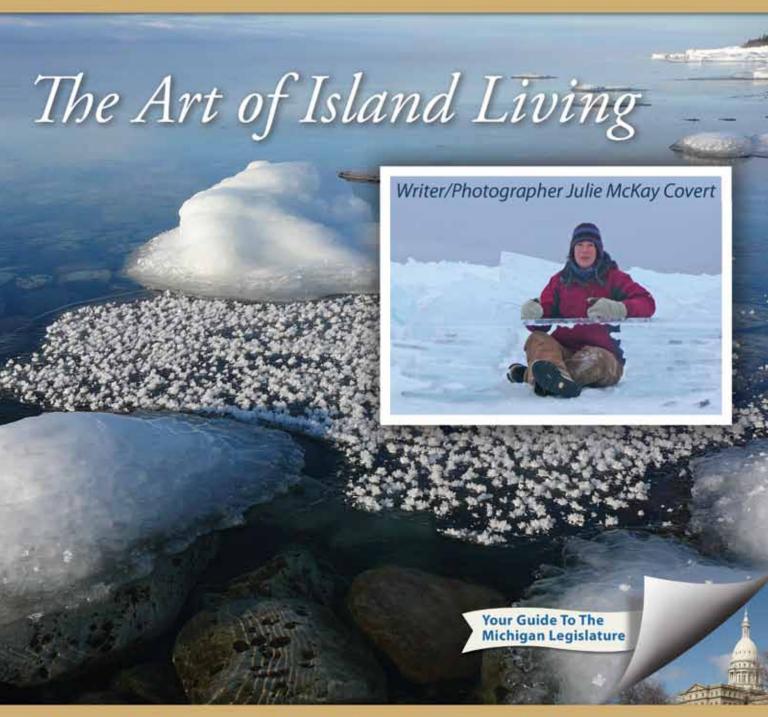
Michigan COUNTRY LINES





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

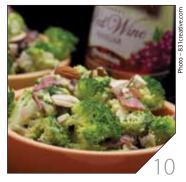
The appearance of advertising does not constitute an endorsement of the products or services advertised.

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





Michigan







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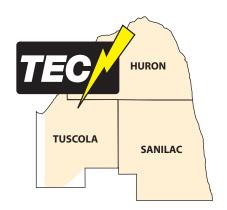
The 'Snow Bully' Nick Edson

On the Cover*

Writer/photographer Julie McKay Covert is featured with the cover photo from her book, "A Photographic Essay: Art of Winter." The book's photos were taken near her home on Shelter Island, MI.

Visit juliemckaycovert.com





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www.tecmi.coop

A New Year

t's January—the time when we make personal reflections on the past year and look forward to the new. It's the time when New Year's resolutions are made enthusiastically. Some of these resolutions make it through the year, while others fade away as the months pass, and some (like most of mine) don't make it past day two.

At Thumb Electric, we do something very similar. We look back at the accom-

plishments we made during the past year

and set goals for the new one. Whether it's



Dallas Braun General Manager

the past achievements or the new year's goals, there is one common factor that is crucial to the success of each—the 29 dedicated employees that work at your electric co-op. They all do their part to provide the best service available and ensure the delivery of safe, reliable and affordable electric service to 12,300 homes

and businesses throughout our service area.

On behalf of all the Thumb Electric Co-op employees who take care of the system, we wish everyone a happy and fulfilling New Year!



CARO WAREHOUSE employees from left: Rick Ewald, Brandon Bruce, Logan Tibbits, Brandon LeGault. Paul Voss, Richard Timko, Jeff Swick and

Mike Reece.

UBLY OFFICE employees from left: Clint Seidl, Doug Diem, Debbie Peruski, Angie Zagorski, Janice Sageman, Jennifer Roberts, Vicki LaBuhn, Michelle Braun, Jim Philp and Brad Essenmacher.



