

A Service of **Thumb Electric Cooperative**

May/June 2012

Michigan COUNTRY LINES

Michigan-made:

Luminature

*Wildly unique lighting
and decor*



Don't miss your co-op's
ANNUAL MEETING
June 9
(See back cover for details)

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Positions Open

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Meeting Information



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

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



Michigan COUNTRY LINES



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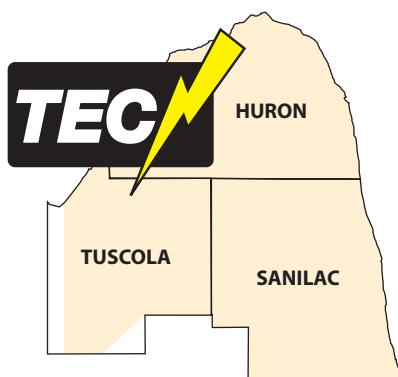
On the Cover

Lori McCarthy, owner of Luminature Design with her husband Paul, is pictured with some of their unique, handcrafted decor items.

Photo - David Olds



Michigan's Electric
Cooperatives
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BOARD OF DIRECTORS

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Kinde

Beth McDonald Secretary
Bad Axe

Donald Wolschleger Vice President
Harbor Beach

SANILAC COUNTY

Leonard Briolat Treasurer
Ubyly

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Duane Kursinsky Director
Sandusky

TUSCOLA COUNTY

Carl Cousins Director
Millington

Karl DeSimpelare Director
Unionville

Louis Wenzlaff President
Kingston

Dallas Braun General Manager

PAYMENT STATIONS

Huron County

Bad Axe – Northstar Bank
Pigeon – Northstar Bank

Tuscola County

Akron – Northstar Bank
Caro – Northstar Bank
Mayville – Mayville State Bank
Millington – Mayville State Bank

Visit Thumb Electric's website:
tecmi.coop

Three Director Positions Open

HURON COUNTY

Donald Wolschleger (*Incumbent*)



Don Wolschleger

Don Wolschleger is president and owner of East Huron TV & Appliance, Inc., a business he started in 1979.

Don is a member of Our Lady of Lake Huron Catholic Church, Grindstone Port Hope Sportsman's

Club, and several business and trade organizations. He has also been the Sigel Township clerk for the past 23 years and is a former firefighter and EMT for his township.

Born and raised in the Harbor Beach area, Don and his wife, Della, have been married for 38 years and have two children, Tina and Michael. They have been TEC members since 1974. In recognition of the importance of continuing education, Don has become certified by the National Rural Electric Cooperative Association as a credentialed director.

"I have enjoyed and appreciated the opportunity to serve as your director for the past nine years. With that board experience, and a business and technology background, I feel I can be an asset serving as your director."

Curt Watchowski (*Nominee*)



Curt Watchowski

Curt Watchowski has owned and operated Watchowski Design Service since 2003 and has worked in the architectural design field for 24 years.

A Thumb Electric member since 1992, he was born and raised in Bad Axe and now lives in Ubyly.

Curt and his wife, Lynda, have been married for 23 years and have two children, one in college and one in high school. They belong to St. John's Church in Ubyly.

Curt worked on building design for Thumb Electric Cooperative's generation buildings in Ubyly and Caro.

SANILAC COUNTY

Leonard Briolat (*Incumbent*)



Leonard Briolat

Leonard (Len) Briolat and his wife, Marjorie, along with their son, Steve, and wife, Lisa, with some part time help, farm 1,600 acres.

Born and raised in the Thumb area, Len has been a Thumb Electric member for 50 years

and has served on your co-op's board of directors for 25 years.

Len is an usher at St. John's Church in Ubyly, and is a member of the Knights of Columbus, the Ubyly Fox Hunters Club, and several farm organizations.

He and his wife have six children, Mike, Steve, Lori, Sandy, Gerry and Pam. They also have 20 grandchildren.

"I am proud to have served on this board for 25 years and to work to provide quality service at a competitive price for our members." Len is a certified credentialed director.

Edward Jakubiak (*Nominee*)



Edward Jakubiak

Ed Jakubiak is a Thumb Electric member and resides in Palms. He has a long history of service in the electric utility business and would like to use his knowledge and experience to serve the co-op.

He retired in 2008 from Detroit Edison where he held the position of chief engineer on the distribution side of DTE Energy. He was director of asset optimization and directly responsible for a \$350 million capital budget and a \$200 million operating budget. His role was to provide customers with reliable electricity at the lowest cost, and the maintenance and protection of the \$5 billion wires system.

He has a bachelor of science degree in electrical engineering from the University of Detroit and a masters degree in electrical engineering from the University of Michigan. During his 38 years with DTE he held positions in transmission, generation reserve,

See back cover for annual meeting details and voting information!

subtransmission, and distribution planning, rate and revenue, research, line clearance and substation operations. He also worked directly with the Michigan Public Service Commission in matters of service reliability, rate design, rule making and customer complaints.

"Since I am retired, I am available to serve without any other business distractions. Thanks for the consideration."

TUSCOLA COUNTY

Karl DeSimpelare (Incumbent)

Karl DeSimpelare retired from GM/Delphi as a tool-and-die maker and farmer in 2006.



Karl DeSimpelare

He worked 40 years at Delphi and spent the same amount of time farming. The Unionville native has been a co-op member since 1965, serving on TEC's board since 1990.

Karl is a member of St. Peter Lutheran Church and volunteers as a V.A. driver, Road to Recovery for cancer patients, and Octagon Barn. He is a past USA school board member, ACW ambulance volunteer and has assisted

with Little League and 4-H.

He and his wife, Marilyn, have been married 48 years. They have three married children—Rob and Barb, Larry and Sue, and Shari and Jim. They have six grandchildren.

Karl appreciates the opportunity of serving all co-op members. "Our co-op has many challenges, but keeping electricity affordable and reliable are very important." He hopes to continue protecting these goals in the future.

Gary Wills (Nominee)

Gary Wills has been a self-employed builder for over 25 years and a licensed used car agent for three years. He has been a Thumb Electric



Gary Wills

Cooperative member for over 30 years and has lived in the Thumb all his life.

Gary and his wife Michele have three children and one granddaughter. He is a member of the Caro First Baptist Church and the Mt. Moriah Lodge in Caro. He enjoys spending time with family and enjoys golf and motor sports of all kinds, especially NASCAR.

Nominating Committee Report

The report of the 2012 Nominating Committee which met in Ubly, MI, at 11 a.m. on March 22, 2012, to select nominees for the position of director of Thumb Electric Cooperative. Nominees for one director position from Huron, Sanilac and Tuscola counties are as follows:

Huron County:

Donald Wolschleger, Incumbent
Curt Watchowski

Sanilac County:

Leonard Briolat, Incumbent
Edward Jakubiak

Tuscola County:

Karl DeSimpelare, Incumbent
Gary Wills

These names shall be placed on the Annual Meeting ballot in accordance with Article III, Section 3, of the Cooperative Bylaws.

*Dated: March 22, 2012
Lynn Morell, Chairperson*

Watch Your May Electric Bill For Capital Credit Refund!



Because electric co-ops operate at cost, any excess revenues, called margins, are returned to members in the form of capital credits. Thumb Electric Cooperative member-owners will see the benefits of cooperative principle #3 (Members' Economic Participation) on their May electric bills as a credit on a line item called "Patronage Refund."

Over \$150,000 was applied to members' electric bills who had service during 1979 and 2011. Since retiring patronage capital, over \$5,290,958 has been returned to members.

Receive a
\$10
credit!

Attend Thumb Electric's Annual Meeting and receive a \$10 credit on your July bill! *

When:
Saturday, June 9, 2012

Where:
Cass City Park

Time:
Registration begins at
9:00 a.m.

See back cover for annual membership meeting details.

Prizes • Entertainment Lunch • Bucket Rides and more!



* \$10 Annual Meeting Bill Credit Eligibility

1. Only the member, spouse or child of the member over age 18 who lives with the member and presents a properly-executed proxy can receive the \$10 credit.
2. The member or their eligible proxy representative must be registered prior to the collection of votes at approximately 11:15 a.m. Anyone arriving after the voting process is completed will not receive the credit.
3. One credit per membership.

Letters

The loss of Don Ingle, more apples, hospital costs, storm help, and the Youth Leadership Summit. It's all here in your reader pages.

Loss of Don Ingle

The people of northern Michigan have lost an articulate and ardent spokesman for the outdoors (also *Country Lines'* Outdoors writer, see p. 17).

Don Ingle and his wife, Jean, tragically perished in a house fire on March 9, 2012. Don played an active role in the preservation and enjoyment of the northern Michigan environment. He participated in many outdoor organizations throughout northern Michigan and was an articulate voice in both community activism and his extensive writing. But Don's career as an outdoor writer was not his only career.

Don was the son of Red Ingle, a clarinetist with Spike Jones' band. Unlike his father's interest in comic showmanship, Don built a career in straight jazz, playing the coronet with the group Frank Assunto and the Dukes of Dixieland. In the 1980s, Don played with the Michigan Nighthawks, appearing at events around the Midwest. The Michigan Nighthawks produced three albums (youtube.com/watch?v=Y7pAFKaJEVg&feature=related).

Don graduated from Michigan State University in 1952. In the 1980s, Don also had his own outdoor show on channel 9, and



"The weekend that was" when we were all without power... A big "thanks" to all of you servicing on foot and snowmobile where the trucks couldn't go...if you missed these guys in action, you missed alot.

—Jan Goodwin, East Jordan

wrote a column for the *Big Rapids Pioneer* in the 1980s. In his retirement, Don wrote freelance for a number of publications.

Like Don, his wife Jean was active in the community, working for Child Protective Services in Baldwin. They were the kind of people who deeply touched the lives of everyone who met them.

Don was a personal friend and mentor to me, but his enthusiasm, energy and knowledge of the outdoors captivated anyone who personally knew him. Anyone who met Don, even briefly, became a friend. That's the way he was. That's the way they both were.

Don and Jean Ingle are already missed.

—Tim DeBlaey

More About Apples

Your apples article ("Ramblings"/Mike Buda/February) brought back many 'good' memories. I grew up on a farm with an apple orchard, and I vividly remember my siblings, cousins, neighbors and myself sitting in the trees eating the 'green apples'—especially the Transparent type. Mom was always wondering where her salt shakers were disappearing to. Yup, we had them up the tree with us. Only one time I remember getting a belly ache.

Sad to say the apples of today are a big disappointment to me. Whatever happened to Northern Spies or Wealthies, just to name a couple? The 'new' ones are way too big and sweet. Am I the only one who has noticed? But, I do still eat them because they are

good for you and an-apple-a-day keeps the doctor away, but they sure aren't like they used to be.

—Susan Heil, Farwell

March Mystery Photo

The picture of the sculpture of Paul Bunyan and Babe the Blue Ox pulling a sleigh of logs is located in the front yard of Clayton Smith on U.S. Hwy 31 south of Charlevoix.

Clayton is 96 years old and has a world of wisdom and a history of experience—from hitchhiking to California from Michigan in his late teens to working the CCC camps.

What an artist, as seen in his depiction of Paul Bunyan and Babe, and also writing two books. He is truly a man who lives by the road and is a friend to man!

