Fast-forward to 2013, and developers are aiming for batteries that can function through 80 percent discharge for 10,000 cycles—allowing for longevity of three decades or more.

"If you're supplementing wind or solar, you're going through a complete cycle on a daily basis," Bradshaw notes. "In other words, a long-cycle life remains key."

What Energy Storage Means for the Future

The U.S. Department of Energy forecasts that energy storage will significantly change the electric grid. With it, the nation could possibly create an electricity "stockpile" like the Strategic Petroleum Reserve. But initially, energy storage systems will make renewable generation sources more financially feasible—a critical step as U.S. lawmakers contemplate ways to create a more diverse energy production portfolio.

This technology can store electricity produced when the wind blows at night and the sun shines for use during times of "peak demand"—the electric utility industry's version of rush-hour traffic.

"Co-ops could also use battery storage systems to cut down on blinks—those momentary service interruptions that force you to reset your digital clocks," Bradshaw notes. "If enough energy is stored, power could continue to flow to homes during such an event."

He concludes: "Electric co-ops are leading the charge in researching and testing energy storage systems that will directly benefit consumers—from reduced operational costs and better service reliability to environmentally responsible power production."

For the **Love of Wood**

Fine wood furniture warms our homes and continues to play a role in Michigan's economy.

We bought a table and two chairs a few months ago. They're counter-height and sit in a bay window where we can catch the southern sun on a bright winter day. The spot is also great for coffee and a book, lunch or an evening beer. The warm wood tones add luster to the room.

It's solid furniture, made from real cherry—not fiber board and veneer. One look and you know it was made by someone who loves wood.

It was made in that old furniture capital of America: Michigan. The pieces are not antiques that were made in long-ago Grand Rapids. They were made a few months ago in the heart of Michigan's Thumb.

The L. J. Gascho Furniture Company has been making furniture since 1986, after a young Lyle Gascho returned to the family farm near Pigeon and remodeled the shed and chicken house into a wood shop. He learned woodworking in a small furniture shop in northern Indiana, where he apprenticed with Amish and Mennonite craftsmen. His company is now made up of 22 small Amish and Mennonite wood shops located in Pennsylvania, Ohio, Indiana and Michigan. All of these pieces are now delivered to the company complex on the Gascho farm for finishing. The furniture is sold in stores in the Midwest and a few Eastern states (ljgaschofurniture.com).

This furniture caught my eye when we were in an Art Van Furniture store. I was captivated by its simplicity, grace and quality. When I found out where it was made, I was sold. We're trying to buy American-made products, and though it seems to be getting a little easier, it still takes effort to find them.

As our state comes back from the economic edge, we seem to be chasing the newest thing to create jobs for the future. Technology is cool, and it's helped our auto industry return to competitiveness with the rest of world, but it's not a panacea, and not for everyone. Some of the start-up businesses regularly featured in this magazine's "Made in Michigan" series depend on technology, but most still rely on good, old-fashioned creativity and handcrafting. We ought to be fostering that kind of business development, too. Jobs that are attracted by incentives can leave the same way. Growing our own, like Gascho's, sometimes called "economic gardening," makes sense. While we're at it, we should be giving our kids the chance-in a school curriculum—to explore manual skills that also lead to meaningful work.

Before Michigan became known for cars, it was the furniture state. Once upon a time, Grand Rapids was the Silicon Valley of the craft era, a "Sawdust Valley" of sorts. After the Civil War, furniture-making became a booming business that continued to be a big part of our economy for the next century. Michigan-made furniture was sold and treasured all over the world. Furniture designers and manufacturers made Grand Rapids their headquarters, with associations of all kinds started to protect and grow the industry. A good bit of it remains, but now it centers on office furniture, since manufacturing in southeastern states, and then foreign imports, have chipped away at the home furnishings business.

Like many retired men, my dad dabbled in wood after he retired. He set up a woodworking shop next to the garage and turned out a series of shelves, quilt racks, picture frames and tables. We're happy to have a few of those pieces scattered around our house.

My own woodworking skills are still undeveloped and likely to remain so. Maybe that's why I'm drawn to heirloom furniture.

