

Thumb Electric Cooperative

September/October 2015

MICHIGAN COUNTRY LINES

SUNKEN TREASURE

THUNDER BAY NATIONAL MARINE SANCTUARY

Plus!

Propane Programs
Available To Members

Members Celebrate
Milestones

Fall Family Days
At Octagon Barn



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Michigan's Electric Cooperatives
countrylines.com

September 2015
Vol. 35, No. 8

Executive Editor
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Michigan Electric
Cooperative Association

Design and Layout
Ciesa Design

Michigan Country Lines, USPS-591-710, is published monthly, except August and December, with periodicals postage paid at Lansing, MI, and additional offices. It is the official publication of the Michigan Electric Cooperative Association, 201 Townsend St., Suite 900, Lansing, MI 48933.

Subscriptions are authorized for members of Alger Delta, Cherryland, Cloverland, Great Lakes, HomeWorks Tri-County, Midwest Energy, Ontonagon, Presque Isle, and Thumb electric cooperatives by their boards of directors.

POSTMASTER: SEND ALL UAA TO CFS.

Association officers are **Robert Schallip**, Cloverland Electric Cooperative, chairman; **Mark Kappler**, HomeWorks Tri-County Electric, vice chairman; and **Eric Baker**, Wolverine Power Cooperative, secretary-treasurer. **Craig Borr** is president and CEO.

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The appearance of advertising does not constitute an endorsement of the products or services advertised.

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

IN THIS ISSUE

ON THE COVER*

The 4,300-square-mile Thunder Bay National Marine Sanctuary, located on Lake Huron in Alpena, protects one of America's best-preserved and nationally-significant collections of shipwrecks.

**Some co-op editions have a different cover.*

Photo courtesy of NOAA Thunder Bay NMS

IN YOUR WORDS

Our new question of the month section of *Michigan Country Lines*. Let us know your answer and it may appear in the next month's issue or on your electric co-op's social media site. Please answer the question in your own words at <http://bit.ly/1Mg17W5>.

Now the question:

What in your life are you most thankful for?

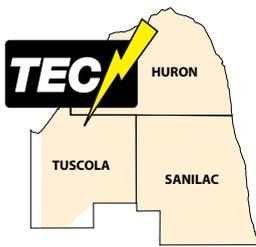
6 **SAFETY**
How To Use A Portable Generator Safely

7 **OUR ENERGY**
Maintain Your Home's Heating System Efficiency
James Dulle

8 **HOME COOKING**
Fresh and Flavorful Seafood Recipes You Will Love!
Christin McKamey & Our Readers

14 **FEATURE**
Sunken Treasure At Thunder Bay National Marine Sanctuary
Emily Haines

18 **READERS' PAGE**
Communicating In The Age Of The Emoji
Jack O'Malley
Guess Our New Mystery Photo!



Thumb Electric Cooperative

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Sandusky—Northstar Bank

Visit Thumb Electric's website
www.tecmi.coop

Thumb Electric Cooperative is an equal opportunity provider and employer.

Thumb Electric's Propane Service



Dallas Braun
 General Manager

Your co-op started offering propane service to you, our members, in 1997, through its subsidiary, Thumb Energy Services Corporation (TESC). Today, 18-years later, we continue to offer this great service to both Thumb Electric Cooperative members and non-members in the three-county area of the Thumb.

We use the contracted services of Bartnik Propane Services for the delivery, installation, and maintenance of propane and related equipment. Owner Dave Bartnik and his employees provide the professional and courteous service that we strive for, and our customers have come to expect.

Your co-op offers different programs to meet the needs of it's propane customers. The most popular is the metered program, which is very budget friendly. It is an effective service that is offered by no other propane retailer in the area. We own the propane inside the tanks in the customers' yards. The customer only pays for the propane after they have used it, which is measured by a meter installed on the tank. So instead of paying \$800 to \$1,000 for a 500-gallon tank fill, a monthly bill only for the gallons used, will be sent. The only information needed by you, the customer, is to provide TESC an accurate monthly meter reading.

We do not guarantee to be the lowest price in the area, but we are competitive in price. While some propane users still switch suppliers for the immediate gratification of a low first-fill price for new customers, many have wised up to these gimmicks by other retailers. We do not feel it is fair for our loyal customers to subsidize the cost of these gimmicks. We do not offer new customer deals just to get a new tank set. Instead, we rely on word-of-mouth from our satisfied customers and our professional and accountable reputation. Whether you are a new propane customer of TESC or one that has been with us for many years, we offer programs and pricing that is fair and consistent to all.

We thank those that currently use TESC for their propane services, and we look forward to continuing to meet and exceed your expectations. For those that are currently using another retailer and are not quite happy for whatever the reason may be, we invite you to join the 1,100-plus customers that are more than satisfied with the services provided by TESC. For information regarding pricing and programs for the upcoming heating season, give us a call at 1-800-327-0166. You won't be disappointed. ■



Thumb Electric Members Celebrate Milestones



Over the past year, we have had the privilege of presenting two Thumb Electric Cooperative members with recognition from the Historical Society of Michigan through their Centennial Farm Program.

Since 1948, the program has recognized over 6,000 farms for ownership in the same family for over 100 years. Farms can currently qualify in one of two categories: the noted Centennial Farm, and a Sesquicentennial Farm, which is over 150 years in the family.

Thumb Electric members that were recognized in the past year included:

- **Richard & Tami Schroeder** – Wagner Road, Croswell. 100 years. Established Dec. 22, 1915
- **Mr. & Mrs. Ronald Colston** – Sanilac Road, Kingston. 100 years. Established March 25, 1914

All of us at Thumb Electric congratulate these family farms for their longevity and wish them many more years in the farm industry.