UBLY WAREHOUSE employees from left: Clarence Maurer, Al Rutkoski, Dennis Smalley, Jim Vogel, Mike Cleland, Mike Affer, Ray Kwiatkowski, Mike Kozlowski, John Zagorski and Ken O'Berski.

Staying Safe With Portable Generators

CARBON MONOXIDE HAZARDS:

- Always use generators outdoors. Never use them in homes, garages, basements, or enclosed areas, even with ventilation.
- Install battery-operated or plug-in (with battery backup) carbon monoxide (CO) alarms in your home, and follow manufacturer instructions. Test alarms often and replace batteries when needed.

ELECTRICAL HAZARDS:

- Plug appliances directly into the generator or use a heavy-duty outdoor-rated extension cord.
- Never plug a generator into a wall outlet or connect it to your home's wiring. If whole-house use is required, have a

licensed electrician install the equipment to safely connect emergency generators.



Contact Thumb Electric Cooperative at 989-658-8571 with any questions about using your generator safely!

Notice to Members of Thumb Electric Cooperative Case No. U-15821

2011 Renewable Energy Plan **Annual Report Summary**

The Michigan Public Service Commission (MPSC) requires all Michigan electric utilities to get approximately 2 percent of their power supply from renewable sources by 2012 and increasing to 10 percent by 2015.

Under this requirement, Thumb Electric Cooperative submits an annual report to the MPSC regarding its Renewable Energy Plan. As of 2011, Thumb acquired approximately 3,053 renewable energy credits, which is enough to satisfy the renewable energy standards.

A full copy of the cooperative's Renewable Energy Plan annual report that was filed with the MPSC is available on the cooperative's website at tecmi.coop or by request at Thumb's office.

Special Election Notice for TEC Members

In March 2013, a nominating committee of nine Thumb Electric Cooperative members will meet to select a slate of candidates for one director position in each of the three counties served by the cooperative.

Positions currently held by Randall Dhyse, Kim Nunn and Louis Wenzlaff will be voted on at the 2013 annual meeting.

Any co-op member interested in running for a district director position should write a letter to the Thumb Electric nominating committee chairperson prior to Feb. 11, 2013, indicating his or her interest in being nominated.

The committee will review the prospective nominee's qualifications to determine whether they meet bylaw requirements and whether he or she should be put on the ballot.

If you would like more information, please contact the co-op's general manager, Dallas Braun, at 800-327-0166 or 989-658-8571.



Annual Meeting Notice

Saturday, June 8, 2013 **Cass City Recreational Park** Business meeting begins at 10 a.m.

Tree-Trimming Schedule

Thumb Electric Cooperative's right-of-way clearing program will proceed as weather permits in the following townships of **Sanilac County:**

All lines in Speaker, Lexington, Buel, Elk, Lower Sanilac (lines south of M-46), Washington, and Watertown townships.



Partial lines in Elmer Township: Townline Road between Applegate and Walker roads. Corners of Walker, Frenchline, and Applegate roads where they intersect with Townline Road; Bridgehampton Township: Church Road between O'Connell and M-46 & Basler roads at the corner of Church Road.

Please call Thumb Electric at 989-658-8571 or 800-327-0166 if you have any questions or concerns.

Governor Says 'Work Together On Energy, Environmental Issues'

daptability has to be the foundation of every energy decision we make," Gov. Rick Snyder said in his December message on energy and the environment. "First," he emphasized, "we need to make sure our energy supplies are reliable." Using the adaptability theme, he noted three pillars that every decision must stand on:

#1 Reliable Energy

- Upgrade the transmission and electrical system to keep the economy growing.
- Michigan has growing reliability challenges, for example, the U.P. has 12 "yellow alerts" every year (meaning all it takes is for one more thing to go wrong and everybody's power could be out for days). Another is when the electrical grid went down in 2003, causing a widespread blackout in Michigan and the eastern U.S.
- The Wolverine Power/ We Energies plan to save the

Presque Isle Power Plant (see p. 20) is a good start, but "let's connect the Peninsulas" with

- Use more of our natural gas assets; many are on state land, it's better than coal, and we have prime areas to store it.
- "Fracking" to retrieve natural gas. "It's been done here safely for over a decade because we're doing it the right way."