—Lorraine Warner, Charlevoix

The March mystery photo of Paul Bunyan and his ox Babe is in front of "Smith's Little Acre" just south of the city limits of Charlevoix on Highway 31. Clayton Smith, the owner of the property, has created many unique displays of rural characters and legends at the side of the road for travelers to enjoy. We've lived in Charlevoix for over 35 years and each year have enjoyed his artistic creations. Clayton used to be active in hunting and trapping, and years ago different elementary school classes would go out to "Clay's Cabin" and he would show them historical tools used in these activities and talk to them (he is a great storyteller). It would be interesting if you



DO YOU KNOW WHERE THIS IS?

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

We do not accept Mystery Photo guesses by phone! Email mysteryphoto@countrylines.com, or send by mail to *Country Lines Mystery Photo*, 2859 W. Jolly Rd., Okemos, 48864. Include your name, address, phone number and name of your co-op. Only those sending complete information will be entered in the drawing. The winner will be announced in the July/August 2012 issue.

The March contest winner is Cindy Morgner of Central Lake, who correctly identified the photo as taken on U.S. 31 south of Charlevoix.



would do a story about him and his accomplishments.

— *Dianne VanGuilder,
Charlevoix*

Hospital Costs

I just finished reading the April 2012 issue of *Country Lines*, and with particular interest the letter from Jeff Lange of Alanson in reference to “Who’s Paying Hospital Costs?” (in reference to “Ramblings” column/January).

I’m afraid the gentleman is very badly misinformed. He does not understand that the 2,700 page document of Obama Care is not the solution to the health care problem. That document is not only about government controlling health care, but more accurately about the government eroding our individual rights as American citizens.

Although health care reform is needed to make medical care more available and affordable to the average person, the plan that is taking place before our eyes isn’t the answer. Just look at England or any other country that has socialized medicine in

place and you can see the quality and availability of human health care diminishes.

Immigrants have come to this country for over 200 years for individual freedoms. Taking away the right to choose your health care is a dangerous road that we are traveling toward complete Socialism.

A step in the right direction is to replace our federal, state and local elected officials with ones that will work to make sure American citizens have the rights guaranteed by the U.S. Constitution and not a dictatorial, oppressive leadership. Vote in November and make yourself heard.

— *Mrs. James Lyons, Grayling*

Editor’s Note: “Obama Care” is actually the “Patient Protection and Affordable Care Act,” passed by Congress in 2010.

Readers can learn more about this law and its provisions by visiting wikipedia.org, a free encyclopedia, and typing the Act name in the search box.

Thanks For Storm Help

“The weekend that was” when we were all without power (March) two or three days or more...I was amazed to see how remarkably well Great Lakes Energy took care of a real emergency in our rural area. A big “thanks” to all of you servicing on foot and snowmobile where the trucks couldn’t go was cool.

If you missed seeing these guys in action [also throughout Alger Delta, Cherryland Electric, Cloverland Electric Cooperative, and Presque Isle Electric & Gas Co-op service areas], you missed a lot (see the story, April issue, on countrylines.com). Thanks again.

— *Jan Goodwin,
East Jordan*



Permission To Dream

Co-op students expand their horizons at Youth Leadership Summit.

You’re here because your electric co-op recognizes you as a leader—in your schools and in your communities,” began Ferris State University president, David Eisler. “And as a leader, your most important asset is your ability to dream.”

Eisler’s discussion about the value of education kicked-off a three-day Youth Leadership Summit presented by Michigan’s electric cooperatives. Twenty nine students from across the state were chosen to attend the summit to develop their leadership habits, explore career opportunities in the electric industry, and learn how to be actively involved in the democratic process.

Above, Ferris State University President David Eisler addresses YLS participants.

Small-group discussions helped students explore how leaders take control of their lives by choosing their response to situations, and how to identify, focus on and achieve their highest priorities. In a session titled “The Next Great Challenge,” students learned about the cooperative business model by discussing the early challenges electric co-ops helped overcome in America’s rural areas. Discussion quickly moved to the great challenges faced today, such as making renewable energy more affordable and available, and to student challenges, such as finding “good” jobs after college. Students had an opportunity to get an up-close tour of a working “wind farm” and formed a mini-democracy by electing team members to represent their interests during a mock co-op board meeting.

In the “Careers In Energy” portion of the event, lineworkers from Midwest Energy, Great Lakes Energy and HomeWorks Tri-County Electric co-ops talked about their work and training, then gave bucket truck rides and helped students gear-up to try climbing a pole. Twelve co-op employees and directors serving as chaperones for the event also discussed their jobs and education.

“YLS was a real leadership experience for me,” one student commented after the event. “I finally got to act [like] myself, talk about pressing issues, and enjoy time with new friends—and that was really cool!”

The Michigan Youth Leadership Summit is held annually at the Kettunen 4-H Center in Tustin. Seventeen of the students have been chosen to attend the Rural Electric Youth Tour to Washington, D.C., coming in June. Learn more about these co-op-sponsored youth programs at myYLS.com.

Learn About Co-ops

It’s a Matter of PRINCIPLE

The Rochdale Principles

Co-ops deliver electricity, sell produce, provide loans, and arrange for housing, health care, and more. But despite these differences, they all have one thing in common—seven cooperative principles:

- Voluntary and Open Membership
- Democratic Member Control
- Members’ Economic Participation
- Autonomy and Independence
- Education, Training, Information
- Cooperation Among Cooperatives
- Concern for Community

Learn more at www.go.coop.

Cooperative Enterprises Build a Better World

A message from America’s Electric Cooperatives

Thumb Electric Cooperative Financial Statement Balance Sheets

December 31, 2011 & 2010

Assets	2011	2010
ELECTRIC PLANT:		
In service – at cost	\$ 75,433,853	\$ 74,063,404
Construction work in progress	<u>470,148</u>	<u>378,775</u>
	75,904,001	74,442,179
Less accumulated depreciation	<u>23,236,636</u>	<u>22,212,527</u>
NET ELECTRIC PLANT	<u>52,667,365</u>	<u>52,229,652</u>
OTHER ASSETS AND INVESTMENTS:		
Investments in associated organizations	2,436,358	2,259,684
Energy loans receivable	78,306	79,973
Nonutility property	120,004	121,356
Short-term investments – restricted	<u>100,000</u>	<u>85,000</u>
TOTAL OTHER ASSETS AND INVESTMENTS	<u>2,734,668</u>	<u>2,546,013</u>
CURRENT ASSETS:		
Cash and temporary cash investments	556,822	584,188
Accounts receivable, less allowance for doubtful accounts of approximately \$396,476 and \$390,096 in*2011 and 2010	2,496,997	2,422,086
Unbilled revenue	622,017	623,095
Materials and supplies	859,606	855,228
Other current assets and accrued assets	<u>80,593</u>	<u>83,342</u>
TOTAL CURRENT ASSETS	<u>4,616,035</u>	<u>4,567,939</u>
DEFERRED CHARGES	<u>16,298</u>	<u>29,649</u>
TOTAL ASSETS	<u>\$ 60,034,366</u>	<u>\$ 59,373,253</u>

Members' Equities and Liabilities

EQUITIES:		
Memberships	\$ 161,495	\$ 158,615
Patronage capital	20,656,335	19,565,817
Other equities	624,854	443,945
TOTAL EQUITIES	<u>21,442,684</u>	<u>20,168,377</u>
LONG-TERM DEBT, NET OF CURRENT MATURITIES:		
Mortgage notes to Rural Utilities Service and Federal Financing Bank	24,823,427	24,283,620
Mortgage notes to National Rural Utilities Cooperative Finance Corporation	4,431,386	4,996,116
Loan from CoBank	4,091,604	4,472,169
TOTAL LONG-TERM DEBT	<u>33,346,417</u>	<u>33,751,905</u>
CURRENT LIABILITIES:		
Current maturities of long-term debt	1,486,667	1,469,600
Note payable – line of credit	72,223	837,837
Accounts payable:		
Purchased power	1,676,499	1,648,890
Subsidiary	336	12,341
Other	790,190	418,396
Accrued property taxes	526,087	516,389
Accrued payroll and vacation	281,107	286,088
Customer deposits	135,127	123,550
Other	<u>243,880</u>	<u>117,913</u>
TOTAL CURRENT LIABILITIES	<u>5,212,116</u>	<u>5,431,004</u>
DEFERRED CREDITS	<u>33,149</u>	<u>21,967</u>
TOTAL EQUITIES AND LIABILITIES	<u>\$ 60,034,366</u>	<u>\$ 59,373,253</u>

Statement of Revenue & Expenses Ending Dec. 31, 2011 & 2010

OPERATING REVENUES	<u>\$ 18,798,820</u>	<u>\$ 18,165,273</u>
OPERATING EXPENSES:		
Cost of power	9,993,852	9,825,737
Transmission	72,738	76,717
Distribution – operations	472,502	437,646
Distribution – maintenance	1,178,476	767,560
Customer accounts	896,044	961,477
Administrative and general	858,828	839,584
Depreciation	1,828,570	1,774,322
Taxes – property	689,439	676,957
Taxes – other	<u>21,000</u>	<u>15,000</u>
TOTAL OPERATING EXPENSES	<u>16,011,449</u>	<u>15,375,000</u>
OPERATING MARGINS BEFORE FIXED CHARGES	<u>2,787,371</u>	<u>2,790,273</u>
FIXED CHARGES:		
Interest on long-term debt	1,540,707	1,565,771
Other interest	<u>32,091</u>	<u>29,672</u>
TOTAL FIXED CHARGES	<u>1,572,798</u>	<u>1,595,443</u>
OPERATING MARGINS AFTER FIXED CHARGES	<u>1,214,573</u>	<u>1,194,830</u>
CAPITAL CREDITS	<u>96,719</u>	<u>112,969</u>
NET OPERATING MARGINS	<u>1,311,292</u>	<u>1,307,799</u>
NON-OPERATING MARGINS:		
Interest	47,707	45,411
Income (loss) from subsidiary	73,498	49,401
Other	<u>(33,573)</u>	<u>13,803</u>
TOTAL NON-OPERATING MARGINS	<u>87,632</u>	<u>108,615</u>
NET MARGINS	<u>\$ 1,398,924</u>	<u>\$ 1,416,414</u>

Don't miss **Dan Kramer** **One-Man Show** **Comedy, Music, Fun!**



June 9, 2012
at the
Thumb Electric Annual Meeting
Cass City Recreational Park
(See back cover for details on attending)

Wow, what a show!
Keyboardist, comedy show, one-man band—nothing but clean fun for everyone!
Music, comedy, dancing, laughing, interaction, classy!

Notice of Annual Membership Meeting

The Annual Meeting of the members of Thumb Electric Cooperative of Michigan will be held at **Cass City Park, Cass City, MI, at 10:00 a.m. on June 9, 2012**, to take action on the following matters:

1. The reports on officers, directors and committees.
2. The election of one director from Huron County, one director from Sanilac County, and one director from Tuscola County to the board of directors of the cooperative.
3. All other business which may rightfully come before the meeting, or any adjournment or adjournments thereof.

Dated: April 24, 2012

BETH McDONALD, SECRETARY



Thumb Electric Cooperative 74th Annual Meeting Minutes (2011)

THE SEVENTY-FOURTH ANNUAL MEETING of the Members of the Thumb Electric Cooperative of Michigan was held at the Cass City Recreational Park in Cass City, Tuscola County, Michigan at 10:30 o'clock a.m. on Saturday, June 11, 2011, pursuant to call and notice thereof given to each member of the Cooperative and pursuant to the laws of the State of Michigan.

