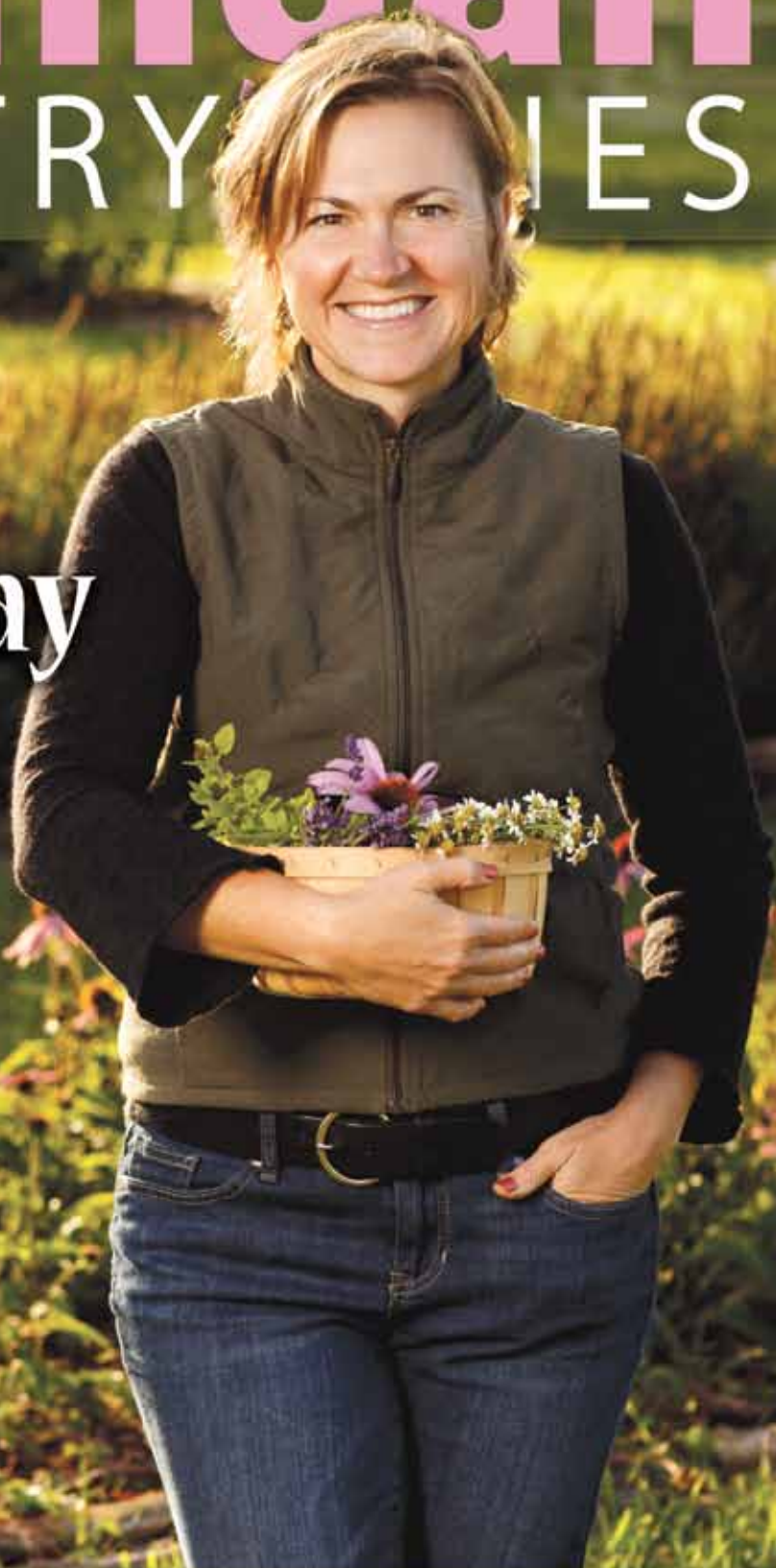


Michigan COUNTRY LIVES

Tea at the Light of Day



6 Can We
Survey You?

19 Outdoor Lighting
For Less

23 Reducing
Outages

If the only thing bigger than your propane bill is your propane tank...



Switch to a WaterFurnace geothermal comfort system.

Are you tired of the large, expensive eyesore in your backyard? A WaterFurnace geothermal heat pump **doesn't have any outdoor equipment**. It uses the **clean, renewable energy** in your backyard to **save up to 70% on heating, cooling and hot water**. A WaterFurnace unit is **twice as efficient at cooling** than the best air conditioner or heat pump and **five times more efficient at heating** than any ordinary furnace. If you're ready to learn more about geothermal and the **30% tax credit**, visit your local WaterFurnace dealer today.



visit us at waterfurnace.com

Bad Axe
B & D Htg
(989) 269-5280

Berrien Springs
WaterFurnace
Michiana
(269) 473-5667

Big Rapids
Stratz Htg & Clg
(231) 796-3717

Caro
AllTemp Comfort, Inc.
(866) 844-HEAT
(4328)

Carsonville
Certified Temperature
Innovations
(810) 300-7748

Charlotte
Applegate Home
Comfort
(517) 541-8013

Clifford
Orton Refrig & Htg
(989) 761-7691

DeWitt
S & J Htg & Clg
(517) 669-3705

Elk Rapids
K & K Htg & Clg
(231) 264-8323

Gaylord
Family Htg & Clg
(989) 732-8099

Grand Rapids
Montgomery Htg & Clg
(616) 459-0261

Grand Rapids
Total Comfort
Resource, LLC
(616) 406-3182

Hart/Ludington
Adams Htg & Clg
(231) 873-2665

Ionia
Home Experts
(800) 457-4554

Jackson
Comfort 1 Htg/
Lenawee Htg
(517) 764-1500

Kalkaska
Kalkaska Plmb & Htg
(231) 258-3588

Lapeer
Porter & Heckman
(800) 445-4328

Manistique
Hoholik Enterprises
(906) 341-5065

Marquette
Swick Plmb & Htg
(906) 228-3400

Mount Pleasant
Walton's Htg & Clg
(989) 772-4822

Muskegon
Adams Htg & Clg
(231) 873-2665

Onaway
Standard Htg
(989) 733-8309

Palms
Lakeshore
Improvements
(989) 864-3833

**Sault Ste Marie/
Kinross**
Great Lakes Services
Inc.
(906) 632-5543

Traverse City
Geofurnace Htg
& Clg
(231) 943-1000

Traverse City
D&W Mechanical
(231) 941-1215

Webberville
Applegate Home
Comfort
(800) 377-2272

Editor
Gail Knudtson

Associate Editor
Doug Snitgen

Design Editor
Cindy Zuker

Publisher
**Michigan Electric
Cooperative
Association**



15



22



24

DEPARTMENTS

4 Readers' Pages
Cool photos, a safety app for kids, why co-ops are special

16 Home Cooking
Diabetic favorites
Christin McKamey & Our readers

22 Safety
Tips for using space heaters and electric blankets; how to prevent electrical fires

COLUMNS

8 Our Energy
Generation Series: Natural gas
Magen Howard

12 Gardening
What's for lunch? Fall still has plenty of fresh produce
MSU Extension Staff

14 Family
Eat together
Lisa Marie Metzler

15 Outdoors
Mute swans
Robert Gwizdz

21 House & Home
Energy-saving shower head gadgets
James Dulley

24 Guest Ramblings
Inspired by Todd
Margaret Thompson

FEATURES

10 Cover Story
Tea at the Light of Day
Lisa Marie Metzler

13 Geothermal
10 Myths about geothermal heating & cooling
Larry Kaufman

Michigan Country Lines, USPS-591-710, is published monthly, except August and December, with periodicals postage paid at Okemos, MI, and additional offices. It is the official publication of the Michigan Electric Cooperative Association, 2859 W. Jolly Rd., Okemos, MI 48864.

Subscriptions are authorized for members of Alger Delta, Cherryland, Cloverland, Great Lakes, HomeWorks Tri-County, Midwest Energy, Ontonagon, Presque Isle, and Thumb electric cooperatives by their boards of directors. Subscriptions for nonmembers are \$6 per year.

POSTMASTER: SEND ALL UAA TO CFS.

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

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

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

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

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

YOUR CO-OP

Pages specific to your electric cooperative:
Cover, 2-3, 6-7, 18-19, 22-23, back

On the Cover

A Cherryland Electric Co-op member, Angela Macke, owns the unique Light of Day Organic Farm & Tea Shop near Traverse City.

Photo – Beth Price Photography/bethpricephotography.com



Michigan's Electric
Cooperatives
countrylines.com





Board of Directors

Richard Walsworth *Chairman*

3701 N. 48th Ave., Mears, MI 49436
231-873-2418 • rwalsworth@glenergy.com

Mark Carson *Vice-Chairman*

01950 Anderson Rd., Boyne City, MI 49712
231-582-0688 • mcarson@glenergy.com

Larry Monshor *Treasurer*

1541 Thumm Rd., Gaylord, MI 49735
989-705-1778 • lmonshor@glenergy.com

Paul Byl *Secretary*

9941 W. Buchanan Rd., Shelby, MI 49455
231-861-5911 • pbyl@glenergy.com

Richard Evans *Director*

11195 Essex Rd.
Ellsworth, MI 49729
231-588-7114 • revans@glenergy.com

Dale Farrier *Director*

4400 U.S. 131 N.E., Kalkaska, MI 49646
231-564-0853 • dfarrier@glenergy.com

Robert Kran *Director*

7380 N. Tuttle Rd., Free Soil, MI 49411
231-464-5889 • bkran@glenergy.com

Paul Schemanski *Director*

5974 Stolt Rd., Petoskey, MI 49770
231-439-9079 • paul.schemanski@glenergy.com

Robert Thurow *Director*

819 W. Chauvez Rd., Scottville, MI 49454
231-757-3430 • rthurow@glenergy.com

President/CEO: Steve Boeckman

888-485-2537

Communications

Director/Editor: Dave Guzniczak

231-487-1316

Boyne City Headquarters:

1323 Boyne Ave.
Boyne City, MI 49712

Hours: 8 a.m.–5 p.m. M–F

Phone: 888-485-2537

To report an outage, call:

1-800-678-0411

gtlakes.com

Your Touchstone Energy® Cooperative



Above and Beyond

Electric co-op membership offers value far beyond affordable, reliable electricity.

At Great Lakes Energy, we work hard to deliver safe, affordable and reliable electricity to our members every day. But we don't stop there. Because we're a cooperative, we strive to do much more, to find ways of providing real value to you and the communities we serve.

What is Real Value?

So what exactly does real value mean? Well, in some ways it's basic, like connecting with a real, local person when you visit or call our offices. It could be finding a copy of *Michigan Country Lines* in your mailbox nearly every month, which keeps you informed about co-op business and topics of interest in rural Michigan. Or, it's getting the lights back on more quickly after a major weather event, thanks to your co-op's investments in new technologies, tree re-clearing work near power lines, and other reliability improvements.

And, how many utilities take their customers to lunch? We hold member luncheons in each of our nine service areas each year. It's a way for Great Lakes Energy members to get to know the people who run their co-op, and it's where members are updated on business matters. Most importantly, we learn what our members value most about their cooperative and what we can do to better serve them. Invitations are sent to members in each service area whose names are selected at random.

\$29 million in Refunds

Real value also means the regular investments you make in your cooperative earn you financial rewards. We have been issuing capital credit refunds annually for the last 10 years. In that time, \$29 million in refunds were returned to Great Lakes Energy members.

Because electric cooperatives are owned by their members, they do not create profits for distant shareholders. Any excess revenue—called "margins"—is allocated

back to our members in the form of capital credits, or patronage capital. Capital credits are "retired" and then paid back to members each year based on their purchases (in the case of electric co-ops, electricity) from the cooperative. Margins are used by the co-op as working capital for a period of time, then paid back to individual members as financial conditions permit.

