

Michigan

COUNTRY LINES



Recycling
with Rhonda

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SEPTEMBER 27, 2013!

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- Even, luxurious comfort
- Savings up to 70% on bills
- Uses the clean, renewable energy in your backyard
- Provides heating, cooling & hot water
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Instant Rebate

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Includes our variable capacity 7 Series—the most efficient unit on the market—installation accessories and choice of communicating thermostat and/or zoning system.

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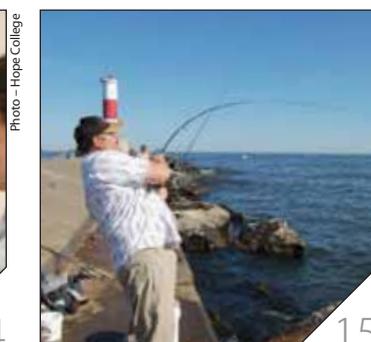
¹According to ASHRAE estimate. Rebate available only to residential customers through participating dealers. WaterFurnace is a registered trademark of WaterFurnace International, Inc.

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Cooperative
Association**



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

YOUR CO-OP

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

On the Cover

Rhonda Oyer is her name and recycling is her game—as a unit chief for the Michigan Department of Environmental Quality, that is. She's big on recycling at home, too, and her aim is to encourage everyone in Michigan to do the same.

Photo – Robert Bruce Photography/robertbrucephotography.com





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Date of Incorporation: Sept. 30, 1937

Fiscal year-end: Dec. 31

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MANAGER'S MESSAGE

What Does the Service Charge on Your Bill Mean?

Part of my job at Ontonagon County REA is answering questions that you, as co-op member-owners, may have about our operations, your electric bill, or other topics. One of the most common questions our members ask is, "What is the 'Service Charge' on my bill?" Some worry that it's a late fee, but that's not the case.

It takes a solid infrastructure of complicated equipment and dedicated people to keep safe, reliable and affordable power flowing to your home or business. So, that's really what the service charge is all about—covering the many costs of providing electricity. The graph on page 3 is a quick summary to answer the service charge question, but it's also important to know a few supporting facts, which follow.

Materials, Supplies, Transportation

This portion of your service charge dollar represents the cost of materials and supplies used to install and maintain electric distribution lines and equipment. Vehicles, metering supplies, network and computer equipment are also included in this category.

Right-of-Way Clearing & Other Contracted Services

Right-of way clearing, which improves our service reliability, represents a large portion of these costs. Also in this category are legal, auditing and engineering services.

Labor & Benefits

The largest portion of labor and benefit costs for the co-op's workforce is for line operations and maintenance personnel. Other costs include administrative, member service and accounting personnel.

Interest, Taxes, Other

In addition, your co-op paid property taxes totaling over \$199,000. Property tax is paid to each township and other tax authorities that have Ontonagon's utility poles and equipment within their boundaries.

Another cost the service charge has to cover is interest on our long-term debt. Our utility plant in the amount of \$22 million is financed by low-interest loans (ranging from 2 to 5 percent) from the Rural Utilities Service (U.S.

Dept. of Agriculture), the Cooperative Finance Corporation, and Co-Bank (the latter two are banks for co-ops).

Safety, And More...

Did you know that Ontonagon's employees save you money every day by working safely? In addition to limiting costly lost-time accidents, our employees attend regular safety meetings. Ontonagon County REA has not had a lost-time accident in over seven years, which is reflected by our workers' compensation insurance rates.

Finally, 59 cents of every dollar collected from our members goes to our wholesale power suppliers (WE Energies, Wisconsin Public Service, and U.P. Power) for generating the electricity we distribute to your homes and businesses. This includes purchased power generation costs as well as high-voltage delivery of the power across Michigan through transmission lines and substations.

I hope this information helps answer any questions about the service charge—as you can see, it covers a lot of things necessary to bring you service at the flip of a switch!



Debbie Miles
 General Manager

What Does My Service Charge Cover?

Ever wondered what your monthly service charge supports? It takes a solid infrastructure and great people to keep safe, reliable, and affordable power flowing to your home or business. Here's how Ontonagon County REA's service charge breaks down:

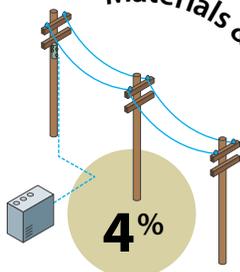
Labor & Benefits

43%



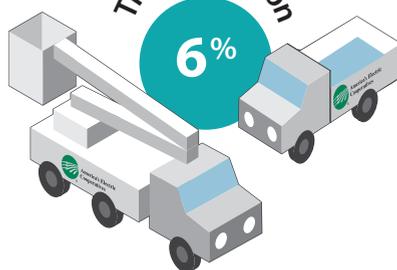
Materials & Supplies

4%



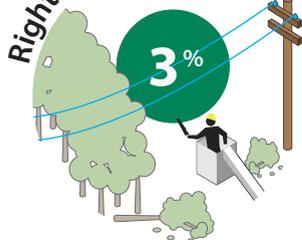
Transportation

6%



Right-of-Way Clearing

3%



Other
20%

Legal, Engineering,
Audit Services

Interest
& Taxes

24%

Source: Annual Report

New Heating Assistance Law Passed

Ontonagon County REA will not participate this year in a new social program known as the Low Income Energy Assistance Fund (LIEAF). Although Ontonagon has opted-out, we will re-evaluate after the first year.

Public Act 95 of 2013 was approved in late June and created LIEAF within the state Treasury. It authorized the Michigan Public Service Commission (MPSC) to approve a LIEAF funding factor no later than July 31 of each year for the subsequent fiscal year. The funding is being created by a monthly surcharge, not to exceed \$1 per meter, to the electric bills of all Michigan consumers whose utility opts-in to the program.

On July 29 it was announced that a factor of 99 cents, plus tax, would be added to all electric bills of member-customers of those utilities that have opted-in to the program, effective with the September billing month.

The Act provides that electric utilities may elect not to collect the surcharge by annually filing a notice with the MPSC; however, utilities that do not collect the surcharge shall not shut off service to any residential customer from Nov. 1 to April 15 for nonpayment of a delinquent account.

Ontonagon County REA was joined in opting-out this year by several other cooperatives and municipal utilities.

A list of other potential sources of winter home heating assistance will appear in the November-December issue of *Country Lines*. Or, visit michigan.gov/mpsc/consumer information (some may have earlier deadlines), or contact your county Department of Human Services office.

Member Notice: Access To Rules & Rates

This notice of *Access to Rules and Rates* is published pursuant to the rules established by the Michigan Public Service Commission as set forth in the Consumer Standards and Billing Practices for Electric and Gas Residential Service, R460-2146.

As a member-customer (member) of Ontonagon County Rural Electrification Association, please be advised that the following information is available to you from the cooperative, upon request: **1.)** Complete rate schedules; **2.)** Clear and concise explanation of all rates the member may be eligible to receive; and **3.)** Assistance from the cooperative in determining the most appropriate rate for a member when the member is eligible to receive service under more than one rate.

Letters & More

Reader letters, call to Action.coop, Mystery Photo, and more. It's all here on your Readers' Pages.



Independence

I grew up in the '50s in Buffalo New York. When I read your story about "Independence," it really made me think of the good old days. The boys would play baseball just like you said. We all looked forward to summer. Thanks for the story.

— Gene Ehrhardt, Schoolcraft

I am new to *Country Lines* and always read your column, but after reading "Independence," I felt compelled to contact you.

I retired in 2012 after 30 years as an elementary/middle school educator. From my own childhood and seeing changes in children over the years, we have done them no favors by regimenting their free time.

I too grew up playing pick-up games until the street lights came on and we all had to head home. We explored and spent hours at the fishing hole or nearby woods. Through these activities, we learned to understand the world, make decisions, and negotiate difficulties.

Video: Co-ops Urge Common Sense on Climate Regulations

A micro website, called Action.coop, was just launched by the National Rural Electric Cooperative Association (NRECA) that gives a voice to the 900-plus electric co-ops and their 42 million consumer members that oppose President Obama's climate proposal. The proposal uses the Clean Air Act to regulate carbon dioxide emissions from power plants during a fragile economic recovery.

The site's two-minute video is the first action in what will be a long-term campaign to underscore the dramatic impact new regulations could have on the country's electric generation and calls on co-op members, staff and directors to join the united effort.

"Rural communities have a great story to tell about how they are innovating, using new technologies, and leading in energy efficiency. It's our responsibility to communicate the importance of affordable energy to the communities cooperatives serve and tell their story on how we are pursuing our energy future," explains Jo Ann Emerson, CEO of NRECA. "The next few months are a critical time to unite behind that message and let



Visit Action.coop and join NRECA CEO Jo Ann Emerson and fellow electric co-op members in asking that climate change issues be approached sensibly and affordably.

policymakers know where we stand on the issues, as well as how important affordable energy is to us and the American economy."

The NRECA website announcement was made about the same time that Organizing for Action, a grassroots group of Obama supporters, emphasized their support for his proposed climate regulations in late August.

See the video and sign up at **Action.coop** to join the fight for adding common sense to the national climate change debate and keeping electric rates affordable.

As a teacher, I have seen fewer and fewer children who are independent thinkers able to solve problems. We call it "learned helplessness." As adults, we provide all the answers by structuring and supervising many aspects of our children's lives.

Most of our children no longer want to spend much time outdoors. Richard Louv's wonderful book titled, "Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder" speaks volumes. How will future generations protect something they haven't learned to cherish?

One of the best suggestions is from parenting advice writer John Rosemond. He says today it may not be safe for children to be completely unsupervised, but recommends that parents rotate being "available." One parent takes a book and lawn chair to the local play site. If there's an emergency, the parent is there, but otherwise doesn't intervene. The kids play, and decide by as much arguing as necessary if the pitch was a strike or Josh was out.

The ball fields behind my home are empty all summer. Oh, if we would've had these facilities as children, my mom

may have had to ring the dinner bell to get us in for the night!

— Sharon Roeck

Wind Talkers

Our family thinks your [July-August] article on the "Pros and Cons of Wind Power" lacked some significant issues.

We live in the middle of Consumers Energy's Lake Winds Energy Park, which began operation last Thanksgiving, and know from firsthand experience the shadow flicker, flashing lights and noise are not trivial matters for many who end up having their piece of heaven literally



◀ DO YOU KNOW WHERE THIS IS?

Every co-op member who identifies the correct location of the photo at left by **Oct. 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**; enter your guess at **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 Nov./Dec. 2013 issue.

The July/August contest winner is Marc Parshall of Grand Ledge, who correctly identified the photo from E. Grand River St., Old Town, Lansing.