If you are interested in applying for farm certification, please contact us. Applications are available at our Ubyly office, from the Michigan Centennial Farm Program at 517-324-1828, or visit centennialfarms.org. ■

Public Act 295: The Clean Renewable and Efficient Energy Act

2014 Annual Energy Optimization Report Thumb Electric Cooperative MPSC Case Number U-17373

Thumb Electric contracted with the Michigan Electric Cooperative Association (MECA) to administer its Energy Optimization efforts in order to comply with PA-295. MECA filed a 4-year Energy Optimization plan with the MPSC on Aug. 1, 2011, as required by PA 295. This EO plan was approved by the MPSC on Nov. 10, 2011, and we began implementing the plan Jan. 1, 2012. The Wisconsin Energy Conservation Corporation (WECC) was selected to implement all Residential, Commercial, and Industrial Programs, and the Energy Optimization website michigan-energy.org. WECC has subcontracted with JACO, Michigan Energy Options, Franklin Energy, Morgan Marketing Partners, and Honeywell to assist with the implementation of the EO Programs. MECA contracted with KEMA as the independent 3rd party evaluation contractor for the certification of kWh savings.

In 2014, Thumb Electric collected \$346,333 through the Energy Optimization Surcharge and spent \$234,950 resulting in an over-collection of \$111,383 which will be applied towards the 2015 EO Program delivery expenses and goal achievement. Thumb Electric achieved 1,784 MWh of energy savings in 2014. For every dollar spent on energy efficiency programs, customers will save \$3.61 in avoided energy costs. The full report can be obtained at michigan-energy.org or <http://efile.mpsc.state.mi.us/efile>.

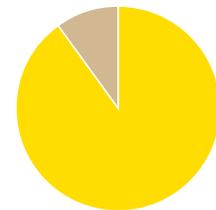
Fuel Mix Report

The fuel mix characteristics of Thumb Electric Cooperative as required by Public Act 141 of 2000 for the 12-month period ended 6/30/15.

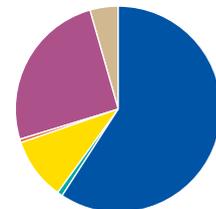
COMPARISON OF FUEL SOURCES USED

Regional average fuel mix used		
Your co-op's fuel mix		
FUEL SOURCE		
Coal	0%	59.4%
Oil	0%	0.6%
Gas	90%	9.8%
Hydroelectric	0%	0.6%
Nuclear	0%	25.4%
Renewable Fuels	10%	4.2%
Biofuel	0%	0.5%
Biomass	10%	0.5%
Solar	0%	0%
Solid Waste Incineration	0%	0%
Wind	0%	2.7%
Wood	0%	0.5%

Your Co-op's Fuel Mix



Regional Average Fuel Mix



EMISSIONS AND WASTE COMPARISON

TYPE OF EMISSION/WASTE	lbs/MWh	
	Your Co-op	Regional Average*
Sulfur Dioxide	0.25	7.6
Carbon Dioxide	897	2,170
Oxides of Nitrogen	0.23	2.0
High-level Nuclear Waste	0	0.0083

*Regional average information was obtained from MPSC website and is for the twelve-month period ending 12/31/14.

The fuel mix data presented by Thumb Electric is the data from CMS Energy which supplies nearly all of Thumb Electric's purchased power.

PORTABLE GENERATOR SAFETY TIPS



Always read the Owner's Manual and instructions for your generator. Do NOT cut corners when it comes to safety.

These tips are merely supplemental and are not intended to substitute reading of the Owner's Manual.

Carbon Monoxide and Ventilation

- Using a generator indoors CAN KILL YOU IN MINUTES. Exhaust contains carbon monoxide, a deadly poison gas you cannot see or smell.
- NEVER run a generator indoors or in partly enclosed areas, such as garages.
- ONLY use outdoors and far from windows, doors, vents, crawl spaces and in an area where adequate ventilation is available and will not accumulate deadly exhaust gas.
- Using a fan or opening doors and windows will not provide sufficient ventilation.
- It is recommended that you install battery operated carbon monoxide alarms/detectors indoors according to manufacturer's instructions/recommendations.

Gasoline, Fueling and Burn Safety

- If tank is over-filled, fuel can overflow onto a hot engine and cause fire or explosion.
- Do not overfill the fuel tank. Always allow room for fuel expansion.
- Never add fuel while unit is running or hot. Allow generator and engine to cool entirely before adding fuel.
- Never store a generator with fuel in the tank where gasoline vapors might reach an open flame, spark or pilot light.
- Many generator parts are hot enough to burn you during operation and while the generator is cooling after turning off. Avoid coming into contact with a hot generator.

Electrocution Hazard and Electrical Shock Hazards

- Connecting a portable electric generator directly to your household wiring can be deadly to you and others. A generator that is directly connected to your home's wiring can "back feed" onto the power lines connected to your home and injure neighbors or utility workers.
- Do not connect your generator directly to your home's wiring or into a regular household outlet.
- Always start or stop the generator only when no electrical loads are connected.
- Overloading your generator can seriously damage your valuable appliances and electronics. Do not overload the generator. Do not operate more appliances and equipment than the output rating of the generator. Prioritize your needs. A portable electric generator should be used only when necessary, and only to power essential equipment.
- Use the proper power cords. Plug individual appliances into the generator using heavy-duty, outdoor-rated cords with a wire gauge adequate for the appliance load. Overloaded cords can cause fires or equipment damage. Do not use extension cords with exposed wires or worn shielding.
- Do not operate the generator in wet conditions such as rain or snow.
- The generator must be properly grounded. If the generator is not grounded, you run the risk of electrocution. Check and adhere to all applicable federal, state and local regulations relating to grounding.