GLE People Fund

Offering an easy way for you to help meet your local community's needs is another example of how electric cooperatives deliver more to their members. The Great Lakes

Energy People Fund has awarded over \$2.34 million to local organizations since 1999. Recipients include food pantries, senior centers, libraries, community health projects, youth programs, and many more.

The People Fund is possible because of the generous GLE members who allow us to round up their electric bills to the next dollar each month. All People Fund grant money comes from the rounded-up amounts, which average 50 cents a month or less, collected from participating members.

Co-op Connections® Card

Your cooperative helps you save money, too, through the Co-op Connections® program. Using your Co-op Connections card to get discounts on health care and other products and services offered by local businesses and national retailers is a tangible benefit of being a Great Lakes Energy member.

These are just a few ways we strive to meet our members' needs, with the most important being the experience you have when you talk or meet with one of our employees who are looking out for you on a daily basis.

October marks National Cooperative Month, when we take time to celebrate co-ops and talk about why our nonprofit, consumer-owned business model is special. Offering our members real value—and working to improve the quality of life in the communities we serve—is just one way we set ourselves apart.



Steve Boeckman
Great Lakes Energy
President/CEO



Find us on Facebook.

facebook.com/greatlakesenergy

New Automated Pay-By-Phone Option

Pay your Great Lakes Energy bill by phone at any time with our new automated option that allows you to pay with your credit or debit card.

To use it, call 888-485-2537, use the options menu, and follow the payment prompts. Have your electric bill handy, as you will need to enter your account number before completing the process. You will receive a confirmation number to verify the payment was received and applied to your account.

Other payment options include:

- Pay in person at any of our GLE locations in Boyne City, Hart, Kalkaska, Newaygo, Reed City, Scottville, Waters or Wayland. Visit gtlakes.com for office hours.

- Several local businesses accept payments for GLE bills that aren't delinquent. Visit gtlakes.com or contact us for the location of the nearest pay station.

- Call and speak to a GLE rep to use your checking account for payment. Have your checking account information available. We also accept payments over the phone by credit or debit card.

- Pay online at gtlakes.com. Click on the "Account Login" box and follow the instructions. Enroll in e-billing while you're there!

- You can also sign up for automatic payments to ensure your bills are always paid on time.

- Enroll in our budget plan if you prefer to have even monthly payments.

Call us at 888-485-2537 if you have any questions about your bill.

Information for All Members of Great Lakes Energy Cooperative

Your cooperative offers a program called the People Fund, which is funded through the voluntary rounding up of your monthly utility bill to the next whole dollar.



An all-volunteer board of directors appointed by the member-elected board of Great Lakes Energy Cooperative distributes the funds throughout the cooperative's service area. The Fund supports charitable efforts in and around the communities we serve. Money from the People Fund has been distributed to educational programs, medical groups, recreational organizations serving all ages, senior organizations, and numerous other local charities. A copy of the most recent People Fund annual report, which details contributions, is available by contacting Great Lakes Energy, and prior year reports are highlighted in previous issues of *Michigan Country Lines* magazine.

Your participation in the People Fund is voluntary. If at any time you wish to discontinue participation in the People Fund, please let us know and we will make the change. If you are participating, your monthly bill is rounded up to the next whole dollar. If your bill is \$58.42, it would be rounded up to \$59. The 58 cents would then be contributed by Great Lakes Energy Cooperative on your behalf to the People Fund, to be used as explained above. A member's average annual contribution is about \$6. Your annual contribution to the People Fund is tax deductible and is reported on your monthly statement at the end of the year.

For additional information regarding the People Fund, contact the co-op office by mail or call 888-485-2537.

TAKE ONE AND SHOW IT TO YOUR PHARMACIST.



WITH YOUR CO-OP CONNECTIONS CARD, SAVE UP TO 85% ON PRESCRIPTION DRUGS AND REFILLS AT PARTICIPATING RETAILERS. OTHER HEALTHY SAVINGS DISCOUNTS ARE NOW AVAILABLE TOO.

THE BEST PART? IT'S FREE TO MEMBERS OF GREAT LAKES ENERGY JUST LIKE YOU.

DISCOVER ALL THE WAYS YOU CAN SAVE TODAY AT CONNECTIONS.COOP. NEED A CARD OR MORE INFORMATION? CALL US AT 888-GT-LAKES, EXT. 8957.

RESTAURANTS • AUTO REPAIR • HEALTH CARE • PRESCRIPTIONS • HOTELS • GIFTS • CAR RENTALS

Pharmacy discounts are not insurance, and are not intended as a substitute for insurance. The discount is only available at participating pharmacies.





White Deer Spotted in Great Lakes Energy Service Area

Rob Nielsen, assistant vegetation management supervisor at Great Lakes Energy (GLE), took these photos while working near Irons after an August storm caused 23 broken poles (left) and power outages to over 10,000 of the co-op's members. "I was patrolling line and bird-dogging a line crew from our Kalkaska service center when the white deer casually crossed the road in front of us. My co-worker slowed the truck so we wouldn't scare it, and I had enough time to get my phone and take a few pictures. I had seen a white deer in this area a few years ago, so maybe it was the same one."

After GLE posted the deer photo on Facebook, a few members noted seeing one in the same area, and an employee commented that a white deer is good luck. It did bring good luck, as all members had power restored the next day and Nielsen and the crews worked safely, but GLE hopes the luck continues through this winter, as last year brought two very large storms—causing the worst damage in decades—that resulted in nearly \$4 million in restoration costs.

Teaching Students About Electricity...

► *There's an app for that!*



From nuclear power plants to solar powered homes, a free app called "Tesla Town" allows young students to explore and learn about different energy sources used to make electricity.

Named after Nikola Tesla, a Serbian-American engineer and inventor best known for his contributions to the alternating current (AC) electrical supply system, the app is aimed at teaching students in third through eighth grade about electricity generation and delivery.

Tesla Town, created by the Trustworthy Cyber Infrastructure for the Power Grid, is available for the iPad from the iTunes App Store or for use online at tcpig.mste.illinois.edu/teslatown.

Energy Efficiency *Tip of the Month*

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

Source – U.S. Department of Energy

HOW TO CHANGE YOUR MAILING ADDRESS Please call or mail information directly to your electric co-op, as they maintain the mailing list. See page 2 for your co-op's contact information.

How We're *Special*

Every October since 1930, nonprofit cooperatives of all kinds have recognized National Cooperative Month as a way to educate the public about how co-ops work and to appreciate their many member-owners.

This year, we highlight the seven guiding principles of co-ops. But why should this interest you? Because these concepts lead electric co-ops—like the local one where you're an actual owner and it provides your electricity—to operate in a better way each day. Here are real-life examples of how these guides affect your co-op.

1 Voluntary & Open Membership

Co-ops are voluntary organizations, open to any person (in the case of electric co-ops, anyone who moves into their service area) willing to accept the responsibilities of membership, without gender, social, racial, political or religious discrimination. In Michigan, and nationwide, annual or district meetings serve as a way for members to get to know the people who run their co-op and get updated on business matters.

2 Democratic Member Control

“Democratic Member Control” means members control their co-op (in most, by one member, one vote) by actively participating in decision-making and setting policies. This happens by voting for other members to represent them on a board of directors that governs the co-op and is accountable to all members.

Annual or district meetings serve here as the forum for electing directors, or some co-ops use mail-in ballots. Some also have member advisory groups or hold regular luncheons and focused meetings by inviting a small number of randomly chosen members to meet one-on-one with co-op staff, board members, and managers.

3 Members' Economic Participation

Members contribute equitably to, and democratically control, the co-op's capital by allocating any surpluses for the following: developing the co-op, possibly by setting up reserves; benefitting members in proportion to their transactions with the co-op; and sup-

porting other member-approved activities.

Because electric co-ops are owned by their members, they do not create profits for distant shareholders. Any excess revenue (“margins”) is allocated back to the members as capital credits, or patronage capital. Capital credits are “retired” and paid back to members based on their electricity purchases. Margins are used as working capital for a time, and as financial conditions allow, are paid back to members.

Allocating and retiring revenue that is

**LOCAL.
TRUSTED.
SERVING
YOU.™**

above operating and maintenance costs to members helps distinguish co-ops, and they are proud to support their communities by putting money back into the pockets (and local economy) of the people they serve.

Nationally, electric co-ops have retired \$11 billion in capital credits since 1988, and \$768 million in 2012 alone.

4 Autonomy & Independence

Electric co-ops form a vast network across 47 states, and their power lines cover 42 percent of our nation's land mass. Those in Michigan (nine distribution and one generation and transmission co-op) serve over 50 percent of the state's land in providing power to over 700,000 people through 42,000 miles of line.

But what's unique is that each co-op is an autonomous, independent business.

And while they work “cooperatively” with neighboring co-ops, their members are the sole governors, and member-elected directors approve policies that mold the way they do business. If they enter into agreements with other organizations, including governments, or raise capital from external sources, they do so on terms that ensure the members' control and maintains the co-op's autonomy.

5 Education, Training & Information

Co-ops have a charge to keep their members informed—not just about co-op business and industry issues, but topics like energy efficiency, safety and community contributions.

For example, *Michigan Country Lines* magazine is one way your co-op keeps you updated on relevant news (you can also visit countrylines.com and choose your co-op's name under the “My Co-op” menu), and some are present on Facebook and other social media. Plus, all Michigan electric co-ops offer Energy Optimization programs that help save money on your energy bills, plus youth programs that help the next generation learn about leadership, co-op careers, and other benefits.

Co-ops also train directors, managers and employees so they can contribute effectively to co-op development. They also inform the general public, particularly young people and opinion leaders, about the nature and benefits of cooperation.

6 Cooperation Among Co-ops

While co-ops are independent entities, they still rely on one another to share resources, information and, in some cases, manpower. They have a long history of helping each other restore power after severe weather emergencies. Called “mutual-aid agreements,” when your co-op needs extra hands after a storm or other disaster, co-ops from neighboring towns and states help get the power back on that much faster.

A Michigan example is the raging winter 2012 storm that swept nearly the entire northern lower peninsula and a good swath of the U.P. Mutual aid among co-ops here and from other states brought the lights back on.

Co-ops serve their members most effectively and strengthen the co-op movement by working together through local, national, regional and international structures.

7 Concern for Community

Possibly the most visible principle of all is the last, as it drives electric co-ops to be good stewards of the communities they serve. While keeping member service foremost, co-ops undertake a variety of community projects—from food drives or charity fundraisers to school electrical safety demos and economic development efforts.

Even if there was no “concern for community” principle, every person who works at your electric co-op “lives there, too” – they're your friends and neighbors first.



Linda Cornelisse
Scottville



Richard Cowels
Plainwell



Lisa Simmons
Boyne City

Meet Our People Fund Winners!

Several Great Lakes Energy members who support the cooperative's People Fund received \$100 gifts of energy in our most recent drawing.

Winners whose names were randomly selected are Howard and Carol Grifhorst Jr., Ewart; Nancy White, Beaver Island; Harold Parslow, White Cloud; Robert J. and Linda Cornelisse, Scottville; Lisa Simmons, Boyne City; and Richard Cowels, Plainwell.

To thank our People Fund donors, we select six winners twice a year from our three major service areas. Current People Fund supporters and anyone who enrolls in the permanent billing round-up program before the next drawing in December are eligible to win.

Winners' gifts were provided by Great Lakes Energy and did not involve the use of any People Fund round-up money.

People Fund contributors allow their



cooperative to round up their electric bills to the nearest dollar each month. The rounded-up amounts, which averaged 39 cents monthly in 2011, are used to award grants to food pantries, senior citizen centers, youth programs and other local charities and community groups.

"The People Fund is great!" says winner Richard Cowels. "I formerly owned a local insurance agency. This is an easy way to stay involved with and give back to the community that I served and continue to live in."