Photo - Teresa Loustias

July/August photo

surrounded by industrial turbines and the lawsuits they have generated in most of the wind farms built in Michigan. Turbines may be wonders of human ingenuity, but after the novelty wears off they begin to wear on you.

– Eric Jefferies, Ludington Great Lakes Energy Co-op

Using Less Electricity

Your *Country Lines* is an interesting little magazine—just read the May/June! This issue, like many others, suggests using less electricity.

Several good methods were mentioned, including low-E windows (James Dulle, “Cut Through Sales Hype Before Replacing Windows”). We had a house with those, Anderson, and not enough light came into the house—even our house plants suffered!

Another issue arises with ‘saving.’ In Manistique, we have saved our water use so much that the city now does not receive enough to pay for their treatment plant modification! Will our electricity work the same way so that our unit cost will be increased?

– Don Hartman

Your water bill experience is not uncommon. Utilities are finding it difficult to keep rates low due to federal, state and local environmental regulations. The best way to manage rising costs is to use energy more efficiently, which helps keep energy bills low.

The energy efficiency programs you refer to are required by P.A. 295, the “Clean, Renewable and Efficient Energy Act of 2008”, which requires all electric providers and investor-owned natural gas providers to implement energy efficiency programs. It’s intended to avoid the cost of constructing new power plants, which cost billions of dollars and would raise electric rates. The cheapest

kilowatt is the one that isn’t used. For more on Energy Optimization Programs, visit michigan-energy.org or call 877-296-4319.

– Art Thayer, energy efficiency programs director, Michigan Electric Cooperative Association

Hydrothermal Energy?

In July/August, your geothermal energy article makes no mention of hydrothermal heating/cooling.

Geothermal makes use of a closed-loop system that circulates a fluid thru the furnace via a pump, which does not function if the power is out. Hydrothermal input is a water source like a river, lake or an artesian flowing well.

The first two require a pump and the output is returned to the source. An artesian flow, like mine (224’ deep well), requires no pump and the output is sent into a river, lake, or other drainage system. If the power is out, the faucets and toilets still work, but the furnace does not, as there’s no electricity to run the blower.

– Dave Westfall, Naubinway

There are three types of geothermal loops: open, closed earth, and closed pond, but not all are suited for Michigan (visit earthcomfort.com, dulle.com, or search Wikipedia.com).

An artesian well system is more efficient because it eliminates pumping costs, but few people have one. Hydrothermal resources need heat over 300 degrees F to generate electricity, and there are some lower heat uses, but it’s uncertain yet how Michigan fits in. A Statewide Geothermal Data Project is being conducted at WMU, but early data shows we may not have the right temperatures. Ideal locations are currently in California, Oregon, Nevada, Idaho and Wyoming. Visit www1.eere.energy.gov/geothermal to learn more about hydrothermal technologies.

– Art Thayer, MECA



Co-op Employees Experience Challenges of Rural India

Michigan *Country Lines* found its way to India this summer. Ashley Copeland and Scott Blecke, electrical engineers at Great Lakes Energy (Boyer City), visited in July as part of their MBA studies. They’re shown above with a copy of the magazine in front of Mysore Palace, about three hours from the city of Bangalore. Their trip was part of a management course designed to teach the challenges and advantages global companies face in interacting with and developing products for a nation like India.

“It was a very humbling experience,” Scott says. They discovered that India’s electrical distribution systems only vaguely resemble those in America. Live wires and equipment hangs so low that people can easily touch them, and no regulations govern such unsafe situations. The

government owns the Bangalore electric system. “Something like that would never be okay in the United States, and yet over there everyone just knows that you don’t go touching the lines, and if you do, it’s your own fault,” Scott says. In the United States, utilities are expected to take responsibility for the public’s safety.

“It’s amazing,” Ashley says, the efforts some companies are making, however, to help India’s rural areas. They visited a village where a company called SELCO installed affordable solar panels to charge batteries for portable lights that children use at night. The solar units average about \$150 and residents can take five years to pay for them.

Both employees said they appreciate their U.S. lifestyle more fully after witnessing rural life in India.

– Linda Kotzian

New Thermostat Programs Itself

A programmable thermostat is one of the easiest energy savers you can buy. Unfortunately, most people don't follow through and program it to automatically adjust the temperature when their home is empty or full.

But this problem may have been solved by a cool, although relatively expensive, new energy gadget called the Nest Learning Thermostat™. This “smart” thermostat learns from your behaviors, preferences and surroundings to create a custom heating and cooling schedule, keeping you comfortable when you're home and conserving energy when you're away.

“It was unacceptable to me that the device controlling 10 percent of all energy consumed in the U.S. hadn't kept up with advancements in technology and design,” says Tony Fadell, cofounder/CEO of Nest Labs. So, his team set out to reinvent the thermostat using the advanced technologies, high-quality manu-



Photo - Nest Labs

facturing and thoughtful design the iPhone generation expects, he adds. “We hope it will not only save money and energy, but teach and inspire people to think more about how they can reduce home-energy consumption.”

The U.S. Department of Energy and Lawrence Berkeley National Lab report that the annual energy bill for a typical single-family home is about \$2,200, with heating and cooling accounting for about one-half. The programmable thermostat, developed in the '70s, promised to help people conserve energy, but 89 percent of owners rarely or

The new Nest Learning Thermostat was created by Tony Fadell, Nest co-founder/CEO. The self-programming thermostat is part of a wave of home automation that is creating new smart appliances and monitoring technology that will help homeowners reduce energy costs and improve comfort and convenience.

never set a program.

The Nest thermostat (nest.com) addresses this programming problem through a combination of sensors, algorithms, machine learning and cloud computing. It programs itself based on the temperatures you set, then learns your personal schedule in a week and starts automatically turning down heating or cooling when you're away. You can even connect it to your home's Wi-Fi to control it from your laptop, smartphone or tablet. Change the temperature, adjust your schedule, and check your energy use.

Note: For today's models, there is caution against using this thermostat with geothermal heating/cooling systems, which are not programmed correctly for this type of use and actually increase energy consumption as it switches to the auxiliary electric strip heat way too soon.

Slaying Silent Energy Killers

Brian Sloboda, a vampire slayer, hunts for energy killers that feed on electricity when nobody's looking.

“We need to kill what I call the ‘energy vampires,’” the senior program manager for the National Rural Electric Cooperative Association (NRECA) says. “Look around your house for any plug with what we call a ‘wall wart’—those larger black boxes that are actually transformers. Those are energy killers.”

Found on the cords of devices such as cell phone chargers and video game systems, these big plugs eat energy all day and night.

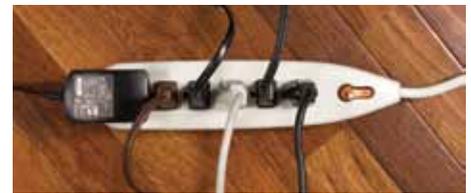
“They consume electricity whenever they

are plugged in, whether turned on or off,” says Sloboda. “It's a tiny amount of electricity, but the power's drained for nothing.”

In some cases, he adds, the consumption is more than just a little.

“Some video game systems from before 2010, even when they're turned off, use practically as much energy as when they're turned on,” Sloboda explains, noting the same is true for some cable boxes and digital video recorder units.

To combat energy vampires, he has two recommendations: look for electronic devices with the Energy Star® logo (equipment that's



certified as energy-efficient); and use smart power strips.

“These power strips can sense a change of voltage running through them that will stop the flow of energy to that item or to other related items,” he says. For example, a smart power strip can sense when a computer is turned off or in sleep mode and will automatically stop the flow of power to monitors, printers and speakers.

Adding a Breath of Fresh Air

Energy conservation and air quality go hand-in-hand, but it's often an inverse relationship.

“As we tighten the building envelope, problems that have been around before now become prevalent—air quality issues, humidity, carbon monoxide, mildew and mold,” explains Art Thayer, energy efficiency programs director for the Michigan Electric Cooperative Association. “In today's no-leak construction, there's no place for these

culprits to escape, so we have to make sure we get proper air exchanges in addition to controlling energy leaks.”

Specialized units called energy recovery ventilators are now available and can handle the task perfectly. “It can be done with passive air management—basically opening a window—but usually some mechanical intervention is needed to take care of moisture and air quality issues,” Thayer adds.

Air quality is a major concern, especially

when there have been previous leaks. Controlling moisture at the source in basement and crawl spaces makes a big difference in mold and mildew issues. Proper bathroom ventilation can help improve air quality and health. While it may not be a top consideration during a bathroom or kitchen remodel, it is a critical improvement you'll want installed correctly.

“Electric co-ops work to help educate homeowners about the advantages of properly insulating and addressing air infiltration, ventilation, and heat loss issues,” Thayer says, “to help ensure health and safety.”

Co-ops Are Different

What makes electric cooperatives different from other types of utilities lies in their core mission.

Michigan *Country Lines* magazine comes to you because you are a member and owner of the local electric “cooperative” that provides the power to your home or business. That’s why you’ll often see references to “the cooperative difference” in these pages. The differences between electric co-ops and other electric utilities range from how they refer to the people they serve—co-ops serve “members” or “member-owners” not “customers”—to the business model itself.

For example, electric co-ops operate on a not-for-profit basis. Revenues above operating costs, called “margins,” are returned to members in the form of capital credits in years when the co-op has profit above the actual cost of providing service and maintenance of the system for future reliability.

In the U.S., there are two other kinds of not-for-profit electric providers: public utility districts (PUDs) and public power districts (PPDs). There are also two other types of electric utilities: city-owned municipal electric systems and profit-driven investor-owned utilities. In every case, utilities receive financial assistance from the federal government in some fashion. Following is a look at each.

Co-ops, PUDs, PPDs

Electric co-ops are joined by public power districts—located exclusively in Nebraska—and public utility districts (all in the Pacific Northwest) as being not-for-profit. But while co-ops choose directors/trustees from their membership (people served by the co-op) and are required by state law to hold annual membership meetings, PUDs and PPDs are local government units—similar to school districts—and are not required to hold annual meetings or allocate capital credits. In addition, their directors (commissioners in the case of PUDs) are elected on the state



Photo—iStockphoto.com

ballot. Candidates only need to reside within the PPD/PUD’s boundaries to serve on a board; they do not have to receive power from the utility.

Federal assistance to electric co-ops comes in the form of low-interest loans from the Rural Utilities Service (RUS), formerly the Rural Electrification Administration (REA). Based on current interest rates, RUS loans actually make money for the federal government—about \$274 million in fiscal year 2012. Aside from aiding in the construction of critical infrastructure that keeps electric service reliable and electric rates affordable, RUS financing remains important because household incomes in co-op service territories run about 11 percent lower than the national average.