#2 Affordable Energy

• Our electric prices are the highest in the Midwest because we have to import coal.

- Energy efficiency supports jobs, saves energy, money, and is good for the environment.
- Conserve more energy. Since 2010, over 1,700 Michiganders have used funds from the "Michigan Saves" program (michigansaves.org) to improve their homes and save about \$350 in yearly energy costs. The program is expanding to include businesses like small grocery and convenience stores.
- In 2012, private financial institutions statewide offered over \$68 million for efficiency improvements in buildings.
- Energy use in state buildings has been reduced nearly 25 percent; upgrades continue.
- Find steady funding to help low-income people with heating costs. Utilities must work closer with people before shutting the power off.

#3 Protect the Environment

- Energy and the environment must be considered together in preserving land, water and trails. The DNR is to offer better land/trail use options by spring. Link our trails to other states.
- Aggressively educate, prevent and defend against over

Ensuring Michigan's **Future**

"There are things we can do today that benefit us right now and pay dividends tomorrow, no matter what the future holds."

180 invasive species threatening our waters (i.e., Asian carp).

- Merge scientific/economic/ environmental practices into one water protection system. Invite Great Lakes Governors to a 2013 summit.
- Re-establish a Water Use Advisory Council. Strategize on inland lake and drought issues.
- Battle urban blight and plan for vacant land use (i.e., urban farming). Toughen landlord laws and bar property tax delinquents from land auctions.
- Help farmers and agribusinesses comply with environmental regulations.
- Improve recycling; create a plan by 2014. (Only 21 of 83 counties have strong programs.)
- Raise renewable energy use through legislation—not the Constitution; discuss this year.

See the Governor's full speech at: michigan.gov/documents/ snyder/EE Message FINAL pdf 404563 7.pdf



Thanks to all who helped electric co-ops support opposition to Proposition 3 on the November ballot. We also thank everyone who took time to write us a letter, whether pro or con, on the issue.

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

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



■ DO YOU KNOW WHERE THIS IS?

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

We do not accept Mystery Photo guesses by phone! Email mysteryphoto@ countrylines.com, or send by mail to Country Lines Mystery Photo, 2859 W. Jolly Rd., Okemos, 48864. Include your name, address, phone number and name of your co-op. Only those sending complete information will be entered in the drawing. The winner will be announced in the March 2013 issue.

The Nov./Dec. contest winner is Jeanne Moore of Gaylord, who correctly identified the photo from the Michigan Historical Museum in Lansing.



Electric Co-ops Choose New National Leader

o Ann Emerson, a nineterm Congresswoman, was recently chosen as the new CEO of the National Rural Electric Cooperative Association (NRECA).

Emerson succeeds Glenn English, a former Democratic Congressman who served NRECA well for 19 years.

Coupled with her Congressional work, Emerson's earlier executive roles with the National Restaurant Association and the American Insurance Association, plus extensive knowledge of electric co-op issues, makes her the best choice to lead NRECA, said Mike Guidry, board president. "The respect she has from both sides of the aisle and her proven ability to bridge political and policy

divides to find common ground will serve NRECA and all member co-ops very well."

First elected in 1996, she is the first Republican woman from Missouri to serve in the U.S. House. She has served on the House Appropriations Committee and chaired the Financial Services and General Government Appropriations Subcommittee, which oversees the U.S. Treasury, Internal Revenue Service, and various independent agencies, including the Federal Communications Commission.

Besides leadership roles in agriculture, health care and government reform, she won recognition for her work on energy, including the 2006 NRECA Distinguished Service Award.