Great Lakes Energy relies solely on your voluntary contributions to support the People Fund. In 2012, People Fund directors awarded \$146,660 in grants to charitable and community organizations throughout our 26-county service area.

Don't miss your chance to be the next winner! Visit gtlakes.com or call our office to sign up today.

How Are We Doing?

A random phone survey of co-op members begins in November.

The annual phone survey of Great Lakes Energy members will begin in early November. A random sample of residential and seasonal members will be contacted by phone to complete the survey questions. Each call can take 15-20 minutes to complete.

Members are asked a variety of questions on topics such as overall satisfaction, levels of satisfaction with specific aspects of service, interest in our products, and more. Seven demographic questions are also part of the survey.

It takes about two weeks to complete all the calls, and the results are provided in a detailed report to GLE. The results offer valuable insight on what our members value, how we can improve, and what services they may use or be interested in.

The survey results are also used internally to help measure how well the cooperative meets its annual member service goal, which is to always provide members with courteous, prompt and efficient service.

Members will not be asked for personal or financial information by survey representatives and should always take caution when asked for such information.

Thank you to all members who take the time to participate in the survey and provide us with the valuable information we need to better serve you.

Receive Country Lines While You're Away

You can continue to receive *Michigan Country Lines* magazine if you're away from home for an extended time.

Simply contact us if you plan to be away for more than a month, and give us the address where you would like the magazine sent. Contact us again when you return home to ensure there will be no interruption in your magazine mailings.

Contact us by dialing 888-GT-LAKES (485-2537), ext. 1817, or by visiting the member services section of gtlakes.com, found under "Your Home" and by clicking on "Change of Address."

Historic Farm Honored

Congratulations to Great Lakes Energy member Darell Sengelaub whose farm in Osceola County has received state historic designation.

Great Lakes Energy is a sponsor of the Michigan Centennial Farm Program that honors farms owned and operated by the same family for 100 years. Once a farm is certified through the program, the owners receive a certificate as well as a display marker for their farm.

Great Lakes Energy members can request an application or receive more information by contacting The Historical Society of Michigan, 517-324-1828, or by visiting the "Programs" section of their website, centennialfarms.org.



2013 Coloring Contest Winners

First Place Winners



Austin Boerman



Claire Howard



Melissa Tomko

Thanks to everyone who entered our coloring contest this year. Congratulations to the following Great Lakes Energy kids who won new art supplies.

4 years and under:

1st place – Austin Boerman, Allegan; 2nd place – Inara Gray-Edel, Kent City;
3rd Place – Isiah Kellogg, Delton

5-7 years old:

1st place – Claire Howard, Petoskey; 2nd place – Stella Estes, Irons;
3rd Place – Carder Burgtorf, Ravenna

8-10 years old:

1st place – Melissa Tomko, Gaylord; 2nd place – Madison Warnke, Rockford;
3rd Place – Aric Rich, Zeeland

Save With Electric Heat

Stay warm in your home with electric heat and save with Great Lakes Energy's reduced heating rates.

Two rates are available to qualifying Great Lakes Energy members that will reduce your electric heating costs. The money we save by controlling your electric heat during peak demand times makes the lower rates possible.

■ Controlled Heating Rate (CH)

3 cents per kilowatt-hour discount on your electric heat

- A backup heating system that generates heat from an energy source other than electricity is required. Examples include gas and oil furnaces, wood stoves and fireplaces. Generators do not qualify as a backup heating system.

- Your electric heat will be controlled up to 400 hours per year with the longest interruption not to exceed eight hours in any 24-hour period.

■ Partial Controlled Heating Rate (PCH)

1.5 cents per kilowatt-hour discount on your electric heat

- No backup heating system is required.
- Your system will be controlled up to 400 hours per year with the longest interruption not to exceed 40 minutes per hour for up to a total of six hours or nine times per day.

Electric heat on either rate can be more economical to operate than other heating fuels. A qualified heating and cooling contractor can provide estimated operating cost comparisons for different types of heating systems for your home.

Both rates require installation of dual metering equipment and a second meter that records only your electric heat. The primary heating system in your house must be electric heat, such as electric baseboard systems and heat pumps. Plug-in heaters do not qualify.

For more information, see the "Load Management & Rebate Programs" section of our website, gtlakes.com, under "Your Home." You can also call 888-485-2537, ext. 8957.

Public Act 295: The Clean, Renewable and Efficient Energy Act 2012 Annual Energy Optimization Report

Great Lakes Energy Cooperative
MPSC Case Number U-16682

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

In 2012 Great Lakes Energy collected \$2,441,209 through the Energy Optimization Surcharge and spent \$1,503,475, resulting in an over-collection of \$937,734 which will be applied towards the 2013 EO Program delivery expenses and goal achievement. Great Lakes Energy achieved 10,340.7 megawatt hours of energy savings in 2012. The full report can be obtained at michigan-energy.org or efile.mpsc.state.mi.us/efile.

Shale Shock: Natural Gas May Edge Out Coal as Nation's Primary Power Source

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

Over the past decade, the North American natural gas industry has experienced a dramatic renaissance due to a combination of horizontal drilling and a shale fracturing technique called “hydraulic fracking.” With this technology, previously unrecoverable gas reserves located in shale formations deep underground are now flooding the market and it's expected to continue for several decades.

This “shale gas revolution” promises to have a major impact on our nation's energy future, particularly in shifting reliance from burning coal for power generation. The U.S. will overtake Russia as the world's largest

gas producer by 2015, according to International Energy Agency Chief Economist Faith Birol. She notes the resulting cheap domestic supply should lead electric utilities toward a heavier reliance on natural gas for generating power.

Given the fact that consumption of natural gas for producing electricity has increased every year since 2009, Birol's predictions appear to be under way. The U.S. Energy Information Administration (EIA) reports that the natural gas share of U.S. electric power generation will increase from 25 percent today to 28 percent by 2035, with renewable energy's share growing from 10 to 15 percent, and coal falling from 48 to

38 percent. However, early 2012 numbers indicated that pace may be accelerating.

When it comes to electricity, natural gas is most commonly used to fuel peaking plants—power stations that operate for brief periods during times of high electricity demand—and intermediate plants—those whose output changes daily in response to changes in electricity demand. Today, gas accounts for about 15 percent of the power produced by generation and transmission co-ops and 16 percent of all electric co-op power requirements nationwide.

Over the past two years, the relatively low price of gas combined with increasing federal and state regulation of power plant

This map shows shale gas “plays” across the 48 lower U.S. states. The term “play” is used in the oil and gas industry to refer to a geographic area that has been targeted for exploration.



Source – U.S. Energy Information Administration based on data from various published studies. Updated: May 9, 2011

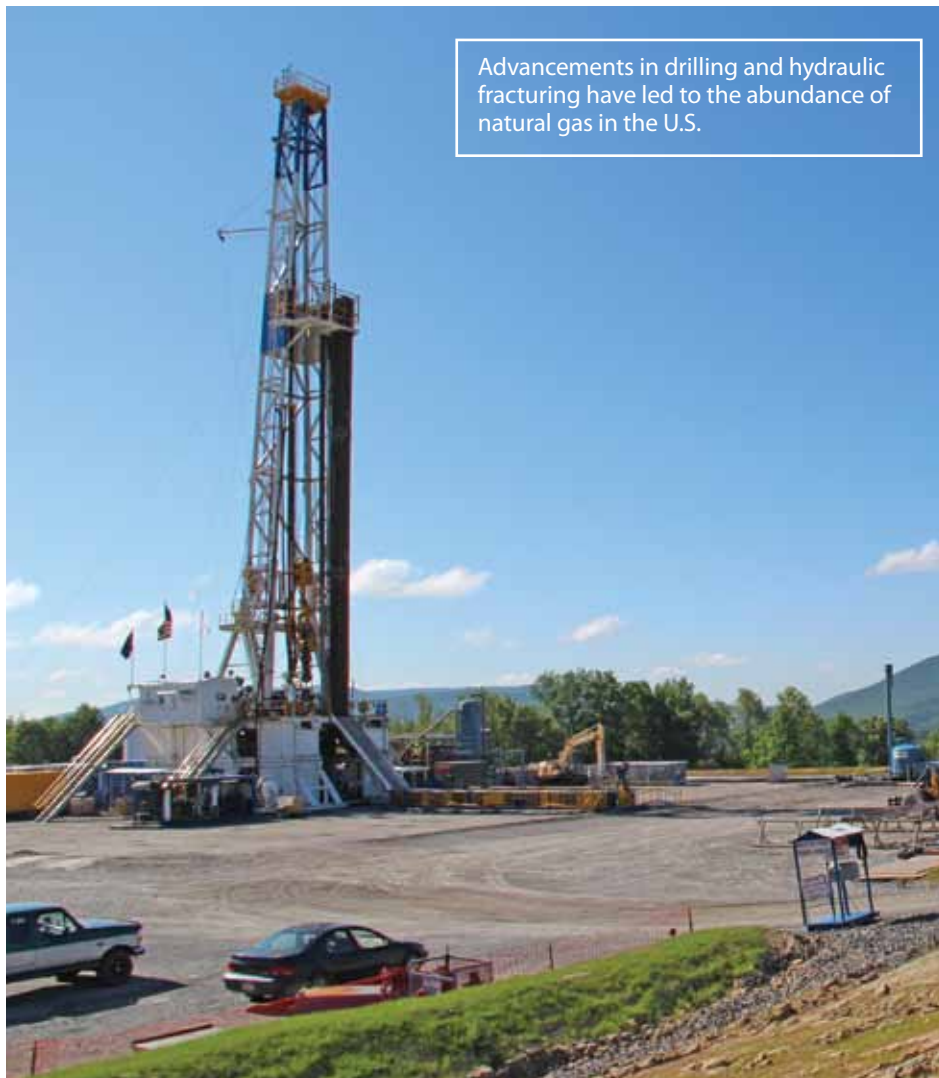
emissions have led to natural gas-fired plants being run for longer periods, while many older coal-fired baseload power plants—those providing dependable electric power year-round at a low cost—are being shut down or converted to gas operations. In fact, the U.S. Environmental Protection Agency (EPA) has proposed a New Source Performance Standards (NSPS) rule that aims to curb the release of carbon dioxide and six other greenhouse gases blamed for contributing to climate change from new fossil fuel-fired power plants. The rule could also be expanded at some point to cover existing generation. The EPA is proposing an emissions cap of 1,000 pounds of carbon dioxide per megawatt-hour—a nearly impossible standard for coal-fired power plants, which average over 1,800 pounds of carbon dioxide emissions per megawatt-hour, to achieve.

“The only way to meet it is with carbon capture and storage [CCS] technology, which is prohibitively expensive and years away from being commercially viable,” David Hudgins, member and external relations director at Old Dominion Electric Cooperative (ODEC), a generation and transmission co-op based in Glen Allen, VA, told the U.S. House Subcommittee on Energy and Environment in June 2012. “No company will take the risk to invest billions of dollars in a power plant in the hopes that CCS will be developed.”

The new standards, as outlined, will push power plants away from coal and toward natural gas baseload generation because most newer combined-cycle gas facilities produce emissions within range of the new limit. But natural gas prices are more volatile than coal, making the fuel a dicey option.

“Historically, natural gas prices have varied widely, making reliance on gas as the sole fuel to provide affordable future baseload power risky at best,” says Rae Cronmiller, environmental counsel for the National Rural Electric Cooperative Association, the trade organization representing over 900 electric co-ops in the U.S. “These risks are significantly enhanced because the cost of electricity derived from natural gas is largely driven by cost of the fuel itself. This differs from coal power, which is driven by capital costs. Also, natural gas in quantities necessary to provide year-round baseload generation is unavailable in some geographic areas.”

Despite this, utility experts believe that natural gas production will continue to increase and that the “blue flame” will surpass coal as the nation’s leading source of electric energy.