Co-ops also have fewer consumers to share the cost of providing electricity. Co-ops serve an average of 7.4 consumers per mile of line, over which they collect annual revenue of about \$14,900. Nationally, electric co-ops pay \$1.4 billion in state and local taxes each year.

Municipal Electric Systems

Municipal systems are electric distribution utilities owned by a city, borough or other incorporated community. As public entities, they can levy taxes, issue government bonds, and adopt and enforce rules and regulations.

Not-for-profit municipals serve the most consumers per mile of line, an average of 48, and collect an average of \$113,301 per mile of line. The federal government subsidies municipals, too—when cities or boroughs issue tax-exempt bonds, interest paid to bond

owners is not taxed. The cost of this benefit in 2003 (the last year data is available) was \$909 million, or \$55 per consumer.

Investor-owned Utilities

Investor-owned utilities (IOUs) are governed by and generate profits for shareholders (stock owners) who do not necessarily live in the utility’s service area. IOUs average 34 customers and \$75,498 in revenue per mile of line.

In almost every case, IOUs charge electric rates that include amounts for presumed federal tax liabilities. However, available tax breaks (investment tax credits and accelerated depreciation) allow IOUs to retain most of the taxes collected, a total of about \$107 billion to date. At a cost to the government of \$4.6 billion in 2010, this federal subsidy to IOUs equals about \$44 per customer.

Back to the Co-op Difference

Your local electric co-op exists to provide affordable, reliable, environmentally responsible electric power. But at the core, it’s really about improving the quality of life in the communities it serves. That’s the main difference—the cooperative difference.

Keep reading *Country Lines* to see how electric co-ops make a difference in their communities.

Magen Howard writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association, the Arlington, Va.-based service organization for the nation’s 900-plus consumer-owned, not-for-profit electric cooperatives.

Harvesting Efficiency

Energy efficiency offers rich rewards for farmers.

Every dairy cow carries an energy price tag. Farmers pump water—and \$2.6 billion in energy dollars—to boost crops. At the end of the day, energy, both direct and indirect, accounts for 13 percent of production expenses on an average farm, so it makes sense that more farmers are turning to energy efficiency to help their bottom lines.

Electricity powers a farm's heating (water, space, heat lamps), pumping (irrigation, water wells, manure lagoons), refrigeration, ventilation, fan (drying grains, aeration) and lighting operations. Material handling—such as feed augers, manure conveyors, milking, and egg conveyors—also drain resources.

The American Council for an Energy Efficient Economy estimates farmers could save \$88 million annually by investing in efficient motors and lighting. So, how can Michigan farmers reap efficiency benefits?

Local electric cooperatives provide rebates for agricultural members (and other business and residential members) who make electricity-saving improvements through the Energy Optimization Program (visit michigan-energy.org or call 877-296-4319; Cherryland Electric Co-op members, call Member Services at 231-486-9200 or 800-442-8616).

EnSave, a national agricultural energy efficiency firm, also provides a pyramid of steps farmers can take to cut down energy use. The

Energy Optimization Farm Rebates

- Dairy refrigeration tune-up \$150
 - Low-energy livestock waterer \$50
 - Exhaust or circulation fan
for barn \$2 per blade inch
 - Variable speed milk vacuum pump.... \$750
 - Variable speed milk pump \$500
 - Scroll compressor replacement..... \$250
 - Milk pre-cooler \$750
 - High bay fluorescent
replacing HID \$25-\$60/fixture
 - LED light bulbs \$4-\$15
 - Compact fluorescent light bulbs \$1-\$5
 - Outdoor dusk-dawn lights..... \$20-\$50
- Visit michigan-energy.org or 877-296-4319;
Cherryland Electric Co-op members call
231-486-9200 or 800-442-8616.

greatest savings come from deploying more efficient equipment, but behavioral changes and a simple analysis of how energy is consumed can result in significant savings, too.

Equipped to Save

Each farm—dairy, poultry, beef, hog or crop—offers opportunities for efficiency improvements. For example:

Clean equipment: Removing dust, soot and debris will allow equipment to do more work with less effort, therefore extending its life and reducing energy use.

Inspect equipment regularly: Replace parts that show excessive wear before they break and cause irreparable damage.

Plug leaks: Be it a pinprick hole in a hose or a drafty barn, leaks waste money, fuel and electricity.

Remove clutter: Hoses should be flushed regularly to clear debris. Ensure that fan and motor intakes and exhausts remain clear for maximum circulation and efficiency.

Light Lessons

After tuning up your equipment, check the lights. Light your work areas, not entire buildings, and install dimmable ballasts to control lighting levels. Use daylight whenever possible.

The type of light used also makes a difference. While useful as a heat source in limited situations, such as keeping water pumps from freezing in winter, incandescent lightbulbs only convert 10 percent of the energy used into light. The rest is given off as heat. Consider these energy-saving options, as compared to incandescents:

- Halogen incandescents use 25 percent less energy and last three times longer than traditional incandescent bulbs;
- Compact fluorescent lightbulbs (CFLs) use 75 percent less energy and last up to 10 times longer;
- Light-emitting diodes (LEDs) use 75 to 80 percent less energy and last up to 25 times longer;
- Cold cathode fluorescent lamps (CCFLs) last up to 25 times longer and offer the same efficiency as CFLs.
- T-8 and T-5 fluorescent lights with



electronic ballasts operate more coolly, produce more light per watt, generate less noise (without flickering), and offer better color rendering and energy savings.

Harsh Surroundings

Before buying new equipment or lighting, make sure your gear can survive the farm's rough environment—fluctuating temperatures, wet locations, long operating hours, and large loads. Confirm the manufacturer's specifications that the unit is intended for the environment, and review the warranty and conditions. Make sure the way you plan to use it will not void the warranty.

Look for knowledgeable suppliers and installers familiar with the local climate and your needs. Typically, farms need more rugged devices than what's available at a low cost from a retail or big-box store.

Seeds of Change

▲ For regional or crop-specific efficiency methods, use the USDA Natural Resources Conservation Service energy calculators at energytools.sc.egov.usda.gov. Assess how much energy your farm needs for animal housing, irrigation and tillage, and discover ways to cut costs. Dairy farmers may also visit usdairy.com/saveenergy.

▲ Funding for efficiency upgrades is available through the Rural Energy for America Program (REAP). Since 2008, REAP has funded over 6,800 renewable and energy efficiency grants and loan guarantees as well as 600 farm energy audits. Get details at [rurdev.usda.gov>Energy>Rural Energy for America Program](http://rurdev.usda.gov/Energy/Rural%20Energy%20for%20America%20Program).

▲ Farmers can also apply for financial and technical/energy management help from the Environmental Quality Incentives Program ([nrca.usda.gov>Programs>Financial Assistance>Environmental Quality Incentives Program](http://nrca.usda.gov/Programs/Financial%20Assistance/Environmental%20Quality%20Incentives%20Program)).

Sources: American Council for an Energy Efficient Economy, EnSave, U.S. Natural Resources Conservation Service, Innovation Center for U.S. Dairy

LEDs Advance Farm Lighting

One of the biggest developments in lighting our homes, businesses and streets involves the use of light emitting-diodes (LED). These lightbulbs convert electricity directly into bright, white light far more efficiently than other lighting options.

Farms pose unique challenges for lighting—excessive dirt, dust, heat, humidity and ammonia emissions impact bulb performance that conventional light sources have been unable to successfully address.

However, LEDs may offer a robust, environmentally sustainable, and potentially longer-lasting solution. Even better, since LED light can be manipulated, it may be able to improve production.

Hundreds of LED fixtures being tested at roughly 50 farms across rural America—several of which are led by electric co-ops—save on energy and maintenance costs. With a rated life of 35,000 to 50,000 hours, LEDs can last up to 25 times longer than traditional incandescent bulbs, four to eight times longer than linear fluorescent and compact fluorescent bulbs, and over twice the time of high-intensity discharge bulbs.

While LEDs are more expensive than traditional lighting, the U.S. Department of Energy reports a price drop of 54 percent over the last two years. LEDs offer farmers several attractive attributes, including:

- ▶ Rugged, vibration-resistant construction
- ▶ Directional lighting for less wasted light
- ▶ Customizable colors
- ▶ Dimmable capabilities and integration with lighting controls
- ▶ No mercury or waste disposal costs
- ▶ Water- and ammonia-resistant bulbs can be cleaned without damage.

While assessment continues, many claims about LED farm performance are not yet backed by statistically sound science, but preliminary results imply promising and significant energy savings and hint at production boosts.

Farmers can remain cautiously optimistic that research and LED companies will be able to create lighting that is cost-effective and long-lasting.

— Brian Sloboda & Martha Carney, CRN

As the research and development arm of the National Rural Electric Cooperative Association, CRN, the Cooperative Research Network, pursues innovative solutions that help Michigan electric co-ops deliver safe, reliable and affordable power to their consumer-members.



Farm Energy Costs and Potential Savings



Irrigation



\$2.6
billion annually

Energy Use by Farm Type in trillion Btu

	Oilseed and Grain	163
	Cattle Feedlots	156
	Dairy	83
	Poultry	63
	Greenhouse, Nursery	46
	Fruit and Tree	37
	Hog and Pig	31

Direct and indirect
Energy costs add up to
13%
of a farm's
production expenses.

Ways to Save Energy

Use the animal housing, irrigation, nitrogen, tillage, and grain drying energy calculators at

EnergyTools.sc.egov.usda.gov



Efficient lighting saves up to **75%**



Irrigation pump and motor efficiency saves up to **25%**



Better dairy pumps, compressors, and lighting can save **10% to 35%**

Sources: USDA Impacts of Higher Energy Prices on Agriculture and Rural Economies; EnSave; American Council for an Energy Efficiency Economy On-Farm Energy Use Characterizations; National Sustainable Agriculture Info. Svc. Energy Tips for Irrigators



Recycling With Rhonda

This DEQ unit chief walks-the-walk while promoting “Recycle, Michigan.”

Recycling is on Rhonda Oyer’s mind every day, both at home and work. “I don’t even remember when I first became involved in recycling,” says the current chief of the Michigan Department of Environmental Quality’s Sustainable Materials Management Unit (SMMU). “It may have been as a ‘junior litter picker-upper’ while camping with my family, or through a school field trip in the 5th grade when we visited the county landfill.” In any case, Oyer has worked for the DEQ for 22 years, starting as an enforcement specialist for solid waste and scrap tires. “When I got my degree in biology, no one could have predicted I would spend my career ‘talking trash!’” she adds, laughing.

“But seriously, most people give very little thought to what they throw away,” she explains. Recycling doesn’t have to be complicated, and you don’t need a fancy area to sort or store your recyclables. “You just have to want to do it and take a little time to find out what can be recycled in your area. It is the right and responsible thing to do in our society to manage our planet’s shrinking resources,” she says. At home, Rhonda recycles through the Charlotte Area Recycling Authority.

