

Michigan

COUNTRY LINES



Readers' Recipes

Holiday Desserts



Visit cloverland.com for a copy of the Fair Rate Proposal brochure or call us and we'll mail one to you. (See p. 2)

2 Fair, Simple Responsible

7 Your Co-op Through The Years

19 Geothermal Myths



FURNACE ENVY

Today's fossil fuel furnaces and air conditioners simply can't "measure up" to a 7 Series geothermal comfort system from WaterFurnace. The 7 Series 700A11 is the **first variable capacity geothermal system available to homeowners and sets a new standard for performance, surpassing both the 41 EER and 5.3 COP efficiency barriers.** A WaterFurnace system taps into the **free, renewable supply of energy** found in your own backyard to provide superior heating and cooling comfort and **savings up to 70% in energy costs.** With added benefits like safe, clean, quiet, reliable operation, it's plain to see that a 7 Series makes **ordinary units seem small by comparison.** For more information, contact your local WaterFurnace dealer today. Also, ask about an equipment upgrade with the 7 Series Performance Monitoring Package, with future Wi-Fi communication connection.

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Cooperative
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POSTMASTER: SEND ALL UAA TO CFS.

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

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

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

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

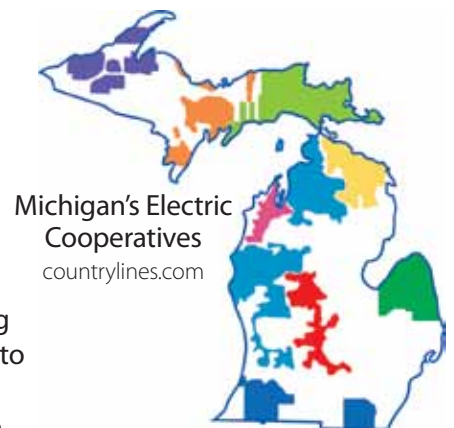
YOUR CO-OP

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cover, 2-3, 6-7, 18-19,
22-23, back
*Not in all editions

On the Cover*

Cook up some holiday fun with your family by trying some dessert recipes sent in by our readers. Thanks to all who sent in recipes in 2013!

Photo – Robert Bruce Photography/robertbrucephotography.com



Michigan's Electric
Cooperatives
countrylines.com





MEMBER SERVICE CENTERS

Monday–Friday • 8 a.m. to 4:30 p.m.

906-635-6800 • 1-800-562-4953

2916 W. M-28, Dafter, MI 49724

836 M-134, DeTour Village, MI 49725

6214 County Rd. 403, Newberry, MI 49868

2972 W. 8th St., Sault Ste. Marie, MI 49783

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PRESIDENT’S MESSAGE

Fair, Simple, Responsible

Your co-op submits a rate filing for MPSC approval.

In our last issue of *Michigan Country Lines*, I shared with you some proposed changes to our rate structure. Our “Fair Rate Proposal,” which is awaiting approval by the the Michigan Public Service Commission (MPSC), will give us the revenue we need to maintain a safe and reliable system and a rate structure that is simple and fair to all Cloverland Electric Co-op members.

We decided to submit the rate proposal after carefully reviewing the results of a cost-of-service study completed last year with the help of The Prime Group, LLC, a nationally-recognized utility consulting firm specializing in rate design and these types of complicated studies.

We’ve crisscrossed our service area to meet with members, deliver presentations about the rate proposal, and answer questions. We also presented information in this magazine, on our website, and in brochures we make available to our members. On Oct. 7, 8 and 9, we held informational meetings in our membership districts. You asked good questions about the ratemaking process, our plan for implementation, and how it will impact you. While change is never easy, we know this proposal is the right thing to do because it satisfies three important objectives of our ratemaking process: fairness, simplicity and responsibility.

Fairness

Fairness plays a key role in everything we do. As a not-for-profit cooperative, our goal is to charge our members what it costs to serve them—no more, no less.

Under our current rate structure, two members who use the same amount of electricity for the same purpose can pay two different rates. It all depends on whether the service location was previously served by legacy Edison Sault or Cloverland Electric. Our cost-of-service study also found that some rate classes were subsidizing the cost to serve other classes.

Neither situation is consistent with the principle of fairness, so a change was needed.

Simplicity

We understand that electric rates, industry terms and government-mandated surcharges can be confusing. Some of that we can’t change, but some parts we can. Under our Fair Rate Proposal, the rate structure will shift from a web of rate classes spread across two separate sets of rates to a single set of rates with three simple classes: residential, general service, and large power service. This will make it much easier for members and reduce the amount of time the co-op must spend in analyzing and administering so many different rate classes.



Daniel Dasho
President & Chief Executive Officer

Responsibility

Cloverland was founded 75 years ago to deliver safe and reliable electricity to its members. It is our responsibility to continue fulfilling that promise every day by taking care of our system and making the investments it needs. Through our cost-of-service study it became clear that our facility charges were not sufficient to cover current and future needs. The facility charge should cover the cost to provide service from the substation to the meter regardless of the kilowatt-hours used. It does not, and we simply cannot compromise safety and reliability.

The facility charge you pay each month was last changed between 10 and 30 years ago, depending on your service location. Think about how much has changed. Technology, equipment, demographics, energy markets, labor and material costs have all changed, yet our facility charge has stayed the same. Under our proposed rate structure, Cloverland’s monthly facility charge will remain in the middle of the pack as compared with the same charge at other Michigan electric co-ops.

We will keep you updated on the status of the rate proposal as it moves through the MPSC review process. However, if you have questions or would like to invite a member of our team to visit with your group, please call 800-562-4953 or email me at ddasho@cloverland.com.

Employee highlights

We are pleased to announce that **Cory Wilson**, of Sault Ste. Marie, is our new member services manager. A 1997 graduate of Ferris State University, he began working for the co-op in 2009 in the marketing and communications department. Cory, and his wife, Jennifer, and 7-year-old son, Avery, enjoy camping and sports.

Roger Line of Sault Ste. Marie is our new our hydro plant manager. Roger began his career in 1998 as a maintenance machine helper in the hydro plant. He then worked as a repairman in the powerhouse until 2012, when he was then promoted to foreman. Roger, and his wife, Melissa, have two children, Brandon, 16, and Jillian, 9. He and his family enjoy camping, four-wheeling and snowmobiling.

Cory and Roger take over the management positions previously held by **DeJay Bumstead**, who retired in October after 27 years of service, and **Brent Belleau**, who retired in September with 40 years of service. Other recent retirements included hydro plant electrician **Mike Babcock**, with 26 years of service.

We welcome **Ben Forejt**, of Sault Ste. Marie, to our team. Ben started in September as our hydro plant electrician. Ben is a journeyman electrician and enjoys martial arts.



Cory Wilson
Manager of Member
Services



Roger Line
Hydroelectric Plant
Manager



Ben Forejt
Hydroelectric Plant
Electrician

Note-worthy...

Cloverland Electric Cooperative is computerizing its mapping system based on Geographical Information System technology. As part of this project, we are collecting field data points for all the installed electrical facilities and equipment across our service area.

Global Mapping Services is performing this work for us in the followings areas: **Brimley, Curtis, Dafter, DeTour, Eckerman, Engadine, Goetzville, Gould City, Hulbert, Kinross, Newberry, Paradise, Pickford, Raber, Rudyard, Sault Ste. Marie, Stalwart, and Strongs**. Contractors carry a letter of introduction and vehicles (including ATVs) have "Contractor for Cloverland" identification signs. If you have any questions, please call our office.



See Who's Celebrating With Us...

Earlier this year, we asked our members to call us if they were celebrating their 75th birthday this year, just like us. Our phone started ringing soon after and hasn't stopped yet. We are excited to recognize the following Cloverland members who were born the same year that we turned on the lights for the first time.

These members will receive a copy of "On Their Own Power" by author Ray Kuhl, which celebrates the history of Michigan's electric cooperatives.



Happy Birthday!

Richard Trapp	Tara Ghidotta
Nick DiPonio	Maxine Bertram
Luell A. Raymond	Darlene Jarmusch
Ron Morgan	Mona Hyndman
Dianna Morgan	Judy Eby
Meryl Kingren	Mary Lou Marx
Verna Mattern	Keith Jacobson
Shirley Feltis	Tom Burnet
Gail Dill	William J. Reau
Nancy Hascall	Nancy Fearn
Christina Daniels	Larry A. Rice
Thomas Witrens	Janis Holle
Ken Schmitigal	Jackie Saeger
Sharon Alespaugh	Janet Church
Mona Hindman	Tom Hartley
Dino Sartor	Robert Coon
Joanne Sartor	Dean & Inez Crosby
Fred Renaud	Shirley Patrick
John Bunker	Ron Hudak
Lorna Bowers	Donald Humphrey
Vern Behm	Susan L. Sundstrom

Letters & More

Reader letters, Mystery Photo, phone scams and more. It's all here on your Readers' Pages.



Crisp Point Light

The [Sept. mystery] photo is Crisp Point Lighthouse, located on Lake Superior, 14 miles west of Whitefish Point. By car, it's accessible by following County Road 412 "forever" (about 18 miles off the main road). Our last visit was for our 45th anniversary in June 2012. Just after the Duck Lake fire in Luce County that threatened the whole area, CR 412 was the fire break line.

Built in 1904 as part of the U.S. Life Saving Station (USLS), it was part of a building complex established in 1878. The Light was automated in 1947. It is now manned by volunteer keepers. In 1965, all the USLS buildings and keepers' quarters were razed by the Coast Guard. Only the lighthouse and a reconstructed fog-signal building remain today. The light was deactivated in 1989, but is being restored and maintained by volunteers. Threatened by shoreline

erosion, it was once listed as the most endangered lighthouse on the Great Lakes. Much effort was put forth by the "Save Crisp Point Lighthouse" group, for a job well-done. Thanks for featuring one of the most remote land lights in Michigan.

– *Mary Ellen Krieg, Big Bay Alger Delta Cooperative*

This little light has come a long way. Not that long ago, I stood with my dad at the base of it, thinking Lake Superior only needed a few more feet and that tower would be hers. I spent many free weekends, as did my siblings, dad and many more volunteers keeping Lake Superior at bay. Thanks to many, this light is now much more accessible than it was the day I stood at Crisp's tower watching the waves lash her base.

– *Dianna Koteskey, Boyne City Great Lakes Energy*

Crisp Point Light is a favorite place that we visit at least once a year. They have raised enough money to build a gift shop with bathrooms (all solar powered) and they just installed the light and stones on the eastern shore to help stop erosion. It is a great place!

– *Cindy Miller, Ravenna Great Lakes Energy*

Getting Green...Again

While reading your September recycling issue, I was inspired to try, try again. My first attempt to get "green" was in the late '80s. I thought I could

simply be a good example to my children by making it fun and educational, as my sixth grade teacher had at the beginning of my conservation era. Those concepts were similar to what my father ingrained in us at home. We were expected to make sure we left a room better than we found it, and no shirking. Unfortunately, what worked for our family's version of conservation probably wouldn't have worked for society.

To error on the fun side, we set up bins in the garage. As our children grew into teen-hood, crushing cans was a good vent for them. Then the novelty wore off and we moved, and my plans were lost amidst packing. Excited to get my act together, I called our disposal company and asked how to get rid of batteries (I collected a milk gallon full) only to be told it was best to just put a few in our garbage can per week. The not-so-merry-go-round of recycling fizzled again. If only there was a "Crash My Bin" series for us recycling wanna-be's.