Advancements in drilling and hydraulic fracturing have led to the abundance of natural gas in the U.S.

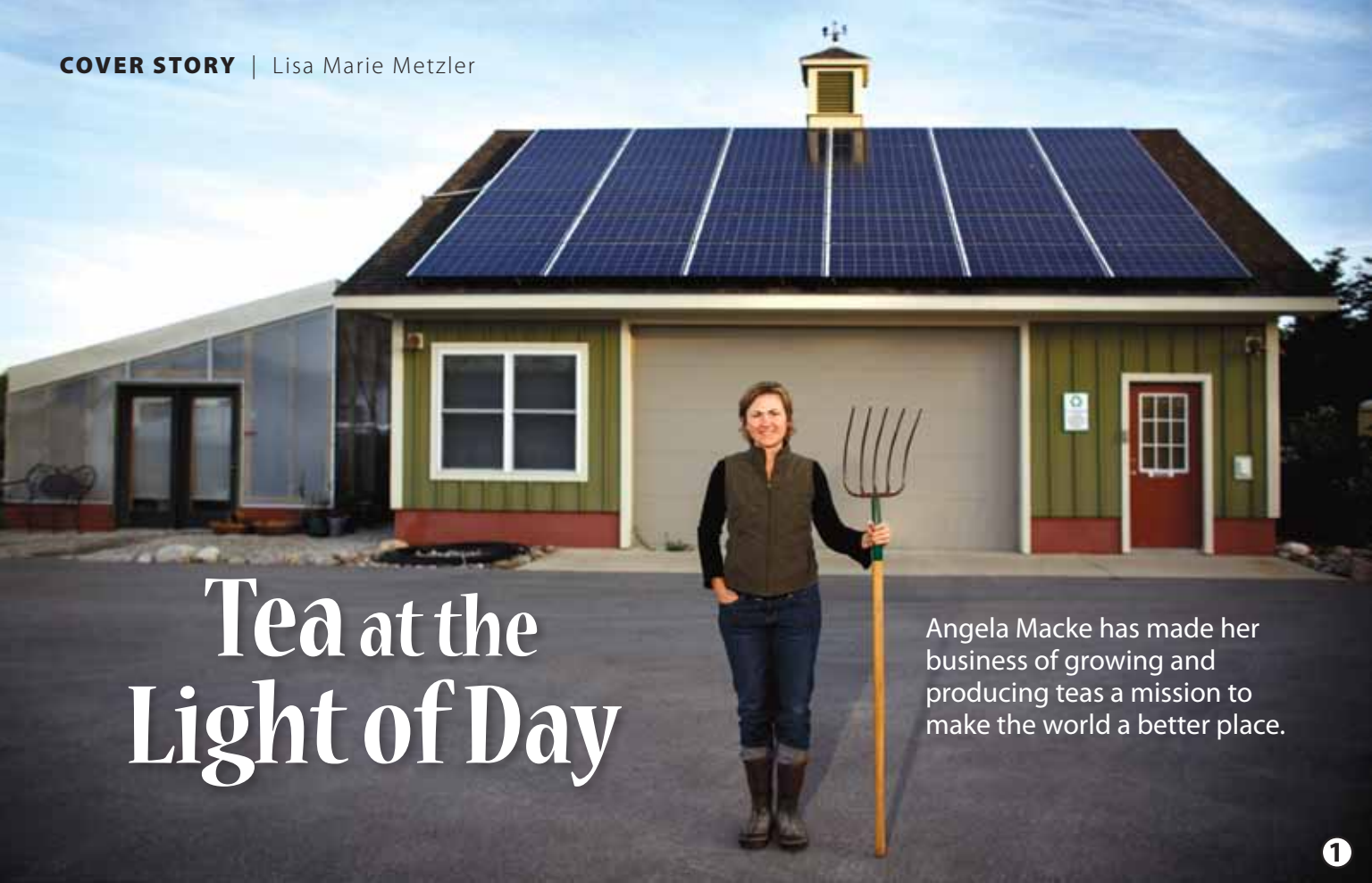
Source – Pennsylvania Rural Electric Association

Keeping it in perspective...

Many shale formations are so large that only a limited portion has been extensively tested for its natural gas potential. The availability of large quantities of shale gas should enable the United States to produce more natural gas than it consumes for decades to come.

- According to Penn State University, Marcellus Shale—a shelf of black porous rock stretching from southwestern New York across northern and western Pennsylvania into eastern Ohio and down through West Virginia—could become the second largest natural gas field in the world, with a potential of over 500 trillion cubic feet of natural gas.
- Barnett Shale covers at least 24 counties in north Texas. It is one of the most active shale plays in the U.S., and estimated to contain nearly 26 trillion cubic feet of natural gas.
- Primarily in Louisiana and Texas, Haynesville Shale could contain as much as 251 trillion cubic feet of recoverable resources.
- Antrim Shale covering much of Michigan and Eagle Ford Shale in Texas are the latest examples of the still-emerging wealth of North American natural gas supplies.

Source – U.S. Energy Information Administration



Tea at the Light of Day

Angela Macke has made her business of growing and producing teas a mission to make the world a better place.

1

When we think of tea, it is often in reference to afternoon tea, or a soothing drink to sip on a chilly day. Usually, it's just dropping a tea bag into boiling water and maybe adding a little milk or honey. At the Light of Day Organic Farm and Tea Shop in Leelanau County, it is so much more. They embrace the whole tea culture, including everything from the seeds to preparing and brewing "the perfect cup."

Angela Macke, an RN and mother of two, started Light of Day Organics because of her own personal experience with tea. "I love tea, and have experienced healing from this miracle of agriculture that decreases inflammation, and am continually intrigued by the people and culture that surround the practice of tea worldwide."

In fact, Macke has successfully managed

her own Crohn's disease, rheumatoid arthritis and lupus by incorporating tea into her daily life. She says even the name for the business she created came from a spiritual place for her, as "All good things good are from the light."

Leaves of Wellness

Plenty of good things are definitely growing and brewing in the light at this impeccably maintained, 25-acre farm located just 8 miles west of Traverse City. Step inside the charming, cozy tea shop, and immediately you are met with wonderful aromas and a warm atmosphere. This is a no-pressure place.

Of course, they are in the business of selling tea, but Macke's mission is more about nurturing the body and soul and helping customers find the tea that not only suits their taste buds but helps bring wellness and balance to the body. "Every day I get emails

of testimonials on how tea has improved the quality of someone's life," she adds.

According to Macke, it's a four-day labor of love for each pound of tea. "Full-leaf tea is harvested by hand to ensure a high-quality, full leaf," she says. "It takes 70,000 tea leaves, chamomile blossoms, rose hips, clover tops, lavender, and others petals for one finished pound of tea."

While "true" tea is made with *Camellia sinensis* leaf, the tisanes Light of Day offers are made from blending components such as herbs, spices, seeds, bark, fruit and other ingredients. Tisane teas are caffeine-free.

Balance and Harmony With The Earth

Light of Day isn't your ordinary farm in other ways, too. It is a Green America partner, which means they strive to be as paperless as





Photos — Beth Price Photography

5

6

4

Light of Day Organic Farm & Tea Shop

Website: LightOfDayOrganics.com

Email: Orders@LightOfDayOrganics.com

Phone: 231-228-7234

Tea Shop: 3502 E. Traverse Hwy., Traverse City; Noon – 5 p.m.

- (1) Angela Macke, a member of Cherryland Electric Cooperative, owns and operates the Light of Day Organic Farm and Tea Shop.
- (2) Light of Day Organics is a honey bee sanctuary and has four thriving hives.
- (3) *Camellia sinensis* tea leaves. Tea is the most labor intensive crop. 70,000 buds picked locally by hand are used for 1 pound of tea at Light of Day Organics.
- (4) Harvesting herbs—lemon balm, feverfew, echinacea, lavender.
- (5) Ceremonial grade matcha green tea is enjoyed in smoothie form.
- (6) Employee Susie McConnell packages the loose leaf teas.

possible, use only environmentally-friendly inks, and recycle everything they can.

Another exemplary attribute is they are Michigan’s only Demeter-certified biodynamic farm. “These farms, including ours, abide by standards that exceed that of the National Organic Program and produce some of the most tasty, nutrient-dense food possible,” Macke explains. The criteria for this international certification aren’t easily met, but that didn’t sway her from pursuing it. “It is a preventative approach and I believe it to be the kindest, most holistic practice that one can do for our planet.”

The farm first had to be certified organic with the National Organic Program for three years. This involves following a Lunar calendar for growing, harvesting and seed collection, providing on-farm fertility, and using homeopathic remedies throughout the

growing season to support the plants’ growth and development.

In keeping with her philosophy of balance and harmony with the earth, solar panels are used to help lower their electric bills, as the irrigation system and food dryers use a lot of energy. Plans for 2014 include expanding their solar array and adding an architecturally-designed functional stand to hold the panels and create a shaded area that visitors can sit under and enjoy their teas during a visit.

Fruits of Labor

Managing a farm, employees and family is no easy task, but Macke’s family pitches in

when they can. Her 12 and 14-year-old boys have been helping since they were toddlers. “They are excellent botanical harvesters, planters, preparation helpers, weeders, and assist with mowing, apple coring, packaging up bags and labeling tins. They have done it all,” she says proudly.

About her role on the farm, Macke says, “This is the most meaningful and hardest work I’ve ever done.”

Lisa Marie Metzler is a certified trainer and freelance writer specializing in health and fitness. Her articles have appeared in magazines such as Healthy & Fit, IDEA Fitness Journal, Positive Thinking, Hope for Women, and more.

What's for School (or Your) Lunch?

School lunches can include local food, and be healthy and waste-free too!



School is back in swing, and lunches may have already become repetitive and limited. But there are many healthy, locally-available foods that can add zing to school or other lunch options.

Choosing an exciting, varied menu from local foods for “brown bag” lunches doesn't have to be challenging, either. Michigan State University Extension (MSUE) offers an availability chart to help you track what's available-when, and there's a lot of fruits and veggies that are still in season. And, farmers' markets aren't the only place to find fresh fare—many local grocery stores or chains also take pride in offering locally-grown, produce. Many locally-made artisan foods are offered, too, including breads and bakery items, cheeses, deli meats, salsas, sauces, pickles, jams, and jellies.

Fruits, Veggies Still In-season

Fresh broccoli, cauliflower, bell peppers, zucchini, cucumbers, carrots and raw green beans

can all go into a lunch as crunchy vegetable sticks. Including a dip or peanut butter adds one more thing kids love to eat and do.

Fresh fruits include apples, peaches, plums, pears, raspberries and grapes. Second plantings of lettuce, onions, celery, spinach and other greens are also can also be found. Paired with a protein of cheese or meat slices, or a nut-based spread on crackers or bread, you have easily increased your menu options.

Don't Forget Pumpkins!

Besides the fun of carving them, make your family smile by preserving and drying pumpkin and its seeds, and making pumpkin preserves.

A how-to fact sheet from MSU Extension called “Michigan Fresh: Using, Storing and Preserving Pumpkins,” includes suggested varieties, a yield chart and processing times,

plus storage and food safety tips for choosing them and avoiding cross-contamination. Find this and other fact sheets on various topics at msue.anr.msu.edu/program/info/mi_fresh, and more will be featured throughout the new growing season.

More Quick Tips

Cutting up vegetables and fruits in advance and pre-packaging them in small lunch-sized containers can save lots of time when you are packing lunch, and serve as fast after-school snacks that kids can help themselves to with minimal fuss.

Involve your kids in helping to package items for the week's lunches. Research cited recently in *Science Daily News* shows that kids who are involved in food preparation are more likely to eat healthier foods.

— Beth Clawson

Schools to Serve Michigan Fruit

Starting this fall, public school students in 114 districts will enjoy Michigan-grown fruit, thanks to a partnership with growers, Cherry Capital Foods, and Chartwells School Dining Services.