She has lived most of her life in rural areas that are served by electric co-ops, first

in Antrim County (Cherryland Electric Cooperative) and now in Eaton County as a member of Tri-County Electric Co-op, and notes that many rural areas have recycling opportunities that require residents to bring their materials to a drop-off location. Currently, only 24 of Michigan’s 83 counties have convenient access to recycling, through either drop-off or curbside collection, for all residents in single family homes.

Generally, Rhonda drops her own recycling off once every few months, and sorts the items in her garage, in...yep... recycled containers. “I have a big cardboard box that a shelving unit came in to stash the containers I use to sort things in, so they are easy to take back.” The containers include kitty litter buckets, a few old laundry baskets, and a fruit box for sorting cans, glass, plastic, boxboard, newspapers, magazines, junk mail and occasionally, batteries and lightbulbs. She usually puts out less than a half-bag at the curb for trash pick up. “So, if I forget to take out the trash one week, it isn’t a big deal,” she laughs.

A shift has occurred over the last few years in how trash is viewed, she continues, and it’s called sustainable materials management (SMM). Rhonda’s DEQ unit uses the SMM approach to redirect trash in the most pro-

ductive and sustainable way throughout its life cycles, from extraction through recycling or final disposal. This minimizes the amount of materials involved and all the associated environmental impacts, while accounting for economic efficiency and social considerations. “This aligns with the efforts of both the United States Environmental Protection Agency to address waste issues in the SMM framework and with Michigan’s 2007 Solid Waste Policy, which recognizes solid waste as a resource that should be managed to pro-

“Electronic waste (e-waste) is the fastest growing source of waste, and includes computers, TVs and cell phones.”

mote economic vitality, ecological integrity, and improved quality of life in a way that fosters sustainability,” she says.

Her unit is also responsible for programs that involve solid waste planning, residential recycling and composting, beneficial reuse of industrial materials, dredging, and electronic waste and scrap tire management. “We incorporate SMM concepts into our work so that the job creation, resource conservation, greenhouse gas reduction, and energy-saving benefits of viewing waste as a resource can be realized in Michigan,” she explains. They also try to lead by example, as the DEQ offices

have a good recycling program in place and the building is being redesigned to have a recycling area on each floor.

A couple of particular waste streams are also being focused on. “Electronic waste (e-waste) is the fastest growing source of waste, and includes computers, TVs and cell phones.” E-waste contains toxic materials that pose hazards to human health and the environment if not properly disposed or recycled. “E-waste also contains valuable materials,” she emphasizes, “and that’s why the Environmental Protection Agency (EPA) encourages reusing and recycling over landfilling and incineration.”

Organic waste is another area where there’s a lot of opportunity to shift waste to sustainable uses. Yard clippings are currently banned from landfill disposal, and the DEQ has a program for registering yard waste composting sites. Food waste and the EPA’s Food Recovery Challenge (source reduction, feeding people and animals, industrial uses [rendering/fuel conversion/digestion], composting, landfill) are also seeing increased interest. The DEQ’s food waste efforts are focused on assessing what is currently being done here and connecting interested parties.

State leaders have also recognized the benefits of recycling, Rhonda adds. Gov. Rick Snyder has specifically mentioned forming a 2014 plan for getting Michigan up-to-speed on it and DEQ Director Dan Wyant is working with stakeholders to identify the best plan for getting all residents to recycle.

With this new focus, Oyer adds, it’s clear the state needs to measure existing recycling efforts in order to identify areas for improvement and create a way to measure progress. Estimates show there is less than a 16 percent residential recycling rate. “Industrial recycling seems to be done at a much higher rate, but again there is no consistent measurement and what data we do have is submitted voluntarily,” she reports. The DEQ is working to establish a measurement system, and identify which residents and businesses have access to recycling opportunities.

Referring to the Michigan Recycling Coalition’s awareness campaign, “We want everyone in Michigan to be a part of ‘Recycle, MI’—a place where reducing, reusing and recycling is easy and convenient,” Rhonda says. “It is really exciting to see our leaders recognize the importance of recycling to our economic recovery and rebuilding efforts. I’m looking forward to what the future holds for recycling in Michigan.”



Rhonda Oyer recycles at the Charlotte Area Recycling Authority (above). Communities that don’t have recycling available can get “how to” information from the Michigan Recycling Coalition (see box below).

From Garage Sales to Recycling, Reduce Your Waste

With promises to unclutter our homes and provide great deals for seekers of good used stuff, garage sale signs have popped up all over our neighborhoods. There are treasures to be found here, and thanks to the do-it-yourself, thrift-shopping movement, many of them are no longer destined for the trash can.

Giving old things new life by reusing, reselling, remaking or recycling is a terrific way to reduce waste, and an important part of a sustainable future, says Kerrin O’Brien, executive director of the Michigan Recycling Coalition. So, before you unload that old dresser, think about repainting or repurposing it as another type of storage. Further, old cardboard is a good weed barrier under mulch, and a quick internet search offers many new ideas for repurposing almost anything.

Tips for hosting a good garage sale:

- If your neighborhood has a sale day, take advantage of the free advertising and increased traffic.
- If you go it alone, signs are very important. Give people enough notice to stop ahead of your driveway.
- Price everything to sell, and be willing to deal.
- Put out enough stuff that people will be drawn to look at everything.
- Include your kids—they can sell lemonade, cookies and their old toys.
- Be friendly, talk about your stuff. Sell items over \$100 on Craigslist or eBay,

and advertise your sale on Craigslist with enticing pictures.

Recycle whatever is left that can’t be sold, donated or given away. New materials are added to recycling programs all the time, so call your local government or waste hauler (or visit Earth911.com) to find out what’s recyclable in your area. Metal items can be recycled at scrap yards.

If recycling isn’t offered yet in your community, call your local government and suggest they join the “Recycle, MI” program.

More On Recycling

- In 2012, over 800,000 tons of industrial by-products were recycled in Michigan, reducing greenhouse gas emissions equivalent to removing over 72,000 cars from the road and saving energy equivalent to about 26,000 households’ annual energy needs.
- While Michigan has no landfill ban on electronic waste disposal, individual recycling of this waste went from 1.26 lbs. in 2010 to 2.6 lbs. in 2012. This rate is average for states without a landfill ban.

Resources:

MI Dept. of Environmental Quality:
michigan.gov/deq/ (click on “Solid Waste” and “Recycling”), 517-284-6591

Michigan Recycling Coalition:
michiganrecycles.org, 517-974-3672
Holds an annual conference & training/networking events



Above: Shopping at the Marquette Food Co-op. **Below:** Planting in a hoophouse extends the growing season.

Telling a Story of Food

As an avid gardener, “localvore” (one who likes to shop locally), and member of Cloverland Electric Cooperative, I’m interested in the goings-on at the Marquette Food Co-op (MFC). It’s a retail outlet for organic food, some of which is grown nearby.

It’s also the epitome of the “cooperative” model. It’s an organization that, like Cloverland and Michigan’s 11 other electric co-ops, is owned by its members. In MFC’s case, members pay a one-time fee of \$150, which makes them eligible for discounts and in-store specials.

But selling wholesome food is only part of what the Marquette Food Co-op is about. They also have an exemplary community outreach program that educates people about healthy eating, lifestyles and local agriculture. Through cooking classes, food demos, workshops, farm tours and displays at community events, they connected with about 11,600 people in 2012 alone.

They also have their own “hoophouse,” in partnership with Northern Michigan University, where they teach people to garden and experiment with different growing techniques. (A hoophouse is an easy-to-build greenhouse that allows food plants to be grown in the off-season.)

However, the MFC’s grocery store is their focal point. It grossed \$5 million last year and is moving from their quaint-but-cramped quarters to a much larger store on busy Washington Street.

“There is a national interest in safe food and knowing where it comes from,” says Natasha Lantz, community liaison for MFC. This has

been spurred partly by Michael Pollen, author of “Botany of Desire,” and other authors who shed light on problems associated with eating food tainted by chemicals. America’s appetite for fast food has also resulted in higher rates of childhood obesity and type 2 diabetes. Fortunately, more people are becoming aware and seeking venues for wholesome, locally-produced food.

The MFC started in 1971 as a loose-knit group of people making runs to Ann Arbor to get organic food in bulk. Over the years, it morphed into a typical health food store, but struggled and nearly went bankrupt in the mid-90s. By 2000, with management changes and rigorous financial controls, they were talking about expanding their store. In recent years they really tapped into locally-produced products, including fruit, vegetables, meat, honey and maple syrup.

One of their crowning achievements is the U.P. Farm Directory. It lists producers offering everything from eggs to eggplant, and has made these businesses and products much more available to consumers. Many of these farmers now sell their products at the MFC store.

“Many growers came to us,” says Abbey Palmer, MFC special projects coordinator and hoophouse supervisor. Growers were also attracted through the outreach program. One of them is Dan Rabine and his wife Mary Kramer-Rabine in Eben Junction, southeast of Munising. The couple grows vegetables in season-extending hoophouses.

“They [MFC] make it possible for smaller growers,” Rabine explains. “They’ll take smaller quantities and they’re very flexible



with delivery schedules.”

Taking the co-op model to the next stage, MFC’s Lantz and Michelle Walk of MSU Extension are helping to form the U.P. Food Exchange. It’s an agricultural hub being created with funds MFC received from a Regional Food Systems Grant from the Michigan Department of Agriculture and Rural Development last fall.

The Exchange coordinates movement between the U.P.’s three food hubs (eastern, central and western). The project aims to establish both online and physical sites for farm products, improve local food storage capacity, and educate consumers, farmers and institutional buyers about the Exchange’s resources and benefits.

The Marquette Food Co-op is really telling a story about where food is coming from, how it’s grown, and by whom, Lantz says. But they’re also writing a story by letting their greater community know what healthy eating is all about and how people can “cooperate” in growing wholesome food to feed their families.

Neil Moran gardens in the U.P. and writes about it at northcountrygardening.blogspot.com.





Tom Nelson, Larry Perron (physical plant director), and Jerry Gervais from the Sault Area Public Schools Maintenance Department at Lincoln Elementary School in Sault Sainte Marie.

Photo - Cory Wilson

Sault Schools Save Big on Energy Efficiency

Does energy efficiency add up for schools? Let's do the math. Not only are students and staff more comfortable and focused, but energy efficiency also helps funds go further. For these reasons and more, the Sault Ste. Marie Area Public Schools recently completed multiple large-scale lighting projects as part of their ongoing energy-saving efforts.

"Although we had been doing a great deal to reduce our energy footprint, this not only gave us an opportunity for energy savings, but the support we very much needed," said Larry Perron, on behalf of the Schools' maintenance team.