The meeting was called to order by Louis Wenzlaff, President of the Cooperative, and James Woodworth, attorney for the Cooperative, acted as secretary of the meeting and kept the minutes thereof.

The President introduced the members of the Cooperative's Board of Directors and Board Officers as follows:

Louis Wenzlaff, <i>President</i>	Tuscola County
Donald Wolschleger, <i>Vice-President</i>	Huron County
Beth McDonald, <i>Secretary</i>	Huron County
Leonard Briolat, <i>Treasurer</i>	Sanilac County
Randall Dhyse	Huron County
Karl DeSimpelare	Tuscola County
Kim Nunn	Sanilac County
Duane Kursinsky	Sanilac County

President Wenzlaff took time to recognize Martin Damm, who recently passed away, for his commitment and dedication to the Cooperative while serving 28 years as a Director representing Tuscola County.

Also introduced were the General Manager Dallas Braun, and James Woodworth, the Cooperative attorney.

The reading of the Notice of the Meeting and Affidavit of Mailing thereof to all the Cooperative members within the time prescribed by the Cooperative Bylaws was dispensed with; it having been published in *Country Lines*. A copy of the Notice and Affidavit is attached to these minutes and incorporated herein.

The Secretary reported that the members of the Cooperative present in person or by proxy had been checked by the registration of names of the members attending the meeting in person and the names of the members represented at the meeting by proxy and the names of their respective proxies, as said members entered the meeting room, and that more than one hundred fifty (150) members of the Cooperative were present in person, constituting a quorum of the members in accordance with the Bylaws of the Cooperative.

The Secretary also reported that members of the Cooperative were present at the meeting in person and that members were represented at the meeting by proxies, all of said members being named and described as to their county of residence and as to attendance in person or by proxy. The proxies were ordered filed in the records of the Cooperative.

The minutes of the Seventy-Third Annual Meeting of the Members were not read since a copy of same had been mailed to each of the members. There being no additions or corrections to those minutes, upon motion duly made, seconded and carried, said minutes were approved as drafted.

The Treasurer's Report to the Seventy-Fourth Annual Meeting was not read since a copy of same had been mailed to each of the members. There being no amendments thereto or questions upon the matters contained therein, upon motion duly made, seconded and carried, the report was approved as presented.

The Treasurer's Report, published in "Country Lines", presented the 2010 financial statement which showed operating revenues of \$18,165,273 and expenses of \$16,970,443 resulting in an operating margin of \$1,194,830. Total assignable margins were \$1,416,414 for 2010. 2010 members' patronage capital accounts will be allocated over 7.8 cents on each dollar paid by TEC members. The 2010 general patronage retirement appeared as a credit on member's electric bills received in May 2011.

President Wenzlaff then introduced the Cooperative's General Manager, Dallas Braun. Manager Braun thanked the Cooperative employees for all their labors and efforts over the past year, with 2.5 years of No Lost Time accidents. He then reported on the Cooperative's financial status, rates, member services, marketing activities, patronage capital retirement, energy efficiency, interest, property taxes, construction and improvements. In closing, Manager Braun thanked the members for their interest in their Cooperative and for their support.

After questions and answers on the General Manager's Report, the meeting was returned to President Wenzlaff and upon motion duly made, seconded and carried, the General Manager's Report was approved as presented.

President Wenzlaff then gave the President's Report explaining growth of the Cooperative's total utility plant in 2010, increase in equity while maintaining competitive rates, member district meetings, patronage capital retirements, 2011's major construction projects, utility plant & upgrades, renewable energy, energy optimization program, renewable portfolio standard, tree trimming, and legislation. Upon motion duly made, seconded and carried, the President's Report was approved as presented.

The next order of business was the election of three Directors. One from each county for three-year terms each. The meeting was turned over to Cooperative attorney James Woodworth to conduct the election and voting.

Acting Chairman Woodworth appointed the following members as Inspectors of the Election, all of whom were sworn to the faithful performance of their duties by the Acting Chairman who is also a notary public:

<u>Huron</u>	<u>Sanilac</u>	<u>Tuscola</u>
Carl Binder	Oliver Wood	James Satchel
James Mazure	Marion Schiller	Matthew Bosel
Francis Mazure	Luella Decker	James Hergenreder
	Gary Russell	

The Nominating Committee Report was published in *Country Lines*. The Committee nominated the following for Directorships: (Note: Martin Damm passed away after the Nominating Committee had submitted their report.)

Huron County:	Beth McDonald (<i>incumbent</i>)
	Ivan Burkhard
Sanilac County:	Duane Kursinsky (<i>incumbent</i>)
	Kenneth Landsburg
Tuscola County:	Martin Damm (<i>incumbent</i>)
	Carl Cousins

The Acting Chairman entertained further nominations from the floor for each Directorship in each county. There being no such nominations from the floor, upon motion and duly made, seconded and carried the nominations were closed. Each candidate was then introduced and invited to address the members for up to five minutes.

The Acting Chairman then requested the members to vote upon their ballots for the respective Directorships. The Inspectors of the Election were requested to collect and tabulate the ballots. The meeting was returned to President Wenzlaff.

Representatives from the Michigan Electric Cooperative Association were introduced. Also introduced were State Senator Mike Green and Staff member Don Brown from U.S. Congresswoman Candice Miller's office.

The President then asked if there was any old business to address. There being none; he asked for new business. There being none; he entertained a motion to adjourn. Upon motion duly made, seconded and carried, the business portion of the meeting was adjourned at 12:10 p.m. After adjournment, the early bird, children's and final prize drawing results were announced. Beth McDonald gave the invocation followed by lunch and entertainment by Bob Bloenk – musical comedy.

After lunch and entertainment, the meeting was informally reconvened and turned over to attorney Woodworth who announced the results of the tabulation of votes which were as follows:

Huron County:	Beth McDonald	216
	Ivan Burkhard	88
Sanilac County:	Duane Kursinsky	245
	Kenneth Landsburg	56
Tuscola County:	Martin Damm	110
	Carl Cousins	188

The elected Directors were declared to be Beth McDonald from Huron County, Duane Kursinsky from Sanilac County, and Carl Cousins from Tuscola County.

Beth McDonald, Secretary



Photo: FEWA

To Finish or Not to Finish?

How do you get the most bang for your buck in home improvements during a down economy?

Americans are staying put. The down economy has been driving most people to bunker down in their homes instead of moving, and many wonder whether to finish that attic or replace the front door as they try to sit-out hard times.

Only 10 percent of the general public feels that now is the time to sell their home, according to Fannie Mae's National Housing Survey released in November 2011. The survey shows 75 percent of Americans believe the economy is on the wrong track. It stands to reason then that long-term homeowners want to make their property as livable as possible. So, which specific home improvements are shown to deliver the most value right now, according to the experts? On the flip side, can a home improvement actually reduce property value?

Exterior home improvements have customarily given homeowners the best return for their dollars, and today is no exception. The National Association of Realtors' (NAR) Cost vs. Value Report ranks exterior improve-

ments among the best home investments on HouseLogic.com, NAR's consumer website.

Good deals aren't limited to the exterior, however. Conversion of existing space, such as a minor kitchen remodel, turning an attic into a bedroom or finishing a basement is more likely to bring a better return than an addition.

The cost vs. value report "shows the value of putting your home's best façade forward, so to speak," says NAR President Moe Veissi, broker-owner of Veissi & Associates Inc., in Miami. Exterior projects are important to a home's regular upkeep and are expected to recoup far more than many other home improvements. Plus, they add instant curb appeal when times are finally right for selling.

A home's attractiveness, the indicator of initial appeal, makes a big difference. Exterior elements covering large areas such as siding, entry and garage doors have the greatest visual impact. Updated exteriors give sellers an edge, because buyers are attracted to a home before entering.

Top 7 Most Efficient Projects

Seven of the top 10 most cost-effective projects nationally in terms of value recouped are exterior projects, reports the NAR. The NAR has judged an upscale fiber-cement siding as the No. 1 improvement value, with an estimated 78 percent of costs recouped upon resale.

Two other siding projects ranked in the top 10, including foam-backed vinyl and upscale vinyl. Both are expected to recoup roughly 70 percent of costs. A steel entry door replacement, the least expensive project in the report, averages little more than \$1,200 and is expected to recoup 73 percent of its cost.

Garage door replacement, a wood deck addition, and vinyl window replacement are all expected to recoup around 70 percent of costs.

On the interior, NAR considers three kinds of remodeling projects worthwhile investments. The least expensive way to add a bedroom and bathroom within a home's existing footprint is a mid-range attic bedroom, expected to return 72.5 percent of

◀ Fiber-cement siding is considered the No. 1 ranking, top-value home improvement, according to the National Association of Realtors. Fiber-cement siding is also used in wind-resistant building techniques to help protect buildings during tornadoes and high winds.

costs. A minor kitchen remodel, expected to return 72 percent of costs, is fourth overall.

Least Cost-Efficient Projects

Least-return improvements are a sunroom addition and a home office remodel, both estimated to recoup less than 46 percent of costs. An in-ground pool can add to home value, but there's little chance of recovering the money spent on upkeep. The NAR says an above-ground pool and its high upkeep factor can actually reduce the resale value of a home.

All homes benefit from increased insulation and sealing, regardless of climate. Older homes are usually under-insulated compared to new homes. Adding more can help you realize a return on your investment. Beefing

up R-values in an attic or crawlspace also helps cut energy use.

Do-It-Yourself Or Not?

Most homeowners can handle routine maintenance projects and cosmetic touch-ups, but it's recommended that you consult with qualified professionals for larger remodeling jobs and major structural changes.

After deciding on one or more projects, how can you get started? What to do first on a project can be daunting in itself, so what's the best solution to avoid confusion?

Jerry Fedewa, president of The Greater Lansing Home Builders and Remodelers Association, suggests the priority should be to stick to the scope of work unless you become aware of additional items that make sense to complete at that time. "It's best to know exactly what you want done and to be able to communicate the scope of the project," Fedewa explains. "If the builder or remodeler sees additional work that needs to be done, they will suggest it."

Fedewa recommends contacting the local homebuilders and remodelers association for a list of licensed and insured contractors. "I would choose three contractors to visit your project," he advises.

The down economy offers homeowners some opportunities for savings, he relates. "Additions and remodels really did not slow nearly as much as home building has," Fedewa says. "So, more homebuilders started taking on more additions and remodels." This means there is probably some savings

for homeowners here, because more contractors are chasing the same amount of work. "Customer service has improved and project time has improved," Fedewa says.

Asking contractors important questions makes all the difference, adds Roger Weymouth, broker/owner of Weymouth & Associates in Holt, MI. "Regarding the best questions to ask, I would say, 'as many as you can think of.'" For instance:

▲ Are you licensed and insured? (Make a copy of the license and insurance.)

▲ Do you carry workman's comp insurance? (Make a copy.)

▲ How long have you been in business?

▲ Can you provide me a list of the last three projects you did with names and phone numbers of the people that hired you?

▲ Is this your best price?

"I personally prefer to pay when the job is complete," Weymouth advises. "Be careful of the contractor that wants money up front." Always make sure your agreement with the contractor is in writing, he adds, and everything should be understood beforehand.

"It's very important to always include a project completion date in your contract, and what happens if the project isn't finished by that date," Weymouth continues. "For example, include wording such as 'contractor to pay owner x amount each day thereafter completion date if the project is not completed.'"