“This may be the largest farm-to-school project to date in the country,” says Kelly Lively, special projects and school liaison for Cherry Capital Foods.

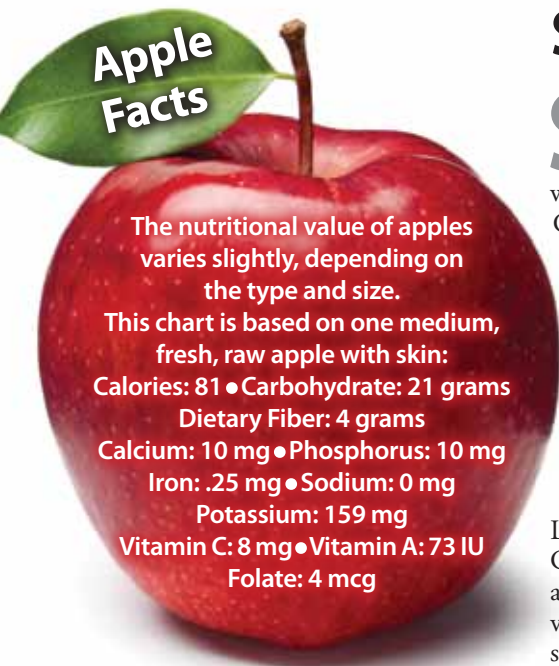
The Traverse City food distributor will gather, store and coordinate the transportation of apples to districts statewide, including parts of the Upper Peninsula. Growers such as Friske Orchards, a Great Lakes Energy Co-op member in Antrim County, Gavin Orchards in Coopersville, and dozens of other farms, will provide many varieties throughout the year, in different sizes specialized to the ages of students in

each school. Educators at MSU Extension and other regional experts expect a bumper crop this year.

“Through our partnership, we're able to provide fresh, local foods that are at the height of their nutritional value to Michigan students,” explains Brain Casey, Chartwells' regional vice president. Because supplies allow it this year, peaches and possibly pears will also be available to schools.

Cherry Capital is also hosting a statewide event called “Michigan's Apple Crunch!” that encourages people of all ages to bite into an apple on Oct. 24. It's part of Food Day, a national promotion of healthy, affordable and sustainable food. For more information, visit cherrycapitalfoods.com or call Kelly Lively at 231-943-5010.

— Kendra Wills



Apple Facts

The nutritional value of apples varies slightly, depending on the type and size.

This chart is based on one medium, fresh, raw apple with skin:

Calories: 81 • Carbohydrate: 21 grams

Dietary Fiber: 4 grams

Calcium: 10 mg • Phosphorus: 10 mg

Iron: .25 mg • Sodium: 0 mg

Potassium: 159 mg

Vitamin C: 8 mg • Vitamin A: 73 IU

Folate: 4 mcg

Top 10 Myths About Geothermal Heating, Cooling

(with apologies to David Letterman)

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

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

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

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

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

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

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

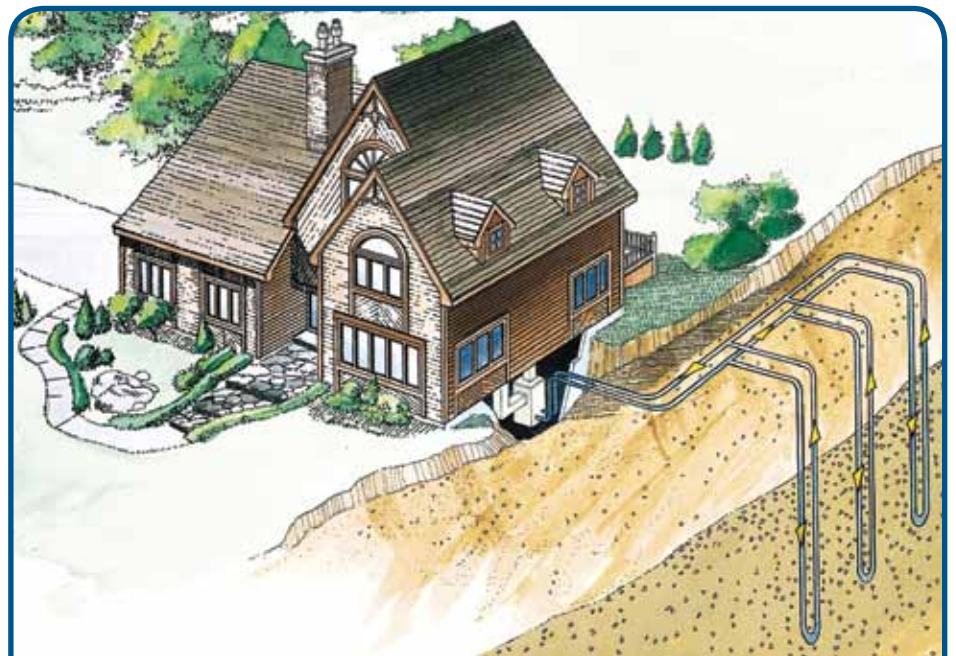
4. *You must put a geothermal heat pump in the basement.* A geothermal unit does not have a flame, therefore it requires no venting and can be placed anywhere.

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

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

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

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



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



Eat Together

How to reclaim the tradition of eating together at the family table.

These are busy days and most are over-scheduled with family members headed in different directions. Families are likely to eat only a meal or two together each week. Are we missing out if we don't eat together?

The National Center on Addiction and Substance Abuse at Columbia University conducted a 2011 study that showed families who have fewer dinners (less than a few nights a week) together had teens who were four times more likely to use tobacco, twice as likely to use alcohol and two-and-a-half times more likely to use marijuana. But a more recent study in the *Journal of Marriage and Family* (June 2012) suggests the benefits of family dinner aren't as strong or lasting as previous studies suggested. After doing interviews with middle or high school adolescents, and again between ages 18 and 26, the study suggests the *extent* of parental involvement in their kids' daily lives—not just at the dinner table—is most important.

But the dinner table is still a time-honored tradition that offers a great way to connect that is unlike any other. Neil Kosofsky, a marriage and family therapist at the Relationship Institute in Royal Oak, MI, says gathering for dinner is an opportunity to feel connected and strengthen a sense of security and attachment to parents and loved ones. Simply eating dinner at the same table every day, he adds, doesn't guarantee families will grow more emotionally attached or kids will have a stronger feeling of security. "What is essential is the time spent together, sharing an experience, engaging, and speaking and listening to each other."

Make a Reservation

"Create family rituals. Schedule a weekly Friday night or a Sunday brunch," Kosofsky suggests. Make it something everyone looks forward to, and connect it to something meaningful—like visiting grandparents, or a fun, family game night.

Teens may not relish family dinners at first, but strive for at least one night a week and let them pick a favorite dinner to make or bring home. Younger kids may enjoy theme dinners or picnics in the living room. Get the whole family involved with prep, and keep



Photo Courtesy - Dodie Ferguson

When the Ferguson family, members of Cherryland Electric Cooperative, eats together it's a chance to discuss their day and what's on their minds. Mom Dodie also says it's a good time to talk about friends or family who are in need of prayer and find out how everyone is doing in school.

the mood light. The food doesn't have to look perfect. Help create regular memories they will later cherish.

"It is certainly hard to get everyone together and have a healthy dinner at night," agrees Dodie Ferguson, a Michigan parent of five. "My 15-year-old son has found that he really enjoys cooking and we love the help. Some days dinner can be a little 'different', but it's always fun and its worth having the extra hand."

Kids may not appreciate the rituals now, but as they grow into adulthood, they will treasure those times and model them for their own families, Kosofsky adds.

Be Fully Present

"The most important thing our kids want from us is our time and attention," says Karen Friend Smith, author of "Reclaim Dinner." If you come to dinner fully present, your kids will look forward to it because they know they have your attention, and it provides time to learn table manners, listen, and take turns in a conversation.

Here are some conversation starters:

? If you could be an animal, what animal would you be?

? If you could pick your own name, what would it be?

? If you could have any super power, what would it be and why?

? What was your high point of the day and low point of the day?

? If you won \$1,000, what would you spend it on?

? Do you have a recurring dream?

? If you had free lessons for a year, what would you want to learn?

? What kind of music are you listening to?

Take the Challenge!

A website called reclaimdinner.com offers a free, 30-day challenge to raise awareness about the benefits of family dinner and is a stimulus to get started. You simply make the pledge to eat dinner at home more often. A daily email is sent to keep you motivated with ideas, conversation starters, recipes, and more.

"Some days will be magical. Others will be a disaster," Smith says. "But collectively, over time, you will be amazed at what this one simple practice does for you and your family."

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



Mute Swans Are Crowding Other Species

Swans have a special place in art and literature. Youngsters are told about the ugly duckling—a young bird that is ostracized by the others until it grows into a beautiful swan. Swans also figure prominently in several major operas and Tchaikovsky's famous "Swan Lake" is among the most-performed of all classical ballets.

But, as with any species, there can be a downside. In Michigan, mute swans are the largest and most numerous, and have become a nuisance.

Why? There are just too many. Mute swans are often overly aggressive toward other waterfowl and humans. They are not native to Michigan and are crowding out other wildlife, doing considerable environmental damage to wetland habitats, and at times creating a public safety hazard.

Among the largest waterfowl in the world, mute swans can measure up to 5 feet long and weigh over 30 pounds, with a wing span of nearly 10 feet. So named because they make little sound—except for hissing when they're agitated—they contrast dramatically with the aptly named trumpeter swans, which are a native species on Michigan's threatened list.

The Michigan Department of Natural Resources (DNR) has partnered with other conservation groups for over a decade to increase trumpeter swan populations here. Although the effort is beginning to bear fruit, there is evidence that mute swans are getting in the way.

Mute swans were brought from Europe in the mid-1800s to adorn parks and private estates. The first Michigan pair was introduced in Charlevoix County in 1919, and we now have the largest population of them in the United States.

The DNR estimates breeding mute swan numbers at about 15,500—three times the number a decade ago—and expanding at about 10 percent a year. Long-lived (close to 20 years) birds capable of producing five cygnets per pair annually, they have few natural enemies.

Numerous mute swan attacks on small boaters (canoeists, kayakers, jet skiers) have been documented, some resulting in injury, and in one case death (in another state), when an angry bird capsized a canoeist. These birds will attack people on land who wander too close to their nests or young and drive other waterfowl—ducks, geese and other swans—



from suitable habitat. For example, a nesting colony of black terns (also a species of concern) on the Michigan shore of the U.P. declined when mute swans nested nearby and drove them away. Black tern counts have been depressed in the area ever since.

Mute swans congregate in huge flocks and can inflict significant damage on aquatic habitat, feeding heavily on vegetation that is food and cover to fish and other wildlife. Anglers complain that swans virtually wipe out weed beds in some lakes.

But population-control efforts can bear fruit, as removal of mute swans has resulted in other species moving back into the habitat. At Crow Island State Game Area (near Saginaw), a pair of trumpeters took up residence after the mute swans were removed.

The DNR has long removed mute swans from game areas, where protecting native wildlife is the goal. But as the mute swan population continues to grow, the DNR has increased efforts to reduce them to 2,000 by 2030.

"If we didn't do anything to reduce mute swan populations, we could have 24,000 in

five years," explains Barbara Avers, waterfowl and wetlands specialist with the DNR's Wildlife Division. "If we allow this to happen, Michigan's wetlands and wildlife would suffer and there would be unacceptable levels of conflict with people."

Many conservation groups—including the Michigan Audubon Society, Ducks Unlimited and the Kellogg Biological Station of Michigan State University—are on board with the DNR's goals.