Now our kids are on their own, and hopefully recycling. I thought recycling would be easier as empty nesters. Not! We've made our last move, edging toward retirement. Yet, here I am back at the starting line reading an article that encourages me to try again. I read it several times and decided that instead of trying to race with what seems like Olympic conservationists, I will be content to be my own shade of "green." I may not

be the deep-green oxygen-rich "rally the community with style" type, nor will I be the barely-green slug that snarls at any form of segregated refuse. I will inch my way into leaving things better than I find them and fight against becoming a shirker, 'cause that would be, you know, yellow.

– *Sylvia Zion-Harris Midwest Energy*

Shale Gas Story

Your "Shale Shock" article [October] failed to mention the costs that are not yet being met by the fractioning drillers. Below-ground fresh water consumption by the fractioning process threatens, in some cases, the ground water supply for neighboring homes and farms. Contamination of surface water sources by undefined effluent is real and very serious and damaging to human beings and other animals for great distances downstream. These costs MUST be borne by the drilling companies, and the ultimate cost will be passed on to individual and corporate consumers. Please publish!

– *Rev. William Fleener Sr., New Era, Great Lakes Energy*

I was disappointed in the way your article 'glossed' over the impact of hydro-fracking in the quest for natural gas. I recently read these statistics:

Hydro fracking is responsible for the following: 450,000 tons of air pollution produced in one year; 250 billion gallons of fresh water used since 2005; 360,000 acres of land degraded



◀ DO YOU KNOW WHERE THIS IS?

Every co-op member who identifies the correct location of the photo at left by **Dec. 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 Jan. 2014 issue.

The September contest winner is Mary Lapinski of Mason, who correctly identified the photo as Crisp Point Lighthouse in Luce County on Lake Superior.



Photo - Jayne Graham

September photo

since 2005; 100 million metric tons of global warming pollution since 2005.

Those 250 billion gallons of fresh water are contaminated and lost to our use forever. Can we afford that? I think you owe it to your readers to disclose ALL the facts, not just the ones that support your argument.

– Duane De Vries, Newaygo Great Lakes Energy

concerns about the environment. Our main objective is providing you with safe, affordable, dependable electricity in the most environmentally-sound manner possible.

In its fact sheet, “Questions and answers about hydraulic fracturing in Michigan” (tinyurl.com/o2yfr8j or call 800-662-9278), the Michigan Department of Environmental Quality (MDEQ) provides answers to the concerns noted in your letter(s). One section notes that, “Many people are surprised to learn that 99.5 percent of ‘fracking fluid’ is water and sand.” Chemicals comprising the other .5 percent are also listed.

Michigan has some of the nation’s most protective regulations governing oil and gas development, and are updated regularly. New rules, developed with public input, were released just this week that strengthen regulation and provide some answers to citizen concerns.

The MDEQ also notes that fracking has been used on over 12,000 wells here for over 50 years “without any consequence to the environment or public health.”

Editor’s Note: Thank you for taking time to write. The natural gas article wasn’t intended to have a pro/con focus. Rather, it’s part of a series on how various fuels (including coal, nuclear, wind and other renewables) are used to generate electricity. It also shares the fact that natural gas use is increasing and predicted to majorly impact America’s energy future. Particularly, due to new emissions standards, power plants are moving away from burning coal and towards gas because most newer gas facilities produce emissions within range of the law limits.

Based on scientific research and facts, electric co-ops support natural gas exploration, but also recognize co-op member



Energy Efficiency

Tip of the Month

Consider using solar lights for outdoor lighting. Solar cells convert sunlight into electricity that can be stored in a battery and tapped at night to make light. Check manufacturers’ instructions to make sure your solar lights are situated to receive sufficient sunlight to recharge each day.

– Source: U.S. Department of Energy

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

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

HOW TO CHANGE YOUR MAILING ADDRESS

Please call or mail information to your electric co-op, as they maintain the mailing list. See page 2 for your co-op’s contact information.

Scams Targeting Consumers Increase

The number of phone scams trying to get money and personal information from unsuspecting victims is increasing, reports the Better Business Bureau (BBB). Callers pose as representatives of utilities, Medicare, law offices, charities and even the BBB. Some scammers have even shown up at homes, demanding payments.



Electric co-ops are also being warned of increasing scams that target both the utility and their members, reports Timothy Johnson, deputy chief member counsel for the National Rural Electric Cooperative Association (NRECA).

The newest is a text message telling a co-op member their electric account has been hacked and asks them to text back “send now” to reactivate it. Immediately delete this type of text without replying, and call the co-op (preferably on a different phone). Texting back could completely compromise personal identification information.

Another scare-tactic is a call claiming your power will be cut off if you don’t immediately pay the bill over the phone with a credit card. Utilities nationwide are reporting similar scams. Sometimes they instead ask you to make a payment through a third-party pay system or by getting a prepaid debit card. Others may say you have an unpaid credit card or traffic ticket and threaten legal action if you don’t pay immediately.

In almost every situation, fraud experts say you should always be the one to initiate a call where you need to give personal information. It’s your money and your identity, so ask questions and stay alert.

If it’s utility-related, also contact your local electric co-op or other provider to report the incident. By calling directly, you can talk to a service representative who will confirm your bill and let you know of any problems with your account.

Your electric co-op will not call or email for your account number or password. Also, don’t trust caller ID to show a location because scammers use internet calling technology that may not reflect where they really are.

Here are other tips from the Better Business Bureau:

- Always confirm that you are speaking to a legitimate company representative. If there’s doubt, hang up and call the company back by using the phone number on your bill (not a number the scammer may have provided).
- Be wary of demands for immediate payment or in forms that are hard to trace, such as Western Union or MoneyGram.
- Never give your credit card, debit card, Social Security, ATM, checking or savings account numbers to anyone who comes to your home or asks for information by phone, text, or email. You should always be the one to initiate such transactions.
- Never allow anyone claiming to be a utility service person into your home unless you made an appointment and they show proper identification. Contact police if you become concerned for your safety.

If you have any concerns about calls or visits from utility representatives, please call your local electric co-op at the number on your bill immediately.



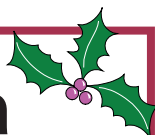
Severe Storm Preparedness Kit Checklist

- Water** – fill up bathtubs and containers with water for washing, and also stock up on bottled water for consumption.
- Food** - at least enough for 3 to 7 days, non-perishable packaged or canned food, juices, foods for infants or the elderly, snack foods, non-electric can opener, cooking tools, fuel, paper plates and plastic utensils.
- Blankets, Pillows and Seasonal Clothing Items**
- First Aid Kit / Medicines / Prescription Drugs**
- Special Items - for babies and the elderly**
- Toiletries / Hygiene items / Moisture wipes**
- Flashlight / Batteries**
- Radio and Clock** - Battery operated, also consider purchasing an NOAA weather radio
- Telephone** - Fully charged cell phone with extra batteries and a traditional (not cordless) landline telephone
- Emergency Numbers** – Keep a list of emergency telephone numbers including the local utility company
- Keys**
- Cash (with some small bills) and Credit Cards** - Banks and ATMs may not be available for extended periods
- Toys, Books and Games**
- Important documents** – (in a waterproof container or bag) insurance cards, medical records, bank account numbers, Social Security card, birth certificates etc.
- Tools** - keep a set with you during the storm. Some items include duct tape, screw drivers, work gloves, safety goggles, etc.
- Vehicle fuel tanks filled**
- Pet care items** - ample supply of food and water, proper identification, immunization records, medications, a carrier or cage, muzzle and leash.
- Keep family and friends out of flooded basements to avoid electrical shock.**
- Keep family and friends away from all downed power lines during or after a storm.**
- Be sure to follow all manufacturers' recommendations when using a generator to avoid tragedy. Never plug it into a wall outlet or directly into the home's wiring.**

For additional safety information, please visit:



Stocking Stuffer Idea



Find out how much energy the stuff around your home uses. Connect an appliance or electronic device into the **Kill A Watt™** and plug the device into a wall outlet. Press the kilowatt-hour button and the digital screen displays the kilowatt-hours used.

Dafer | DeTour | Newberry | Sault Ste. Marie



\$24.95 plus tax

Access to Rules and Rates

This notice is published pursuant to the rules established by the Michigan Public Service Commission as set forth in the Consumer Standard and Billing Practices for Electric and Gas Residential Services, R460, 2146 and 2149.

As a member-customer of Cloverland Electric Cooperative, the following information is available to you upon request:

- 1) Complete rate schedules;
- 2) Clear and concise explanation of all rates that the member may be eligible to receive;
- 3) Assistance from the cooperative in determining the most appropriate rate for the member when the member is eligible to receive service under more than one rate;
- 4) Clear, concise explanation of actual energy use for each billing.

'30s and '40s

- Co-op's first organizational meeting at the Dafter Township Hall.
- First General Manager is Harley C. Peasley.
- First office located on Portage Avenue, Sault Ste. Marie.
- First office phone number was 175.
- REA loan funds \$427,000 (352 miles of line) in Chippewa and Mackinac counties. Term: 20 years; Interest: 2.37 percent
- First shipment of poles arrive from Brown Wood Preserving Company, Louisville, KY. Life expectancy: 35 years.
- Over 650 attend dedication ceremony in Rudyard with Gov. Frank Murphy.
- Co-op establishes two-year power contract with Edison Sault.
- Edward Doll elected first board chairman. He served for 38 years.
- \$2.50 first 30 kWh; 4.5 cents next 50 kWh; 3 cents next 120 kWh; and 1.5 cents for all additional kWh.
- First lines energized; about 100 miles of line to serve 1,098 members.
- First service installed to Edward Doll.
- Board of directors expanded from seven to nine members with the election of Clifford Roberts and Frederick Taylor.



'50s

- Co-op starts self-billing system—members read their own meters and send in payments.
- Lines built and energized to Sugar, Neebish and Drummond islands.
- Construction of Dafter generating plant by Kaysner Construction of Sault Ste. Marie.
- Crew stationed in DeTour.
- 69,000kv transmission line to Newberry put in service.
- Diesel generators in Dafter placed in service.
- First scholarship recipient—Raymond Nesseth, 1959 Brimley High—\$200 in academic fees.

'60s

- First change in rates since January 1939.
- Expansion of Dafter generating plant.
- Deer Park receives power (1965).
- Article VII amended to read "the term of existence of the Corporation shall be perpetual."
- Cloverland and Edison Sault build 170 miles of transmission line.

- New automatic yard light introduced for only \$3 per month.
- Co-op purchases a Bombardier "Muskeg" to perform bush control work along transmission lines—known as "the Bomb."

'70s

- Groundbreaking for Dafter office—\$360,000; 16,000 square feet.
- Computerized billing.
- Contract with Edison Sault to share hydro output for 30 years.
- Dafter substation built next to generation plant.
- Co-op achieves national safety accreditation award. Also awarded as first rural electric co-op in Michigan.
- Members urged to reduce consumption due to national energy crisis.
- Fire damages Roberts Generating Station in Newberry. Cause: broken fuel line; \$250,000.
- Newberry office and warehouse opens.

- Co-op starts assigning capital credits.
- PSCR factor introduced as the "Fuel, Purchased Power and Net Interchanged Adjustment".

'80s

- New billing format adopted. Bills mail in envelopes. PSCR is a line item and not a separate bill.
- Co-op sponsors three students to first rural electric youth day in Lansing.
- Co-op mails its first issue of *Michigan Country Lines* to 12,000 members.
- Co-op welcomes largest commercial member—Lou-Pac in Newberry.
- First capital credit retirement of capital allocated in 1978.
- Co-op reveals newest teaching tool—hotline demonstration trailer.
- Dafter mechanics' garage completed.
- Co-op serves 33 islands.