Homeowners should also be aware that the U.S. Environmental Protection Agency has passed regulations for contractors working in homes built before 1978. The new rules are enforced, and consumers should check to see if contractors follow the law.

There's a lot to gain through home improvements, such as increased functionality, new appliances, efficient systems, updated décor and additional living space. But following expert advice helps you realize the pure enjoyment of making a home truly "your own."

More on home improvement, page 12 ▶

Countdown to Value!

The top seven home improvement values, per the National Association of Realtors:

#7: Vinyl siding (shown below)

#6: Deck

#5: Garage door

#4: Minor kitchen remodel

#3: Converting attic to bedroom

#2: Steel entry door

#1: Fiber-cement siding



Other Resources

nariremodelers.com

Find home improvement professionals who voluntarily subscribe to a strict code of ethics.

HouseLogic.com

Find dozens of remodeling project ideas here. Each shows the recouped project value; lots of information on home maintenance and green remodeling. Also visit greenremodling.org.

ask-the-rehabber.com

Do-it-yourself remodeling information, with emphasis on saving money.

Home Improvement Help on the Computer

Search the internet by name to find details on the following programs, or more programs, and online help for planning home improvement projects.

Home Designer Suite 2012, \$98

Highly-rated. It can help plan and estimate costs before you begin. Create a new room, bath, kitchen or other space. View cabinet combinations, countertops, appliances, fixtures, custom colors, and more.

Home & Landscape Design Premium NexGen3, \$99

Planning tools for both home improvements and landscape/backyard beautification. Apply paint, carpet or other materials to a surface, room or entire house with a click. Pick default materials and colors before you start designing. Measuring distances within the drawing enables quick reference or planning for furniture. Accurate imaging and user-controlled sun angles and shadows add detailing.

HGTV Home Design & Remodeling Suite, \$49

Beginner's software with wizards to design bathrooms, kitchens or a full home. Ceate a new living space, add a fireplace, make your home energy efficient with new appliances, replace countertops, cabinets and fixtures, and enhance any room.

Big Hammer Deck Designer, free (requires Internet Explorer)

Over 70 customizable deck templates, or draw your own. Choose materials by classification, size and grade; provides a list of materials.

Energy Star Home Advisor, free

Simple, free and anonymous energy advice, with a summary of estimated savings in total energy, electricity, fuel use, and carbon emissions associated with custom-recommended measures, based on typical energy use of homes in your area.

Typical recommendations include sealing air leaks, adding insulation, replacing old heating and cooling equipment, installing a high-efficiency water heater, installing a programmable thermostat, and replacing lights and appliances with Energy Star® models.



Tough Flooring for Tough Times

Photo – Flooring Source/Michele J. Zelman

Laminate flooring is tough and low-maintenance, but looks impressive, which makes it perfect for an active home in a down economy.

One of the toughest, most appealing, functional, and simple-to-install floors just happens to be one of the least costly. Laminate flooring has come a long way since its invention in the 1970s and deserves serious consideration by anyone contemplating a new floor, particularly during tough economic times.

Laminate flooring doesn't enjoy the media attention of bamboo, wood, stone or tile floors. Ironically, homeowners can find laminate flooring products to match the look of every variant of each of those products. Laminate flooring's composition of a high-resolution image bonded to a composite core, sealed under a clear resin-based wear layer, lets it match the look of any surface. Natural designs from hardwood, bamboo, granite, marble, and even tile and carpet are all available in laminate. So, while laminate's popularity has skyrocketed because of price and performance, its looks are impressive, too.

Compared to wood, laminate's toughness shines—its resistance to scratches, dents and capacity to stand up to daily wear all exceed the performance of wood. Kids and pets have proven laminate's record. The first layer of laminate flooring is an abrasion resistant finish of aluminum oxide (diamond is the only material that is harder). Laminate does not require waxing, oiling or staining, but should be kept clean, as dust, dirt and sand particles can scratch the surface.

Laminate flooring's chief vulnerability is high moisture, which can harm the composite core. If you're planning on putting laminate in a kitchen or bath, make sure it's a type that is approved to minimize the risk of damage in high-moisture areas.

Laminate also provides better stain resistance compared with hardwood and bamboo, because the first layer is stain resistant.

Another plus is easy maintenance. All that you need to maintain laminate is a cleaner and rag. You can remove a broken plank and replace it in case of damage.

Toughness alone might sell a homeowner on laminate, but ease-of-installation is just as convincing, making it the flooring of choice for a do-it-yourselfer. Known as a "floating floor system," think of each plank of wood being nailed to the sub-floor, one after the other. By comparison, once assembled, laminate rests atop an existing floor. With click-together laminate, there is no nailing, screwing or gluing. You don't glue planks together. Installing the floor is as simple as laying down underlayment, cutting planks to the right lengths, and snapping them together.

Perhaps the biggest attraction of laminate, however, remains the price. For those feeling the crunch, every cent makes a difference, and economy lines are sold for less than \$1 per square foot. For a little more, high-end laminates provide a tougher, more appealing look. Either way, installing laminate is a low-cost solution to a high-cost project.

Gone are the days when laminates were easy to spot, too. Manufacturers now create strikingly realistic visuals and textures that often cannot be distinguished from the real thing.

Laminates are ideal for homeowners who desire the attractiveness of wood, stone or other costly coverings, but not the upkeep.

Source: World Floor Covering Association

Electrical Safety During and After Storms

Frequently Asked Questions

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

Lightning

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

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

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

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

Power Lines

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

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

Do not try to move a downed power line or anything in contact with the line by using another object, such as a broom or stick. Even nonconductive materials like wood or cloth, if slightly wet, can conduct electricity. **What if a power line comes down onto my car or I didn't see it until I've driven into it?** Stay in your car and tell others to stay away.

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

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

Flooded Areas

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

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

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

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

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

Portable Generators

▶ A licensed electrician should install home generators to ensure they meet all electrical codes. Make sure it is properly grounded according to manufacturer instructions.

▶ Do not connect generators directly to the household wiring unless the proper transfer switch has been installed by a licensed, qualified electrician. Without this, power can "backfeed" along the power lines, creating an electrocution hazard for anyone coming in contact with the lines, including lineworkers making necessary repairs.

▶ Never operate a generator inside your home or any enclosed, or partially enclosed area. Generators very quickly produce carbon monoxide, a colorless, odorless and poisonous gas that can easily enter your home. Opening windows, doors or using fans does not provide adequate ventilation to prevent carbon monoxide build-up. Generators must be located outside, over 15 feet from windows, doors and vents, through which carbon monoxide can enter your home. Keep it a safe distance away from your neighbors' homes, too. Make sure there is at least one battery-operated or battery-backup carbon monoxide alarm in your home. Test it before using the generator.

▶ Place the generator on a *dry* surface under an open, canopy-like structure. Do not operate the generator in wet conditions or where there is standing water.

▶ Keep children away from portable generators and fuel at all times.

▶ Generator capacity varies. Follow the manufacturer's instructions carefully, and do not overload it.

▶ *Refueling the generator while it is running is a fire hazard.* Unplug all appliances from the generator before shutting it down; turn it off and let it cool down before refueling.

Post-Evacuation

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

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

Source: Electrical Safety Foundation International

Install Your Own Irrigation System

I can't imagine a better investment these days than a lawn or garden irrigation system to put the right amount of water where it's needed, when it's needed. However, until now it's been a little difficult to find such a system that a homeowner can easily install, and having a professional install one can be a little pricey for some of us.

Thanks to John Coyne, of Marquette, a lawn and garden irrigation system is available that is both affordable and practical to install for the do-it-yourselfer (DIY). It's also a self-draining system, which means one less chore to do on weekends in the fall.

Coyne invented what he has patented and calls Auto Rain Lawn Gear® (ARLG). These irrigation kits come in six different sizes and zones, to suit the size and layout of your lawn—from an inexpensive, small, one-zone kit that covers 800 square feet, to larger three-zone kits that cover as much as 25,500 square feet. The kits use Rainbird® brand components.

"These do-it-yourself kits can save over 70 percent of the cost of hiring a contractor," explains Coyne, who has been installing irrigation systems for the past 17 years. Detailed instructions come with each kit, and there is a helpful instructional video on the ARLG website (noted below). Of course, if you're not the DIY type, you can hire a landscaper or other contractor to install a kit for you.

The ARLG systems can hook right up to an outdoor spigot, or you can have a professional plumber attach it directly to a water source under the house. If done the latter way, make sure a back-flow preventer is included to avoid contamination of your water supply. First, though, make sure you have adequate water pressure for the system. If you can fill up a five-gallon bucket in a minute or less—which is achievable in most homes—then you're all set, Coyne says.

The system itself can be installed with a minimum of tools, such as a shovel and a few hand tools to fasten parts together. The actual poly-plastic hose is purchased separately at any hardware store. Because the hose need only be buried under the sod, a spade shovel is all you need for digging—no backhoes or pipe pullers required. Running the hose under a sidewalk requires that it be fed under the



Photo courtesy-John Coyne

What will lawn irrigation do for you?

SAVE TIME. Connect a timer to an irrigation system and you can water your lawn while you're at work, on the golf course, or out in the boat.

SAVE MONEY. Water is expensive these days, not to mention a precious resource. Consistent watering directed only where it is needed saves money.

IMPRESS THE NEIGHBORS. A nice lawn is a joy to look at and will be the envy of the neighborhood.

RELIEVE STRESS. No more kinked hoses or shoddy sprinklers. Pour yourself your favorite beverage and leave the rest to your irrigation system!

concrete, perhaps attached to the end of a metal or galvanized pipe.

"If you can use a shovel and turn a screwdriver, then you can do this," he adds.

Coyne spent 23 years as a pharmaceutical salesperson before inventing his irrigation system. After losing that job to corporate downsizing, he was looking for a way to continue making a living. He believed that at the age of 50 he would be hard-pressed to find another job in sales (at least in the Marquette area) that paid him the money he was accustomed to. Besides, he said, most employers wouldn't have faith that he'd stay with the company very long at his age.

Luckily, Coyne had already been operating a part-time sideline business for 17 years, called U.P. Irrigation. While installing irrigation systems that other companies had designed, he was also thinking about how to improve them. This gave him a back-up plan for a career change after he lost the pharmaceutical job. The problem with those

John Coyne, of Marquette, has invented a do-it-yourself lawn and garden irrigation system.

systems was they were difficult for the do-it-yourselfer to install, and added work for gardeners who had to fuss with draining all the system lines each fall.

Out of this angst with the status quo came a new type of lawn irrigation system, and a new career for Coyne. So, about three years ago he came up with the idea for his new product. A year later, he was approaching stores to see if they were interested in selling it. He hopes this will be the career move that will sustain him in the years to come.

"I'd like to thank my employer who laid me off," Coyne says, noting it was that pink slip that forced him to come up with a new line of work, and one that he is very satisfied with today.

His biggest challenge now is getting his product into the big-box stores. It's hard when you're an unknown entity from the Upper Peninsula of Michigan to get noticed by the big guys, Coyne explains. However, with hard work and persistence, which included traveling as far away as Texas to pitch his product, he's making progress. The Auto Rain Lawn Gear kits are now carried by Lowe's stores in northern Michigan, and select Ace and True Value Hardware stores in the U.P., and are also available from the company website at autorainlawngear.com.

An irrigation system is a good investment because you'll save money by not watering more than a lawn or garden needs, and your plants will be healthier. In fact, when you water by hand you waste over 50 percent of the water applied in runoff and evaporation. You'll also save time, especially when you attach a timer to the system, allowing you to work on some of those other home improvement projects, go golfing, or have a barbecue.