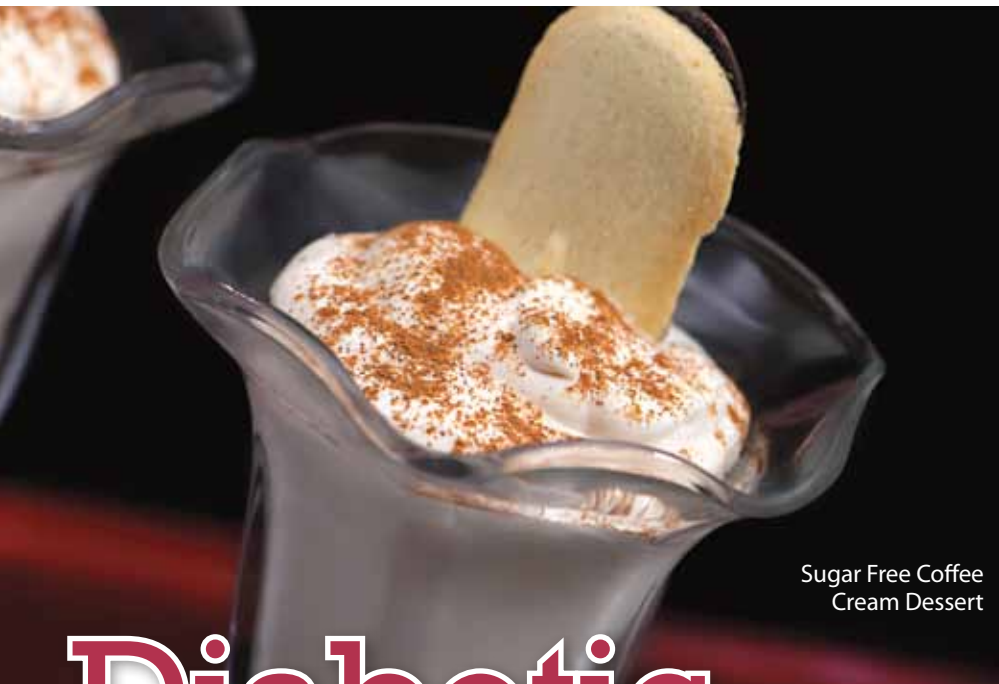
The DNR dispatches aggressive mute swans that cause conflicts with humans and issues permits for private property owners to remove them or their nests or eggs. In the case of commonly held private property—such as a private lake—the DNR has rules to make sure a majority of the landowners agree before these permits are issued.

Adult mute swans are easily identified by their orange bills. Native species—trumpeter and tundra swans—have black bills.

The DNR has a long way to go in bringing mute swans within their management goals, but considers it an important step in maintaining other native waterfowl populations, such as ducks, geese, and even other swans.

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





Sugar Free Coffee Cream Dessert

Photos – 831 Creative

Diabetic Favorites

Diabetic dishes don't have to be bland. These diabetic-friendly recipes allow you to have the flavor without all the guilt.

Sugar Free Coffee Cream Dessert

8 ozs. cream cheese, softened
 1 c. strong coffee, cooled
 1/2 c. lowfat milk
 1 1-oz. box white chocolate sugar free pudding
 8-oz. tub sugar free Cool Whip®
 graham cracker crumbs, dash of cinnamon,
 Nilla wafer or Milano cookies, optional
 Beat first four ingredients together and fold in the Cool Whip. Spoon into Sunday cups. Top with 1 tablespoon crushed graham crackers and a sprinkle of cinnamon or stand a Nilla wafer cookie in the top.

Nita Ringler, White Cloud

Baked Tilapia or Flounder With Peppers and Tomatoes

4 6-oz. flounder filets
 1/4 t. salt
 freshly ground pepper, to taste
 2 bell peppers, red and yellow
 cooking spray
 1 sweet onion, chopped
 3 large garlic cloves
 2 tomatoes, seeded and chopped

1 T. minced fresh tarragon or 1 t. crushed dried tarragon
 1 T. balsamic vinegar
 Preheat oven to 375°F. Place the filets in an oven-proof baking dish; sprinkle with salt and pepper and set aside. Char the bell peppers using either a gas range burner or the broiler. Quickly place in a paper bag to steam. Remove when cool enough to handle. Remove the skin and seeds; chop. Coat a non-stick skillet with cooking spray. Sauté the onion and garlic until onions are transparent; add the bell peppers and tomatoes and cook stirring over high heat for 3 minutes. Stir in the tarragon and vinegar. Spoon the vegetable mixture over the fish fillets; bake for 15 to 18 minutes until the fish is just opaque. Serve immediately.

Carole Buskirk, Dowagiac

Dieters Raspberry Torte

1-lb. box graham crackers
 1 23-oz. jar natural applesauce
 1 large (6-oz.) box sugar free raspberry (or strawberry) gelatin
 1 large carton frozen light whipped topping

Line a 9 x 13-inch pan of whole graham crackers. In medium bowl, stir together the applesauce and dry gelatin powder. Mix well. Spread 1/4 of apple sauce mixture in a very thin layer over crackers. Cover with a layer of whipped topping. Repeat layers 3 times. Refrigerate 3 to 4 hours before serving.

Marcella Sturm, Byron Center

Low Fat Gravy

1/2 c. finely chopped onion
 1/2 c. finely chopped mushrooms
 2 T. chopped, fresh parsley
 2 c. reduced beef or chicken broth, divided
 2 T. cornstarch
 pinch of pepper
 Sauté onion, mushrooms and parsley in a 1/4 cup of broth. Combine pepper, cornstarch, and 1/2 cup of broth; stir until smooth. Add to pan with remaining broth. Bring to boil and cook for 2 minutes, stirring occasionally. Makes 2 cups.

Norma Francel, Edwardsburg

Cream Puff Dessert

1 c. water
 1 stick butter
 1 c. flour
 4 eggs
 8 ozs. cream cheese (softened)
 3 1/2 c. milk
 2 small pkgs. sugar free instant pudding mix
 8-oz. carton sugar free Cool Whip
 Bring water and butter to a boil over medium heat. Add flour all at once and stir until smooth ball forms. Remove from heat and let stand for 5 minutes. Add eggs, one at a time, beating well after each addition. Spread into greased 9 x 13-inch pan and bake at 400° for 30 to 35 minutes or until puffed and brown. Cool completely. Beat cream cheese while gradually adding milk. Add pudding mixes and blend until smooth. Spread over puff and top with cool whip. Keep refrigerated.

Karen Muir, Niles

Fettuccine Alfredo

2 t. margarine
 3 cloves garlic, chopped
 4 1/2 t. all-purpose flour
 1 1/2 c. fat-free milk
 1/2 c. grated Parmesan cheese
 3 1/2 t. Neufchâtel cheese
 1/4 t. white pepper
 4 ozs. fettuccine
 1/4 c. chopped fresh parsley
 Melt margarine in medium saucepan. Add garlic; cook and stir 1 minute. Stir in flour; gradually stir in milk. Cook until sauce thickens, stirring constantly. Add cheeses

and pepper; cook until melted. Cook fettuccine without salt, drain; top with sauce and parsley. Serves 4.

Amy Breimayer, Westphalia

Diabetic Chocolate Pudding Cake

1 box reduced sugar Pillsbury® Devil's Food cake mix
1¼ c. water
1/2 c. oil
3 eggs
1 large box sugar free chocolate pudding, prepared as directed

Set oven to 350°. Prepare cake as directed on box in a 9 x 13-inch pan. Bake for 31 to 35 minutes or until a toothpick inserted comes out clean. After cake is done and still warm, poke holes throughout the cake with a knife and spread the prepared pudding over the top. The pudding will soak into the cake making it super moist. Top with whipped topping and refrigerate immediately.

Laura Russman, Portland

Bottomless Chicken Pot Pie

1 can condensed cream of chicken soup
1/4 c. fat free milk
3 c. cooked chicken, cubed
16-oz. bag frozen mixed vegetables, thawed and drained
pepper
1 prepared pie crust

Preheat oven to 425°. Mix together soup, milk, chicken, vegetables and pepper and place into deep dish pie pan. Cover with pie crust, sealing it to the side and cut slits for steam vents. Place on baking sheet to catch boil-over and bake for 40 to 45 minutes. Let sit for a few minutes; cut and serve. Without the bottom crust and by using a small serving, this is only 22g carbohydrates per serving. Add a salad and you have a healthy meal. Serves 8.

Lois Phelps, Stanwood

Peach Tapioca

1 c. reduced-fat milk
1½ T. quick cooking tapioca
1/2 egg lightly beaten
¾ c. peaches, peeled and coarsely chopped
1½ T. no-sugar-added apricot spread
few drops vanilla extract

Combine milk, tapioca and egg in 1-quart saucepan; let stand 5 minutes. Stir in peaches and apricot spread. Cook and stir over medium heat until mixture comes to rolling boil; cook 1 minute more. Remove from heat; stir in vanilla. Cool slightly; stir. Place plastic wrap directly on surface of pudding;



Diabetic Chocolate Pudding Cake

chill. Makes 2 servings (about 1/2 cup per serving). If fresh peaches are not in season, use frozen peaches and add 1 to 2 packets sugar substitute to milk mixture.

Julie Ann Bentz, Scottville

Tuna Melt

2 whole wheat english muffins, halved
1 6.5-oz. can tuna in water, drained
¾ c. coleslaw mix
1½ T. light mayonnaise
1 T. dijon mustard
1 T. dried dill weed
1 green onion, chopped
1/3 c. reduced fat cheddar cheese, shredded
pepper to taste

Mix mayonnaise, mustard and dill weed in a medium bowl. Add drained, flaked tuna, coleslaw mix and green onion. Mix well. Lightly toast english muffins. Put tuna mixture on each half, dividing cheese among the 4 halves. Broil 4 inches from heat until cheese is melted.

Vicki Blaauw, Vanderbilt

Texas Caviar

2 t. olive oil
1 small eggplant, peeled and chopped
1 c. onion, chopped
1 jalapeño pepper, seeded and finely chopped (optional)
1 15-oz. can salsa-style chunky tomatoes, undrained
1 15-oz. can black-eyed peas, drained and rinsed
1 t. ground cumin
1/2 c. minced fresh cilantro
Baked fat-free tortilla chips

Coat large nonstick skillet with cooking spray and heat oil over medium heat until hot. Add eggplant, onion and jalapeño pepper; cook and stir 10 minutes. Stir in tomatoes, black-eyed peas and cumin. Cook 5 minutes, stirring frequently. Remove from heat; stir in cilantro. Serve with tortilla chips.

Amy Breimayer, Westphalia

Sugar Free Creamsicle Cake

1 pkg. sugar free yellow cake mix
2 small boxes sugar free orange jello
1 small box sugar free vanilla instant pudding
1 c. 2% milk
2 t. vanilla

1 tub sugar free whipped topping
Bake cake as directed in 9x13-inch pan. Cool completely. Poke holes in cooled cake (with a meat fork). Mix 1 box sugar free orange jello with 1 cup boiling water. When dissolved, add 1 cup cold water and mix well. Pour over cake. Cover and refrigerate for 4 hours. Mix sugar free instant pudding with cold milk, other box of jello and vanilla. Beat with whisk until thick. Fold in whipped topping. Frost cake with pudding mix.

Chris Gonnering, Hawks

Healthy Eating Tips

- Pay attention to labels. Look for heart healthy ingredients, such as whole wheat flour and oats.
- Avoid unhealthy ingredients, such as hydrogenated or partially hydrogenated oil.
- Look at total carbohydrates, not just sugar.
- Divide up your plate. Fill half with vegetables, one quarter with a lean protein such as fish, beans or tofu, and the other quarter with a whole grain, such as brown rice, quinoa or whole wheat pasta.

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

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

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



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

Fight Vampire Power

There's a scary character lurking in your home. It's vampire power and it's out to get your energy. Many electronics in your home continue using power even when turned off, and this continuous draw is known as "phantom" or "vampire" power.

Because appliances, electronics and lighting account for the second largest portion of your energy bill, and most people have about 40 different electronics plugged in at all times, vampire power adds up quickly. As much as 10 percent of your bill—or \$100 per year—may be going toward needless energy use.