"Without reliable, affordable



U.S. Rep. Jo Ann Emerson (R-MO), right, NRECA CEO-designate, meets with 2011 Rural Electric Youth Tour students from Missouri outside House chambers at the U.S. Capitol.

electricity delivered by electric cooperatives serving thousands of communities, millions of Americans would be left without the energy that brings economic opportunity, unsurpassed quality of life, and the promise of growth in the future," Emerson said. "NRECA is committed to the electric co-ops of this great nation, and works hard every day

to improve the quality of life for their consumer-members. I am very honored to join an outstanding organization to work on their behalf."

She assumes her new duties March 1, but will be introduced to NRECA members, which total over 900 co-ops, employees and directors from 48 states, at their annual meeting in February.





I want to contribute to a cookbook by Thumb Electric Co-op members and employees. Please use my enclosed recipes.

lame (please print)	_
Nailing Address	_
	-
hone Number	_
mail	_

Include this entry form and mail your recipes by May 1, 2013, to:

Cookbook, Thumb Electric Cooperative, 2231 Main St., Ubly, MI 48475-0157
Or email the above information along with your recipes to tec@tecmi.coop.

Why Does the Power 'Blink'?

ost of us have experienced returning home or awakening late for work to see a blinking "12:00" on the digital alarm clock. Then, you have to reset every digital clock in the house that doesn't have a battery backup. Usually, this event is caused by a "blink" in the electrical system.

While blinks are annoying, they actually show that the system is working properly. And, while your co-op has taken steps to reduce the number of blinks across its system, there are steps you can take, too.

These short power interruptions can occur anywhere along a system—from the time electrons are generated at a power plant to when they travel across transmission lines to substations and then to your home.

Blinks are created when a breaker, or switch, opens along any part of the system. The breaker usually opens because of a large, quick rise of electrical current, which can occur when a tree branch touches a line, lightning strikes, or a wire breaks.

As this happens, a relay senses the "fault" and tells the breaker to open, which prevents power flow to the problem site. The breaker quickly closes again, but the brief delay allows the fault to clear and usually lasts under 2 seconds. If the fault clears, every home or business receiving electricity off that line experiences a blink. This could include thousands of accounts if the breaker protects a transmission line or substation.

Thumb Electric Cooperative operates an active vegetation maintenance program and works hard to identify and fix service interruption sources. Even though blinks will never disappear, by working together we can minimize their effect and frequency.

You can reduce some of the frustration of blinks by buying an alarm clock with a battery backup. These models offer "ride through" ability for momentary outages. With a charged battery in place, it will also keep the correct time and sound an alarm in case of a long outage. These devices only use the battery during a power interruption.

Blinks affect all electrical equipment. If one occurs when you are using a computer, it may crash and need to re-boot, with possible corruption or loss of files. An uninterruptible power supply (UPS) on your computer can help prevent such loss. The UPS uses surge suppression technology with a battery backup to give you time to save what you were working on and exit the computer properly.

Thumb Electric Cooperative



Energy Efficiency Loan Program

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

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



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



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

The Art of Island Living

ulie McKay Covert likes to sit at her dining room table, cradling a steaming mug of hot chocolate and looking out over the treetops at Lake Huron. Two sides of the dining room are windows, and from this vantage point on the second story of her snug, 1,200-square-foot house, she has a bird'seye view. Depending on the season, the daily show includes cedar waxwings, warblers, snow buntings, ravens, and even bald eagles.

The variety and abundance of wildlife on Shelter Island is just one of the tradeoffs that Julie, and her husband Hugh, embrace in their life as the only people living on the 40-acre island they own in Lake Huron. The island is located just off the southeastern tip of Drummond Island, in the far eastern Upper Peninsula. Hugh works as a captain of tall ships, among other pursuits, and bought the island nine years ago and built a home and lifestyle that reflect his love for sailing the Great Lakes. He designed the open-plan house to withstand the rigors of wilderness living.