Generator Placement and Operation

- Allow at least five feet of clearance on all sides of the generator when operating.
- Generators can be used during a wide variety of weather temperatures, but should be protected from the elements when not in use to prevent shorting and rusting.
- Operate the generator only on level surfaces and where it will not be exposed to excessive moisture, dirt, dust or corrosive vapors.
- Inspect the generator regularly.
- Always disconnect the spark plug wire and place the wire where it cannot contact the spark plug to prevent accidental starting when setting up, transporting, adjusting or making repairs to the generator.

Source: American Red Cross with technical advice from the Centers for Disease Control and Prevention, the National Fire Protection Association (publisher of the National Electric Code®) and the U.S. Consumer Product Safety Commission. ■



Maintain Your Home's Heating System Efficiency

By James Dulle

With the heating season soon upon us, make sure your heating system is running at its maximum efficiency. Doing a simple heating system tune-up yourself improves its efficiency, resulting in significant annual cost savings.

However, don't skip your regular professional maintenance calls just because you have done your own heating system mini-tune-up. There are many areas within a heating system that only a qualified technician can evaluate and adjust properly.

The first items to check are for safety. With a gas or propane furnace, put several drops of soapy water on any gas-line fittings you find. If the water bubbles at all, there are leaks. Leave your house *immediately* and call your gas company to have it repaired. With a heat pump, check to make sure the insulation on all of the external wiring looks correct. You can inspect potential 'bad spots'—damaged or frayed areas—more carefully once you turn the circuit breaker off.

Turn off the electric power to the heating unit at the circuit breaker panel. Remove its side cover to gain access to the blower. Using a vacuum cleaner brush attachment, clean any dust deposits off the blower. You may find bearing oil cups on the blower motor of older systems. Put a drop of oil in each cup.

Find the fan control switch and adjust the temperature setting lower. Common settings are on at 135 degrees and off at 100 degrees. Try using 110 and 90 degrees. This starts the blower sooner and

keeps it running longer as the heat exchanger heats up and then cools down.

Replace the cover and make sure all the cabinet screws are tight. Also, check the tightness of any cabinet screws you can find. Having the cabinet well-sealed improves efficiency by maintaining the proper air flow through the coils or over the heat exchanger surfaces. With a heat pump, also check the cabinet screws on the outdoor condenser unit.

Set up the thermostat so the furnace starts. Hold a stick of lighted incense near all the joints in the ductwork, both return and supply air ducts, to check for air leaks. If you find leaks, wipe dust off the surfaces and use mastic (a gooey, non-hardening material) around the leaking joints.

This is a good time to change your furnace filter or clean a central air cleaner element. Consider installing a more effective filter element than the low-cost fiberglass ones that many systems use. This may not help indoor air quality much, but it can keep the air-flow paths cleaner for more efficient heat transfer.

Check the accuracy of the wall thermostat. You may actually be keeping your house warmer than you realize. Tape a bulb thermometer on the wall next to your furnace. Check the thermometer reading when the furnace shuts off and note the difference between it and the thermostat setting. Now you will know where to set the thermostat to get the indoor temperature you desire. If it is inaccurate, replace it with a new electronic setback model. ■



SEAFOOD FAVORITES

Flavorful seafood recipes you will love!

Lobster Mac & Cheese

Doreen Zuznis, Clio

- kosher salt
- vegetable oil
- 1 lb. cavatappi (tubed corkscrew pasta)
- 1 qt. milk
- 8 T. (1 stick) unsalted butter, divided
- ½ c. all-purpose flour
- 12-oz. Gruyere cheese, grated (4 c.)
- 8-oz. extra-sharp cheddar, grated (2 c.)
- ½ t. freshly ground black pepper
- ½ t. nutmeg
- 1½ lb. cooked lobster meat (langostinos)

Preheat oven to 375°. Drizzle oil into a large pot of boiling salted water. Add pasta and cook according to the directions on the package, 6 to 8 minutes. Drain well. Meanwhile, heat the milk in a small saucepan, but don't boil it. In a large pot, melt 6 T. of butter and add the flour. Cook over low heat for 2 minutes, stirring with a whisk. Still whisking, add the hot milk and cook for a minute or two more, until thickened and smooth. Turn off the heat, add the Gruyere, Cheddar, 1 T. salt, the pepper, and nutmeg. Add the cooked macaroni and lobster meat and stir well. Place the mixture in a large casserole dish. Melt the remaining 2 T. of butter, combine them with the fresh bread crumbs, and sprinkle on the top. Bake for 30 to 35 minutes, or until the sauce is bubbly and the macaroni is browned on the top.



Crab Casserole

Virginia Rubingh, Ellsworth

- ½ lb. fresh/frozen crab meat
- ½ c. sour cream
- 1 T. lemon juice
- pinch garlic salt
- 1¼ c. cheddar cheese, divided
- 8-oz. pkg. cream cheese, softened
- 2 T. Hellman's® mayonnaise
- 1¼ t. Worcestershire® sauce
- 1 T. milk

Mix all ingredients together in a casserole dish. Sprinkle half of the cheddar cheese on top. Bake at 325° for 25–30 minutes.