'90s

- Website cloverland.com launched.
- Co-op accepts credit card payments.
- Co-op builds Hulbert and Trout Lake substations and Dafter transmission switching station.
- Lighthouse.Net (formerly Lighthouse Computers) purchased.

- Members can email meter readings instead of calling the co-op.
- Automated meter reading offered. New meters call an 800 number using a member's phone line.

2000s

- Cloverland offers long-distance phone service with Transworld Network at 6.5 cents per minute.
- Sault Ste. Marie and Newberry substations under construction.
- Co-op begins installing AMR meters.
- Members can view and pay electric bill online.
- Members vote and approve co-op's purchase of Edison Sault Electric.

2010s

- Co-op offers paperless billing option through its e-bill service.
- Additional warehouse facilities constructed in Dafter to centralize materials and crews.
- Co-op replaces both of the hydroelectric plant's step-up transformers originally installed in the '60s.
- Director elections conducted by mailed ballot.



Cloverland Electric Cooperative hydro plant in Sault Ste. Marie.

Extreme Efficiency Makeover

Wrap your home in savings.

Extrême home makeovers can update your living space, but an energy efficiency makeover will ensure your home performs at its peak. Everything from “low-hanging fruit,” like swapping out lightbulbs, to “bigger ticket” items such as replacing appliances with newer, energy-saving models is fair game.

Finding ‘Energy Hogs’

If you’re ready to take on a home efficiency makeover, the first step is to call your local electric co-op about an energy audit.

Your electric co-op or a qualified, licensed contractor can conduct blower-door tests or even imaging tests with an infrared camera.

less energy than a traditional incandescent bulb, lasts up to 10 times longer, and can save about \$40 in energy costs over its lifetime. Light-emitting diodes (LEDs) can last even longer, but costs are still high although they keep dropping as the technology becomes less expensive to produce.

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,” says Brian Sloboda, senior program manager for the Cooperative Research Network, an arm of the Arlington, Va.-based

dryer vents, and fans, and weather strip around doors.

There are also some not-so-obvious places for air to flow in and out of your home, notably outlets and behind switch plates. To see if you have air flowing through your outlets or switch plates, light a stick of incense, hold it in front, and watch for the smoke to be disrupted. You can find special sealing kits for outlets and switch plates at home improvement stores.

And don’t forget about applying weather stripping around your attic hatch or pull-down stairs. You may also want to install an insulator box to place over the opening. A kit costs around \$40.



Source—Polk Burnett Electric Cooperative

Infrared cameras can help energy auditors pinpoint areas of air loss.



Source—Boone Electric Cooperative

Sealing up cracks and joists in your attic will help your insulation do its job. Additional or a different type of attic insulation might also be necessary for the roof.



Sealing leaky ductwork will go a long way to improving your home’s energy efficiency.

Blower-door tests find out how much air your home loses every hour, while infrared cameras can more accurately pinpoint where your home loses air. Common culprits include windows, doors and roofs, but air loss can occur in small and innocuous places, such as recessed canister lights and outlets, too.

Next, evaluate your appliances, HVAC (heating, ventilation and cooling) system, and even landscaping for more opportunities.

Lighting

An ENERGY STAR®-qualified compact fluorescent lightbulb uses about 75 percent

National Rural Electric Cooperative Association. “If you look for the ENERGY STAR label, that means the bulb exceeds minimum efficiency standards as tested by the federal government.”

He adds: “The best way to benefit is to purchase a more energy-efficient lightbulb the next time you need one.”

Visit energysavers.gov/lighting to learn about other lighting options.

Seal Air Leaks

A tube of caulk and a roll of weather stripping can go a long way toward saving money on your electricity bill. Caulk around windows,

Sealing up cracks and joists in your attic will help your insulation do its job. But if an infrared scan reveals heat loss through the roof, additional or a different type of attic insulation might be necessary. Use the U.S. Department of Energy (DOE) calculator to see how much is recommended for your climate: tinyurl.com/nbtmt5y.

Programmable Thermostats

A programmable model could help you save big bucks if it fits your lifestyle. This device will turn your temperature up automatically during times of the day you specify. But if you purchase one, it’s important to take

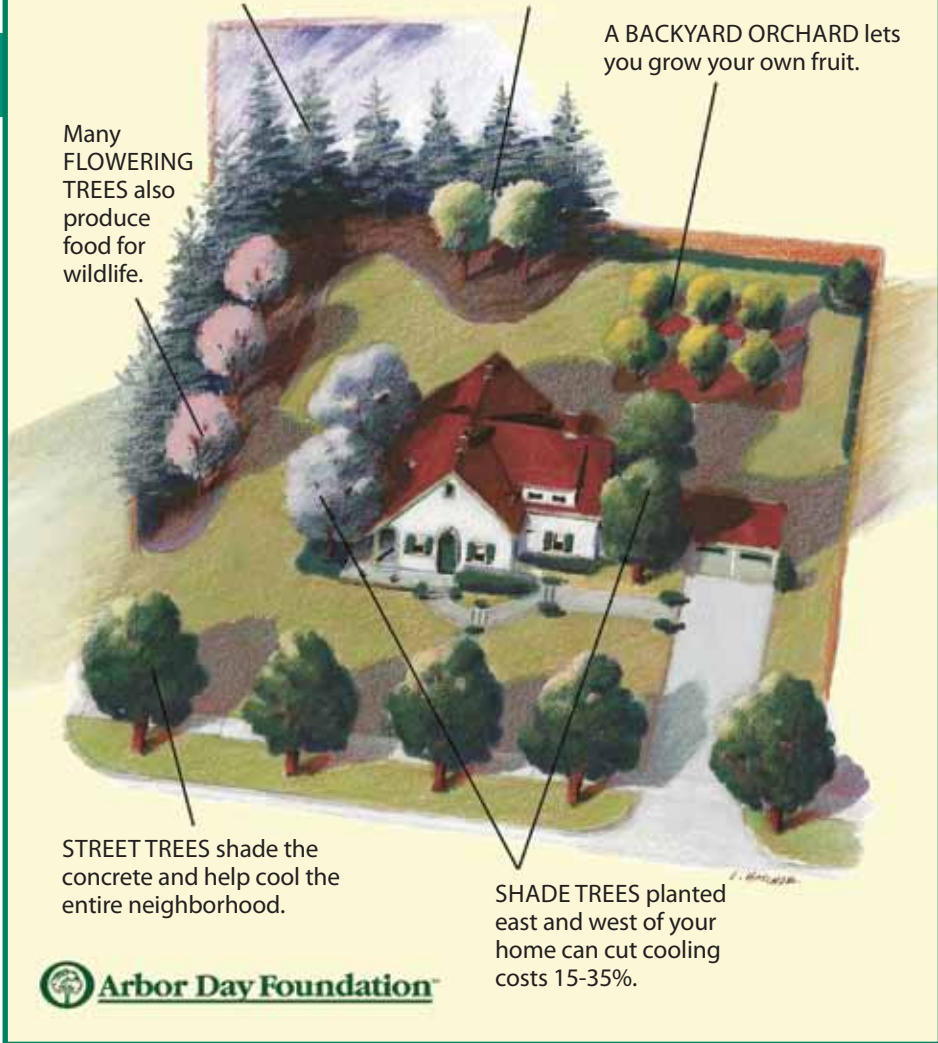
TREES around your home can increase its value up to 15% or more. The trees you plant remove CO₂ from the air, produce oxygen and give songbirds a home. Trees provide many other benefits:

A WINDBREAK can lower heating bills 10-20%.

NUT TREES can be incorporated into windbreaks or serve as shade trees.

A BACKYARD ORCHARD lets you grow your own fruit.

Many FLOWERING TREES also produce food for wildlife.



STREET TREES shade the concrete and help cool the entire neighborhood.

SHADE TREES planted east and west of your home can cut cooling costs 15-35%.



the next step and program it—a step many people fail to take.

“A programmable thermostat is an excellent tool to improve your home’s energy efficiency, but you have to actually program it, and then you have to leave it alone,” Sloboda explains. “Fiddling with the settings won’t help—but getting the settings to where you’re comfortable when you’re home and then forgetting about it will really help with energy savings.”

Programmable thermostats are best for people who regularly leave their homes (without pets inside) for at least eight hours at a time.

Sealing Ductwork

Ductwork could be the most important piece of equipment to seal. If it’s exposed, you can do this yourself with a paintbrush and mastic, which you can purchase at any home improvement store. If not, hire a professional HVAC contractor.

Leaky ductwork will make your HVAC system work a lot harder than it should have to, which drives up your electric bills and wears out HVAC equipment more quickly.

“Ductwork is one of the first places you should look if you’re trying to lower your energy costs,” stresses Art Thayer, energy efficiency programs director for the Michigan Electric Cooperative Association. “Sometimes, ducts aren’t even properly joined at all. That wastes a huge amount of energy. Sealing them up goes a long way to improving your home’s energy efficiency.”

Landscaping

Planting a tree or climbing vine not only adds flavor to your home’s landscape; it can also cool down your house when the sun beats down. Trees in the right spot can decrease your home’s energy use by up to 25 percent, according to DOE.

Plant deciduous trees—those that lose their leaves every year—to the south and west of your home, and you’ll gain shade in the summer and sunshine in the winter. According to DOE, a 6-foot, 8-inch deciduous tree will

begin providing shade the first year. And it only gets cooler after that, reaching your roof line in five to 10 years.

If you want shade all the time or need to block wind, choose evergreens. But when you’re preparing to choose your greenery, keep in mind that trees should never be planted underneath a power line. Call your electric co-op to find out how far from lines you should plant, and visit ArborDay.org to learn about the types of trees that are best for your home’s landscape.

Appliances

Appliances more than 10 years old don’t work as efficiently as newer ENERGY STAR-rated models. ENERGY STAR-qualified refrigerators are 15 percent more efficient than non-qualified models and are 20 percent

more efficient than models that simply meet the federal minimum standard for energy efficiency.

Clothes washers manufactured before 1998 are significantly less efficient than newer models; ENERGY STAR-certified washers use about 20 percent less energy and 35 percent less water than regular washers.

ENERGYSTAR.gov lists dozens of appliances and electronics that exceed efficiency standards; check there for more information.

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

Biomass Fuels Renewable Energy

This is fifth in a series on how electricity is generated. The others covered clean-coal technology, nuclear, wind power and natural gas. Watch future issues for stories about other fuel sources.

Biomass” consists of any biological material that can be burned as fuel to produce electricity, and it’s everywhere. A quick drive down a country road provides a virtual tour of this renewable energy resource: trees, grasses, crops, livestock waste, and even landfill gas. Recent advances in technology have made it possible to use tried-and-true biomass in more efficient ways.

Today, the U.S. has over 13,000 megawatts (MW) of biomass generating capacity, making it the third-largest source of renewable energy behind hydropower and wind.

How It Works

The basic premise behind this power source is simple: Burning actual biomass feedstock or methane gases produced by decomposition of organic material—in whatever form—creates steam, which then spins a turbine and generates electricity.

Given the wide variety of biomass resources available, questions on what to burn and in what manner can be answered in a number of ways:

▲ **Direct-fired systems:** This remains the most straight-forward, time-tested means of producing electricity with biomass. Quite simply, material (like wood “slash” from timbering operations) is shoveled into a boiler to produce heat and steam. Residual heat from the process can be piped off to heat buildings or re-used in other ways, increasing plant efficiencies.