The first story of their house is used for storage and utility areas, in order to be thoroughly bear-proof—the second story is their living space.

"We enjoy all of our fuzzy, furry friends that live out in the woods with us," Julie says. The thin topsoil cover precludes gardening, and the wildlife and isolation make the idea of owning pets or farm



animals like chickens or pigs impractical for the Coverts. "How do you ask someone to come out and care for animals when you live where we do?" she laughs.

A massage and bodywork therapist, and book author of "The Insightful Body," Julie spends much of her time traveling to conduct classes for her business, Island Wellness Center, located on Drummond Island. At work, she is a member of Cloverland Electric Cooperative, but at home, the Coverts live "off the grid." Three years ago, as a bride, Julie moved into an island home that uses wood and propane for heating, cooking and refrigeration, and solar panels for electricity.

"I loved it immediately," she says. Her new husband encouraged her to explore all



Oh Winter, the wool is no longer pulled over my eyes; it is knitted into the earflaps of my hat. However, I don't tie them tight, so I may hear your harmonious whispers. Oh, the glorious music that the frozen lake plays—chirps and twitters and melodic notes and ethereal harmonics conjure frogs, birds, violins, dolphins and synthesizers. These are songs from the heavenly bodies. These stunning sights and luscious sounds mix with the smell of tasty air to create your glorious symphony. Your orchestra only plays for those of us who, at the same time, are brave and fool hardy. You make no promises of what you will unveil. Only to those who dare to venture out, away from tales of soft winds and vibrant flowers, away from cozy warm stoves and marshmallows floating in hot chocolate, will you display your glory. I dared and am fool no longer. Spring will valiantly burst rainbows over hill and dale. When shed of encumbrances, Summer is joyful. Bright crimson and gold crunching leaves once made me love Fall. Oh, but Winter, I never knew 'til now your true riches. Winter, you are my joy and love, like no other. I will miss you when Spring comes forth and I will wait with parka by the door for your return. The photos and essay on these pages are from Julie McKay Covert's coffee table book, "Art of Winter: A Photographic Essay," pictured top left.

four seasons of the wilderness outside their door. "Go play in the 'big room,' Hugh would tell me. I saw absolutely beautiful sights that the snow, the ice, and the light were creating," she recalls.

Struck by the fleeting quality of the winter beauty surrounding her, she would see a breathtaking arrangement of ice and light and hoarfrost, but passing the same spot 10 minutes later it would all have changed. A long-time photographer, Julie began to carry a camera on all of her

walks in order to capture the changeable winter scenery for family and friends. "I would put pictures on my blog to show people things they'd never see otherwise," explains. She collected enough photos in her wanderings to self-publish a small book as a gift for guests and family. They urged her to seek out a wider audience, and the result is her second book, "Art of Winter," which was published this year.

"I started this for fun," Julie says. "Living like this has always been a dream."

Learn more about Julie McKay Covert's books and businesses at JulieMCovert.com or call 443-604-1981, e-mail Julie@JulieMCovert.com, or write to her at 38300 S. Shelter Island, Drummond Island, MI 49726.



Writer/photographer Julie McKay Covert and her husband, Hugh, enjoy winter on Shelter Island.



Salads can be a great addition to a meal, or even the main event. If you're bored of the same old salads, try one of these.

Pear Salad with Gorgonzola Dressing (Pictured above)

1 12-oz. bag spring mix lettuce 1 fresh or canned pear, peeled and chopped dried cherries candied walnuts

Dressing:

1 fresh or canned pear, peeled and finely

1 t. olive oil

1/3 c. white vinegar

1/4 c. lemon juice

1 T. dijon mustard

3 T. agave syrup or honey (add more for sweeter)

3 T. crumbled gorgonzola cheese dash salt

dash pepper

Mix all dressing ingredients together. Layer lettuce, pear pieces, cherries and walnuts on a plate. You can also add grilled chicken. Serve with dressing and french bread.