Seafood Pasta Salad

Betty Poradek, Stephenson

- 8-oz. pkg. imitation crab meat, cut up
- 8-oz. bag frozen mini shrimp, thawed (optional)
- ½ cup chopped celery
- 1–2 T. chopped green onion (including some tops)
- 1 can water chestnuts, chopped
- 8-oz. frozen peas, thawed
- 1 lb. bag rotini noodles, cooked
- dash dill weed
- 1½ c. Miracle Whip®
- 8-oz. sour cream

Mix all pasta together and chill for several hours. Keeps up to three days in fridge.

Dilly Fish

Gertrude Romanchuk, Traverse City

- fresh pan fish
- dill pickle juice
- instant potato flakes
- peanut oil

Wash fish and dry well with paper towels. Soak fish in dill pickle juice for 15–30 minutes. Roll in potato flakes and fry in peanut oil, turning once. Fry until golden brown. Very tasty!

SUBMIT YOUR RECIPE!

Thanks to all who send in recipes. Please send in your favorite "Easy Chicken" recipes by **Sept. 10**, "Chili" recipes by **Nov. 1** and "Gluten Free" recipes by **Dec. 1**.

Enter your recipe online at countrylines.com or send to (handprinted or typed on one side, please): *Country Lines* Recipes, 201 Townsend St., Suite 900, Lansing, MI 48933. Please note the co-op from which you receive your electric service.

Contributors whose recipes we print in 2015 will be entered in a drawing and *Country Lines* will pay the winner's January 2016 electric bill (up to \$200)!

Dill Shrimp Salad (pictured)

Mary Babcock, Port Austin

- 4 c. cooked small shells or penne pasta
- 1 lb. cooked fresh shrimp, diced
- 1 c. frozen peas
- 1 c. small diced celery
- ½ c. chopped green onions, including tops
- ¼ c. minced fresh parsley
- 10 oz. plain Greek yogurt
- 1 c. mayonnaise
- ¼ c. fresh lemon juice
- 2 T. snipped fresh dill
- ½ t. salt
- ¼ t. white pepper

In a large bowl combine pasta, tuna, celery, onions, peas and parsley. In a small bowl combine yogurt, mayonnaise, lemon juice, dill, salt and pepper. Pour sauce over pasta, toss gently. Cover and refrigerate at least two hours. Serves 10.



Important Seasonal Member Information

As required by the Michigan Public Service Commission, Thumb Electric Co-op recently has done or will do a meter reading for seasonal members who receive electric service under Rate Class 2, and have a \$17.50 monthly service charge.

Billing for most seasonal member consumption during the past 12 months will occur on Oct. 1.

Each month, nearly 200 seasonal members report their meter readings and the dates they are read. They make monthly payments for electricity consumed, in addition to the monthly service charge, to avoid receiving the annual bill.

Seasonal members are encouraged to read their meters and include the reading date whenever possible, to reduce the potential for electrical problems and billing concerns.



Seasonal members are also encouraged to sign up for our automatic bill payment plan. Rather than writing a monthly check, the money is withdrawn from your checking or savings account automatically on or near the same day each month.

Members also have the option to use TEC's online bill payment system, called Smarthub. By visiting tecmi.coop and selecting the "my account" tab, a member can register their account, which allows them to make online payments by check, credit card, or bank account, record meter readings, view billing and payment history, view current and past bills, view monthly billed and usage graphs, and more. Paperless billing is also available. ■



Rake in the Savings!

Did you know that heating and cooling accounts for more than half of the energy use in a typical U.S. home, making it the largest energy expense for most homes? **Rake in the savings** with these helpful energy savings tips this fall.

- **Install a programmable thermostat**
Through proper use of the pre-programmed settings, a programmable thermostat can save you up to 10 percent on your heating and cooling costs.
- **Clean / Change the air filter**
Lower your heating and cooling energy consumption by up to 15 percent by cleaning or replacing furnace filters.
- **Schedule a tune-up before you need one**
Schedule a tune-up with your heating ventilation and air conditioning (HVAC) contractor. To find a qualified contractor nearest you, visit our website or call.

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.

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION
NOTICE OF HEARING FOR THE CUSTOMERS
OF THUMB ELECTRIC COOPERATIVE
CASE NO. U-17812

- Thumb Electric Cooperative requests Michigan Public Service Commission approval to reconcile its renewable energy plan costs associated with the plan approved in Case No. U-17310, for the period ended December 31, 2014.
- The information below describes how a person may participate in this case.
- You may contact Thumb Electric Cooperative's attorney, Mr. Shaun M. Johnson, Dykema Gossett PLLC, Capitol View, 201 Townsend Street, Suite 900, Lansing, Michigan 48933, 517.374.9100, for a free copy of the application. Any person may also contact Thumb Electric Cooperative, 2231 Main Street, P.O. Box 157, Ubly, Michigan 48475-0157, 800.327.0166, for a free copy of its application.
- The first public hearing in this matter will be held:

DATE/TIME: October 8, 2015, 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 Martin D. Snider

LOCATION: 7109 West Saginaw Highway, 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) 284-8090 in advance to request mobility, visual, hearing or other assistance.

The Michigan Public Service Commission (Commission) will hold a public hearing to consider Thumb Electric Cooperative's (Thumb) July 27, 2015 application for Commission approval to reconcile its renewable energy plan (REP) costs for the period ended December 31, 2014. Thumb Electric represents that its REP filings included no request for a renewable energy surcharge, no surcharge was approved and none was charged to its member-customers in 2014. Thumb Electric further represents that there are neither revenues nor expenditures to reconcile.