Neil Moran offers garden tips on his website: northcountrygardening.neilmoran.com.



Luminature

Wildly unique lighting and decor

It started with a sketch of a tree and branched out into a business specializing in “wildly unique lighting.”

In the 15 years that Owosso native Lori McCarthy worked in the lighting field she was dismayed to see production move overseas and inferior fixtures swamp the market. Cheap materials, poor workmanship and boring, “copycat” designs replaced quality American-made goods. With the explosion of big-box stores, she says, “The integrity of the lighting industry has gone down the drain.”

After living in upstate New York for several years McCarthy returned to central Michigan and decided to create original, hand-made fixtures under the name Luminature Design. She found a local computer-aided design (CAD) source and fabricator who plasma-cut her hand-drawn tree illustration from steel in a silhouette effect. “It’s a complicated process, but I finally got my tree,” she says, stressing the importance of using her original artwork. “I want every single thing on my light fixtures to be my designs.”

Inspired by nature, McCarthy added moose, fish and pinecone motifs to her chandeliers, wall sconces and home décor items, such as paper towel holders. When Owosso, home of the Steam Railroading Institute, hosted the national Train Festival in 2009, McCarthy launched a line featuring powerful locomotives.

She and her husband Paul live north of Owosso in Henderson, where they turned their century-old barn into a workshop. “It was always my dream to have that barn studio,” she says, “and it’s gorgeous: two stories with a 30-foot-high ceiling.” The couple hand-torches their cut-out art to finish the steel in shades of orange and blue, and welds and wires the pieces into functional, decorative fixtures.

Although most of her work features plasma-cut steel, McCarthy also likes to assemble found objects into one-of-a-kind fixtures. A stunning example is a chandelier crafted from an 1895 hay pulley with thick, 100-year old rope holding the antique amber light globes. A bundle of unused, vintage burlap potato sacks became drum lampshades. And she creates stained glass art, much of it custom. “One woman brought some wheat to incorporate in a glass project,” she explains.

McCarthy recently moved from her own storefront in Owosso to Artisan Alley Mall in Corunna, and is excited about being under one roof with other creative folks. The market-like showcase occupies part of a former window factory that is anchored by 2nd Chance Wood Company (2ndchancewood.com).

Tadd Wilson founded 2nd Chance Wood as a source for building materials rescued from fallen trees, barns and other structures, but the company evolved into making rustic furniture, cabinetry, mantels and decorative accessories from the reclaimed wood. By welcoming other artisans and antique dealers to his building, Wilson has created a one-stop decorating shop for the individuals, designers, architects and restaurateurs who travel to see his wood products.

“It has the most elegant pieces of junk you’ll ever see,” says McCarthy of Artisan Alley Mall and 2nd Chance Wood. “It’s just a place to go for really cool things.”



Photos - David Olds

Lori McCarthy uses a grinder on a steel panel which will be used to produce a lamp. She and her husband make decorative home products out of wood, steel, glass and other resources.



Lori uses a blow torch to add color to a steel panel which will be used, along with thin sheets of the mineral, mica, to produce a lamp.



Lori and Paul McCarthy of Luminature Design in their studio, a renovated barn in Henderson. Their website is wix.com/mccarthyloreluminature and “Luminature Design” on Facebook.

Going Solo

Single-child Families Are On The Rise

What do Albert Einstein, Joe Montana and Brooke Shields have in common? Fame, of course, but also a shared experience with 20 million of today's young Americans: each was an only child.

Whether they formed by choice or by circumstance, the single-child family is the fastest-growing family type in the U.S. and most of Western Europe. And contrary to lingering stereotypes, studies show that singletons are not measurably different from other kids—except that they, along with first-borns and people who have only one sibling, score higher in measures of intelligence and achievement.

Attention + Confidence = High Achievement

This higher-than-average achievement comes partly from getting more than their share of nurturing attention. Plus, family time often involves adult-oriented activities such as trips to museums and historic attractions.

"My dad would insist on reading every sign in every museum display...out loud," says Jeremy Harder, who grew up as an only child in Owosso, MI. "Without any siblings to run off with, or form a protest, I pretty much just slumped along, listening. ...These are experiences I really appreciate now that I'm older. And it's surprising how much knowledge I've retained from those museums."

He describes another set of powerful drivers of academic achievement: freedom and confidence.

"I could watch whatever I felt like, or play with whatever toy I wanted without conflict, or judgment," he said. "If I wanted to try building a donut-making machine out of spare lawnmower parts, no one told me it was a stupid idea that wouldn't work."

Only children also benefit from having parents involved at school. They're often the ones who can chaperone trips or volunteer in the classrooms, which can be a boon for teachers.

As it turns out, this combination of self-



Photo: iStockphoto.com

Resources:

▶ onlychild.com

▶ parents.com – Search for "10 Tips for Parenting Only Children: How to handle your overly mature, diligent, conscientious, perfectionist only child."

▶ susannewmanphd.com – Dr. Susan Newman is author of *Psychology Today's* "Singletons" blog and a new book, "The Case for the Only Child: Your Essential Guide."

confidence and focused parent involvement provides a powerful formula for success.

Raising One Child Presents Some Unique Challenges

On the other hand, teachers say single-child parents sometimes need to leave their child alone so all that focused attention doesn't encourage helplessness. She urges parents to teach children—especially as they enter middle and high school—to advocate for themselves in asking for extra help or discussing a grade. And as hard as it might be,

parents sometimes need to look the other way so their child can feel the consequences of their actions.

Michigan attorney Mercedes Dordeski agrees. As an only child, she benefited from both homework help and high accountability from her parents.

"If I ever complained about a particular subject being difficult, the teacher being mean, or how I just 'didn't get it,' my parents would never let me use that as an excuse," Dordeski said. "They just told me that I needed to work harder."

Their methods paid off. Like a higher-than-average number of singletons, Dordeski stayed out of trouble, graduated high school with honors, and went on to college and an advanced professional degree.

"My advice to parents would be to never let your kids take the easy way out... If you make them do something, they will," she says.

Parents in single-child families also are on the hook for providing the competition, camaraderie, and entertainment that come naturally with siblings. This is especially true if school friends live far away or keep too busy to visit often.

"One of the downsides of being an only child is boredom," said Harder. "My parents were pretty good about joining in, but an adult's threshold for playing games, throwing balls or playing pretend just isn't nearly as wide as a kid's."

Harder offered parents his own set of tips—starting with the gift of time.

"Be involved daily in doing homework, playing, having dinner together, watching television together, listening to your child—everything—because your child doesn't have anyone in the house to share that with."

He also stressed the importance of getting an only child involved in extra-curricular activities, even if they are reluctant.

"A child who only spends time with adults can often feel awkward when alone with other kids. It will help them immensely if they are at a sports practice or music lesson a few times during the week. Ask them all about it when it's over, but give them that time to learn how to interact without a parent there guiding the way."

And his final tip: "Get a dog."

Linda Wacyk is a regular Country Lines freelance writer, educator, grandmother and content empty-nester.



Jerry Regan Is 'Der Flymeister'

If there ever was a master of the trout fly, it would have to be Jerry Regan, of Grayling. Most knowing fly-fishers around the "Holy Waters of the Au Sable" say no one is more worthy of the title, "Der Flymeister."

Jerry retired from downstate and moved back home to pursue what has turned out to be busy second occupation—fly-tying. He is also busy demonstrating and teaching fly-tying while pursuing an increasingly important role as a historian of the arcane craft.

When it comes to Michigan and nationwide, Jerry is one of only a few tiers that have become walking encyclopedias of fly patterns, old and new. This scribbler can attest to that. When I had tied up a pattern I used to fish in western waters and showed it to him, he barely looked before naming it. "A 'picket pin'—an old-time fly seldom seen used these days," he said.

Regan is the third generation in his family to tie flies. His grandfather and uncle tied flies as well as guided on the AuSable and Manistee rivers. And like most guides, they tied to have flies available for clients to use and buy.

"They called these 'pocket flies'—a few proven patterns they'd developed to give to their clients when fish got lockjaw," Jerry said. "Every guide has some of these 'go to' flies when things got tough—patterns that they knew would take fish in almost every situation."

It wasn't only the men in his family that were involved in tying feathers to a hook. "My Aunt Mary Carr tied the feather dressings on the hooks for lures from the Eppinger Company, makers of the old "Dardevle" and "Five O'Diamond" spoons and other lures," he added.

As a youngster, Regan used to hang around with the old-timers that ran a local fly shop, called the Fly Factory. "I remember the old-timers like Sailor Bill, and later Art Westerville and the Southard family, that ran the Fly Factory (since renamed the Old Au Sable Fly Shop), and I have tied lots of flies for them over time." Regan also noted that giving demonstrations on fly-tying came naturally since his Uncle Ralph tied and gave demonstrations at sports shows for many years.

Regan spent much of his adult life working



Jerry Regan is a master fly-tier.

as a barber in a shop in Davison, near Flint, and like many older fly-tiers of the north country, he tied flies in the shop when not busy clipping hair off humans. He also saved his off-work time for periodic trips back to Grayling to fish and later to begin both guiding and tying for more outlets in the north.

He knew many of the early tiers that formed what some call the "AuSable School of Tying." He was a good friend of the late Bob Smock, one of the few remaining masters of the AuSable deer hair dry flies. "Bob only

tied dry flies—he never liked tying wet flies and stuck to tying the classic dry flies like those originated by Earl Madsen, Clarence Roberts, Marion Burtch, Ernie Borchert, Jim Wakely, Eggie Bugby, and Horace Failing," Regan said. "Those were the ones we younger tiers learned from as we grew up and their patterns are still good flies for the AuSable and Manistee."

Jerry Regan ties all types of flies, wet and dry, streamer, nymph, or dries tied with spent, divided or parachute hackle wings (resembles wings and legs of a mayfly). And there are few standard patterns that he cannot identify at a glance. When I wanted a pair of the classic Mershon wet flies for my collection of Michigan patterns, he had a pair—the light and dark—in my mailbox within the week.

Since retiring, Regan lives in his family home in Grayling, which he had kept all these years while working downstate, and is busy guiding in a classic AuSable riverboat, tying flies, and demonstrating at clubs and shows. The only change is that he now gets more time to fish for himself, as well.

"We talked about you and me going down the stream for a fishing day for several years, so let's do it this summer, maybe during the 'hopper hatch about August," Jerry told me. "Neither one of us is getting any younger, so let's do it."

It did not take much time to say "yes" to an opportunity to fish the "Holy Waters" with the "Flymeister," Jerry Regan.

Regretfully, Don Ingle and his wife Jean died recently in a tragic house fire, but this column was the last he submitted as the Outdoors writer for Michigan Country Lines for over 25 years, and we know he would've liked going out by talking about his love of fishing. (Also, see the reader letter about Don on p. 6). Rest in peace, Mr. Ingle, with dreams of fly-tying and fishing the "Holy Waters of the Au Sable."





Crêpes

Sweet & Savory

Sunday Morning
Crêpe Cake

The word “crêpe” is of French origin, stemming from the Latin word *crispa*, which means “curled.” If you stroll through Paris, you’ll find many vendors serving these hot treats right on the street. Crêpes resemble thin pancakes, and they’re surprisingly easy to make. They are also so versatile you can eat them for breakfast—filled with sweets and creams—or enjoy them with savory meats and vegetables.