With the Board of Education's approval and the superintendent's support, the team completed 10 energy efficiency projects at four schools through the Energy Optimization (EO) Commercial and Industrial program offered by Cloverland Electric Cooperative. Cloverland is one of 12 electricity providers working together to offer rebate programs to Michigan home, farm, and business owners.

Project Details

While there are many EO rebates for businesses, energy efficient lighting projects are the most popular because they tend to have rapid paybacks—annual energy savings often offset equipment and installation costs in

less than three years. In addition, the lighting industry is no longer manufacturing T12 fluorescent lightbulbs (as of July 2012), which makes finding replacement bulbs challenging.

These factors, along with EO rebates, motivated the Sault Schools to replace lights in four of its oldest buildings. "We are always looking at ways to improve, such as being green schools, staying up with energy savings, recycling, and water bottle refilling stations to name a few," said Perron. "This was a great opportunity to bring energy reductions to the forefront."

Another part of the program that appealed to the Schools' maintenance team was

working together with their utility and the EO staff to achieve great results.

"The thing we were impressed with the most is the great people from Cloverland and the energy firm used to supervise the rebate program and assist with new projects," Perron said. "They have been great to work with—very good at helping us work through the rebate program and great sounding boards for new energy savings within our schools." Two elementary schools, one middle school, and one high school in Sault Ste. Marie are on pace to collectively save almost \$12,000 in

Co-op Member Spotlight

Company: Sault Ste. Marie Area Public Schools

Energy-Saving Actions:

- ▲ Installed 520 high performance T8 fluorescent light fixtures in two schools.
- ▲ Replaced 2,008 standard fluorescent bulbs with reduced-watt fluorescent bulbs in three schools.
- ▲ Converted most incandescent light bulbs to CFLs, LEDs, or low-wattage induction lights.
- ▲ Replaced outdated lightbulbs at once instead of waiting for old bulbs to burn out.

Rebate Amount: ▲ \$5,809 and counting

Results:

- ▲ Lowered electricity use by 102,000 kilowatt-hours per year.
- ▲ Saving \$11,600 in energy costs per year
- ▲ Expecting to double energy savings in 2014

Energy savings and rebates for anyone and everyone.

877-296-4319

michigan-energy.org

COLLEGE BOUND

What To Know As They Go

Congratulations! Your son or daughter graduated from high school! Now, the freshman year of college is on your doorstep, and it's a huge transition for you both. Here's a few tips to help avoid some of the "freshmen woes."

Talk To Your Student

"From my perspective, freshman woes connect with where the student is developmentally in terms of identity, independence, intellectual, intimacy and involvement," says Ellen Thomas, student life director at Hope College in Holland, MI. "Freshmen are thrown into a new situation where they have to establish themselves as individuals within a new community." They are excited to get away from home and begin their new life, but it isn't without some reservations and questions. As a parent, talk with your son/daughter about their beliefs and values and how they will fit in with their new-found freedom.

Money is another important issue. Help them develop a budget and discuss expectations with regards to academic performance. You may get a roll-of-the-eyes, but touchy subjects like sex, alcohol and drugs warrant discussion too, says Susan Liebau, director of the Wahtera Center for Student Success at Michigan Technological University. "From a student development standpoint, it is important for students to discover and grow on their own." However, it is still important for them to know they have support from home if they need it.

Gaining Independence

Even though you've been preparing your child for the last 18 years for this day, it may still be difficult to let go. You won't be there



Photo - Hope College

to make sure they are eating right or getting enough sleep. Will they wake up on time for class? "Instill a sense of trust in your child and empower them to tap into resources on campus," Thomas advises. Handling mundane tasks like laundry, managing money, when to study and what to eat are just some of the daily tasks that will help build and give them a greater sense of confidence and independence. Make sure they know how to do tasks such as laundry and balancing a checkbook. If your child struggles in an area, let him or her know it's okay to ask for help and encourage them to ask someone in their new community.

Frantic Calls Home

Whether it's homesickness or frustration with a roommate, you're likely to be on the receiving end of some rants. Don't take it personally. "Sometimes a student just needs to vent," Thomas says, and calling home feels safe. "First, listen and show some empathy, then ask what steps they have taken to resolve the issue," Thomas suggests. If you are familiar with the college's resources, encourage them to talk to their resident assistant, academic advisor or counseling center. Let them take the reins to solving their own problem. Tell them you have confidence in their ability to resolve the issue. However, if you have grave concern for their health or safety, then make a call to the college.

Academic Pressure

Most students realize college will involve

more study time, but some think the professors will remind them when an assignment is due or be lenient about due dates. Some kids who never struggled academically may fail an exam or assignment. "The freedom is overwhelming for some students who have had very rigid schedules previously," Liebau says. "It sounds silly, but sometimes they have so much time they can't seem to get anything done. Finding ways to learn from a variety of people will only support long-term success." Supplemental instruction or tutoring services are available at most colleges.

Don't Skip Orientation

Orientation activities aren't just entertaining—they are helpful in acclimating to college life and accessing the resources available. For example, Hope College offers an orientation program for parents, students and siblings. Michigan Tech offers a week-long orientation program. Encourage your student to take full advantage of orientation activities. (An orientation tip to parents: Even in this day of texting and emails, students still love a good care package from home.)

You may not hear from your student as much as you would like, but take comfort in knowing that you have prepped them for this time in their life.

Lisa Marie Metzler is a freelance journalist who's written over 200 articles for magazines such as Healthy & Fit, Positive Thinking, and Families First.



Pier

Opportunities!



Photo—Bob Gwizdz

There's obviously a lot of fishing to be done off Michigan's shores, and a billion-dollar industry has grown up serving those that do—from boat dealers to charter boat services. But there are plenty of fishing opportunities for those who are bound to the shoreline, too. We're talking about piers.

Piers that allow anglers to enjoy the Great Lakes can be found at the mouth of many of our state's rivers, and there's a good shot at scoring a fresh catch during most months of the year.

Pier fishing in Michigan hits its peak as summer wanes, and Chinook salmon begin moving upriver on their annual spawning runs. By mid-August, there are outstanding opportunities off the northern piers, and by September it's going on statewide. From then until it's too cold to fish, the only thing that changes is the species of fish.

There are as many ways to fish the piers as there are anglers who do it. Some cast spoons or sinking lures from the pier's end. Others rig up a big sinker to hold bait on a hook—everything from live alewives to salmon eggs to insect larva—and fish near the bottom. Others prefer chunks of skein spawn and a bobber. All three techniques “produce.”

In recent years, I've been fishing the pier at Manistee with some buddies in late summer and early fall. Our best technique is using live alewives, caught with a cast net or on tiny jigs, for bait. We rig-up with a large pyramid sinker and cast into the river, keeping the

bait near the bottom. When the fish takes it, drop your rod tip, reel up the slack, slam the hook home, and hold on!

As the season progresses, other trout and salmon species join the procession. Chinooks are joined by Coho salmon, brown trout and steelhead over the course of fall and the steelhead, which are spring spawners, filter upstream throughout the winter and into spring. Techniques change as the species change—steelhead seem much more willing to take salmon eggs or insect larva than the baitfish—but anything you offer is likely to produce at any time.

By October, other Great Lakes denizens show up, especially whitefish. That's what gets guys like Doug Smith, a veteran angler from the Kalamazoo area, fired up.

“From the first of October until ice-up, you can get your limit of whitefish most days,” says Smith, who fishes from the pier at St. Joseph. “Right at deer season seems to be the best time and that's when there are fewer guys out there.

“I like to use a single salmon egg that I've boiled so it stays on the hook well, but some guys use wax worms or wigglers. I use a pyramid sinker and about a 3-foot leader and just let it sit on the bottom. And if you miss a fish, just leave it there—those whitefish will circle around and come back and get it.”

While Smith is busy with whitefish, anglers elsewhere are looking at other species. The pier at Muskegon, for instance, is noted for producing excellent walleye fishing, often at

night, usually around Thanksgiving.

After winter, it doesn't take a lot of spring weather for the action to resume. Fishing for Coho salmon and brown trout—which are near shore then—and steelhead commences as soon as the weather is nice enough to tolerate it. And there are often a few whitefish or their cousins, Menominee, hanging around. As spring progresses, steelhead filter back into the lake from the rivers and from then on, there's plenty of fishing for resident species—smallmouth bass, catfish, burbot, freshwater drum, and more—until, next thing you know, it's late summer and the salmon show up again.

There are piers on all four of Michigan's Great Lakes, from Erie to Superior, and all attract their share of anglers. Some, such as the piers at Ludington or Oscoda, attract regular crowds while others—such as many on Lake Superior—remain undiscovered by many. Pier fishing may not be as adventurous as taking to the big lake in a large boat with a handful of friends, but it can be just as exciting—and generally much less expensive—to enjoy Pure Michigan fishing on Great Lakes waters.

Learn more at piermichigan.org.

Bob Gwizdz is an avid outdoor writer featured in many hunting and fishing publications.



No-Cook Meals



These no-cook meals are quick and easy—no oven or grill required. Save time and energy in the kitchen, with these light and refreshing dishes.

Veggie Hummus Wraps

Veggie Hummus Wraps

- 1 medium whole wheat tortilla
- 2 T. garlic hummus
- 2 T. sunflower seeds
- 1/2 carrot, peeled and sliced thin
- 1/2 c. spinach leaves
- 2 T. sliced pepperazzi peppers (sweet and spicy), or roasted red peppers
- 1/4 of large cucumber, sliced thin
- 2 T. feta cheese
- 2 T. Newman's Own® olive oil & vinegar dressing

Lay out tortilla and spread with hummus and sunflower seeds. Layer with spinach leaves, carrots, red pepper, cucumber and feta cheese. Roll up and secure with toothpicks. Dip wrap in olive oil and vinegar dressing. This is a quick, healthy meal that can be substituted with many different vegetables. Makes 1 wrap.

Christin McKamey, veggiechick.com

Apple Orchard Pita Pockets

Filling:

- 2 c. deli-roasted chicken breast, diced
- 2 Gala apples, cored, diced
- 1/2 c. honey roasted peanuts or beer nuts, finely chopped

- 1/4 c. jarred real bacon bits
- 2 c. mixed salad greens, torn
- 4 ozs. Provolone or Swiss cheese, shredded
- 4 whole wheat pita bread rounds, cut in half

Dressing:

- 1/2 c. mayonnaise
- 2 T. apple cider or apple juice
- 1 1/2 t. honey
- 1 t. apple cider vinegar
- 1/2 t. vegetable oil
- small pinch ground cinnamon
- small pinch ground cloves
- salt and pepper to taste

To make the dressing, in a small bowl, combine first seven ingredients; whisk until well blended. Season to taste with salt and pepper. Cover and refrigerate 2 hours to chill and blend flavors. In a medium bowl, combine chicken, apples, peanuts and bacon bits.