All documents filed in this case shall be submitted electronically through the Commission's E-Dockets website at: michigan.gov/mpscdockets. 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: mpscdockets@michigan.gov. If you require assistance prior to e-filing, contact Commission staff at (517) 284-8090 or by email at: mpscdockets@michigan.gov.

Any person wishing to intervene and become a party to the cases shall electronically file a petition to intervene with this Commission by October 1, 2015. (Interested persons may elect to file using the traditional paper format.) The proof of service shall indicate service upon Thumb Electric'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, thus available on the Michigan Public Service Commission's website, and subject to disclosure. Please do not include information you wish to remain private.

Requests 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) 284-8130.

A copy of Thumb Electric Cooperative requests may be reviewed on the Commission's website at: michigan.gov/mpscdockets, and at the office of Dykema Gossett PLLC, or at the office of Thumb Electric Cooperative. For more information on how to participate in a case, you may contact the Commission at the above address or by telephone at (517) 284-8090.

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 460.6j et seq.; 1969 PA 306, as amended, MCL 24.201 et seq.; 2008 PA 295, MCL 460.1001 et seq.; and the Commission's Rules of Practice and Procedure, as amended, 1999 AC, R 460.17101 et seq.

Celebrate 20 Years of **FAMILY FUN AT OCTAGON BARN**



The Thumb Octagon Barn Agricultural Museum will once again be celebrating its Fall Family Days event! Now in its 20th year, festivities kick off Friday evening Sept. 11, with a fish dinner from 4 to 7 p.m. and continues Sept. 12, and Sept. 13 from 8 a.m. to 5 p.m. "Friends of the Octagon Barn" members invite you to step back in time to view displays and demonstrations of farming in the early 1900s. Vendors will also be on site with antiques, crafts and a large flea market.

In addition to the Fall Family Days event, the museum is open from May through Sept., Wednesday through Saturday, 11 a.m. to 5 p.m., and Sundays noon to 5 p.m. The museum is also open for large groups, such as schools, to attend by appointment and for private events such as weddings, reunions, and family picnics.

Memberships are available, which are the community of volunteers, called "Friends of the Thumb Octagon Barn". There are three membership levels ranging from \$5 to \$15, which go to help with the preservation of this historical site.

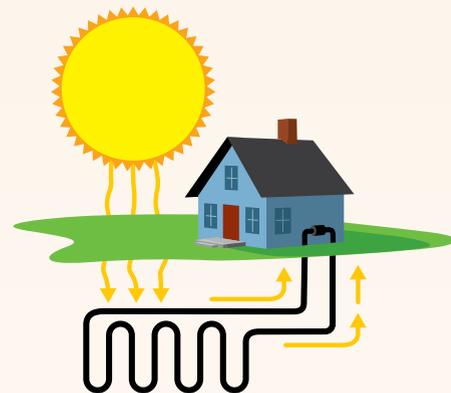


Thumb Electric Cooperative would like to invite you to see their display at the Thumb Octagon Barn. See early electric appliances, such as this piston style water pump that was popular on many family farms in the early days of electricity. This unit was in service at a TEC member's farm. It was refurbished and generously donated by Richard Schmalz of Harbor Beach.

For more information, please visit thumboctagonbarn.org or call (989) 665-0081. The barn is located just outside of Gagetown, at 6948 Richie Road.

Renewable Geothermal Heat

Geothermal is a simple technology that uses the earth's renewable energy to provide high-efficiency heating and cooling. In winter, the system draws heat from the ground and transfers it to your home. In summer, it extracts heat from your home and transfers it to the ground. **Contact the energy experts at Thumb Electric Cooperative at 800-327-0166** for honest answers on your energy choices, or call any of the trained and certified installers listed here.



All-Temperature Geothermal Systems

1103 E. Caro Rd., Caro, MI 48723
989-673-5557

Ameriheat, Justin Faber

2891 E. Forester Rd., Deckerville, MI 48427
810-376-4534

B & D Heating, Cooling & Plumbing

1148 North Van Dyke, Bad Axe, MI 48413
800-515-1117

Burkhard Plumbing & Heating

638 E. Huron Ave., Bad Axe, MI 48413
989-269-7532

Certified Temperature Innovations

3107 Custer Rd., Carsonville, MI 48419
810-300-7748

ES Sheetmetal, Gene Root

9450 Belsay, Millington, MI 48746
989-871-2067

Geo Renew Systems, Inc.

3045 Grange Hall Rd., #7, Holly, MI 48442
248-531-0325

Geomasters, Inc., Plumbing & Heating

57 Ward St., Crosswell, MI 48422
810-679-2251

Geothermal Systems of Lapeer, LLC

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West Bloomfield, MI 48322
810-240-2116