Sunday Morning Crêpe Cake

3 c. sifted flour
4 T. sugar
2 t. baking powder
1/2 t. salt
4 eggs, beaten
4 c. milk
4 T. butter or margarine
fruit preserves

Frosting:

8 oz. cream cheese, softened
3 T. sugar
2 t. vanilla

Sift flour with sugar, baking powder and salt. Combine eggs and milk; beat until well mixed; pour into dry ingredients and beat with mixer until smooth. Spray an 8-9-inch

skillet, pour 1/4 cup batter, rotating pan so batter quickly covers bottom of entire pan. Cook over high heat about 1 minute per side. Remove from heat. Begin by stacking each crêpe on a 10-inch plate. Lightly spread preserves over the top of each crêpe, stacking them on top of each other and spreading preserves as you go. Makes about 24 crêpes. Do not put preserve on last crêpe, finish with a plain crêpe. Combine all frosting ingredients together and frost cake. Top with fresh berries and powdered sugar.

Julie McDonald, Freesoil

Hot Fresh Peach Souffle

1 c. fresh peaches, pureed (2 peaches)
3 T. cornstarch
1/4 c. sugar
2 t. fresh lemon juice
dash of salt

4 large eggs, separated (1/2 c. whites)
1 peach sliced, for garnish

Butter a large bowl. Sprinkle bowl with sugar. Mix puree with cornstarch, sugar, lemon juice, salt and egg yolks. Beat egg whites until stiff, but not dry. Carefully fold egg whites into peach mixture. Turn into bowl and bake at 375° for 35 minutes, until puffed and brown. Serve with sliced peaches. Serves 6-8.

Joan Leahy, Bay City

Cherry Blintzes

3 eggs
3 T. oil
1-1/2 c. milk
1 c. flour
1/2 t. salt
1/3 c. melted butter
2 T. butter
confectioners' sugar
1 c. sour cream
1 can cherry pie filling

Cheese Filling:

1 egg yolk
2 T. sugar
1 c. cottage cheese
8 oz. cream cheese
1 t. vanilla

Combine eggs, oil, milk, flour and salt in

Photography by: 831 Creative

blender container. Blend until smooth. Heat 8-inch skillet until drop of water sizzles. Brush with butter. Quickly pour in 3 tablespoons of batter, tilting pan to spread evenly. Cook until golden on underside. Dry on paper towels; stack with waxed paper between. In medium bowl, combine egg yolk and sugar; beat until thick and yellow. Add cheeses and vanilla and stir until well-combined. Spread 3 tablespoons of filling on browned side of each crêpe, making a rectangle 4 inches long. Fold two opposite sides of crêpe over filling; overlap ends, covering filling completely. Melt 1 tablespoon butter in large skillet over medium heat; add half of crêpes, not touching, seam side down. Sauté until golden; turn and sauté other side. Keep warm. Serve warm with confectioners' sugar, sour cream and cherry pie filling. Serves 16-20.

Janice Harvey, Charlevoix

Mexican Crêpes

1 can pie filling, any flavor
1 pkg. small flour tortillas
1½ c. sugar
1½ sticks of butter
1 t. vanilla
2 c. water

cinnamon and nutmeg, to taste

Equally divide pie filling between tortillas. Roll up like enchiladas. Place in 9x13-inch baking dish. Melt together sugar, butter, vanilla and water. Pour over roll-ups. Sprinkle with cinnamon or nutmeg. Bake at 350° for 40 minutes. Serve hot or cold. Serve with vanilla ice cream.

Debra Looney, Grayling

Crêpe Appetizers

1 c. pancake mix, plain
1 egg, beaten
¾ c. water
8 oz. cream cheese
3 T. chopped onion
2 T. chopped sweet pickle
deli-style ham slices

Mix first 3 ingredients (should be thin, if too thick, add water). Heat skillet to 375°. Pour batter in skillet to make 7-inch crêpe. When bubbles form, turn over until both sides are golden brown. Lay crêpes flat, and cool. Mix cream cheese, onion and pickle. Spread mix on flat crêpes. Top each one with thin slice of ham and roll up (tube-like). Can be served cold or warm.

Deborah Black, Sandusky

Lemon-Blueberry Crêpes

1 c. Bisquick baking mix
2 eggs
¾ c. milk

Filling:

1 pkg. (3-oz.) cream cheese, softened
1 ½ c. half-and-half
1 T. lemon juice
1 pkg. (3-oz.) lemon instant pudding and pie filling, dry
1 c. blueberry pie filling

Lightly grease 8-inch skillet, heat until hot. Beat Bisquick, eggs and milk with hand beater until smooth. For each crêpe, pour 2 tablespoons batter into skillet, rotate skillet until batter covers bottom. Cook both sides until golden brown. Beat cheese, half-and-half, lemon juice and instant pudding on low

speed until well blended, about 2 minutes. Refrigerate at least 30 minutes. Spoon about 2 tablespoons of pudding mixture onto each crêpe; roll up. Top with remaining mixture and garnish with pie filling.

Paula Brousseau, Bellaire

Basic Crêpes

1½ c. milk
1 c. flour
2 eggs
1 T. cooking oil
2 T. sugar

In a bowl, combine all ingredients; beat until well-mixed. Heat a lightly greased 6-inch skillet. Spoon in 2 tablespoons of the batter; lift and tilt skillet to spread batter all the way around. Return to heat; brown on one side only (about 30 seconds to 1 minute). Invert pan over paper towels; remove crêpe. Repeat with remaining batter. Fill as desired, then roll up. Can be served with whipped cream or ice cream. Makes about 18 crêpes.

Mary Ellen Wynes, Mt. Pleasant

Orange Crêpe Recipe

1/2 c. milk
2 eggs
1 c. flour
pinch of salt
1-2 T. orange zest
1 T. melted butter

Mix all ingredients together; batter will be somewhat lumpy. Spray pan with cooking spray. Heat pan on medium heat. Pour 1/2 cup batter into pan. "Swirl" pan so batter coats pan bottom evenly. Cook for 1-2 minutes. Flip crêpe when edges begin to brown. Cook for additional minute. Suggested filling: cottage cheese. Topping: blueberries, fresh or frozen. Sprinkle with powdered sugar.

Heather Ann Alpin, Traverse City



Mexican Crêpes

SUBMIT YOUR RECIPE! Contributors whose recipes we print in 2012 will be entered in a drawing. We'll draw one winner in December and pay their January 2013 electric bill (up to \$200) as a prize.

Thanks to all who sent in recipes! Upcoming: Please send in **FRESH FROM THE GARDEN** recipes by May 10, **MULTI-MEAL** recipes by June 10, and your favorite **TRICK-OR-SWEET** recipes by July 10.

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

Thumb Electric Cooperative



Energy Efficiency Loan Program

Thumb Electric Cooperative has expanded its Energy Efficiency Loan Program for existing homes. Qualified members of existing homes may borrow up to \$15,000 at 7 percent interest, payable over seven years for the following home improvements—water heaters and central heating and air conditioning systems that reduce energy consumption, including:

- ▲ Gas furnaces/boilers
- ▲ Geothermal systems
- ▲ Air-source heat pumps
- ▲ Wall, ceiling and floor insulation
- ▲ Duct, pipe, water heater insulation
- ▲ Ventilation fans
- ▲ Clock thermostats
- ▲ Thermal windows, storm windows, insulated doors and storm doors
- ▲ Controlled electric heat systems



A geothermal unit uses renewable energy from the earth and can heat, cool and also heat the water in your home.



Call **800-327-0166** or **989-658-8571** to schedule a home energy analysis. We will show you how much money you can save.



Green Thumb Home Heating

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
1000 E. Sanilac 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

Climattech
3274 S. Main St., Marlette, MI 48453
989-635-COOL

Cosenza Plumbing & Heating, Inc.
6725 E. Sanilac Rd., Port Sanilac, MI 48469
810-622-8347

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., Croswell, MI 48422
810-679-2251

Geothermal Systems of Lapeer, LLC
6689 Orchard Lk. Rd. #188
West Bloomfield, MI 48322, 810-240-2116

Holland Heating and Cooling
9160 Lapeer Rd., Davison, MI 48423
810-653-4328

Ingell Refrigeration
1115 4th St., Port Huron, MI 48060
810-982-4226

J & B Plumbing & Heating
7641 Pigeon Rd., Pigeon, MI 48755
989-453-3931

Jack McCain Plumbing & Heating
9651 Weale Rd., Bay Port, MI 48720
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

Kundinger & Kroll
31 E. Main St., Sebawaing, MI 48759
989-883-2770

Lakeshore Improvements Plumbing & Heating
7825 Big Gully 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
112 N. Main St., 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

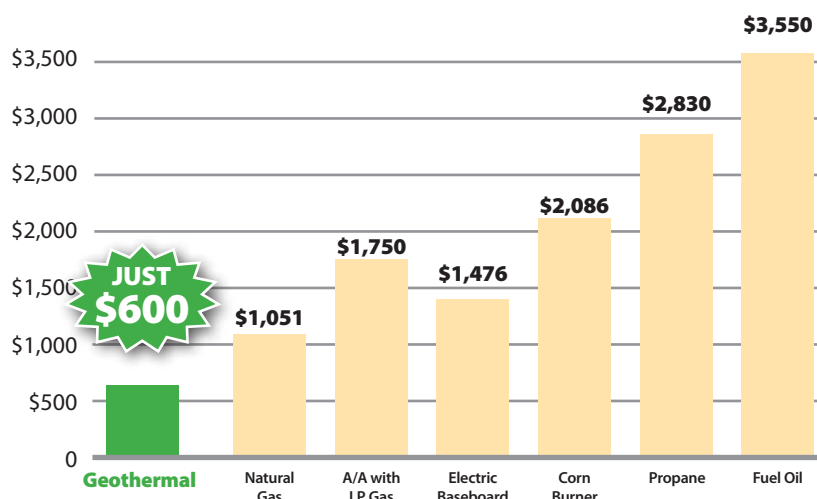
Superior, Inc.
3442 Cemetery Rd., Cass City, MI 48726
989-872-3305

Thumb Cooling & Heating
5599 Pochert Rd., Port Hope, MI 48468
989-428-4948
And: 837 South State, Caro, MI 48723
989-672-4948



Annual Operating Costs

For an Average 1,800 Sq. Ft. Home
(45,000 BTU heating load, 20,000 BTU cooling load)



Factors Used: **Electric Baseboard**, **Air-Source Heat Pump** and **Geothermal**—based on TEC's 6.05¢/kWh dual-fuel rate. **LP gas**—based on \$2.25/gal. and 90% efficient furnace. **Fuel Oil**—based on \$3.50/gal. and 80% efficient furnace. **Natural Gas**—based on \$1.08/therm., 90% efficient furnace including \$9/mo. service charge. **Corn**—based on \$6/bushel. (Electric baseboard and corn operating costs do not include air conditioning.)

Heat Pump Magic

Magicians may pull rabbits from hats, but many homeowners perform their own magic by taking natural heat and cooling power from the air and earth and transforming it into conditioned comfort. This act, however, doesn't require any trickery: it simply requires a heat pump.

Heat pumps move heat in during the winter and out in the summer, trimming heating and cooling costs by as much as 40 percent, notes the U.S. Department of Energy (DOE). In a national study, the Cooperative Research Network (CRN), revealed 11 percent of homes use a heat pump as their main heating/cooling system. For all-electric homes this jumps to 29 percent.