▲ **Co-fired systems:** This method adds biomass to existing fossil fuel-fired plants, mixing wood chips with coal, for example. In this way, fossil fuel plants can lower emissions of certain pollutants while maintaining the same electrical output.

▲ **Gasification:** Slightly more complex, this process converts biomass to a gas through superheating. The resulting synthetic gas (syngas) can be burned in a conventional boiler or used as a substitute for natural gas.

▲ **Pyrolysis:** This technical term describes changing solid biomass into a different form. If biomass is superheated in an area void of oxygen, it will not catch fire but instead will liquefy. The resulting oil can be burned to generate electricity or used in making plastics,

adhesives and other products.

▲ **Anaerobic digestion:** Instead of burning biomass as fuel, this method amounts to piling up waste and waiting. As the name implies, bacteria (anaerobes) literally digest molecules in waste—be it livestock manure or garbage—and produce methane as a byproduct. The gas is then captured and burned to make electricity. Leftover material, in many cases, can be used as compost.

The Future of Biomass

Biomass has come a long way from putting a log on a fire. Applications continue to develop, many of which involve converting biomass to other forms to supplement petroleum use.

New sources of electricity and fuel production are researched every day, and soon, waste such as corn stover (stalks, leaves and husks) and wheat straw will be added to the mix. Non-food crops such as trees and grasses are also being researched for their energy-producing potential, especially in liquid form.

Scott Gates writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association.

Sources: U.S. Department of Energy, U.S. Energy Information Administration



Burning actual biomass feedstock or methane gases produced by decomposition of organic material—in whatever form—creates steam, which then spins a turbine and generates electricity.

Plants for a Cause

Tis' the season for giving, as is apparent by the pleas that appear in our mailboxes from worthwhile charities this time of year. Gardeners can get in on the giving in their own special way by purchasing plants that support a cause.

There have been some very successful campaigns to raise money for different causes by selling plants that are appealing to gardeners and carry a message of hope and inspiration.

Remember Your Loved Ones

'Hosta Remember Me' is a plant that was bred as "June" for Walters Gardens of Zeeland, MI. They renamed it in honor of one of their co-workers, Sandy de Boer, who succumbed to breast cancer in 2001. The folks at Walters Gardens have since raised over \$60,000 to give to the Grand Rapids affiliate of the Susan G. Komen for the Cure organization by donating a portion of the sales of this beautiful plant.

"We are proud to support this cause in the name of Sandy and countless others whose lives have been affected by breast cancer," says Susan Martin, director of Marketing communications at Walters Gardens, Inc.

If a plant could talk, I think 'Hosta Remember Me' would speak of hope and inspiration. The spring leaves emerge in a bright yellow with a narrow, dusty-green edge. By summer they turn a pure white, signaling peace and hope. Like most hostas, this variety is hardy throughout the state. To find it at a garden center near you, visit perennialresource.com and enter the plant name into their plant locator.

Susan G. Komen For The Cure (visit komen.org) was founded in 1982 by Nancy Brinker in honor of her sister, who died of breast cancer at the age of 36.

Pink in the Garden

If you're a hockey fan you may have heard of "Pink in the Rink," a hockey fundraiser for



Invincibelle® Spirit Smooth Hydrangea



Hosta Remember Me



Hosta American Hero

cancer research and awareness. There's also "Pink in the Garden," thanks to the Proven Winners company and their introduction of Invincibelle® Spirit Smooth Hydrangea. Sales of the Invincibelle Spirit has not only raised cancer awareness, but over \$645,500. Of each plant sold, \$1 is donated to the Breast Cancer Research Foundation. Sales of this popular plant and the corresponding Pink Day Fundraisers hosted at garden centers across North America, have helped Proven Winners raise 65 percent of their goal of \$1 million for cancer research.

This is the first pink hydrangea of its kind, according to Proven Winners. It will start flowering in early summer and continue blooming into fall. Like 'Remember Me Hosta,' Invincibelle Spirit is not only beautiful, but hardy even in the Upper Peninsula, which is better known for snowmobiling than lovely gardens!

Honor Our Heroes

Another fundraising campaign initiated by Walters Gardens benefits the troops that so courageously defend our country. For each

Hosta "American Hero" sold, the company donates 25 cents to Project EverGreen, a national nonprofit organization and creator of the GreenCare for Troops program. To date, Walters Gardens has donated over \$4,500 to the program, and the fundraising continues.

The GreenCare for Troops program (visit projectevergreen.org) offers military families assistance in sprucing up their yards by providing landscaping services while their loved ones are off serving their country. Thus far, over 9,000 military families have been connected with over 2,400 volunteers.

Like the heroes they honor, hostas are tough hombres, and the 'American Hero' variety is no exception. This particular hosta has bold variegation that will light up your garden and thick, durable foliage that looks great all summer while you honor the people that serve our country.

Perhaps this holiday season you can buy a gift card to a garden center near you that carries these beautiful plants, or keep them in mind when you're planning ahead for the next growing season.



Croff Craft Custom Driftboats



Small Boats With Big Attitude

Phil Croff wasn't planning to start a boat-building business when he constructed his first driftboat in 2006, using Michigan cedar and walnut. He was looking for a safe way to fish rivers at night—a time when big brown trout come out to feed and anglers wade cautiously to avoid stumbling in the dark.

Croff had worked in the construction trade for years as a finish carpenter. He envisioned a small-but-wide and very stable craft, just perfect for the “tip of the mitt” rivers he likes to fish. When others saw what he built, he began getting orders from anglers who wanted one. And so, a new Michigan business was born: Croff Craft Custom Drift Boats. Its catchy slogan is: “Small Boats with Big Attitude.”

Now, seven years later, Croff's boats are being showcased by Orvis Co., the Vermont-based fly-fishing giant, known for its discerning client base. The company's website features a special 12-foot Orvis Edition Croff Craft that sells for \$10,000.

“I had discovered night fishing for big

brown trout,” explains Croff, the 43-year-old master wood craftsman from Alanson. “It's very addicting, but I hated wading at night. So I got online, trying to figure out how to get on the water to do it. The rivers up here are small. There were 12-foot boats out there, but I couldn't find one stable enough.

“So, I told my wife, ‘I am going to build a boat.’ And her response was: ‘But you don't build boats.’”

Trude Bigelow Croff, his wife of 16 years, laughs about the story. She loves floating on rivers with her husband. Wooden boats have “atmosphere,” she notes, more so than fiberglass, the typical construction material. She's noticed that heads turn when people see a Croff Craft boat go by.

“When Phil told me ‘I am going to build a boat,’ I said ‘you've got to be kidding,’ Trude says wryly. “But Phil is that kind of guy, even in our house. He can't go out and buy something. He has to make it.

“He drew that design on a napkin and I'll be darned if he didn't do it.”

Croff Craft driftboats are handcrafted, one

at a time, to customer specifications. Croff builds them from 12 to 15 feet long. Their deck layouts can be customized, and each offers seating, dry storage, rod storage, an anchor system, and casting braces.

Building a driftboat requires 350-plus hours of labor, Croff explains. The hull is coated with epoxy and fiberglass and then sprayed with a Kevlar-enhanced polyurethane product. All of the other woods get two coats of epoxy and seven coats of clear varnish for a brilliant sheen. His custom oars are built from Douglas fir and clear cedar. Each boat is delivered on a trailer for \$14,000.

“Upper Peninsula cedar is the most outdoorsy wood there is,” adds Croff, a Petoskey native and Great Lakes Energy Cooperative member. “It is the lightest and most weather-worthy wood I can use to build these.”

Croff grew up fishing northern Michigan's small, spirited streams, so he knew a wide, stable hull was in order—one that draws just a few inches of water.

The Croff Craft driftboat is the product of an inspired moment in 2005 when Croff was sitting in a local pub with a buddy. They were comparing notes about boat design, so he grabbed a napkin and began sketching lines. The result became his signature design.

“He's gotten a lot of attention for it,” adds Trude, an artist and the owner of Beveled Edges, a Harbor Springs custom frame shop. “He built that first one for himself, but people keep asking him to build one.

“We still have that napkin. I am going to frame it someday.”

croffcraft.com



Page 12: Top – A Croff Craft three-seat driftboat model called “Traditional,” is the type Phil Croff uses to guide clients in his fishing guide business. A magazine for engaged couples, called “Destination I Do” (spring 2012), also featured his guided fly-fishing trips as an idea for a customized bachelor party. **Left** – Phil Croff gears up for some river fishing on one of his favorite northern streams. **Right** – To find out more about these handcrafted boats call 231-330-5762, visit croffcraft.com or join a blog about them at <http://tinyurl.com/k9tsnsr>.

Page 13: Phil Croff displays a beautiful 19-inch rainbow trout that he caught on an egg-fly while fishing the Pere Marquette River.

Give Thanks!

Kids who practice gratitude grow in health, happiness and learning.

My grandson D.J. performs a trick these days that makes us all melt. His dad calls out, “D.J., you’re welcome.” To which D.J. chirps, “Thank-you!” in his not-quite-2-year-old dialect.

He also says “thank you” when you hand him something he loves—say a blueberry, a ball, or his own special blankie.

Some experts would say that D.J. is too young to understand the concept of gratitude—that he’s just learning by rote what might better be taught later on. I’m not worried. His older sisters learned the habit of gratitude early and, wow, has it caught on.

Last November, the girls created a yards-long paper chain in preparation for Thanksgiving. On every link is written something they expressed thanks for. The attitude stuck, and over the past year they’ve initiated a “Thankful Christmas Tree” and a “Thankful Birthday Countdown” poster.

Now, here’s what’s great: this attitude of gratitude is propelling D.J. and his sisters toward health and happiness, and there is hard science to prove it.

Robert Emmons, a PhD, psychology professor at UC Davis, and arguably the world’s leading expert on the science of gratitude, has compiled the work of dozens of scientists and philosophers in his book, “Thanks!: How the New Science of Gratitude Can Make You Happier” (Houghton Mifflin Harcourt, 2007).

Emmons reports that in contrast to people who listed their hassles, people who wrote down blessings they were thankful for slept better, had more energy, suffered less illness, exercised more, were more optimistic about their future, and felt better about their lives.

And here’s a really surprising part: It turns out that the simple act of giving thanks can even affect how much our kids learn.

The best part is, modeling and teaching gratitude doesn’t cost a dime. It doesn’t take special training, and no special equipment is needed.

Ann Voskamp, author of the best-selling

book, “One Thousand Gifts,” posted a blog describing “15 Happy Ways to Grateful, Joyfilled Kids.” Here is just a sampling of her ideas:

▲ Post a sticky note on the mirror that asks, “*What are you grateful for right now?*”

▲ Make space for thanks. Fill a window or wall with sticky notes of thanks. Hang a paper banner or “Grateful Tree” at the back door and invite the whole family (guests, too) to grab a pencil and writing down one or two gifts every time they come in or out the door.

▲ Leave out a basket of thank-you notes, an invitation to always give thanks to someone.

▲ Leave a “Family Gratitude Journal” permanently open on the counter.

▲ Tuck a note into a lunchbox or a coat pocket inviting kids to focus on what’s good, and write it down. Share their finds every night at dinner.

▲ Take the “no complaining” challenge. Dare to go all day with no complaining. Slip a rubber band or bracelet on your wrist and every time you complain, move it to the other wrist. Celebrate with a special treat when the whole family can go the whole day without moving their bands.