Still, I have one connection to our state's wooden past. For a blessedly brief time in the summer before my junior year of high school, a friend's father hired me and two friends to peel pulp. Eino laughed as we swatted mosquitos and no-see-ums that buzzed us incessantly, drawn by our sweat. Eino, a big, hearty Finn, was immune to the bugs. He dropped the poplar ("popple" in Yooper talk) trees with a chainsaw, cut them into 10-foot lengths, and taught us how to use a bark spud to skin the sinewy bark from the slippery white wood, destined for local paper mills.

It was hot, dirty work. We got so thirsty and hungry that we finished our water and food long before we should have. We were paid 10 cents a length, or "stick." Insect repellents being useless, our bodies were masses of bug bites. We lasted about two weeks, but the memory lasted a lifetime. I still itch and scratch when I see poplar trees, and I hear Eino laughing.

Mike Buda is editor emeritus of Country Lines. Email Mike at mike.f.buda@gmail.com or comment on his columns at countrylines.com/ramblings.

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2013 Community Calendar

May

1-31 **Sturgeon Guarding** – Black River, Cheboygan, sturgeonfortomorrow.org
11 **Morel Mushroom Festival** – Lewiston, lewistonchamber.com
19 **Blessing of the Bikes** – Hillman, hillmanmichigan.org
24 **Presque Isle Lighthouses (Old & New)** – Presque Isle, Open thru Labor Day, alpenacvb.com
25-26 **40 Mile Point Lighthouse Arts & Crafts Weekend**, near Rogers City, 40milepointlighthouse.org
25-27 **Bridge Race/Historical Reenactment/Memorial Day Parade** at 1 p.m., fireworks at dusk – Mackinaw City, mackinawinformation.com
27 **Memorial Day Parade** at 1 p.m. – Indian River, irchamber.com

June

7-16 **64th Annual Lilac Festival** – Mackinaw Island, mackinawinformation.com
8 **Relay For Life** – Cheboygan County, Cheboygan County Fairgrounds
8-9 **DNRE Free Fishing Weekend** – michigan.gov/dnr
14-15 **21st Annual Presque Isle Harbor Wooden Boat Show**, presqueisleharborwoodenboatshow.com
22-23 **Relay For Life** – Presque Isle County, Rogers City High School
27-29 **38th Annual St. Ignace Car Show Weekend**, mackinawinformation.com

July

4 **4th of July Celebrations**:
Alpena – Parade at 11 a.m., Fireworks, Maritime Festival, alpenacvb.com
Atlanta – Parade, Fireworks, atlantamichiganchamber.com
Cheboygan – Parade at 10 a.m., Fireworks at County Fairgrounds, cheboygan.com
Indian River – Parade at 11 a.m., Fireworks, irchamber.com
Lewiston – Parade at 11 a.m., lewistonchamber.com
Mackinaw City – Fireworks & Waterfront Events, mackinawinformation.com
Onaway – Parade, Arts & Crafts, VFW Chicken Dinner, Fireworks, onawaychamber.com
6 **Mill River Days/Craft Show** – Hillman, hillmanmichigan.org
11-14 **Waterways Festival** – Cheboygan, WaterWaysFestival.com
15-21 **33rd Annual SummerFest** – Indian River, irchamber.com
18-28 **39th Annual Michigan Brown Trout Festival** – Alpena, alpenacvb.com
30-Aug 4 **Nautical Festival** – Rogers City, nauticalfestival.org

Aug.

2-4 **Timberfest** – Lewiston, lewistonchamber.com
3 **Mackinaw Area Historical Festival** – Mackinaw City, mackinawinformation.com
3-10 **Cheboygan County Fair**, cheboyganfair.com
3-10 **139th Alpena County Fair**, alpenacvb.com
13-17 **Montmorency County Fair**, Fairgrounds in Atlanta
17 **PIE&G Charity Golf Classic** – Stoney Links, Onaway
30-Sep 1 **Presque Isle County Fair** – Millersburg Fairgrounds, picountyfair.org
Millersburg Annual Homecoming, rogerscity.com

Sept.

2 **56th Annual Labor Day Mackinaw Bridge Walk**, mackinawinformation.com
6-8 **62nd Annual Posen Potato Festival**, posenchamber.com
27-29 **28th Annual Elk Festival** – Atlanta, atlantamichiganchamber.com

Oct.

10-13 **18th Annual Great Lakes Lighthouse Festival** – Alpena, lighthousefestival.org

Old Presque Isle Lighthouse