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810-653-4328

Ingell Refrigeration

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810-982-4226

J & B Plumbing & Heating

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989-453-3931

Jack McCain Plumbing & Heating

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989-453-2277

Kowaleski Heating & Cooling, LLC

3977 Ruppel Rd., Port Hope, MI 48468
989-428-3371

Kulek Heating & Air Conditioning

14421 Jeddo Rd., Yale, MI 48097
810-387-4452

Kundering & Kroll

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989-883-2770

Lakeshore Improvements Plumbing & Heating

7825 Big Gulley Rd., Palms, MI 48465
989-864-3833

Michigan Energy Services

8445 Main St., Whitmore Lake, MI 48189
888-339-7700

NRG Control

3690 Washburn Rd., Vassar, MI 48768
989-670-2543

Newton-Johnson Plumbing & Heating

114 Enterprise Dr., Vassar, MI 48768
989-823-2341

Orton Refrigeration

31 W. Sanilac Rd., Sandusky, MI 48471
810-648-2252

Preferred Heating

7736 Arendt, Melvin, MI 48454
810-378-5454

Priority Service by Porter & Heckman

3056 Davison Rd., Lapeer, MI 48446
810-644-8576

Shetler Plumbing & Heating

7184 Nitz St., Pigeon, MI 48755
800-547-3651

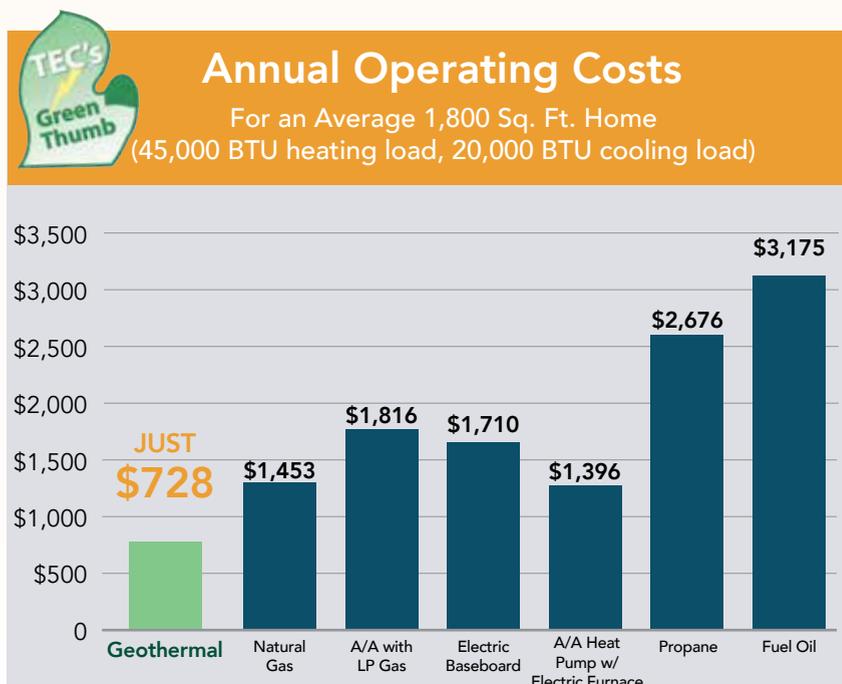
Superior, Inc.

3442 Cemetary Rd., Cass City, MI 48726
989-872-3305

Thumb Cooling & Heating

5599 Pochert Rd., Port Hope, MI 48468
989-428-4948

And: 837 South State, Caro, MI 48723
989-672-4948



Factors Used: Electric Baseboard, Air-Source Heat Pump and Geothermal—based on TEC's 6.863¢/kWh dual-fuel rate. LP gas—based on \$2/gal. and 90% efficient furnace. Fuel Oil—based on \$3.00/gal. and 80% efficient furnace. Natural Gas—based on \$1.08/therm., 90% efficient furnace including \$9/mo. service charge. (Electric baseboard costs do not include air conditioning.)

SUNKEN TREASURE

THUNDER BAY NATIONAL MARINE SANCTUARY

By Emily Haines

The eerie romance of a shipwreck is something that seems saved for epic adventure novels or blockbuster Hollywood movies. But just off the coast of Lake Huron, near unassuming Alpena, MI—is one of the most treacherous stretches of water in the Great Lakes—a place called Thunder Bay.

If the name itself sounds ominous, it's because Thunder Bay offers up unpredictable shifts in weather, alarming gales, fog banks and notoriously rocky shoals that play ghostly host to an area fittingly called—Shipwreck Alley. There lies the remains of over 200 ships, only about 100 that have been physically discovered. While it's difficult to imagine the friendly beaches of the Great Lakes as anything but welcoming, these deep and traitorous waters were once bustling byways for both recreational and business mariners, not all that ended at their intended destination.

"It's easy to stay motivated and excited in your work when you're dealing with such a robust historical landscape," said Stephanie Gandulla, maritime archeologist and media coordinator for Thunder Bay National Marine Sanctuary. "There are so many stories lying just below the surface of the Great Lakes."

Those stories just increased substantially as the marine sanctuary has grown from 448 square miles to a remarkable 4,300 miles as of last September. This means expanding both research and educational programs as well as a multi-year plan to "characterize" every known shipwreck in the sanctuary. Characterizing can mean a variety of informational components including having a site map, photography, data and sonar images, or even knowing the name and vessel information.

"It's no wonder our student programs appeal to our younger visitors," said Gandulla. "You don't have to be able to scuba dive 300 feet to have an interaction with maritime history. We provide and encourage hands-on experiences both in and on the water."

The experiences are anything from a class trip to the sanctuary's impressive Visitor's Center, with over 10,000 feet of exhibits, participating in a program on shipwreck archeology, or building underwater robotics. There are also glass bottom boat tours that allow visitors to view shipwrecks without ever getting their feet wet. Gandulla says it's not uncommon for students who have had a field trip in elementary or high school or invested themselves in a Shipwreck Alley class to later become a volunteer as an adult.



Twisted hull of the German freighter Nordmeer (1954-1966).



The bow of the schooner E.B. Allen (1864–1871).



The Florida (1889–1897) still sits upright with its package freight still inside.

While all of this is available in our state's backyard, people from around the world come to marvel at these maritime catacombs, as well.

"Beyond the rich and special maritime history of this area, it's also a remarkable place to vacation," said Gandulla. "We have world class recreational opportunities available to us in Michigan and we feel very strongly about sharing them with people from around the globe." ■



The Monohansett, lies only 18 feet below the water's surface.