▲ Model gratitude yourself. More is caught than taught. Intentionally live wholesale gratitude. *Let your family see your joy!*

Whatever you decide to do, establish your own daily ritual of sharing thanksgiving...not just in November, but all year long. Chances are, you’ll experience a happier, healthier family.

NOTE: You can read Anne Voskamp’s entire blog post at aholyexperience.com/2012/03/how-to-help-raise-grateful-kids/

Not your style? Check out the PBS Parents article, “10 Ways to Raise a Grateful Kid” at pbs.org/parents/special/article-ten-ways-raise-grateful-kid.html

Call 2-1-1 For Heating, Human Services Help

Thanks to 2-1-1, a free community health and human services information and referral service, help is available to people in need.

By simply dialing 211, available 24 /7, callers will be connected with a trained, caring professional who will confidentially assess their situation, identify their needs and refer them to local resources for help.

The 2-1-1 program provides information and referral for:

● **Basic Human Needs:** food, clothing, shelter, utility assistance, etc.

● **Physical and Mental Health:** medical information, crisis intervention services, support groups and counseling, etc.

● **Support for Older Americans and People with Disabilities:** home health care, adult day care, independent living, workforce training, Meals on Wheels, etc.

● **Support for Children, Youth and Families:** quality childcare, early childhood programs, after-school programs, summer camps, mentoring, tutoring, etc.

● **Crisis Calls:** suicidal thoughts, domestic violence, Public Health Emergencies, etc.

The implementation of 2-1-1 is spearheaded nationwide by United Way and information and referral agencies in states and local communities.

Individuals who need information on how to volunteer or have items to donate to their community can also connect by calling 211.

For more information about services in Michigan, visit uwmich.org/2-1-1; nationwide, visit 211us.org; or, simply dial 211.

Michigan 2-1-1 Service Areas By Regional Call Center

(as of March 2013)



Home Heating Assistance Programs • 2013–2014 Season

Program: Winter Protection Plan

Contact: Your Local Utility Company

# in Household	150% Poverty Guide Maximum Income
1	\$17,235
2	23,265
3	29,295
4	35,325
5	41,355
6	47,385
7	53,415
8	59,445

Add \$6,030 for each additional member.

Note: All customers 65+ are eligible regardless of income. Customers are responsible for all electricity and natural gas used. At the end of the protection period, participants in the plan must make arrangements with their utility company to pay off any money owed before the next heating season.

The **Winter Protection Plan** protects eligible senior and low-income customers from service shut-offs and high utility bill payments during the winter months (Nov. 1–March 31). You may enroll between Nov. 1 and March 31. If you are an eligible low-income customer, your utility service will remain on from Nov. 1 through March 31, if you:

- pay at least 7% of your estimated annual bill each month, **and**
- make equal monthly payments of 1/12 of any past due bills.

When the protection period ends (March 31), from April 1 through Oct. 31, you must begin to pay the full monthly bill, plus part of the amount you owe from the winter months when you did not pay the full bill. **Participation does not relieve customers from the responsibility of paying for electricity and natural gas usage, but does prevent shut-off during winter months.**

You qualify for the plan if you meet at least one of the following requirements:

- you are age 65 or older,
- you receive Department of Human Services cash assistance, including SSI,
- you receive Food Stamps,
- you receive Medicaid, or
- your household income is at or below the 150% of poverty level shown in the Income Guidelines chart at left.

Senior citizen customers (65 or older) who participate in the Winter Protection Plan are not required to make specific payments to ensure that their service will not be shut off between Nov. 1 and March 31. However, seniors are encouraged to pay whatever they can during the winter so they will not have large, unmanageable bills when the protection ends.

Program: Home Heating Credit

Contact: Mich. Dept. of Treasury

# Exemp.	Max. Income	# Exemp.	Max. Income
1	\$12,642	4	25,929
2	17,071	5	30,328
3	21,500	6	34,757

Add \$4,429 for each additional member.

You can apply for a **Home Heating Credit** for the 2013 tax year if you meet the income guidelines listed at left, or you qualify based on alternate guidelines including household income, exemptions, and heating costs. Additional exemptions are available for seniors, disabled claimants, or claimants with 5% or more of their income from unemployment compensation.

If you qualify, you may receive assistance to help pay for your winter heating bills. Forms are available mid- to late-January wherever tax forms are provided, or from the Michigan Dept. of Treasury (517-636-4486, or michigan.gov/treasury). The Home Heating Credit claim form must be filed with the Michigan Dept. of Treasury **before Sept. 30, 2014**.

Program: Earned Income Credit

Contact: U.S. Treasury Dept.,
Internal Revenue Service
irs.gov/EITC

Michigan Dept. of Treasury
michigan.gov/treasury

The **Earned Income Credit (EIC)** is a refundable federal income tax credit for low-income working individuals and families who meet certain requirements and file a tax return. Those who qualify will owe less in taxes and may get a refund. Even a person who does not generally owe income tax may qualify for the EIC, but must file a tax return to do so. If married, you must file jointly to qualify. File Form 1040 or 1040A and attach the EIC.

You may claim a **Michigan earned income tax credit** for tax year 2013 equal to a percentage of the federal earned income tax credit for which you are eligible. Visit the website or see the 2013 MI tax booklet for additional information.

Program: Crisis Assistance Program

Contact: Local Michigan Department
of Human Services (DHS)
michigan.gov/mdhs

State Emergency Relief Program (SER): You do not have to be a DHS client to apply. All energy-related SER requests, including furnace repairs, heat and electricity services must fall within the crisis season, which now runs from Nov. 1 through May 31 each year. Program is subject to funds availability to assist low-income households, and other requirements. However, if you receive a DHS cash grant, you may vendor part of it towards heat and electric bills. Contact your local DHS or call the Home Heating Hotline, 855-275-6424.

Program: Low-Income Home Weatherization

Contact: Local Community Action Agency

You may be able to receive help with weatherizing your home to reduce energy use if you meet low-income eligibility guidelines (150% of poverty guidelines shown above) and funding is available. **Weatherization** may include caulking, weatherstripping, and insulating. Contact your local Community Action Agency for more information. Visit mcaaa.org to find one in your area.

Program: United Way

Contact: Call 2-1-1 or UWmich.org/2-1-1

2-1-1 is a free phone service operating 24 hours per day providing callers information about resources that may be available in their particular area to help with utilities and other needs. Learn more at UWmich.org/2-1-1.

Program: Medical Emergency Protection

Contact: Local Utility Company

You are protected from service shut-off for nonpayment of your natural gas and/or electric bill for up to 21 days, possibly extended to 63 days, if you have a proven **medical emergency**. You must provide written proof from a doctor, public health or social services official that a medical emergency exists. Contact your gas or electric utility for more information.

Program: Shut-off Protection for Military Active Duty

Contact: Local Utility Company

If you or your spouse has been called into **active military duty** you may apply for shut-off protection from your electric or natural gas service for up to 90 days. You may request extensions. You will still be required to pay, but your utility company will help you set up a payment plan. Contact your utility service provider.

Program: MI Energy Assistance Program

Contact: Utility or 2-1-1 in late November

Agency assistance through MEAP, which includes funds from the Low Income Energy Assistance Fund (LIEAF), will be available Dec. 1. Visit Michigan.gov/mpsc for details about organizations that have received MEAP grants. Shut-off protection is provided Nov. 1–April 15 for all residential customers (regardless of income) of any Michigan electric that has chosen not to collect 99 cents monthly from its customers for the LIEAF fund.

See story on p. 14 or dial 211 for more information on heating and other human services programs and help.

HOLIDAY DESSERTS



Red Velvet–Raspberry Tiramisù Trifle

Holidays are a wonderful time to spend with family and friends, but don't forget about the great food! These festive dessert recipes will bring holiday cheer in every bite.

Red Velvet–Raspberry Tiramisù Trifle

- 1 c. seedless raspberry jam
- 1/4 c. black raspberry liqueur
- 1/4 c. fresh orange juice
- 2 8-oz. containers mascarpone cheese
- 2 c. heavy cream
- 1/3 c. sugar
- 1 t. vanilla extract

Red velvet cake, broken in pieces

3 6-oz. containers fresh raspberries

Whisk together first three ingredients in a small bowl. Stir together mascarpone cheese in a large bowl. In another bowl, beat heavy cream at high speed with an electric mixer until foamy; gradually add sugar and vanilla, beating until soft peaks form. Stir one-fourth of whipped cream into mascarpone using a rubber spatula; fold in remaining whipped cream. Arrange one-third of Red Velvet cake pieces in a 3-quart trifle dish, drizzle with one-third of jam mixture, top with one

container of raspberries, and dollop with one-third of mascarpone mixture. Repeat layers twice. Cover and chill 4 to 24 hours before serving. Make snowflake garnishes by tracing snowflake templates on wax or parchment paper with royal icing. Let them dry at room temperature; peel off and place on top.

Amy Breimayer, Westphalia

Chocolate–Cherry Bars

- 2 c. all-purpose flour
- 2 c. quick-cooking oats
- 1 1/2 c. sugar
- 1 1/4 c. butter, softened
- 1 21-oz. can cherry pie filling
- 1 t. almond extract
- 1/4 c. semi-sweet chocolate chips
- 3/4 t. shortening

In a mixing bowl, combine flour, oats, sugar and butter until crumbly. Set aside 1 1/2 cups for topping. Press remaining crumb mixture into an ungreased 9x13-inch baking dish.

Bake at 350° for 15 to 18 minutes or until edges begin to brown. In a bowl, combine pie filling and extract; carefully spread over crust. Sprinkle with reserved crumb mixture. Bake 20 to 25 minutes more or until topping is lightly browned. Melt chocolate chips with shortening in microwave; stir until smooth. Drizzle over warm bars. Makes three dozen. These bars are not only delicious but very festive-looking.

Bonnie Gauld, Fife Lake

Cranberry Pudding

- 1/2 c. boiling water
- 2 t. baking soda
- 1/2 c. dark molasses
- 1 1/3 c. flour
- 1 t. baking powder
- 1 c. whole, raw cranberries

Sauce:

- 1/2 c. sugar
- 1/2 c. whipping cream
- 1/4 c. butter

Mix water, soda and molasses. Add flour and baking powder. It will foam and look terrible. Add cranberries. Pour into a quart-size greased, steamed pudding mold or coffee can. Cover tightly. Place in a steamer or large pan with about 2 inches of water. Cover tightly and steam gently for two hours or until center is set. When ready to serve, unmold and slice or scoop out of steamer into individual bowls. For sauce, mix ingredients together. Heat over low heat until butter melts and mixture is hot, but not boiling. Pour sauce over pudding while sauce is still hot. This is my grandmother's recipe, and I've never seen one quite like it.

Chris McAfee, Pointe Aux Pins

Double Chocolate Bread Pudding

- 2 packages (4-serving size) chocolate cook & serve pudding and pie filling
- 5 c. milk
- 5 c. french bread cubes
- 4-oz. package Baker's German Sweet Chocolate, chopped

In a large bowl, stir pudding mixes into milk with wire whisk for 1 minute or until well blended. Stir in bread. Pour pudding mixture into 9x13-inch baking dish. Sprinkle evenly with chopped chocolate. Bake at 350° for 40 minutes or until pudding just comes to a boil in the center. Remove from oven and let stand for 10 minutes before serving. Serve warm. Store leftovers in fridge.