Stir dressing and pour over chicken mixture; toss to coat. Open pita breads to form pockets. Line each with salad greens. Spoon filling into pockets and top with cheese. Serve red and green grapes or cut-up fresh vegetables on the side.

Marilyn Partington Frame, Traverse City

'It's a Meal' Salad

Dressing: (prepare a day in advance & chill)

- 1/2 c. extra virgin olive oil
- 4 garlic cloves, minced
- 2 t. dried oregano
- 2 T. white wine vinegar
- salt and pepper

Salad:

- garlic cloves
- 4 c. iceberg lettuce, broken into bits
- 1 ripe tomato, cut into small wedges
- 1/2 c. julienned ham, turkey or shrimp
- 1/2 c. swiss cheese, julienned
- 1/2 c. fresh grated Italian cheese (parmesan, romano, or asiago)
- 2 T. Worcestershire sauce
- juice of one lemon

Rub wooden bowl with garlic cloves, then add lettuce, tomato, ham, and cheeses. Drizzle worcestershire sauce and juice from lemon. Toss salad. Add dressing, toss again and serve with bread or rolls.

Lois Phelps, Stanwood

Photography by: 831 Creative



Visit recipe editor Christin McKamey's new website, veggiechick.com, for healthy, vegetarian recipes and info!

Christin's Guacamole

3 medium avocados (make sure they are ripe and high quality)

1/4 c. white onion, chopped

2 roma tomatoes, diced

2 T. fresh cilantro, chopped

2 garlic cloves, minced

1/2 -1 t. salt

1/2 t. cumin

juice from half a lime

juice from half a small lemon

Cut avocados in half. Remove seed. Scoop out avocado from the peel, put in a mixing bowl. Using a fork or masher, mash the avocados (not too much, it should be a little chunky). Add the chopped onion and tomatoes (if not eating right away, put the tomatoes in right before serving). Add cilantro, lime juice, lemon juice, garlic, salt, cumin and mix with a large spoon.

Refrigerate until ready to serve. Makes about 2 cups. Serve with blue tortilla chips.

Notes: ▷ Much of this should be done to taste because of the variability in fresh ingredients. Start with this recipe and adjust to your taste.

▷ To keep the guacamole from turning brown, store in a plastic food container—but before you put the lid on, place some good plastic wrap or wax paper and press down over the surface of the mixture. And be sure to get all of the air out when putting the lid on. This works like a charm!

Christin McKamey, veggiechick.com

Kidney Bean Salad

2 c. or 2 cans kidney beans, drained

1/4 c. celery, diced

3 pickles, dill or sweet, chopped

1 small onion

2 hard-cooked eggs, sliced

1/2 t. salt

1/8 t. pepper

1/2 c. mayo or salad dressing

Mix together the beans, celery, pickles and onion. Add eggs, salt, pepper, and mix lightly with mayo or salad dressing. Chill. Serve on salad greens and garnish with grated cheese.

Joan Coyne, Charlevoix

Taco Salad

2 heads romaine lettuce, chopped

1 15-oz. can mexican style chili beans, undrained

2 medium tomatoes, chopped

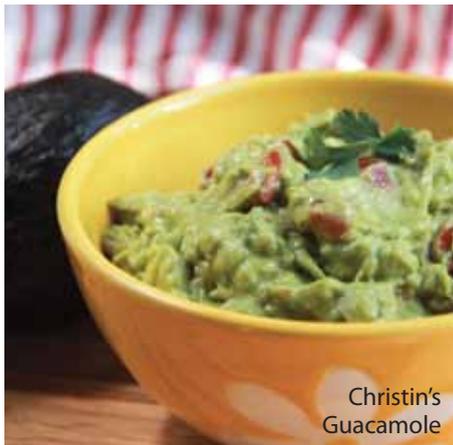
1 small can black olives, drained and sliced

2 cups shredded cheese

1/2 bag yellow corn chips, crushed

2/3 c. mild salsa or to taste

1 c. Thousand Island dressing, or to taste



Combine chopped lettuce, chili beans, tomatoes, olives and cheese into a large bowl. Top with crushed corn chips, salsa and dressing. Toss well to coat all ingredients and serve.

Lorraine Green, South Boardman

Ham in a Pita Pocket

10 pita pockets

3 c. diced ham

1 can garbanzo beans, drained and rinsed

1 c. cashew halves

1/8-1/4 c. sesame seeds

1 c. sour cream

1/2 c. mayonnaise

1 T. tarragon vinegar

salt and pepper to taste

1 c. cheddar cheese, diced

In a large bowl, combine ham with remaining ingredients. Mix well. Chill before serving. Serve in pita pockets.

Paula Brousseau, Bellaire

Fruited Chicken Salad Wraps

1 pre-cooked rotisserie chicken

1 c. mayonnaise

1 small jar maraschino cherries

1 small onion, chopped fine

1/2 c. red grapes, halved

1 large red apple, chopped fine

1/2 c. crushed pineapple

1/2 c. shredded cheddar cheese (may use chunk cheese cut into very small cubes)

1/4 c. chopped walnuts

tortilla wraps

Remove bones from rotisserie chicken and tear into bite-size pieces. Place in a large bowl.

In a medium bowl, combine the mayonnaise and all of the juice from the maraschino cherries (do not use the cherries). Into the bowl of chicken, add onion, grapes, apple, pineapple, and walnuts. Pour the reserved mayonnaise/cherry juice over all and mix well. Allow to chill.

When chicken salad is chilled and right before serving, add the shredded cheese. Wrap the mixture into tortilla wraps and enjoy. Excellent served with cottage cheese and potato chips.

Deborah Buck, Cassopolis



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 January 2014 issue.

Thanks to all who send in recipes! Please send in "Shakes & Smoothies" recipes by **Oct. 10** and your favorite "Baked Goods" recipes by **Nov. 10**.

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

Rebates,
tax credits
available!

Fall is Best Time to Replace Furnace, Central Air

With winter on the horizon, making sure your furnace is in tip-top shape is smart. But, if your heating equipment is over 15 years old, it's even smarter to replace it.

New Furnace Benefits & Essentials

Not only are older furnaces unreliable, they waste energy. This adds up since heating costs represent 29 percent of your home's annual energy bill—more than any other category. A new energy-efficient furnace offers the same features and functionality as standard models, but uses 16 percent less energy.

Energy "essentials" in a new furnace system include: a variable speed, electronically commutated motor (ECM); proper unit size (not too big or small); tightly sealed ducts; and a programmable thermostat.

Double Up

If you have central air conditioning, do you know that it works hand-in-hand with your furnace? Central air requires a blower motor—usually part of the furnace—to push

cool air through your home's ducts.

According to ENERGY STAR®, the only way to ensure that a new air conditioner performs at its rated efficiency is to replace your heating system at the same time. Installing a new central air conditioner

without replacing the furnace may lead to premature failure of the system.

Rebates and Tax Credits

Ontonagon County REA has structured its Energy Optimization rebates so they offset installation costs associated with energy-efficient furnaces or air conditioners. The federal government also offers 2013 tax credits for buying efficient heating and/or cooling systems this year. Plus, there is the benefit of ongoing energy savings over the

equipment's lifespan. In time, an efficient heating and cooling system pays for itself (find qualifying equipment at michigan-energy.org).

How HVAC Rebates Work:

■ **Work with a local heating and cooling contractor.** Ask if they are familiar with Energy Optimization rebates and request help in selecting a qualifying furnace and/or air conditioner. Need a referral? Call 877-296-4319.

■ **Schedule installation before Dec. 31, 2013.** Beat winter's bite and complete the project before the end of this year. To claim a tax credit, add Form 5665 to your 2013 federal tax return.

■ **Submit rebate application.**

Applications are available at michigan-energy.org. Your contractor can assist you with documentation and will often submit it on your behalf.

■ **Get rebate.** Look for your rebate check in the mail.

Savings for Everyone

Ontonagon County REA rewards businesses, agribusinesses/farms and residents for saving energy. See current incentives at michigan-energy.org or call 877-296-4319.

ACTION	REBATE	FEDERAL TAX CREDIT	TOTAL CASH BACK
Retrofit existing furnace	\$150	\$150	\$300
Buy new furnace (AFUE ≥ 95%)	\$150	\$150	\$300
Buy new central air conditioning unit	\$100	\$300	\$400
DOUBLE UP: Buy new furnace + central air ...	\$350	\$450	\$800
Buy programmable thermostat	\$20	N/A	\$20

DOUBLE UP



How much can you save?

Why settle for one when you can have two?

Receive a **\$150 Energy Optimization rebate** when you install a qualifying energy-efficient furnace. **Or, double up and get \$350** when you purchase an efficient furnace and central air conditioner together. With double deals, now is the time to save!

ENERGY TIP: An energy-efficient furnace with a variable speed motor cuts energy use by 16% per year.

ONLINE: michigan-energy.org PHONE: 877.296.4319



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

How to Buy an Energy-Efficient Appliance

Some new appliances feature the Energy Star® logo, which means that the appliance is significantly more energy efficient than the average comparable model. For an energy-smart deal on your next appliance, consider the following information:

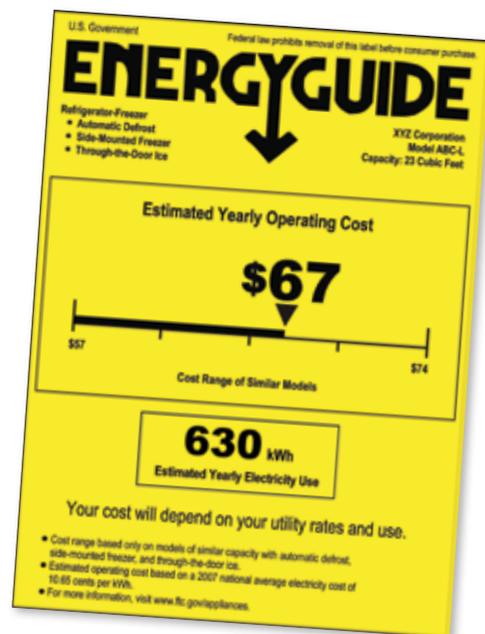
- ▶ Read the EnergyGuide label (required for refrigerators, freezers, dishwashers, clothes washers, water heaters, and select HVAC systems).
- ▶ Compare the energy use of competing models.
- ▶ Estimate their differences in energy costs.
- ▶ Consider both purchase price and estimated energy use when deciding which brand and model to buy.