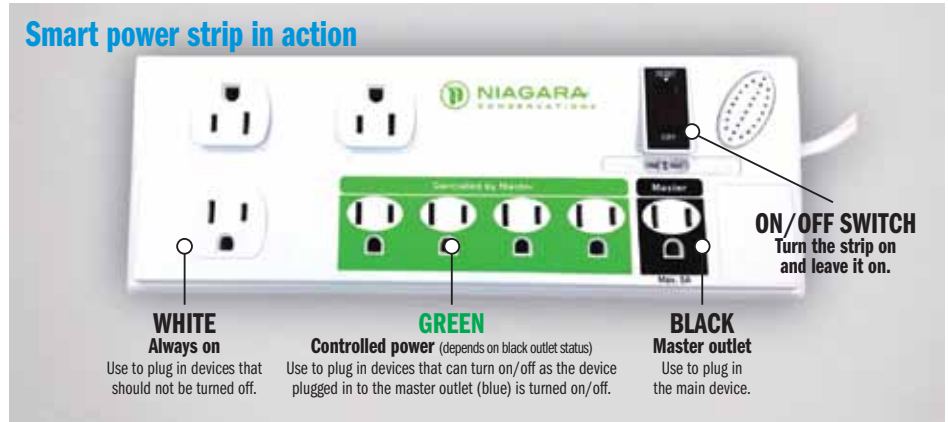
What Sucks Energy?

Some of the most common vampire power offenders are appliances or electronics with light-up displays that stay on when the device is off, including cell phone chargers, TVs, DVD players, DVRs, cable boxes, desk/laptop computers and monitors, wireless routers, and speakers.

Defend Your Sockets

Here are some proven ways to reduce vampire power-related energy waste:

- ▶ Unplug appliances and electronics when



you're not using them.

- ▶ Purchase ENERGY STAR® qualified appliances and electronics (they use the least amount of power in standby mode).

- ▶ Unplug battery chargers as soon as batteries are fully charged.

- ▶ Use a wattmeter. Plug electronics into this device to see how much energy is being used.

Automatic Savings With a Smart Power Strip

Using a smart power strip is a convenient way to fight off vampire power. It's similar to conventional power strips, however, it can sense when a main or master electronic device—such as a TV or computer—is turned off, and automatically shut down

other devices associated with it (DVD player, gaming device, cable/satellite box). By completely shutting down these devices, vampire power is destroyed.

A smart power strip can reduce your energy use by 5 to 10 percent. It uses about 1 watt of electricity when turned on, and 0 watts when the control outlets are off. Plus, you can receive a \$10 Energy Optimization rebate when you buy a qualifying smart power strip.

Savings for Everyone

Not only can Great Lakes Energy help you fight vampire power, but we have more ways to help residents, businesses and farmers save energy. See our current incentives at michigan-energy.org or call 877-296-4319 for details.



TRICK OR treat

Beware of vampire power

Did you know that when many appliances are turned off they still use energy? That's a bloody waste. Defend yourself against vampire energy drain without having to wear garlic. Simply plug your electronics into a smart power strip to truly turn them off, eliminating vampire energy waste for good. **Start saving today—buy a smart power strip and get a \$10 Energy Optimization rebate.**

ENERGY TIP: Smart power strips automatically use 5-10% less energy and are ideal for TV and computer equipment.

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.

Light Your Yard For Less

Light your yard with less energy by using an outdoor LED (light emitting diode) light available through Great Lakes Energy's Outdoor Lighting Service program.

We will install an outdoor light on the property where your home or business is served by GLE. Its kilowatt-hour use and maintenance costs are covered by a monthly billing fee (see chart), and GLE owns and maintains the lights. Broken lamps or damage to fixtures due to accident or vandalism will be repaired at the member's expense.

To offset our higher costs for the outdoor LED lighting, there is an initial \$205 charge to install the light. There may be other up-front costs if the LED light is to be located where additional materials (pole and wire) are needed to install it.

On average, the outdoor LED light uses less energy (15 kWh/month) than other lamps with similar brightness offered by GLE. They include a 175-watt mercury vapor lamp (75 kWh/month) and a 100-watt high pressure sodium fixture (40 kWh/month). The Power Supply Cost Recovery (PSCR) costs for the LED light are also less.

Because it uses less energy, the LED light has the lowest monthly rate (\$7.65) of all lights offered in the program.

Requests for LED lights may take a minimum of six weeks to complete the order.

The minimum installation term is 24 months for any type of outdoor light installed by GLE. After that time, the light can be replaced with a different type or removed upon request.

Members interested in purchasing indoor LED lighting should be aware that not all LED lights live up to their manufacturers' claims. It is recommended that energy-conscious shoppers buy products that are ENERGY STAR® certified and carry that logo on the package. Visit energystar.gov for more information.

The U.S. Department of Energy, which helps run the ENERGY STAR program, predicts prices for LED lights will go down as more products enter the market.

The LED is a solid-state lightbulb with semiconductors that convert electricity into light. LED use has expanded from indicator and traffic lights to home lighting applications as the technology continues to grow.



A GLE outdoor LED light uses less energy to light your yard.

More information on the outdoor lighting service program can be obtained by calling 1-888-485-2537.

GLE Outdoor Lighting Service Rates

Nominal Rating	Monthly Rate
175-watt Mercury Vapor*	\$ 12.70
250-watt MV*	\$ 16.57
400-watt MV*	\$ 25.05
100-watt High Pressure Sodium	\$ 9.23
150-watt HPS	\$ 11.74
250-watt HPS	\$ 16.57
400-watt HPS	\$ 24.05
LED Alternative to 175-watt MV	\$ 7.65**
LED Alternative to 100-watt HPS	\$ 7.65**

* Mercury Vapor lights are only available at existing installations.

** Plus an up-front installation charge of \$205 per fixture.

An additional charge of 30 cents monthly per fixture will be made for fixtures suspended between poles. Fees and rates are subject to change.

Recycle CFLs at Great Lakes Energy

Recycle your used compact fluorescent lightbulbs (CFLs) at your local Great Lakes Energy office.

Only compact fluorescent bulbs will be accepted.

Great Lakes Energy is looking out for you by providing a COMPAK Recycling Center box in the lobbies of its eight service centers. Simply place your CFLs in the environmentally-secure container. The co-op will ship them to Next Level for Recycling, Inc. which disposes of waste products quickly and properly.

CFLs help you save energy.

ACCEPT



DON'T ACCEPT





Severe Storm Preparedness Kit Checklist

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

For additional safety information, please visit:



Gadgets Help Save Water, Energy

Low-flow showerheads and other low-cost devices use less water and heat.

Q: *Both my energy and water bills are increasing, so I plan to install low-flow showerheads. I tried them before, but my family didn't like them. Are they any better now, and how do I pick a good one?*

A: Bathing uses a lot of water for most families, and hot water drives the monthly cost up. Low-flow showerheads can help cut down on both.

For years, all showerheads sold in the United States have been limited to a maximum water flow rate of 2.5 gallons per minute (gpm) at a water pressure of 80 pounds per square inch (psi), as mandated by federal energy efficiency standards. Some older showerheads may use as much as 5 gpm without even providing an adequate, forceful water flow.

Many of the new low-flow showerheads provide good water flow using even less than 2.5 gpm. There are also significant differences in showerhead sprays for ones with identical flow rates. The most efficient units are as low as 1.5 gpm, and the savings in water and energy use can pay back their cost in just a few months.

There are a number of factors determining how much water and energy will be saved. Water savings is affected directly by the gpm rating for the showerhead, while energy savings is determined by both the gpm rating and how much hot water has to be mixed with cold for a comfortable shower.

The type of spray pattern chosen has an affect on how warm the water feels on your skin. Showerheads with larger water droplets feel warmer because the droplets have a lower percentage of surface area, so they cool down less before reaching your body.

Some needle-type, low-flow showerheads create tiny water droplets. These may lose more heat as they move through the air. If this happens, people tend to set the faucet

handle to a greater percentage of hot water and may actually end up using more hot water—and more electricity—than before. Some showerheads also add air to the spray for more force, but this might also cool the water spray.

It's easy to distinguish a narrow needle-spray design because they are usually small. For a fuller spray, look for ones with many holes across a larger face. Some may appear to have a large face with many spray holes. If they have adjustable patterns, not all the holes are used simultaneously so they may actually create a needle spray if you desire that at times.

A handheld adjustable showerhead is very effective. Some models have four spray settings selected by rotating the head, and water flow can be directed where you want it, which saves water.

There are also two inexpensive add-on devices that can help reduce water use on any showerhead. One is a tiny push/pull trickle valve (also called a lathering valve) that's mounted between the shower arm and showerhead. When you don't need water, push the button to slow the water to a trickle without having to readjust the temperature at the faucet each time.

Another water-saver is a Lady Bug valve by ShowerStart (also called Evolve). People often turn on the hot water and walk away while they're waiting for the water to heat, which can waste gallons of water before getting into the shower. With the Lady Bug, when the water temperature reaches 95 degrees, the flow is automatically slowed to a trickle so very little goes down the drain. When you're ready to get in, pull the string on the handle to return the full flow.

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

Source - ShowerStart



This showerhead uses only 1.59 gallons per minute and produces a full spray pattern. The attached "Lady Bug" slows water flow to a trickle once hot water reaches the showerhead. Pull the string to start the shower flow.

This hand-held showerhead has four spray patterns by turning the head. Notice the add-on push-button trickle valve.

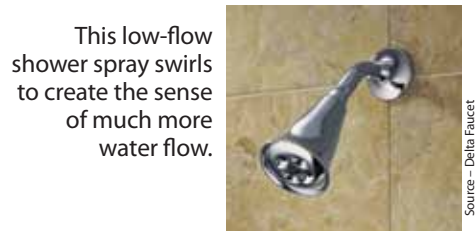


Source - James Dulley



Source - Delta Faucet

This 1.6 gpm (gallon per minute) showerhead produces larger water droplets to make the shower water feel warmer when it reaches your skin.



This low-flow shower spray swirls to create the sense of much more water flow.

Source - Delta Faucet

More showerhead info...

deltafaucet.com

800-345-3358

moen.com

800-289-6636

pricepifter.com

800-732-8238

evolveshowerheads.com

480-496-2294

speakmancompany.com

800-537-2107

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



Stay Safe and Warm!

Never place a space heater close to a water source. While there are waterproof electric heaters, many models are not intended for use in bathrooms, so be sure to check the manufacturer's safety instructions.

Visit SafeElectricity.org to learn more about avoiding electrical hazards.

Source - SafeElectricity.org

Tips for Using Space Heaters, Electric Blankets

Don't let your efforts to stay warm put your safety at risk. Space heaters and electric blankets can be efficient ways to warm up, but they can also be dangerous. We encourage you to understand the dangers of heating devices before you use them.

"Space heaters and electric blankets are not appropriate for all people or all situations," explains Molly Hall, executive director of the Energy Education Council. "However, in the right circumstances, space heating can save energy and money."

Try these tips for using space heaters and electric blankets safely:

- Read and follow all safety instructions for each unit.
- Cords should not be frayed, brittle or cracked, and the blanket should not have any charred or dark areas.
- Turn them off when not in use.
- Look for a space heater that has guards from heating elements and automatically shuts off if tipped over.
- Choose a unit with a safety certification (look for the UL®, ETL, or CSA mark, which means the product has been safety-tested).
- One of the biggest causes of fires is the most easily avoidable. Many fires start when flammable products are placed too close to heating devices. Keep space heaters at least 3 feet from blankets, clothing, paper and other flammables.
- Place space heaters out of high-traffic areas and on a level, hard, nonflammable floor surface—NOT on carpets, furniture, or countertops.
- Never allow pets to sleep on top of electric blankets, and the wires should never be bent or tucked under a mattress.
- Do not try to warm your entire home with space heaters. They are useful in small areas, such as a study or living room. For large areas, however, your heating system will do the job more efficiently.