Marcia Scully, Atlanta

Photography by: 831 Creative



Pretzel Treats

Pretzel Treats

- 1 bag small round pretzels (or waffle-style)
- 1 bag M&M's®
- 1 bag Hershey's Kisses®

Put small round pretzels on cookie sheet and place an unwrapped Hershey's Kiss® on top of each pretzel. Put in 200° oven for 5 minutes. Take out and add an M&M to each top.

Caroline Dinse, Idlewild

Layered Christmas Jello

- 1 small package lime jello
- 1 c. pineapple tidbits, drained
- 1/3 c. drained pineapple juice
- 1 c. boiling water
- 1 package unflavored gelatin
- 2 T. cold water
- 8-oz. package cream cheese (softened)
- 1/4 c. milk
- 1 large package strawberry jello
- 2 c. boiling water
- 1 can whole cranberries

Dissolve jello in boiling water. Add pineapple and juice. Chill in a glass serving bowl. Sprinkle gelatin over cold water to soften. Add cream cheese softened with milk. Mix well and spread over firm lime layer. Dissolve strawberry jello in hot water. Add cranberries; cool. Pour over cheese layer. Chill until firm. This dessert is prettiest when served in a trifle-shaped bowl, but any container works.

Jan Seidel, Gaylord

Oatmeal Cake

- 1 1/4 c. boiling water
- 1 c. quick oatmeal
- 1/2 c. shortening
- 1 c. brown sugar
- 1 c. white sugar
- 2 eggs
- 1 1/3 c. flour
- 1/2 t. salt
- 1/2 t. nutmeg
- 1 t. baking soda
- 1 t. cinnamon
- 1 1/2 c. raisins (optional)
- 1 c. walnut pieces (optional)

Pour boiling water over the oatmeal and let stand for 20 minutes. Cream shortening and

sugars, then add softened oatmeal and rest of ingredients; raisins and walnuts last. Pour into greased and floured 9x13-inch cake pan. Bake at 325° for 40 to 45 minutes or until toothpick comes out clean. This cake does not need icing, as it is moist and tastes just as good without it.

Jean Onsted, Adrian

Cinnamon Cream Cheese Delight

- 2 containers crescent rolls
- 2 8-oz packages cream cheese (softened)
- 1 1/2 c. cinnamon sugar
- 1 stick of butter

Spray a 9x11-inch pan with non-stick cooking spray. Place one layer of the rolls on bottom. Mix cream cheese with 1 cup cinnamon sugar until smooth. Smooth mixture over first layer of rolls. Layer another set of rolls. Melt butter and pour over second layer. Sprinkle top with remaining cinnamon sugar. Bake at 350° for 30 to 35 minutes. To make it as a holiday dessert, sprinkle top with colored sugar. Enjoy!

Deborah Wright-Finedell, Kalamazoo

Christmas Coconut Cake

- 1 1/2 sticks unsalted butter, softened
- 2 c. sugar
- 6 egg whites
- 2 1/4 c. cake flour
- 2 t. baking powder
- 1/2 t. salt
- 1 t. coconut flavor
- 1 c. unsweetened coconut milk
- 1 c. flaked coconut
- garnish: 2 1/2 to 3 c. flaked coconut*

Icing:

- 2 sticks butter
- 1/4 c. shortening
- 1 1/2 lbs. confectioner's sugar (3/4 of 32-oz. bag)
- 1 t. coconut flavor
- 4-5 T. unsweetened coconut milk (shake can well)
- 1 1/2 c. flaked coconut

Preheat oven to 350°. Butter and flour two round 9-inch cake pans. With electric mixer, beat butter with sugar for 3 minutes, until light and fluffy. Slowly add egg whites until blended. In a large bowl, sift together the cake flour, baking powder and salt. Add flour mixture to butter mixture until blended; don't overmix. Divide batter evenly between the cake pans. Bake for 30 to 35 minutes, until lightly golden and firm to touch. Completely cool in pans on wire rack, then carefully unmold. Using a serrated knife, cut each cake horizontally into 2 equal layers (creating a total of 4 layers).

For icing, cream butter, shortening and confectioner's sugar in a stand mixer until light and fluffy. In another bowl, combine coconut flavoring and coconut milk; add 1 cup flaked coconut. Beat coconut mixture into fluffy icing. Remove 2 cups of the whipped icing and stir 1 1/2 cups flaked coconut into it; set aside.

When ready to ice cake, place first cake layer on serving dish. Dollop one-third of frosting with coconut flakes and spread evenly; continue for each layer. With the remaining frosting, frost the top and sides of cake. Finish by gently pressing the remaining 2 1/2 to 3 cups flaked coconut on frosted cake. Serve on elegant glass cake stand.

Karen Belinger, Rothbury

Pecan Derby Pie

- 1 9-inch pie crust
- 3 eggs
- 4 T. butter, melted
- 1/2 c. granulated sugar
- 1/4 c. brown sugar
- 3/4 c. corn syrup
- 2 T. flour
- 1 t. vanilla
- 1 T. bourbon (optional)
- 3/4 c. chopped pecans
- 1/2 c. chocolate chips

Prick piecrust with fork; set aside. In blender, beat eggs, butter, sugars, corn syrup, flour, vanilla, bourbon and pecans. Blend until combined. Spread chocolate chips on bottom of crust. Pour egg mixture over chocolate and bake at 350° for 45 minutes.

Jennifer Sylvester, Sand Lake

Submit your recipe! Contributors whose recipes we printed in 2013 have been entered in a drawing: *Country Lines* will pay the winner's January 2014 electric bill (up to \$200)! The winner will be announced in the January 2014 issue. A new contest will begin with the January issue.

Thanks to all who send in recipes! Please send in your favorite "**Cooking For One**" recipes by **Dec. 10** and "**Easter**" recipes by **Jan. 10**.

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



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

Save Energy While Enjoying the Holidays!

Chances are you're already planning your festivities and pondering that gift list. But there is one thing you may not have thought about yet—your energy use. The holidays are one of the most energy-intensive times of year, but making even small adjustments can turn into big savings! Read below to find out how Cloverland Electric's Energy Optimization program can help.

1. Deck the halls with LED lights. Light-emitting diode (LED) holiday lights are a hot item for many reasons. They use up to 90 percent less electricity and last up to 10 times longer than standard bulbs, produce almost no heat, and are nearly impossible to break.

2. Be smart about lights. Wait until it gets dark to turn on your holiday lights and turn them off before going to bed. Or, put them on a timer to automatically save energy and money.

3. Choose energy-efficient electronics. Any equipment with a plug comprises, on average, up to 15 percent of your electricity use. When buying electronics this holiday (plan on surprising your spouse with a new



water heater?) or anytime, shop the ENERGY STAR® label. You'll get all the same features plus proven, long-term energy savings.

4. Become an efficient chef. No, we're not talking about cranking out 50 pounds of peanut brittle in an hour. It's easy to become an energy-efficient cook! First, preheat your oven as late as possible—there's no sense in wasting heat while you gather ingredients. Second, don't open the oven door to check on your treats—use the oven light instead. Opening the oven door lowers the temperature by as much as 25 degrees, increasing cooking time and wasting energy.

5. Turn down the thermostat when you have guests. With extra warm bodies in the house, you won't need to crank the heat. Save energy and keep your guests comfortable by turning down the thermostat. Also, remember to lower the thermostat when you're asleep or away. **BONUS:** Get an Energy Optimization rebate with a programmable thermostat.

6. Give your appliances a vacation. Before heading off to grandma's house,

unplug as many appliances as possible because many of them continue using energy even when they are turned off. You can also safely lower your thermostat to 55 degrees and turn your water heater to the lowest setting.

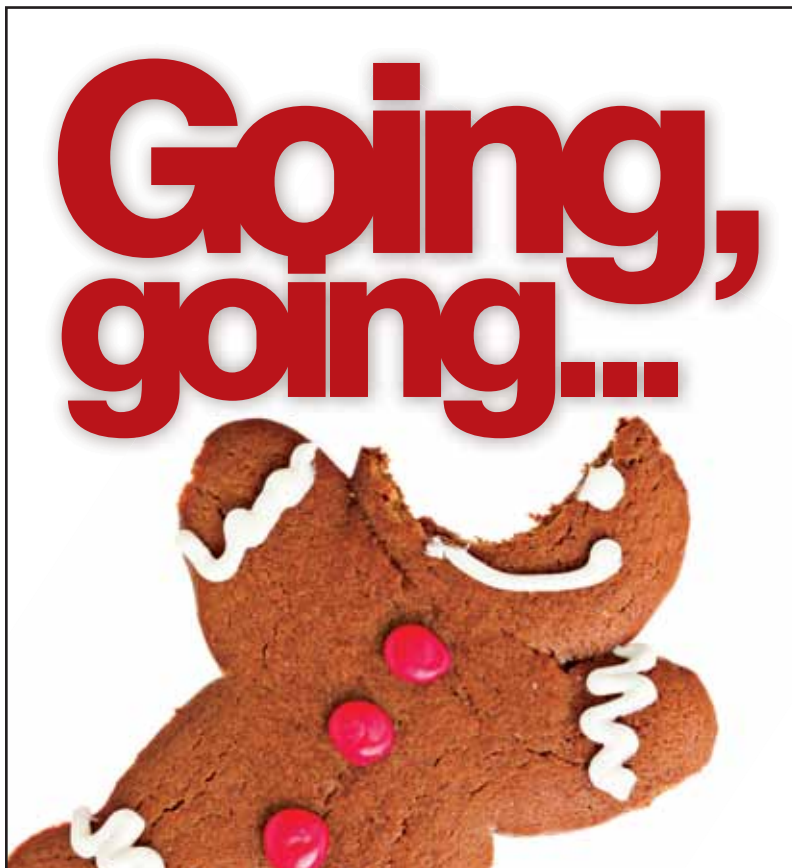
7. Take advantage of rebates. Before ringing in the New Year, take advantage of 2013 Energy Optimization rebates and tax credits! There are many options available for residents, businesses and farms.

Rewards are available on countless energy-efficient products, including:

- Lightbulbs
- Furnaces
- Water heaters
- Refrigerators
- Washing machines
- Clothes dryers
- Commercial equipment
- Farm systems
- Smart power strips



Visit michigan-energy.org to view current incentives or call 877-296-4319 for details.



Claim your rewards before 2013 is GONE!

Looking for ways to save money this holiday season and beyond? Cloverland Electric Cooperative's Energy Optimization program offers rebates on LED holiday lights, ENERGY STAR® appliances, smart power strips and more. **Take advantage of holiday sales AND Energy Optimization rebates** to save now and into the New Year.

ENERGY TIP: Make your energy efficiency purchases by December 31, 2013, before rebates run out and tax credits expire.

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.

Dispelling Geothermal Myths

Countdown of the top 10 myths surrounding geothermal heating and cooling.

10. *Geothermal heat pumps can only be installed in rural areas.* About 15 years ago, the first McDonalds (at Ford and Hix Road in Westland, MI) to have an energy efficient geothermal system was installed, and it made CNN news. Later, a geothermal system was installed at CanField Lofts in downtown Detroit. Both are very urban areas.

9. *It is too cold in Michigan to use geothermal heat pumps.* Geothermal heat pumps have been installed north of the arctic circle and 1 degree from the equator and everywhere in between (of course then, including Michigan).

8. *You need a well to install geothermal.* There are three types of geothermal systems—open, ground source, and closed loop. Closed loop geothermal systems do not use a well.