Christin McKamey

Tasty Tree Salad

2 bunches broccoli, trimmed and chopped 8 strips bacon, cooked and crumbled

1 c. raisins

1/2 c. chopped onion

1/2 c. slivered almonds

1 c. mayonnaise

2 t. red wine vinegar

Mix all ingredients and chill salad in refrigerator overnight before serving. For a lower fat version, use only 4 strips of bacon and substitute plain yogurt for the mayonnaise. Toni Monton, Custer

Spinach Strawberry Pecan Salad

2 bags spinach, rinsed and dried 1 pint strawberries, sliced 1 c. toasted pecan pieces (toast for 15 min. at 300°; watch closely)

Dressing:

1/3 c. white vinegar

3/4 c. sugar

1 t. dry mustard

1 t. salt

1½ t. minced onion

1 c. vegetable oil

1½ T. poppy seeds

Mix dressing ingredients in blender. Place spinach, strawberries, and pecans in large bowl. Toss with dressing just before serving. Marianne O'Neill, Dryden

Dill Tuna Salad

4 c. small shells or penne pasta, cooked 1 large can white tuna in water

1 c. celery, diced small

1/2 c. chopped green onions, including tops

1 c. frozen peas

1/4 c. fresh parsley, minced

10 ozs. plain greek yogurt

1 c. mayonnaise

1/4 c. fresh lemon juice

2 T. fresh dill, snipped

1/2 t. salt

1/4 t. white pepper

In a large bowl, combine pasta, tuna, celery, onions, peas and parsley. In a small bowl, combine yogurt, mayonnaise, lemon juice, dill, salt and pepper. Pour sauce over pasta and toss gently. Cover and refrigerate at least 2 hours.

Mary Babcock, Port Austin

Snicker Salad

6 large delicious apples, unpeeled, chopped 6 2-oz. Snickers® candy bars, chopped 1 12-oz. carton whipped topping 1/2 c. pecans, chopped (optional) In a large bowl, combine apples, candy bar pieces and pecans. Mix well. Mix in whipped topping. Refrigerate. Best served the same day. It's a unique salad that the entire family will love!

Denise Halgren, Niles

Cauliflower Salad

1 small head lettuce, broken up 1 small head cauliflower, cut up 1 small red onion, finely diced 1/4 lb. bacon, fried and crumbled 1/2 c. slivered almonds 8 ozs. mayonnaise 1 small can parmesan cheese

1/4 c. sugar

Prepare veggies and mix with bacon and almonds. Mix together the mayonnaise, parmesan and sugar. Dress veggies with mayonnaise mixture just before serving.

Marlene Pitts, Farwell

Chinese Coleslaw

2 packages chicken flavored ramen noodles (uncooked)

1 c. sunflower seeds

1 small package sliced almonds

4 green onions, chopped

1 bunch fresh broccoli, chopped

1/2 c. oil

1/3 c. red wine vinegar

3/4 c. sugar

Crunch ramen noodles in the bag before opening and set seasoning packets aside. Put noodles in a bowl and add sunflower seeds, almonds, onions, and broccoli. In a separate bowl, mix the seasoning packets, oil, vinegar and sugar together, making sure sugar dissolves. Pour dressing over the noodle mixture and chill 8 to 12 hours or overnight.

Deborah Buck, Cassopolis

Pasta Veggie Salad

2 c. cooked tube pasta, drained and rinsed 1 zucchini squash, cubed 1 yellow summer squash, cubed

1 sweet red pepper, cut into bite-size pieces 1/2 green pepper, cut into bite-size pieces

1 cucumber, cubed

3 to 4 green onions, chopped

Dressing:

1/2 t. black pepper

1/2 t. salt

3/4 t. garlic powder

3/4 t. dried minced onions

Congratulations to our 2012 Recipe Contest Winner!