Shopping Strategy

- **Select the size and style.** Measure the space the appliance will occupy to be sure your new purchase will fit. Make sure that you'll have enough room to open the door or lid fully and enough clearance for ventilation. This may help you narrow your choices as you settle on the best capacity and style.
- **Know where to shop.** Appliance outlets,

electronics stores and local retailers carry different brands and models. Dealers also sell appliances through print catalogs and the internet.

- **Compare the performance of different brands and models.** Ask to see the manufacturer's product literature. Decide which features are important to you. Ask questions about how the different models operate: Are they noisy? What safety features do they have? What about repair histories? How much water do they use? How energy efficient are they?
- **Estimate how much the appliance will cost to operate.** The more energy an appliance uses, the more it will cost to run. Consult the EnergyGuide label to compare the energy use of different models. The difference on your monthly electric bill can be significant, especially when considered over the 10-to-20-year life of the appliance. You could save money over the long run by choosing a model that's more energy efficient, even if the purchase price is higher.
- **Ask about special energy efficiency offers.** Ask your salesperson or local elec-



tric cooperative about cash rebates, low-interest loans, or other incentive programs in your area for energy-efficient product purchases—and how you can qualify.

Source: Federal Trade Commission

'My Plate' is Healthy Eating Tool

The USDA has a great tool to guide and help you be mindful of eating a balanced diet. The MyPlate tool at ChooseMyPlate.gov helps you determine healthy portions for meals. Following are some easy ways to keep this healthful eating in mind.



Make half your plate fruits & vegetables

- Eat a variety of vegetables, especially dark green, red and orange varieties, as well as beans and peas.
- When buying canned vegetables, choose "reduced sodium" or "no salt added" whenever possible. Rinsing whole varieties like beans, corn and peas can also reduce sodium levels.
- Dried and frozen fruits and those canned in water or their own juice are good options when fresh varieties are unavailable.
- Make sure every meal and snack has at least one fruit, vegetable or both.

Make at least half your grains whole

- Choose brown rice, barley, oats and other whole grains for your sides and ingredients.

- Switch to 100 percent whole-grain ((check package ingredients for this term) breads, cereals and crackers.

Vary your protein choices

- Eat a variety of foods each week from the protein food group like seafood, nuts, and beans, as well as lean meat, poultry and eggs.
- Eat more plant-based proteins such as nuts, beans, whole grains, and whole soy foods like tofu and edamame (soy beans in the shell).

- At least twice a week, make fish and seafood the protein on your plate. Keep meat and poultry portions lean and limit to 3 ounces per meal.

Switch to fat-free or low-fat milk

- These varieties have the same amount of calcium and other essential nutrients as whole milk, but less fat and fewer calories.
- If you are lactose intolerant, try lactose-free milk or a calcium-fortified soy beverage.

Cut back on sodium & empty calories from solid fats & added sugars

- Drink water instead of sugary drinks like regular sodas, fruit-flavored drinks, and sweetened teas and coffees. Choose 100 percent fruit juice.
- Compare sodium in foods and choose those with the least amount.
- Season foods with spices or herbs instead of salt.
- Use heart-healthy oils like olive, canola and sunflower oil instead of butter or shortening.

Visit eatright.org/nnm for more helpful tips, recipes, games, promotional tools, and nutrition education resources.

Source: USDA

Co-op Lighting Lessons

Brighter efficiency standards and savings on lightbulbs will appear in 2014.

As federal efficiency standards phase out traditional incandescent lightbulbs, electric co-ops are testing which lighting technologies work best for consumers. Co-ops have long championed compact fluorescent lamps (CFLs), the first cost-effective, energy-saving alternative to traditional bulbs.

“Michigan electric co-ops have given free CFLs and rebates on purchasing them through our Energy Optimization program,” says Art Thayer, energy efficiency director for the Michigan Electric Cooperative Association. “It’s a quick, low-cost way our members can start saving on their electric bills.”

By 2014, household lightbulbs using between 40 watts to 100 watts will need to consume at least 28 percent less energy than traditional incandescents. Because incandescents use 90 percent of their energy producing heat, upgrading saves Americans between \$6 billion and \$10 billion in light-

ing costs every year.

More lighting changes will roll out in coming years. The federal Energy Independence and Security Act of 2007 requires that lightbulbs become 70 percent more efficient than classic bulbs by 2020 (LEDs already exceed this goal.)

Lighting accounts for roughly 13 percent of an average household’s electric bill. Hardware store shelves are filled with lightbulb options. So, what works best for co-op members?

Electric co-ops teamed up on lightbulb testing with the Cooperative Research Network (CRN), the research and development arm of the National Rural Electric Cooperative Association, an Arlington, VA-based service arm of the nation’s 900-plus consumer-owned, not-for-profit electric co-ops.

“We found most residential consumers still prefer to use CFLs over more expensive, but more energy efficient, LEDs [light-emitting diodes],” remarks Brian Sloboda, CRN senior program manager specializing in energy efficiency. “The price of LEDs for home use has substantially dropped, so we may begin to see more LEDs as it becomes more economically feasible to buy them.”

A helpful addition to lighting products is the Lighting Facts Label. Much like nutrition labels on the back of food packages, this version shows a bulb’s brightness, appearance, life span, and estimated yearly cost. This label was created by the U.S. Department of Energy (DOE) to help consumers understand the product and buy the most efficient lightbulb.

Consumers’ energy-efficient lighting options include:

Halogen incandescents: Use 25 percent less energy; last three times longer than regular incandescent bulbs.

CFLs: Use 75 percent less energy; last up to 10 times longer.

LEDs: Use between 75 percent and 80 percent less energy; last up to 25 times longer.

Federal lightbulb standards have the poten-

GE’s hybrid halogen lightbulbs combine CFL and halogen technology, creating a product that lasts eight times as long as traditional incandescent lightbulbs. The 60-watt replacement uses only 15 watts, while the 75-watt replacement uses 20 watts.

tial to save consumers billions of dollars each year. For an average American house with about 40 light fixtures, changing just 15 bulbs can save about \$50 a year per household, DOE reports.

A word of warning when purchasing new types of bulbs: You generally get what you pay for.

“Some manufacturers exaggerate claims of energy savings and lifespans, and cheaper models probably won’t last as long as higher-quality bulbs,” Sloboda cautions. “If you look for the ENERGY STAR® label, that means the bulb exceeds minimum efficiency standards as tested by the federal government.”

The best way to benefit from this fast-changing technology is to buy a more energy efficient lightbulb the next time one goes out, Sloboda concludes.

— Amber Bentley

Sources: Cooperative Research Network, U.S. Department of Energy

- Learn about lighting options: energysavers.gov/lighting
- Shopping tips: ftc.gov/lightbulbs
- This article uses information from the U.S. Department of Energy’s video “Energy 101: Lighting Choices,” and blog post “Shopping for Lighting” found on energysavers.gov

Lighting Facts Per Bulb

Brightness	510 lumens
Estimated Yearly Energy Cost	\$7.83
Based on 3 hrs/day, 11¢/kWh Cost depends on rates and use	
Life	1.8 years
Based on 3 hrs/day	
Light Appearance	
Warm ▲ Cool	
2650 K	
Energy Used	65 watts
Contains Mercury	
For more on clean up and safe disposal, visit epa.gov/cfl .	

Source—GE

The new Lighting Facts Label, created by the U.S. Department of Energy, is similar to nutrition labels on food packaging. It shows a bulb’s brightness, appearance, life span, and estimated yearly cost.



Landscape for Looks & Efficiency

Wise landscaping can lower utility bills and improve comfort in addition to dressing up your property.

Q: *We are landscaping our new house and want a wooded yard for shade and to enhance the energy efficiency of our home. Where should we plant trees, and which are best? What materials are good alternatives to grass for ground cover?*

A: Wise landscaping can do more than create an attractive yard. It can lower your utility bills, summer and winter, and improve your family's comfort year-round. Trees, being one of the key components of any residential landscaping design, can have the greatest affect on your utility bills.

For one, the evaporation of moisture from tree leaves actually cools the air temperature around your home, akin to how perspiration cools your skin. With the proper placement and selection of trees, you can use less electricity to heat your home by taking advantage of passive solar heating during winter,

The primary goal of efficient tree landscaping is to shade your home during summer, yet allow the sun to pass through during winter. Additional goals are, depending on your climate, to allow cool evening breezes to flow around your house or provide moisture for evaporative cooling of the air near it.

Before you start, determine your temperature zone by visiting the USDA Agricultural Research Service at planthardiness.ars.usda.gov/PHZMWeb/# or checking with a local landscaper. Hardiness zones refer to the minimum winter temperature range. For warm climates in Zone 10, the range is 30 degrees to 40 degrees F. For cold climates in Zone 1, the range is -30 degrees to -40 degrees F. Michigan ranges from Zone 4a to 6b, depending on the area you live in. If you select trees that thrive in a climate more than one or two zones outside your range, they may not do well and require excessive care.

In an average temperate climate, a typical efficient tree landscaping plan has deciduous trees to the south, southeast and southwest. The leaves block the sun during summer, but when the leaves fall, the sun shines through to heat your home. Leave a small gap to the southwest to allow cooler evening breezes to flow through.

Plant dense evergreens along the north, northeast and northwest sides to block cold winter winds. With shorter days and the sun riding lower in the winter sky, not much solar heat comes from these directions.

In hot, humid climates, shading during summer is most important. Taller trees should be planted closer to the home to block the sun, which is higher in the sky. Leaving a gap for breezes is not as important.

There are also alternatives to grass, such as ground cover plants and gravel. Both have advantages and disadvantages for landscaping a house. The benefits of either depend on your climate, house and yard. Even in the same neighborhood, what's good for one house may not be efficient for another.

Low-growing ground cover near your house can help to keep it



A row of hemlocks on the north side of a home block cold winter winds. They do not block the sun because it does not swing that far to the north during winter.



Boulders and ground cover plants that use little water are shaded by trees in the summer and help warm a home during winter.

cool. The leaves block the sun's heat from absorbing into the ground, and they give off moisture for natural cooling. This cooling effect is most effective in drier climates because there is more evaporation. In hot, humid climates, the additional moisture from plants near the house actually increase the relative humidity level. This is more of a problem if you rely on natural ventilation compared to air-conditioning with the windows closed.

A good location for low ground cover is between an asphalt or cement driveway or walkway and the sunny side of your house. The driveway gets hot and holds the heat, and also re-radiates it up to your house.

Send inquiries to James Dulley, *Michigan Country Lines*, 6906 Royalgreen Dr., Cincinnati, OH 45244 or visit dulley.com.

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





When the crops are ready to be harvested, farmers have only a window of time—between weather, equipment breakdowns, and life events—to bring the best-quality crop out of the field. This flurry of activity to get as much work done as possible also means extra caution should be taken to watch for safety hazards.