7. *Geothermal units blow cold air (as opposed to me, who is full of hot air).* Old, less-efficient furnaces blow very hot air at around 130 degrees, then shut off. The house gets hot and then cold, and then repeats that cycle. Geothermal units are designed to run more continuous (like cruise control), blowing air at around 100 degrees. This way, a house stays consistently far more comfortable. When compared with an old furnace it does feel a bit colder, but 100 degrees is more than enough to maintain a comfortable house.

6. *Geothermal units have a bigger carbon footprint than gas or propane furnaces.* A large engineering study done for the Michigan Public Service Commission showed that geothermal units either have the same carbon footprint as gas furnaces or a 5 percent less carbon footprint. Because geothermal units run on electricity that is generated from coal it is not as clean as natural gas, but they are so much more efficient that it balances out to a smaller carbon footprint.

5. *Geothermal units are more expensive than other furnaces.* The first cost of a

geothermal unit is higher than a gas or propane unit. But when you add the operating cost over the geothermal unit's lifetime, it will usually come out less expensive than gas, and significantly less than propane. Think about a car, for example. One costs \$10,000 and gets 10 miles per gallon. The other costs \$20,000 and gets 40 miles per gallon. When you calculate the total expense over the next 200,000 miles, the car that gets 40 miles per gallon is cheaper. Besides, the same geothermal unit can serve both as a furnace for heating and provide air conditioning in the summer, which helps save even more energy and money.

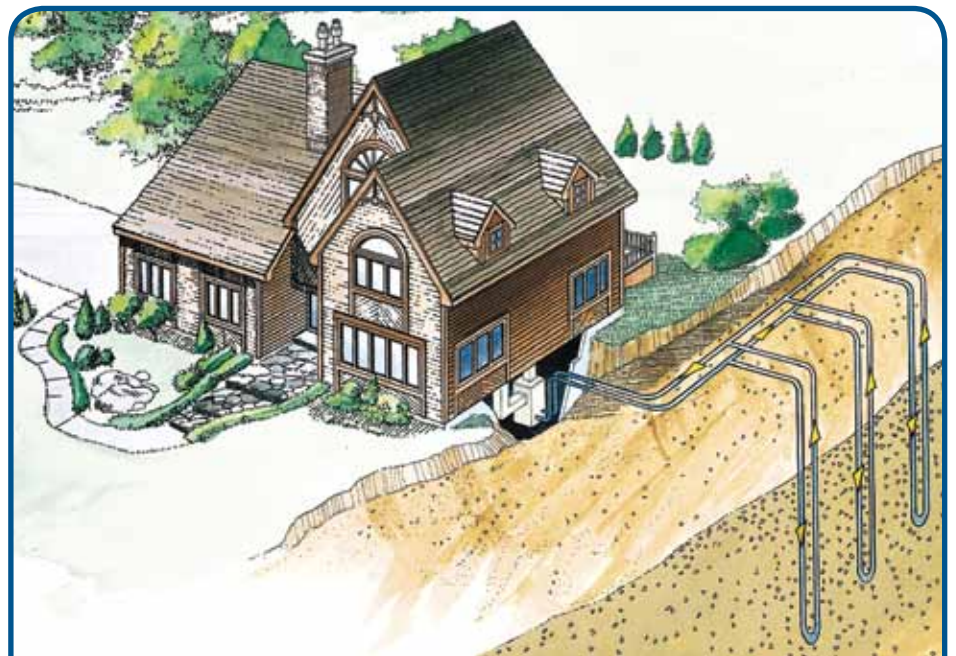
4. *You must put a geothermal heat pump in the basement.* A geothermal unit does not have a flame, therefore it requires no venting and can be placed anywhere.

3. *A geothermal unit eliminates the risk of carbon monoxide poisoning.* A geothermal unit has no flame, so it produces no carbon dioxide. However, you may have other gas appliances, such as a gas dryer, fireplace, stove or gas water heater that could cause a gas leak.

2. *I was elected executive director of the Michigan Geothermal Energy association because of my good looks and incredible intelligence.* Anyone who knows me, knows better.

1. *You say you can't afford a geothermal system.* If you're building a new home or looking to replace your existing heating and air conditioning system and plan on staying in your house more than five years, I say you can't afford not to go with a geothermal system. Geothermal can provide a potential of 30 percent or more savings versus gas, and 60 percent or more versus propane.

Larry Kaufman is executive director of the Michigan Geothermal Energy Association.



The Michigan Geothermal Energy Association (MGEA) was formed in 1993 by geothermal contractors, manufacturers, distributors and electric utilities to promote high quality geothermal energy systems that meet the comfort, efficiency and environmental needs of customers. Earthcomfort.com, MGEA's informative site for consumers, is the best place to learn about geothermal energy and find a geothermal contractor.



Cooking Efficiently

Cooking accounts for 4 percent of total home energy use, according to U.S. Department of Energy estimates, and this figure doesn't include the energy costs associated with refrigeration, hot water heating, and dishwashing.

As holiday parties gear up, keep these tips in mind to control energy costs:

■ **Don't peek.** Every time the oven door is opened, the temperature inside is reduced by as much as 25 degrees, forcing it to use more energy to get back to the proper cooking temperature.

■ **Turn it down or turn it off.** For regular cooking, it's probably not necessary to have your oven on as long—or set as high—as the recipe calls for. For recipes that need to bake for longer than an hour, pre-heating the oven isn't necessary. And residual heat on an electric oven or stovetop will finish the last 5 to 10 minutes of baking time. Just remember to keep the oven door closed or the lid on until time is up. Alternately, if you're baking in a ceramic or glass dish, you can typi-

cally set your oven for 25 degrees less than the recipe calls for. Because ceramic and glass hold heat better than metal pans, your dish will cook just as well at a lower temperature.

■ **Give your burners a break.**

For your stovetop to function effectively, it's important that the metal reflectors under your electric stove burners stay free of dirt and grime.

■ **Don't neglect your slowcooker.**

Or your microwave, toaster oven, or warming plate. For example, the average toaster oven can use up to one-half the energy of the average electric stove over the same cooking time. Information to help you estimate how much energy your own appliances use is available on EnergySavers.gov.

■ **Give your furnace the day off.** If your



Source: GE Appliances

Make good use of your slowcooker, microwave, or toaster oven to save energy.

next party involves a lot of work for your stove, think about turning your furnace down to compensate. The oven's heat and all those guests will keep the temperature comfortable.

■ **Make contact.** Electric stovetops can only transmit heat to pans they are in direct contact with; the less contact your pan has with the burner, the more energy the stovetop will have to expend to heat the pan. If cooking with your warped pan is taking longer than it should, it may be time for a flat-bottomed update.

Protect Electronics, Prevent Hazards

Big-ticket electronics, such as TVs, computers and gaming consoles, are at the top of many holiday wish lists—but safety may not be. Buying, installing and operating these items safely protects not only the expensive equipment, but also your entire home. The Electrical Safety Foundation International (ESFI) offers these tips, and for more information, visit holidaysafety.org.

Safety Tips

- Buy electrical devices from a reputable retailer. Be wary when buying online.
- Check that all electrical items are certified by a national testing laboratory, such as Underwriters Laboratories (UL) or Canadian Standards Association (CSA).
- Read and follow the manufacturer's instructions before use.
- Send warranty and product registration forms for new items to manufacturers in order to be notified about product recalls. Recall information is also available on the U.S. Consumer Product Safety Commission website (www.cpsc.gov).
- Never install an exterior TV or radio antenna close enough to contact power lines if it falls.

- Never remove the ground pin (the third prong) to make a three-prong plug fit into a two-prong outlet.

- All appliances and cords should be kept in good condition. Examine them regularly and repair or dispose of damaged items.

- Keep cords out of reach of children and pets.

- Make sure entertainment centers and computer workstations have enough space around them for ventilation of electronic equipment.

- Keep liquids, including drinks, away from electrical devices. Spills can result in dangerous shocks or fires.

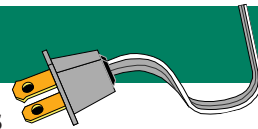
- Unplug equipment when not in use to save energy and reduce the risks for shocks or fires. Power strips or surge protectors make a good central turn-off point.

- Always unplug items by grasping the plug firmly rather than pulling on the cord.

- If you receive any kind of shock from a large appliance or any electrical device, stop using it until an electrician has checked it.

- If an appliance smokes or sparks, or if you feel a tingle or light shock when it's on, stop using it. Discard and replace it or have it repaired by an authorized service provider.

Extension Cords



- Extension cords are meant to provide a temporary solution, not as a long-term or permanent electrical circuit.

- Never use a cord that feels hot or is damaged. Touching even a single exposed strand can result in an electric shock or burn.

- Outside, use only weather-resistant, heavy gauge extension cords marked "For Outdoor Use."

- Keep all outdoor extension cords clear of snow and standing water.

- Do not place power cords or extension cords in high traffic areas or under carpets, rugs or furniture (to avoid overheating and tripping hazards), and never nail or staple them to the wall or baseboard.

Surge Protector or Power Strip?

While surge protectors and power strips both allow you to plug several devices in one location, it is important to understand that they are not interchangeable. A true surge protector includes internal components that divert or suppress the extra current from surges, protecting your valuable electronics from electrical spikes, but a power strip simply provides more outlets for a circuit.

Sizing Up Storm Doors

A variety of options can fit any efficiency need or budget.

Q: *I feel air leaks around my doors, so I'm thinking about adding storm doors. I want ones that also have screens, but my budget is limited. Is it worth-while adding storm doors, and what should I look for?*

A: Even though it is a relatively small area compared to the entire wall of a house, just one door can lose a significant amount of energy. Even insulated doors typically have some glass, which have lower insulation value, and inadequate weather stripping will allow air to leak through.

Before buying anything new, make sure your primary doors are as airtight as possible. Adding storm doors can certainly improve the energy efficiency of almost any house, but they are not designed to correct efficiency problems of an old, warped primary door.

If possible, buy replacement weather stripping for your existing doors from the original manufacturer. If you can't find it, most home improvement stores sell many generic types that should fit. Pry off the old door molding, fill any gaps around the framing with non-expanding foam insulation, and caulk around the door frame.

The quality of the storm door construction is important for a nice appearance, long life, and security. It must withstand a lot of abuse, so it's best not to pick the cheapest one. From an energy efficiency standpoint, however, the most important factors are the dead air space between the storm and primary doors and how well it blocks the wind.

Buying an aluminum storm door and installing it yourself is the typical low-cost option. They're very lightweight and made to fit standard-size openings, so installing one is a simple do-it-yourself project.

When you see the door on display attached to a wooden frame at the store, the aluminum frame will feel very strong. When you open the box at home, you may find the unattached aluminum frame strips are somewhat flexible. Be careful not to kink them during handling. Apply a generous bead of caulk on the back of the aluminum frame when screwing it to

the door frame.

If you plan to use natural ventilation in the summer, a self-storing triple-track storm/screen door is your most convenient option. The screen panel has its own vertical track in the door, so it never has to be removed. At the end of winter, just slide one of the glass panels down and slide the screen panel up for ventilation.

A fairly new design of storm/screen door uses a spring-mounted roll-up retractable screen that is built into the door. When you're ready for ventilation, just lower the glass and pull the screen down as far as you wish. This design is attractive because the screen is hidden away during winter without having to remove and store the screen panels.

If your budget allows, some very attractive all-wood framestorm/screen doors (made with mortise and tenon joints) are available. These are strong and secure, but do require some regular maintenance-similar to any wood door. For added security, ornate wrought iron storm doors are available with actual deadbolts and very tough, break-in resistant stainless steel screens.