Different heat pumps succeed in specific regions. Air-source heat pumps work well in warmer climates, and geothermal heat pumps shine in more northerly areas because their heat source stays shielded—the top 10 feet of earth consistently measures between 50 to 60 degrees Fahrenheit.

A heat pump system delivers value if the model used matches your region and is installed properly. Here's three different types.

Geothermal

Since the earth's temperature is steady year-round, it can be harnessed to make homes comfortable. The DOE reports that geothermal heat pumps offer energy savings between 30 and 60 percent annually when compared to conventional baseboard or radiant heating units, and are typically the most efficient heat pump option.

Geothermal units move a liquid or water through pipes buried in the ground, then into a home. Also called ground-source heat pumps, there are two types: a groundwater (open-loop) system uses well or pond water, while an earth-coupled (closed-loop) model uses a water and antifreeze solution. Systems can be installed horizontally or vertically, depending on space.

Geothermal efficiency depends on climate, soil and water conditions, and landscaping. For example, soil that transfers heat easily requires less piping. Rocky terrain may require a vertical loop system instead of a more economical horizontal system.

When considering geothermal, compare the coefficient of performance (COP) for heating, and the energy efficiency ratio (EER) for cooling. Energy Star®-qualified models must provide a rating of at least 2.8 COP and 13 EER.

Air-Source Units

Air-source heat pumps use coils to evaporate a refrigerant that also draws heat away from a home, cooling the air. In winter, the magic reverses to heating with the flip of a valve.

Air source heat pumps deliver up to three times more heat energy than electricity consumed, but are not perfect. These units often do not fare well in regions with sub-zero temperatures. A back-up system of electric resistance coils kicks-in when air temperatures dip below 40 degrees F, but this heating method isn't energy efficient, so it costs more to operate than traditional units. Some air-source units, notably reverse cycle chillers (RCC), offer heating alternatives to keep homes efficiently comfortable at lower temperatures by storing heat in an insulated tank of water. Others include gas-fired backup furnaces, which increases winter efficiency.

When buying an air-source unit, compare the seasonal energy efficiency rating (SEER) for cooling, and heating seasonal performance factor (HSPF) for compressor and heating element strength. Energy Star models guarantee a SEER of 12 or more and a HSPF of 7 or more. For warmer climates, SEER is more important than HSPF; in colder climates, find a unit with a high HSPF.

Ductless/Mini-Split

Ductwork that funnels conditioned air to different rooms can cause some air to “disappear,”—wasting 15 to 20 percent of the energy used to heat or cool it. While sealing air ducts and proper insulation helps, another option is to bypass ducts with a ductless version of an air-source heat pump (DHP), called a “mini-split” heat pump.

Small and versatile, these units have two main parts: an outdoor compressor/condenser and one or more indoor air-handling units that are linked by a cable (refrigerant line). Many offer up to four indoor units to condi-

tion different rooms, and some have wireless remotes or wall-mounted control units.

These devices use about 50 to 60 percent less energy than traditional heating forms, CRN reports. DHPs are ideal for room additions where ductwork isn't possible, or for homes with “non-ducted” air conditioning (i.e., window units). Indoor models can be mounted in the ceiling, hung on the wall, or placed on the floor.

But DHPs cost 30 percent more than traditional central air units (not including ductwork), and installation can be tricky. If a system is too big for the space, energy will

be wasted and the correct temperature may not be reached.

Innovation Boosts Efficiency

Geothermal has been used since the 1940s, but innovations are improving performance and efficiency.

Dual-source heat pumps combine geothermal and air-source technologies. While not as efficient as geo-

thermal, this unit costs less and avoids some of the air-source's pitfalls.

Another advancement, two-speed compressors, condition the desired amount of air (heating or cooling) needed at different times (standard compressors only operate at full capacity). Having this option reduces compressor wear and saves energy.

With all heat pumps, compressor design enhances performance—a scroll compressor offers quieter operation and provides 10 to 15 degrees F of warmer air compared to units with traditional piston-driven compressors.

Some heat pumps offer variable-speed or dual-speed motors for fans (indoor and outdoor) which minimizes drafts and keeps air flowing at a comfortable rate.

Saving on Systems

Heat pumps cost more than traditional air conditioning, but a federal tax credit equal to 30 percent of geothermal materials and installation costs, with no total expense limit, applies through Dec. 31, 2016 (see energystar.gov/taxcredits). Check the Database of State Incentives for Renewables and Efficiency at dsireusa.org for credits and rebates by state.

Since heat pump success depends on region, contact your electric co-op to see which system might work for you.



GE Ductless Split System Air Conditioner



Central Air Conditioner Upkeep

Q: *I want my old air conditioner to run as efficiently as possible. If my cooling costs are still too high, I will think about replacing it. Other than a professional service call, what can I do to tune it up myself?*

A: It is wise to make sure your existing central air conditioner is running as efficiently as possible to reduce your electric bills. Because actual cooling costs depend upon weather conditions, they can vary significantly from year to year, making accurate comparisons difficult.

The easiest way to determine the savings from installing a new central air conditioner is to compare the SEER (seasonal energy efficiency ratio) of your existing model to of a new model. You can be pretty sure your existing unit is not operating more efficiently than when it was brand new, so the savings from this comparison will be on the conservative side.

There are additional savings from installing a more efficient model. Electric utility companies have to provide enough electricity generation capacity to meet peak demand even though it is not needed that often. If peak electricity demand can be decreased by homes running newer, higher-efficiency air conditioners, then fewer power plants may have to be built.

There are some things you can do yourself to keep your central air unit running as efficiently as possible. This does not preclude having regular professional service calls, however. Technicians have special equipment and

pressure gauges to check the system's internal components, which is impossible for a homeowner to do on his or her own. Regular service calls can also extend the unit's life.

It also helps to have an understanding of how an air conditioner works. It operates on a delicate balance of air flow rates over the indoor and outdoor coils, and proper pressures of the refrigerant. The compressor compresses the refrigerant to make it very hot. This hot liquid is hotter than the outdoor air, so it loses heat to the outdoor air through the condenser coils.

The cooler refrigerant then goes through an evaporator, which makes it very cold. This is similar to how your skin cools off when perspiration evaporates. This cold refrigerant flows through the indoor coil. The blower moves indoor air over these cold coils, which cools your house air. At the same time, water condenses on the cold coils so the indoor air is both cooled and dehumidified.

As you can see, getting adequate air flow through the outdoor condenser coils is important for efficiency so the refrigerant will be colder when it gets indoors. It can really help efficiency to make sure weeds and shrubs have not grown too close to the outdoor unit and impede air flow. Also, don't rest rakes or other items against it which may

block air flow.

Switch off the circuit breaker to the unit and remove the outdoor cabinet. Clean out any debris that has accumulated inside it, which may block the coils. You don't have to make it spotless, though. If fins have been

Clean leaves and other debris from the top of the central air conditioner or heat pump, even though many will blow away by themselves when the unit starts.

bent over in spots, try to straighten them out enough so more air gets through.

It is important that all the screws holding the cabinet sections together are

tight when you reinstall the cabinet. Even if it is clean and you do not remove the cabinet, check all the screws. If they are loose, leaks will draw air in gaps instead of through the coils as designed.

Just as the proper amount of air flow is important through the outdoor coils, it is also important through the indoor coils. With the circuit breaker still switched off, remove the side cover on the indoor unit to expose the evaporator coils and the blower. When you reinstall the cover, make sure to tighten the screws.

Quite a bit of dirt can accumulate on the indoor coils, blocking air flow and insulating them from the air. This is because the coils get damp when the air conditioner is running and dirt sticks to it. Wipe the coils and then use the brush attachment on your vacuum cleaner to clean them and the blower.

Even though everyone has heard about changing the blower filter regularly, most people don't do it. At the beginning of the cooling season, change the filter whether you think it is dirty or not. A dirty filter increases air flow resistance, which reduces efficiency. Also, check the joints in the ducts for any air leaks, and seal them with aluminum tape or black Gorilla duct tape.

If you have a question for Jim, please email jdulley@countrylines.com, or mail to James Dulley, Michigan Country Lines, 2859 W. Jolly Rd., Okemos, MI 48864. Be sure to let us know which electric co-op you receive service from.

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



Treat Do-It-Yourself Wiring Projects Carefully

If spring sends you into remodeling mode, consider checking with professionals before migrating to the nearest hardware store. While do-it-yourself (DIY) projects can be very satisfying to complete, they pose risks when it comes to electricity.

“Mistakes can be costly—or even deadly,” warns John Drengenberg, consumer affairs manager for Underwriters Laboratories, Inc., (UL), a Chicago-based nonprofit firm that tests and sets minimum standards for electric products. “The first and best safety tip is to call in an expert rather than be your own electrician.”

An ongoing study by the Fire Protection Research Foundation has given UL engineers a better understanding of typical DIY wiring mistakes. The most common are:

Working With a Live Wire

It may seem obvious, but thousands of do-it-yourselfers get electric shock injuries each year. To avoid becoming a statistic, always turn off the circuit breaker (or remove the fuse) before working on or replacing electrical equipment. If you have a pre-1940s home, you probably have more than one breaker box, or panel board, as electricians call them.

Using the Wrong Lightbulb

Most lighting fixtures have a sticker on the socket that tells you the proper type and maximum lightbulb wattage to use. Installing a different type of bulb, or one with higher wattage, will not only make the room brighter, but could damage the lights and cause a fire. The higher the wattage, the hotter the bulb, and the hotter the wire that goes to the lighting fixture.

Not Being Grounded

For optimal safety, receptacles should be wired with the proper grounding and polarity. Generally, three-pronged outlets signify an effective ground path in the circuit. However, homes built before the mid-1960s probably don't have a grounding path, and simply replacing the existing outlet with a three-pronged outlet won't give you one.

“You see instances of this in homes with older wiring,” Drengenberg says. “It's no

worse than if you plug your two-pronged device into a two-pronged outlet. But it does give the homeowner a false sense of security.”

Wiring with a grounding path usually has a copper grounding wire with the cable. If you are uncertain whether your home's wiring is grounded, inexpensive UL-listed outlet circuit testers are available to check for proper grounding and polarity. If your outlet is improperly grounded, call an electrician before moving forward in any project.

Splicing, Splicing, Splicing

Always make sure your wiring size and type match. Splicing wires by simply twisting them together and covering them with electrical tape is rarely a good idea. Instead, use wiring suitable to your home's wiring and place wiring connections in metal or plastic boxes to decrease fire risk.

Also keep in mind that circuits protected by 15-amp fuses or breakers should be wired with No. 14 AWG copper wire minimum. For 20 amps, use No. 12 AWG minimum size copper wire. Other guidelines apply, so seek professional help before you begin.

Hooking New Lights to Old Wires

Most light fixtures are marked with instructions for supply connections, such as “Use wire rated for at least 90C,” which refers to the maximum temperature—90 degrees Celsius or about 200 degrees Fahrenheit—under which a wire's insulation can safely be used safely. Again, if you have an older home (pre-1984, in this case), wiring may have a lower temperature rating than a new luminaire.

“This isn't something most DIYers even think to consider,” Drengenberg cautions. “It probably won't burst into flame immediately, but it does increase the risk of a fire.” To avoid that risk, check your wire rating first, and either upgrade it or buy fixtures within the supply connection range.

Other Electrical Clues

Electrical upgrades often require a professional who knows what inspections and permits are needed. Following are a few other clues to help you find out if your home's electric network needs a professional switch.