Visit

If you're interested in a trip to the Visitor's Center, visit thunderbay.noaa.gov/visit. Or, to book a glass bottom boat tour go to alpenashipwrecktours.com/. For more information call 989-356-8805.

Project Shiphunt

On July 13, 2011, the Thunder Bay National Marine Sanctuary (NMS) announced the discovery of two Great Lakes shipwrecks. The discoveries were part of Project Shiphunt, an exciting archaeological expedition, sponsored by Sony and the Intel Corp, that included five high school students from Saginaw. For more on the project, visit thunderbay.noaa.gov/shiphunt.html

Monohansett Site

For a sneak peek at the kind of discoveries you can expect, take a look at the Monohansett, a ship wrecked in 1907 that lies in three sections just 18 feet below water. thunderbay.noaa.gov/shipwrecks/monohansett.html

Photo below: With the hull broken just forward of the boiler house and the ship listing hard to port, the wreck of the Norman, which claimed the lives of three sailors, is an intense dive experience.

Photos by NOAA, Thunder Bay NMS

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION
NOTICE OF HEARING FOR THE CUSTOMERS OF CLOVERLAND ELECTRIC
COOPERATIVE MIDWEST ENERGY COOPERATIVE AND
THUMB ELECTRIC COOPERATIVE
CASE NUMBERS U-17838, U-17839, and U-17840

- Cloverland Electric Cooperative, Midwest Energy Cooperative and Thumb Electric Cooperative (the Cooperatives) request Michigan Public Service Commission approval to reconcile their individual Energy Optimization (EO) plan expenditures and revenues collected for the period ended December 31, 2014.
- The information below describes how a person may participate in this case.
- You may call or write the Cooperatives' attorney, Mr. Shaun Johnson, at Dykema Gossett PLLC, Capitol View, 201 Townsend Street, Suite 900, Lansing, MI 48933, 517.374.9100 for a free copy of the application. Any person may review the application at Dykema's offices or at the respective offices of the Cloverland Electric, 2916 W. M-28, P.O. Box 97, Dafter, MI 49724, Midwest Energy Cooperative, 901 E. State St., P.O. Box 127, Cassopolis, MI 49031, and Thumb Electric Cooperative, 2231 Main St., P.O. Box 157, Ubly, MI 48475-0157.
- The first public hearing in this matter will be held:

DATE/TIME: October 6, 2015, 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 Mark D. Eyster

LOCATION: 7109 West Saginaw, 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) 284-8090 in advance to request mobility, visual, hearing or other assistance.

The Michigan Public Service Commission (Commission) will hold a public hearing to consider the Cooperatives June 29, 2015 joint application for Commission approval to reconcile their individual EO plans for the period ended December 31, 2014. The Cooperatives are requesting authorization to reconcile their EO plan expenditures and revenues collected for the period ended December 31, 2014.

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) 284-8090 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 September 29, 2015. (Interested persons may elect to file using the traditional paper format.) The proof of service shall indicate service upon attorney, Shaun M. Johnson, at 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. Please do not include information you wish to remain private.

Requests 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) 284-8130

A copy of the Cooperatives' request may be reviewed on the Commission's website at: michigan.gov/mpscedockets, and at the office of Dykema Gossett PLLC, Capitol View, 201 Townsend Street, Suite 900, Lansing, Michigan; or at the respective Cooperatives' offices. For more information on how to participate in a case, you may contact the Commission at the above address or by telephone at (517) 284-8090.

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 460.6j et seq.; 1969 PA 306, as amended, MCL 24.201 et seq.; 2008 PA 295,

MCL 460.1001 et seq., and the Commission's Rules of Practice and Procedure, as amended, 1999 AC, R 460.17101 et seq.

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION
NOTICE OF HEARING FOR THE CUSTOMERS OF CLOVERLAND ELECTRIC
COOPERATIVE, MIDWEST ENERGY COOPERATIVE, AND
THUMB ELECTRIC COOPERATIVE
CASE NUMBERS U-17781, U-17783 AND U-17786

- Cloverland Electric Cooperative, Midwest Energy Cooperative and Thumb Electric Cooperative (the Cooperatives) request Michigan Public Service Commission (Commission) approval to implement their Energy Optimization Plans in compliance with Public Act 295 of 2008 and the November 24, 2014 Commission Order in Cases Numbers U-17781, U-17783 and U-17786.
- The information below describes how a person may participate in this case.
- You may call or write the Cooperatives' attorney, Mr. Shaun M. Johnson, at Dykema Gossett PLLC, Capitol View, 201 Townsend Street, Suite 900, Lansing, MI 48933, 517.374.9100 for a free copy of the application. Any person may review the application at Dykema's offices or at the respective offices of the Cooperatives, Cloverland Electric Cooperative, 2916 W. M-28, P.O. Box 97, Dafer, MI 49724, Midwest Energy Cooperative, 901 E. State St., P.O. Box 127, Cassopolis, MI 49031, and Thumb Electric Cooperative, 2231 Main St., P.O. Box 157, Ubyly, MI 48475-0157.
- The first public hearing in this matter will be held:

DATE/TIME: Wednesday, September 30, 2015, 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 **Mark E. Cummins**

LOCATION: Michigan Public Service Commission, 7109 West Saginaw Highway, 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) 284-8090 in advance to request mobility, visual, hearing or other assistance.