If your budget is really tight, consider making your own storm door. It is easy to mount hinges in the existing door opening for the storm door. Make a simple wooden frame with only the top half open and a plywood lower panel. This panel improves rigidity

The following companies offer storm/screen doors:

- **Cumberland Woodcraft**
800-367-1884
cumberlandwoodcraft.com
- **Emco Specialties**
800-933-3626, emcodors.com
- **Homeguard Industries**
800-525-1885
home-guard.net
- **Pella**
800-374-4758, pella.com
- **ProVia Door**
877-389-0835, proviador.com.



It is easy to install a storm door. With pre-assembled parts, no cutting is required, and pre-drilled installation and assembly holes eliminate any guesswork.

for a more airtight seal and better durability.

Most home improvement stores carry sheets of clear acrylic plastic to mount in the frame. Make another narrow wooden frame slightly larger than the open half and mount the acrylic sheet in it. Screw it over the storm door opening. Make a similar frame with screening in it for summer use. If you prefer more durability and efficiency, and a perfectly clear view outdoors is not critical, select double-walled polycarbonate instead of acrylic. You can barely break the polycarbonate, even with a big hammer.

Nail spring-steel weather stripping in the door opening on the latch side, and top and bottom. This type of weather stripping is very durable where there is sliding friction. Adhesive-backed foam weather stripping is effective in compression on the hinge side.

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.



Safety Tips for Portable, Standby Generators

When Superstorm Sandy knocked out power to millions on the East Coast last fall, many of those affected turned to portable, standby generators to help keep food safe, lights on, and safety and medical equipment operating. The growing popularity of emergency generators has resulted in several million being placed in homes and small businesses across the nation.

However, only a small percentage are hooked up or used correctly, so it's important for consumers to understand proper generator safety steps.

"Generators can be a lifesaver for some and can improve the quality of life after a natural disaster such as a hurricane, tornado or earthquake," explains Molly Hall, executive director of the Safe Electricity program. "However, it's critical that proper safety precautions be taken to prevent accidents that could affect you, a family member, neighbor or utility lineworker."

Generators can be installed temporarily or permanently. A permanent generator is wired into a house by a qualified electrician using a transfer switch. This protects you, your neighbors, and repair crews from electricity backfeeding onto power lines. This can seriously injure anyone near those lines, especially co-op crews working to restore power. A temporary generator fired by gas or diesel fuel should not be attached to a circuit breaker, fuse or outlet.

Improper use of a standby generator can lead to injury or death, so please follow these usage tips to keep you and your family safe:

- ▶ Read and follow all manufacturer operating instructions to properly ground the generator. Be sure you understand them before starting it up.

- ▶ Standby generators should have a transfer safety switch installed by a professional. Portable generators should never be plugged directly into a home outlet or electrical system—use an extension cord to plug appliances into an outlet on the generator.

- ▶ Never operate a generator in a confined area, such as a garage. Generators produce gases, including deadly carbon monoxide. They require proper ventilation.

- ▶ When venturing outside after a severe storm, stay away from downed power lines and be alert to the possibility that tree limbs or debris may hide an electrical hazard.

Portable generators are helpful during an extended power outage, but they can be extremely dangerous if not used properly.

Assume that any downed or dangling wires you encounter are electrical, and treat them as if they are energized. Warn others to stay away, and then contact the electric utility.

- ▶ Generators pose electrical risks, especially when operated in wet conditions. Use a generator only when necessary when the weather creates wet or moist conditions. Protect the generator by operating it under an open, canopy-like structure on a dry surface where water cannot form puddles or drain

under it. Make sure your hands are dry before touching a generator.

- ▶ When refueling a generator, make sure the engine is cool to prevent a fire, should the tank overflow.

- ▶ Make sure nothing is plugged into a generator when you turn it on. This prevents a surge from damaging your generator and appliances.

- ▶ Keep children and pets away from the generator, which could burn them.

Safe Electricity is the safety outreach program of the Energy Education Council, a nonprofit organization with over 400 electric co-op members and many others who share the mission of educating the public about electrical safety and energy efficiency.

For more safety information on the use of portable and standby generators and safety after a storm, go to SafeElectricity.org.



STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

NOTICE OF HEARING FOR THE CUSTOMERS OF CLOVERLAND ELECTRIC COOPERATIVE CASE NO. U-17313

- Cloverland Electric Cooperative proposes to use a power supply cost recovery factor of \$0.00408 per kilowatt hour (kWh) to compute its member-customers' bills for the 12-month period ending December 31, 2014, if the Michigan Public Service Commission approves its request.
- The information below describes how a person may participate in this case.
- You may call or write Cloverland Electric Cooperative, 2916 West M-28, Dafter, Michigan 49724, (800) 562-4953 for a free copy of its application. Any person may review the application at the offices of Cloverland.
- The first public hearing in this matter will be held:

DATE/TIME: December 4, 2013, at 9:00 a.m. This hearing will be a prehearing conference to set future hearing dates and decide other procedural matters.

BEFORE: Administrative Law Judge Peter L. Plummer

LOCATION: Constitution Hall, 525 West Allegan, Lansing, Michigan

PARTICIPATION: Any interested person may attend and participate. The hearing site is accessible, including handicapped parking. Persons needing any accommodation to participate should contact the Commission's Executive Secretary at (517) 241-6160 in advance to request mobility, visual, hearing or other assistance.

The Michigan Public Service Commission (Commission) will hold a public hearing to consider Cloverland Electric Cooperative's (Cloverland) September 30, 2013 application to implement a power supply cost recovery (PSCR) plan and PSCR factors in its electric service territory. Cloverland proposed a PSCR factor of \$0.00408 per kWh for its member-customers' bills for the 12-month period January 1, 2014 through December 31, 2014, assuming a \$0.06415 per kWh allowance for cost of power supply included in base rates.

All documents filed in this case shall be submitted electronically through the Commission's E-Dockets website at: michigan.gov/mpscedockets. Requirements and instructions for filing can be found in the User Manual on the E-Dockets help page. Documents may also be submitted, in Word or PDF format, as an attachment to an email sent to: mpscedockets@michigan.gov. If you require assistance prior to e-filing, contact Commission staff at (517) 241-6180 or by email at: mpscedockets@michigan.gov.

Any person wishing to intervene and become a party to the case shall electronically file a petition to intervene with this Commission by November 27, 2013. (Petitions to intervene may also be filed using the traditional paper format.) The proof of service shall indicate service upon Cloverland's attorney, Shaun M. Johnson, Dykema Gossett PLLC, Capitol View, 201 Townsend Street, Suite 900, Lansing, Michigan 48933.

Any person wishing to appear at the hearing to make a statement of position without becoming a party to the case may participate by filing an appearance. To file an appearance, the individual must attend the hearing and advise the presiding administrative law judge of his or her wish to make a statement of position. All information submitted to the Commission in this matter becomes public information: available on the Michigan Public Service Commission's website, and subject to disclosure.

Request for adjournment must be made pursuant to the Commission's Rules of Practice and Procedure R 460.17315 and R 460.17335. Requests for further information on adjournment should be directed to (517) 241-6060.

A copy of Cloverland's request may be reviewed on the Commission's website at: michigan.gov/mpscedockets, and at the office of Cloverland Electric Cooperative, 2916 West M-28, Dafter, Michigan 49724. For more information on how to participate in a case, you may contact the Commission at the above address or by telephone at (517) 241-6180.

Jurisdiction is pursuant to 1909 PA 106, as amended, MCL 460.551 et seq.; 1919 PA 419, as amended, MCL 460.54 et seq.; 1939 PA 3, as amended, MCL 460.1 et seq.; 1982 PA 304, as amended, MCL 460.6h et seq.; 1969 PA 306, as amended, MCL 24.201 et seq.; and the Commission's Rules of Practice and Procedure, as amended, 1999 AC, R 460.17101 et seq.

Friendly Skies

If you're flying somewhere this Thanksgiving, good luck. Not only will you be joining millions of other passengers in the friendly skies on one of our busiest travel weekends, but you'll be on planes that have become more like cattle cars than the civilized cabins they once were. (Thanksgiving is our biggest travel weekend, but not the biggest for air travel. Those largely fall in the summer, travel experts say.)

Flying isn't what it used to be. No longer can we run into an airport terminal and book a same-day flight without a satchel of credentials, a body search and myriad questions from security personnel. Seats sure seems smaller, too (even as we get bigger). We have to pay extra for luggage, drinks (even water, on some airlines) and snacks. We can carry-on our own food if we don't wish to subsist on peanuts (also missing on some airlines). Some of this inconvenience is the result of security needs, but others are profit-driven, thanks to fewer airlines with fewer seats to sell.

We can still call a travel agent or airline to book flights, but it's often faster and cheaper to go online and do it yourself. That's intimidating, too. An internet search can reveal a squadron of possibilities, ranked by cost and date; organized by airline. Do you fly out in the morning or on the red-eye? Direct flight or connecting? Carry-on luggage or checked? By the time you're done making decisions, you're worn out and don't even want to think about packing.

My wife Barbara and I have family scattered around the country, so flying is sometimes the only smart option. Still, we try to avoid it—mostly because it's often more trouble than it's worth. Flying is easy from gate-to-gate, but home-to-home can be a different calculation. We figure that the hours waiting in airport lines and sitting on the tarmac might be worse than driving or even staying over-

night on the way, if the scenery is decent and interesting, the traffic is acceptable and we can visit friends along the way.

Then there are the germs. Is there any better place to catch an illness (other than a hospital)? That closed cabin with hundreds of people inside is the perfect place to latch onto a tricky virus just waiting for a host. Almost every trip we've taken recently has ended with one or both of us sick. When I see an airplane now, I think of it as a ferry for viruses spreading from one part of the country to another.

But serendipity does happen on planes sometimes.

A month ago we went to Arizona, where we visited Barb's brothers, drove a restored 1960 MGA into the mountains, participated in an old car show, and got sunburned.

We got there in five hours' flying time, but it took us all day with a plane change in Denver, and we never caught up on the sleep we missed until days after we got back home. We had a great time, but we don't travel as well as we once did.

The trip back from Phoenix was uneventful until we changed planes in Denver. We had only 36 minutes between planes. I asked the flight attendant if we would have a problem making our connection. "You'll have the same problem everybody else will have," she said. Like that really answered my question. It occurred to me that the airline would like to charge extra for information, too.

We made our flight, but sat apart because adjoining seats weren't available when I booked it. I sat next to a mother and her young son, Jayce. He was a handful, as all 22-month-olds are bound to be on a long flight. (I remember those days with our boys.) They were on their way to visit his grandfather in Macomb County. Jayce had trouble sitting on his mother's lap. He squirmed and jostled, ate snacks and drank milk, kicked the seat in front of him, tried coloring and watching a



"Cars" video, played with a "Cars" metal replica, and started dropping it in hard-to-reach places. His mother tried reading to him. He wasn't having it.

I found a card of oxygen mask instructions in the seat pocket, folded it to make a tunnel, put it on the tray and showed Jayce how to push the car through. It intrigued him for several minutes. Then he started calling me "daddy."

He finally settled down, with about a half-hour left in our flight, as his mother had predicted. He grabbed one of my fingers in his small hand and pulled it to him. He fell asleep in his mother's lap, holding my hand in his lap. There is nothing quite like the human connection of a child's grasp.

So, sometimes flying is worth it.

But it's always good to be back home, in Michigan, with reasonable temperatures, four seasons, real trees, snow, lakes, and your own bed.

Happy Thanksgiving.

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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