Overhead power lines pose one of the biggest hazards. This is partly because we have to look up to see them, so especially **farm operators and workers are urged to:**

- ▶ Use a spotter when operating large machinery near power lines.
- ▶ Use care when raising augers or the bed of grain trucks around power lines.
- ▶ Keep equipment at least 10 feet from lines—at all times, in all directions.
- ▶ Inspect farm equipment heights to determine clearance.
- ▶ Always remember to lower extensions when moving loads.
- ▶ Never attempt to move a power line out of the way or raise it for clearance.
- ▶ If a power line is sagging or low, call the local utility immediately.

If contact is made with a power line, it is almost always safest to stay on the equipment. Warn others to stay away, and call the local utility provider immediately. The only reason to exit is if the equipment is on fire. In this case, jump off the equipment with your feet together and without touching the ground and vehicle at the same time. Then, still keeping your feet together, “bunny hop” away. Also consider these additional tips:

- ▲ Do not use metal poles when breaking up bridged grain inside and around bins.
- ▲ Always hire qualified electricians for any electrical issues.
- ▲ Do not use equipment with frayed cables.
- ▲ Make sure outdoor outlets are equipped with a ground fault circuit interrupter (GFCI).
- ▲ When operating a portable generator, make sure nothing is plugged into it when turning it on, and never operate a generator in a confined area. Generators can produce toxic, deadly gasses, such as carbon monoxide.
- ▲ Always use caution when operating heavy machinery.

Visit [SafeElectricity.org](https://www.SafeElectricity.org) for more electrical safety tips.

Fuel Mix Report

The fuel mix characteristics of Ontonagon County REA as required by Public Act 141 of 2000 for the 12-month period ended 6/30/13.

COMPARISON OF FUEL SOURCES USED

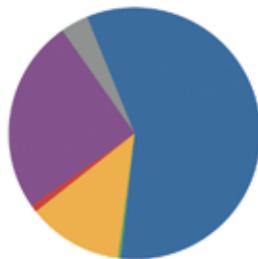
Regional average fuel mix used		
Your co-op's fuel mix		
FUEL SOURCE		
Coal	63.8%	57.9%
Oil	0.1%	0.4%
Gas	5.5%	12.2%
Hydroelectric	3.4%	0.9%
Nuclear	23.1%	25.0%
Renewable Fuels	4.2%	3.6%
Biofuel	0.0%	0.1%
Biomass	0.1%	0.4%
Solar	0.0%	0.0%
Solid Waste Incineration	1.1%	0.5%
Wind	2.8%	2.2%
Wood	0.1%	0.5%

NOTE: Biomass above excludes wood; solid waste incineration includes landfill gas.

Your Co-op's Fuel Mix



Regional Avg. Fuel Mix



EMISSIONS AND WASTE COMPARISON

TYPE OF EMISSION/WASTE	lbs/MWh	
	Your Co-op	Regional Average*
Sulfur Dioxide	1.9	7.6
Carbon Dioxide	1,585	2,170
Oxides of Nitrogen	1.1	2.0
High-level nuclear waste	0.0000	0.0083

*Regional average information was obtained from MPSC website and is for the twelve-month period ending 12/31/12.

Figures for Ontonagon County REA are based on those of its principle power suppliers, WPS and We Energies.

Public Act 295: The Clean, Renewable and Efficient Energy Act 2012 Annual Energy Optimization Report Ontonagon County Rural Electrification Association MPSC Case Number U-16684

Ontonagon County REA has contracted with the Michigan Electric Cooperative Association (MECA) to administer the Energy Optimization efforts in order to comply with P.A. 295. MECA filed a 4-year Energy Optimization plan with the MPSC on Aug. 1, 2011, as required by P.A. 295. This EO plan was approved by the MPSC on Nov. 10, 2011, and we began implementing the plan Jan. 1, 2012. The Wisconsin Energy Conservation Corporation (WECC) was selected to implement all Residential, Commercial and Industrial Programs, and the Energy Optimization website michigan-energy.org. WECC has subcontracted with JACO, Michigan Energy Options, Franklin Energy, Morgan Marketing Partners, and Honeywell to assist with the implementation of the EO Programs. MECA contracted with KEMA as the independent third party evaluation contractor for the certification of kilowatt-hour savings.

In 2012, Ontonagon County REA collected \$67,193 through the Energy Optimization Surcharge and spent \$45,447, resulting in an over-collection of \$21,746, which will be applied towards the 2013 EO Program delivery expenses and goal achievement. Ontonagon County REA achieved 252.6 megawatt-hours of energy savings in 2012. The full report can be obtained at michigan-energy.org or efile.mpsc.state.mi.us/efile.

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 Ontonagon County Rural Electrification Association to fully comply with Public Act 295 of 2008.

Case No. U-17371

NOTICE OF OPPORTUNITY TO COMMENT

On March 15, 2013, April 2, 2013, and May 2, 2013, the Michigan Public Service Commission (Commission) ordered Ontonagon County Rural Electrification Association to file an energy optimization plan on or before August 1, 2013, to comply with the "Clean, Renewable and Efficient Energy Act" (2008 P.A. 295, MCL 460.1001, et seq.) in Case No. U-17371. On July 30, 2013, Ontonagon County Rural Electrification Association filed its application for an Energy Optimization Plan with the Commission.

Any interested person may review the filed Energy Optimization Plan on the MPSC website under Case No. U-17371 at: michigan.gov/mpscdockets and at the offices of Ontonagon County Rural Electrification Association, 500 J.K. Paul Street, Ontonagon, Michigan or at the office of the Commission's Executive Secretary, 4300 W. Saginaw, Lansing, Michigan 48917, between the hours of 8 a.m. and 12 p.m. and 1 p.m. and 5 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 October 6, 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 Ontonagon County Rural Electrification Association, 500 J.K. Paul Street, Ontonagon, Michigan 49953. Electronic comments may be emailed to: mpscdockets@michigan.gov. All comments should reference Case No. U-17371. Comments received in this matter will 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 energy optimization plan together with any filed comments and provide a response indicating any revisions that should be made. If the Commission suggests revisions, Ontonagon County Rural Electrification Association will file a revised EOP plan. A Commission order will be issued following the filing of the application.

ONTONAGON COUNTY RURAL ELECTRIFICATION ASSOCIATION

OUR ISLANDS

Michigan not only has great lakes, we have great islands. Fox, Grand, Bois Blanc, Drummond, Poverty, Shoe and Snake. North Manitou, South Manitou, Whiskey and Waugoshance. Garlic, Gull, Ripley Rock, Partridge, Wood and Naomikong. Neebish, Two Tree, Goat and Memory. Their names roll off your tongue like pebbles skipped across the water. About 400 are named, and hundreds more aren't.

Our islands don't appear in the open hand we use to show the world where we live. We don't have nearly as many as Alaska or Florida, but we're near the top of the list. And of those islands, two are unique in the world. We owe one island to the persistence of journalist Albert Stoll, a conservation columnist for the *Detroit News* who championed its designation as a national park, which was finally achieved in 1940. We owe the other to a simple idea: no cars allowed.

Finally got to Isle Royale this summer with my son Jon, who left the heat and bustle of Chicago for the cool nights, starry skies, woodland flowers and rocky trails of one of the nation's most pristine parks. Our least-visited national park is as far from Detroit—about 485 miles as the crow flies—as New York and Des Moines. In the middle of Lake Superior, you can't get there by car, which is what protects it from the harm too many visitors would inflict. Life is precarious on Isle Royale. Fragile flowers cling to rock. Ghostly fir trees wear lichen coats of translucent green. (The lichen appearing to either cause the death of the skinny trees or, at least, to have taken advantage of their frailty.)

Nature's delicate balance is most troublesome for the island's wolves now, as scientists consider whether to import wolves from the mainland to refresh the pack. Without new blood for 18 years—the wolves must cross frozen Lake Superior from Minnesota or Canada—the pack has dwindled to eight members, leaving the moose to multiply to 900 or so. The moose population obviously likes this arrangement. (You'd think 900 moose would be enough incentive for the wolves. Or, just put up a billboard on the Canadian shore of Lake Superior: a picture



Can you find the young woman reading a book on the shore of Isle Royale?

of a moose with an arrow pointing to the island. Wolves are smart, right?) We saw neither animal on our hikes, but heard wolves howling and saw moose droppings.

Wilderness areas, like Isle Royale, give us a chance to recharge, connect with our primal beings, and simplify our lives. Not many of us would choose to live for long without the trappings of modern life, but it's nice to have those places where we can. People of all ages take advantage of the Isle. We met homeschool campers, adventurous young adults, families, and retirees on the trail. One encounter, though, left us puzzled: We met an elderly couple from Alabama who had driven from Huntsville to Houghton, then caught the plane to the island so he could see for himself the little copper mining pits dug by natives centuries ago. After a couple of hours, they flew back. We saw those little copper pits, and though interesting, they alone aren't worth the trip.

When you're on the Isle, you're off the grid. There's little or no cell phone service, spotty internet if you happen by the Isle offices at a good time, and no television. It's like living in rural America before co-ops electrified it. The National Security Agency would have a hard time tracking you there.

Not so on Mackinac Island, we discovered during a recent summer: Japanese teenagers chat in their native language and English, wear flip-flops, shorts and t-shirts with English messages, and take pictures of everything. "Let's get this over with," says one teenager in a group photo. A large Finnish family of all ages tries to agree where to go next. A newly married couple from England drives for 15 hours from

Philadelphia to spend the night, because the bride wanted to see the place where the movie "Somewhere in Time" takes place.

You may think Detroit is the international destination in Michigan, but I'd argue that for the summer months that distinction goes to charming Mackinac Island. You can hear every language under the sun there on any given day. Horses and bicycles rule—alongside cell phones. It's hard to pretend you're "somewhere in time" when modern technology keeps bumping into the past on every street and in every restaurant and fudge shop. (I wonder if Kindles now outnumber real paper books in the hands of folks reading on the Island's many porches?)

I hear that you can't stop progress. Though Mackinac Island might be a calmer place without it, progress could ruin Isle Royale. Let's hope that doesn't happen.

(On a positive note, technology can help you keep that Mackinac Island spirit alive all year long. Sign up for Bree's Mackinac Island Blog, bree1972.wordpress.com. It's filled with photos and commentary as the author chronicles Island life. For Isle Royale, watch for the independent movie "Fifty Lakes, One Island" by Chicago filmmaker George Desort, who spent 80 nights on Isle Royale in 2011 traveling alone, by kayak, with his camera. You can see it at the Besse Center Theater in Escanaba on Sept. 12, baycollege.edu/filmseries.)

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



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**Ontonagon County Rural
Electrification Association**



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Independence | Education & Training | Cooperation | Concern for Community

**ONTONAGON COUNTY
REA**