The Michigan Public Service Commission (Commission) will hold a public hearing to consider the Cooperatives' August 3, 2015 joint application for approval of their Energy Optimization Plans, in accordance with Public Act 295 of 2008, and the November 24, 2014 Commission Order in Cases Numbers U-17781, U-17783 and U-17786 for Cloverland Electric, Midwest Energy, and Thumb Electric, respectively.

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) 284-8090 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 September 23, 2015. (Interested persons may elect to file using the traditional paper format.) The proof of service shall indicate service upon the Cooperatives' attorney, Shaun M. Johnson, at 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, thus available on the Michigan Public Service Commission's website, and subject to disclosure. Please do not include information you wish to remain private.

Requests for adjournment must be made pursuant to the Michigan Administrative Hearing System's Administrative Hearing Rules R 792.10422 and R 792.10432. Requests for further information on adjournment should be directed to (517) 284-8130.

A copy of the Cooperatives' request may be reviewed on the Commission's website at: michigan.gov/mpscedockets, and at the office of Dykema Gossett PLLC or at the respective Cooperatives' offices. For more information on how to participate in a case, you may contact the Commission at the above address or by telephone at (517) 284-8090.

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.; 1969 PA 306, as amended, MCL 24.201 et seq.; 1982 PA 304, as amended; MCL 460.6j et seq.; 2008 PA 295, MCL 460.1001 et seq., and the Michigan Administrative Hearing System's Administrative Hearing Rules, 2015 AC, R 792.10401 et seq.

August 13, 2015

Communicating in the Age of the Emoji

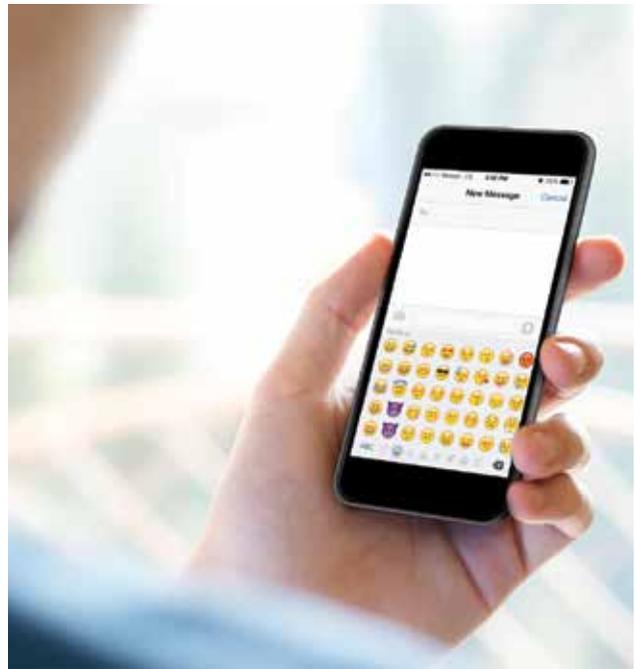
By Jack O'Malley

A few years ago my son stood before a display of old rotary phones in an antique store, puzzled by the seemingly ancient devices. "How did people text with those?" he asked. I chuckled before the thought occurred to me. An entire generation now exists who've never known life without mobile phones, text messages, Google or social media.

In today's world of technology a new digital language based on acronyms and emojis has emerged, allowing people to communicate instantly with little more than a few letters and characters. In the old days, we huddled around the handset during a long-distance call, everyone listening and talking at the same time because the calls were too expensive for everyone to have a separate turn talking. I guess I'm officially an old fogie! LOL

Mobile phones have become such an essential part of our lives, we have a hard time functioning without one. Like an extra appendage, we rely on a cell's convenience, intelligence and sheer ability to do almost anything. Want to play Scrabble? Download the app. Want to enhance a photo? Download an app. Want to check Facebook? Download the app. Want to shop? Download an app. There are apps (short for "applications," programs designed specifically for use on portable devices) for everything. Just ask my wife. She'll tell you. SMH (that's **s**haking **m**y **h**ead for all you rookies out there.)

Our reliance on digital technology can only be ascertained when we forget our cell. Ever reached for your phone to make a quick call or send a text



only to realize you left your cell on the charger at home? Panic ensues. I've actually broken into a sweat and driven an hour round trip just to have my phone on hand! :)



Jack O'Malley

Times have sure changed since I was a lad. These kids might run circles around me when it comes to their smart phones, but I had something they didn't. The most popular rotary phone ever made, an original Fisher-Price Chatter Telephone toy. And let me tell you, it was GR8! ■



«« Where in Michigan is This?

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

We do not accept Mystery Photo guesses by phone. Enter your guess at countrylines.com or send by mail to: *Country Lines Mystery Photo*, 201 Townsend St., Suite 900, Lansing, MI 48933. Include the name on your account, address, phone number, and name of your co-op.

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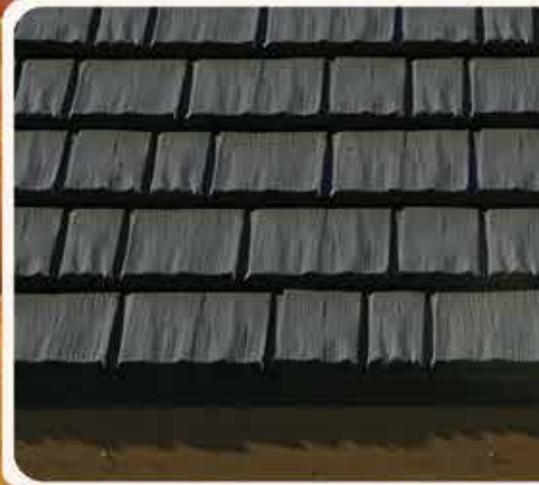
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