Source: Electrical Safety Foundation International

Be careful not to install new lighting to old, inferior wires. To avoid this fire hazard, check your wire rating first, and either upgrade it or buy fixtures within the supply connection range.

● **Type of wiring.** Modern wiring is insulated, meaning covered in plastic. Older homes may have copper or aluminum wiring. Copper wiring can work just as well as modern wiring if it is still in good condition and has not been altered or improperly installed. However, fire risk also increases in homes with both copper and aluminum wiring. Corrosion to aluminum from copper can lead to loose connections causing fires. Use only aluminum-approved switches, outlets, and other accessories if your home has aluminum wiring.

● **Plugs fall out of outlets easily.** Loose plugs are a high fire danger. Older outlets that have lost their grip need to be replaced.

● **Not enough outlets.** The increasing use of chargers for phones and electronic devices means outlets are in high demand, especially in older homes where outlets are not as plentiful. This can result in overuse of extension cords and power strips. Be sure to use quality, 14-gauge or thicker cords that are approved by Underwriters Laboratories (UL). Never overload an outlet. Overloading can cause heat, leading to fire risk. Consider hiring a licensed electrician to add outlets to your home.

● **Danger in wet areas.** GFCI (ground fault circuit interrupter) outlets are now required in areas around water like near a kitchen or bathroom sink or outdoors. But in older homes, GFCIs may not have been installed. It is fairly simple to replace old receptacles with GFCIs; hire a professional to upgrade outlets near water.

● **Wind causes lights to blink.** If you notice your lights blinking on windy days, it may be due to worn wiring in the weatherhead (where overhead lines enter your home). Contact your electric co-op to check weatherhead wiring.

Sources: *This Old House*, Underwriters Laboratories, Kelly Trapnell

Out With the Old...For Real

Thumb Electric Cooperative offers recycling for refrigerators and freezers.

Over the past two years, many consumers received federal rebates when purchasing a new refrigerator, water heater, or other household appliance. About 1.7 million rebates were redeemed, and the U.S. Department of Energy estimates these appliances will cut \$65 million from electric bills every year. Around \$48 million of that chunk will be saved mainly by consumers who bought energy-efficient refrigerators, clothes washers, and dishwashers.

Great news, right? But suppose you just bought a new refrigerator or freezer, what did you do with your old one? Kick it to the curb? Move it out to the garage? Recycle it? The reason we ask isn't to make you feel guilty, but to point out that recycling old appliances isn't the first thing most of us think about.

In fact, a lot of us are still using our old refrigerator and the new one. A national survey from the Cooperative Research Network, a branch of the National Rural Electric Cooperative Association, reported that 19 percent of U.S. homes have two refrigera-

tors running at all times. Another 2 percent of U.S. households operate three or more refrigerators at the same time.

So much for the adage, "Out with the old and in with the new."

One Is Best

The problem with keeping an old refrigerator or freezer is simple: It costs you money. By continuing to use these "energy hogs" in your basement or garage, your energy bills may be \$100-200 higher per year than necessary.

The older your refrigerator or freezer is, the more energy it wastes. For example, a modern refrigerator costs 60 percent less to use than a 1970s-era unit. In addition, a new refrigerator is about 20 percent larger than the 1970s avocado green or blaze orange

versions, making it easier for most families to have just one fridge.

Energy Optimization Appliance Recycling

As your energy provider, we want to help you really save energy when you buy a new Energy Star® or energy-efficient refrigerator or freezer. That's why we're proud of our refrigerator recycling program.

How you benefit:

- \$30 rebate on each recycled refrigerator or freezer. Appliance must be in working condition. (Limit 2)
- Convenient door-to-door pick up
- Ongoing savings on your electric bills

Bonus rebate alert

You know every dollar counts. So, if you're in the market to buy a new refrigerator or freezer, be sure to check out rebates that may be available through Thumb Electric Cooperative's Energy Optimization program for Energy Star appliances.

Call 877.296.4319 or visit Michigan-energy.org to schedule a pick-up of your old refrigerator.

Get \$30 for your old refrigerator or freezer.

Have an extra working refrigerator or freezer? Don't let it sit there wasting energy. Turn it in. You'll receive a \$30 rebate from the Energy Optimization (EO) Appliance Recycling program and we'll recycle it. Schedule your FREE pick-up today.

recycleit

ENERGY TIP: Shopping for new appliances? Take advantage of EO rebates on ENERGY STAR models.

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.

Never Trust A Fire

Remember that week of midsummer weather in March, when Michigan skipped spring and went right to shorts and sandals weather, and we all said, “Global warming isn’t all that bad,” and decided to get a jump-start on cleaning up our yards?

That was the week I became the pinup boy for Smokey Bear’s first principle: “Only you can prevent wildfires.” (When did it change from “forest fires” to “wildfires”?)

Those of us who live in the country don’t have a service that picks up yard debris, so we get rid of it by burning, when permitted. A yard full of trees and plants creates a heck of a lot of combustible stuff.

Burn permit in hand, I collected dried tall grasses and dead tree limbs and burned them over several days, along with a tangle of tree and brush limbs cut during the past year. The yard was looking good. I was way ahead of any other year in memory.

The day was hot, again in the 80s, with a slight breeze. The under layer of fallen leaves was still damp from a previous rain. A fire I had tried to start in the back “forgotten” corner of our almost-acre just wouldn’t take, because of the dampness. So I went in the house for lunch. Big mistake.

Within an hour, our neighbor Randy was yelling at our door. When I got outside, he was behind our house using a rake to beat out flames that had spread in a 50-foot radius around that wouldn’t-start fire. Flames were licking at the bases of white pine, maple and dead ash trees, following a trail of dead leaves through the understory and threatening to enter a particularly dense thicket of dead and dry brush. We rigged up hoses to get water to the fire and sprayed for more than an hour before getting the fire under control. My heart was beating faster than for any medical stress test. I was ready to call in the fire department, but Randy said, “We’ve got this.”

And we did, thanks to him and his son, Alex, who was the first to notice the smoke. But for them, this would have been a disaster. I thank them mightily.

Was I careful? I thought so. Was I care-

ful enough? Apparently not. The thing about fire is that you can’t be too careful. Fire experts say every wildfire starts from just a spark or by creeping into dry vegetation. There is always the possibility of it going awry. And possibility turns to likelihood when you leave a fire alone.

That happens a lot, and more so this year, when you consider the Michigan wildfire count posted by the Michigan Department of Natural Resources (DNR). The DNR website (michigan.gov/dnr, also a good place to find out about burn permits) breaks down the causes of wildfires and compares year-to-year occurrences. As of April 8, the state has seen 104 wildfires and 463 acres burned this year, an eight times increase over the same period in 2011, with 43 percent caused by debris burning, just like I was doing.

So I’m not alone, but I knew that because others have told me about their own fire mishaps.

A few years ago at an annual meeting of the Michigan Electric Cooperative Association, from which I’m retired, I used the space between speakers to provide a humorous tale, and a teaching moment, of another fire mishap. That time I left a small bed of embers to die-out while I went in the house for dinner. A half-hour later, my son Jon looked to the back lot and saw flames shooting up the 25-foot dead trunk of a once-mighty oak. Since this happened on a windless evening, with the tree trunk 20 feet from the fire, I suspect a rock in the fire exploded in the heat, sending embers to the base of the trunk.

With help from our friend Dave, we strung hoses together to reach the fire with water and doused the trunk base with buckets of water from our pool. Once the flames were gone, the inside of the tree smoldered for days. I stayed up all night watching and spraying and continued periodic spraying for days after. On

I should read the Smokey Bear pledge every time I burn. You can find it—and the Smokey mask—at smokeybear.com.



the fifth day, I came home for lunch and found the inside smoldering again. Only a heavy rain the next day put that fire out for good.

After I recounted the tale, along with pictures, several people let me know that I wasn’t alone in my stupidity. They also had dealt with wildfires of their own making, some quite stunning. Their secrets are safe with me.

But I’m a repeat offender. Apparently I’m not to be trusted with matches, or around fire, or even anything combustible.

My brother Tom is a firefighter. He puts fires out. He’d be handy to have close by, but he lives in Minnesota.

My dad warned me about fires when I was about five and had been “playing with matches” in an empty lot behind our house. I managed to get that fire out, too. Coincidentally, my dad died two days before my last fire fiasco. He would have said, “I warned you.”

And I warn you, too. Never trust a fire.

Mike Buda is editor emeritus of Country Lines. Email Mike at mbuda@countrylines.com or comment on his columns at countrylines.com/column/ramblings



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Don't Miss It!

Thumb Electric Cooperative's 75th Annual Meeting

Saturday, June 9, 2012 • Cass City Recreational Park

Main Tent

- 9 – 11:15 a.m. – Prize Drawing Registration
- 10 a.m. – Business Meeting
- Noon – Lunch
- 1 p.m. – Entertainment featuring
Dan Kramer Musical Comedy

Kids' Tent

- 11 a.m. – 2 p.m. – Face painting
- 11 a.m. – 2 p.m. – Clown
- Noon – 2 p.m. – Pony & Bucket Truck Rides
- 12:45 p.m. – Candy Drop

Kids' Drawing: Two bicycles

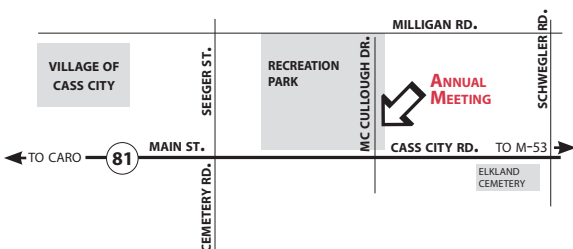
Adult Drawing: Electric water heater,
electric grill, *plus many more!*

\$10 Bill Credit Eligibility:

1. Only the member, spouse or child of a member over age 18 who lives with the member and presents a properly-executed proxy can receive the \$10 credit.
2. The member or their eligible proxy representative must be registered prior to the collection of votes at approximately 11:15 a.m. Anyone arriving after the voting process is completed will not receive the credit.
3. Only one credit per membership.

How To Get There:

Cass City is about 15 miles east of Caro on M-81, and about 3.5 miles west of M-53



TEC 2011 ANNUAL MEETING

Registration Form

TEC member: *Bring this registration form, or have the proxy appointee named below bring this form, to the Annual Meeting. It will be used to register you for voting and the prize drawing.*

Proxy Information

If you are unable to attend the annual meeting and want to have another member, your spouse or child (of legal voting age) vote in your place, please fill in the information below. Only one (1) proxy may be voted by an individual, and only (1) \$10 credit per membership.

As a member of Thumb Electric Cooperative of Michigan, I, the undersigned, hereby appoint (write in the name of who you appoint)

_____ to act as my proxy and vote in my absence at the meeting of the members to be held at Cass City Park, Cass City, Michigan, at 10:00 a.m., on the 9th day of June, 2012.

I realize that this is my duty as a member of this cooperative to take an active interest in its affairs and to exercise my voting privilege in person. I have carefully considered the business which is to be acted upon, and have decided to give my proxy to the above-named person, who agreed to vote this proxy on all matters as he or she believes I would vote if personally present. I hereby ratify and confirm my proxy's vote in my stead.

Witness my hand and seal this _____ day of June, 2012.

X _____
Signature of Member giving proxy

X _____
Witness

Please bring this entire registration form with you to the meeting. It is important that the imprinted member information is included.