See the back cover for electric heating options from Great Lakes Energy.

Help Prevent Electrical Fires

Each year, electrical failures and malfunctions cause 43,900 home fires, resulting in 438 deaths, 1,430 injuries, and \$1.47 billion in property damage. Many home electrical fires can be prevented by understanding basic safety principles and practices:

▶ Use a licensed electrician to perform all electrical work in compliance with local and national safety standards.

▶ Consider replacing circuit breakers with arc fault circuit interrupters (AFCIs), which provide enhanced fire protection by detecting dangerous arcing conditions.

▶ Make sure all electrical panel circuits are properly labeled. Always replace fuses or circuit breakers with the correct size and amperage.

▶ Keep the area around the electrical panel clear so you can easily shut off power in an emergency.

▶ Use the TEST button monthly to check smoke alarms and make sure that ground fault circuit interrupters (GFCIs) at outlets and AFCIs are working properly.

▶ Be aware of warning signs, such as outlets and switches that are warm or make crackling, sizzling or buzzing noises.

▶ Regularly check cords, outlets and switches, and do not use damaged electrical devices.

▶ Do not use extension cords on a permanent basis, and never use them with space heaters or air conditioners.

▶ Avoid overloading outlets.

▶ Do not use lightbulbs that exceed the recommended wattage of the light fixture or lamp.

▶ Install smoke alarms in each bedroom, outside each sleeping area, and on every level.

▶ Create a family fire escape plan that includes two ways out of each room.

▶ Pick an easy-to-find meeting place outside, a safe distance from your home.

▶ Practice your escape plan by having at least two fire drills a year. One should be at night while your family is sleeping.

▶ If anyone in your household is deaf, or if your own hearing is diminished, consider installing a smoke alarm that uses a flashing light or vibration to alert you to a fire emergency.

Visit esfi.org for more electrical safety information and Fire Prevention Week (Oct. 6-12) resources.

Removing Dying Trees Before Trouble Strikes

Several hundred dead, dying and diseased (DDD) trees were removed so far as a result of a program started last year to identify trees outside Great Lakes Energy (GLE) right-of-way (ROW) areas that pose a threat to power lines.

“We do an excellent job of re-clearing trees *within* our rights-of-way that could fall into our lines,” says Steve Ryder, GLE’s vegetation management supervisor. “But we’re finding trees *outside* our rights-of-way are often a significant contributor to storm-related outages.”

Weeding out DDD trees outside right-of-way areas will require a long-term effort. It involves surveying hundreds of miles of overhead power lines that GLE operates along wooded areas. Cost is another factor that will determine the number of affected trees that can be identified and removed each year. Another challenge is the potential loss of more trees from insects and diseases that are already taking a heavy toll on some species. The emerald ash borer has killed millions of ash trees in Michigan alone.

Of the 3,721 DDD trees identified this year, 60 percent are ash trees plagued by the emerald ash borer, 20 percent are beech trees infected with beech scale, and the rest are miscellaneous species including oak trees suffering from oak wilt.

Summer interns Parker Ameal and Jameson Farinosi surveyed main power lines this year identifying and marking DDD trees for removal. The work of these college students will help keep the lights on for many Great Lakes Energy members. This is the second



Jameson Farinosi is one of two college interns who spent this summer surveying power lines for unhealthy trees that could pose a threat to Great Lakes Energy members’ electric service.

year interns were used to conduct the summer field audits.

The largest power lines are surveyed first, which enables the co-op to remove DDD trees that pose a threat to the greatest number of its members. Over 80 percent of the off-ROW areas along the largest circuits have been surveyed so far. That amounts to



A contracted worker removes a tree near Great Lakes Energy power lines. It is one of 3,400 dead, dying and diseased trees removed so far since a new vegetation management program to reduce tree-related outages was started last year.

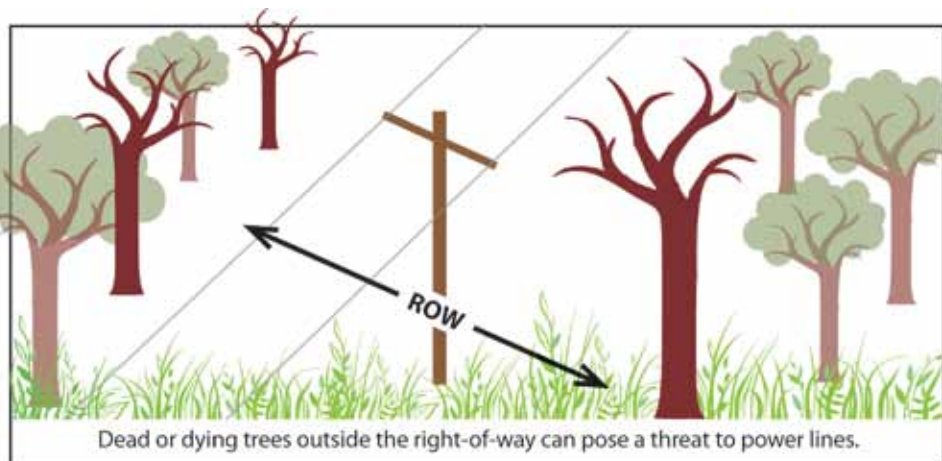
over 2,175 miles of line that were inspected. Re-inspections were also done in some areas this year where new tree infestation problems developed.

Many of these trees will eventually be removed by contracted tree-trimming crews. Each year, crews work a different region re-clearing trees and brush within the ROW. Great Lakes Energy members can expect to see them in their area every six to seven years. Any trees spotted outside the right-of-way that could be a danger to overhead wires are removed, too.

“The addition of the summer field audits to work already being done by our contracted tree trimmers allows us to step up our efforts in controlling what could become a bigger problem,” says Ryder.

The audits revealed DDD trees that contracted tree crews would not have been able to spot earlier. Trees that were healthy at the time crews were re-clearing the rights-of-way can become problems before they return again in a few years. Some trees, such as red oaks, can die within days or weeks after becoming infected.

Tree-related power line damage is a major cause of outages for Great Lakes Energy members. The DDD program is another important step in helping your co-op reach its annual goal of reducing average outage minutes.



Dead or dying trees outside the right-of-way can pose a threat to power lines.

Inspired By Todd

Twenty seven seasons of attending the National Trout Festival in Kalkaska, MI, has provided me with a cherished collection of memories. I've enjoyed it all, but browsing at the flea market and craft show is my favorite activity. I've met many interesting people whose handcrafted works bring joy, sometimes inspiration, to others.

Beth Donahue, of Johannesburg, is one such person. She made her Festival debut this year by selling sun catchers—those shimmering, eye-catching ornaments one might find dangling from the a back porch or the low branches of a tree. Her creations, which include elegant silk flower arrangements, are beautiful. But even more beautiful is the story of how these wonderful creations came to be.

Beth's son, Todd, was diagnosed with Jeune's syndrome not long after his birth in 1982. It's an aggressive disease that attacks specific vital organs. In Todd's case, his kidneys were severely damaged and by age four, he was undergoing frequent dialysis. By the time he was a teenager, he had endured several unsuccessful kidney transplants, but he kept a positive outlook towards better things to come.

In his personal life, Todd excelled in nearly everything he did. He was fair-minded, well-liked and approached everything with a positive attitude. When he graduated from high school in 2000, his entire class gave him a standing ovation. He responded by waving his diploma in the air, first running, then jumping across the stage, rock-star style.

On Jan. 10, 2003, Todd died. For Beth, life seemed suddenly empty.

"I thought I could get through the grief on my own," she said. "But I couldn't." She sought counseling, and then reached out to good friends she hadn't seen since before Todd was born. Through these friends, Beth met Kevin Donahue, fell in love, and got married.



Beth Donahue and Todd.



Eventually, the couple moved from Berkley to Johannesburg, making it difficult to visit and place fresh flowers regularly on Todd's gravesite. So, Beth began making silk floral wreaths that would last indefinitely. It wasn't long before she was making wreaths and flower arrangements for friends, as well.

One day, Beth was sitting on the porch, looking at a wind chime. A glint of light bounced off the mirrors attached above the chimes. She thought it would be interesting to attach beads, instead of chimes, to the tiny mirrors. And she thought of Todd. She said it was as if he was sending her a message: 'You can do it, Mom.'

It didn't take long for the idea to come alive, and with it came the beginning of a small business.

"I've never created anything," Beth said. "I spent 34 years at the phone company. I was a businesswoman, not an artist...but I wanted to do it."

In the beginning, Beth was thinking about naming the business Suncatchers, Etc. But then a friend suggested that she spell Suncatchers with an 'o' instead of a 'u' in honor of her son, Todd. Soncatchers, Etc. was born.



Photos Courtesy - Beth Donahue

Beth works from home now, creating sun catchers and floral arrangements to sell at local craft shows. She also does custom orders for events such as weddings, graduations and funerals.

"I've never had artistic abilities," she said. "Flower arranging...me? But I gave it a try and it took off."

As for the sun catchers, Beth said the ideas just keep flowing.

"Todd's inside me, somewhere. I know he is. And he keeps on telling me, 'Mom, you can do it!'"

Todd's strength of character, and the love his mom has for him, will always be a precious memory of love and inspiration for me, too, not only because I acquired two of his mom's sun catchers at this year's Trout Festival, but for a more personal reason: Todd is my husband's son. He's my son's older brother. And, yes, he's my stepson. He'll always be loved. And he'll never be forgotten.

Rock on, Todd. We miss you.

Margaret Thompson and Beth Donahue are both members of Great Lakes Energy Cooperative. Margaret is a freelance writer and retired nurse, and Beth is in the midst of starting a home business featuring her Michigan-made products—especially sun catchers and silk floral arrangements and wreaths. Find Beth at: SONCATCHERS, ETC., 586-557-5488, beth4u2c@gmail.com.



Designer METAL ROOFING!

SHOWCASE HOMES Wanted!

*We would like to use your home to showcase a beautiful American Metal Roof. Qualified homes can earn big discounts off the price of an American. Call today to see if your home qualifies. Call Jenn at:

1-888-221-1869

Note: Not all homes will qualify.

Place your home here!

Is your Vacation Home **PROTECTED** for the **WINTER?**

Country Manor in Forest Green

Get Special Offers at

See our Photo Gallery and Join our **SWEEPSTAKES** at **www.AmericanMetalRoofs.com**

Visit the American Metal Roofs Showrooms at

6140 Taylor Dr, Flint, MI 48507 and 1875 Lansing Rd, Charlotte, MI 48813



888-221-1869



Find us on Facebook
fb.me/AMRmichigan


IS METAL ROOFING THE BEST OPTION FOR YOUR CHURCH?

ONE OF OUR CHURCHES PROVED IT!

Dozens of Michigan churches have found that installing an American Metal Roof can save thousands of dollars in future roofing related expenses. One church we worked with conducted their own independent 50 Year Cost Analysis. The result? Proof positive of the long term savings offered by an American Metal Roof. Contact us today about a church roof and we'll give you a copy of their 50 Year Cost Analysis to study and compare with your church's situation. We believe you'll see what they saw; investing now for long-term savings is a wise use of precious resources. Whatever it takes, American Metal Roofs will design a program to fit the needs of your church. We Promise.





Your Touchstone Energy® Cooperative 

gtlakes.com

 facebook.com/greatlakesenergy



Affordable Heating Solutions

For • Chilly Bathrooms • Cold Rooms
• Cold Floors • Noisy Heaters



Plug-in and hard-wired units available only from your electric co-op

Choose Convectair heaters for your home!

Discover North America's most innovative line of electric space heaters. Convectair heaters use convection to evenly and silently distribute heat into your rooms.

Call today or visit our website for more information & pricing.

888-485-2537

gtlakes.com

Not regulated by the MPSC