Paula Brousseau's name was drawn from all those whose recipes we printed in 2012 and Country Lines magazine will pay her January electric bill as a prize.

Paula, a Great Lakes Energy member from Bellaire, has been an electric co-op member for over 50 years and tried many recipes printed in Country Lines before she decided to start sending hers in, which she has now been doing for years.

Thank you, Paula, and all of our readers who shared their great recipes in 2012!



3/4 t. dry mustard 1/4 c. sugar 1/4 c. white wine vinegar 1/4 c. vegetable oil Add all vegetables to pasta. Keep salad chilled. For dressing, combine dry spices then add sugar, vinegar and oil. Pour dressing over salad an hour or two before serving.

Michele Jewell, Alba

Mandarin Chicken Salad

2 c. macaroni rings, cooked, rinsed and chilled

2 c. cooked chicken (about 4 breasts), chopped

1 T. minced onion

1 t. salt

1½ c. green grapes

1 c. mandarin oranges

1/2 c. sliced almonds

1/2 c. chopped celery

1 c. mayo

1 c. whipped cream

Combine chicken, onion and salt. Chill. Mix macaroni, grapes, celery, oranges, almonds and mayo; combine with chicken mixture. Just before serving, fold in whipped cream. Suzanne Hammerstrom, Hancock

Quick Taco Salad

4 c. iceberg lettuce, shredded

1 c. taco cheese

1 c. tomatoes, diced

1 c. nacho Dorito chips, crushed

1 c. uncooked ground beef

1 package taco seasoning

1/4 c. diced green peppers

thousand island dressing, to taste

Dice all veggies and place into a large bowl. Cook ground beef over medium heat and add taco seasoning. Allow to cool before adding to the salad. Toss with thousand island dressing. Add Dorito chips and serve immediately. Danielle Cochran, Grayling



2 lbs. red grapes

2 lbs. green grapes

8 oz. cream cheese

8 oz. sour cream

1/2 c. sugar

1 t. vanilla

1 c. brown sugar

1/2 c. chopped pecans

Wash and dry grapes. Beat cream cheese, sour cream, sugar and vanilla. Add grapes and stir. Before serving, sprinkle with brown sugar and pecans.

Marcia Rosa, Chase

Tortellini and Veggie Salad

2 bags refrigerated cheese tortellini 3 jars olives (each different), drained 1 whole red onion, cut into chunks

3 colored sweet peppers, cut into chunks

1 package cherry or grape tomatoes

1 c. celery, cut into chunks

1 c. carrots, sliced

2 cucumbers, with peel, cut into chunks

1 small zucchini squash, cut into chunks

1 package pepperoni slices

Dressing:

1/2 c. balsamic vinegar

1 bottle Kraft Sun-dried Tomato Dressing

2 T. McCormick Salad Supreme seasoning Cook tortellini as directed and cool. Mix

dressing ingredients with tortellini then combine and add the rest of the ingredients 2 hours before serving. Garnish with fresh basil or parsley.

Jan Vaughn, Vestaburg



2 t. prepared mustard

1 t. grated onion dash of salt

1 c. vegetable oil

1 t. poppy seeds

1 medium bunch romaine lettuce, torn

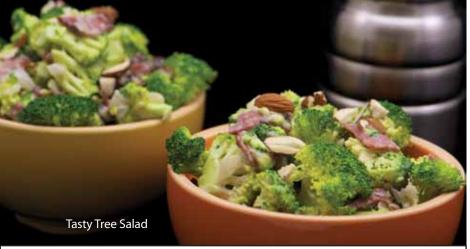
1 c. salted cashew halves

4 oz. swiss cheese, julienned

In a blender, combine vinegar, sugar, mustard, onion and salt. Cover and process until well blended. While processing, gradually add oil in a steady stream. Stir in poppy seeds. In salad bowl, combine romaine, cashews and Swiss cheese; serve with dressing. Serves 8 to 10.

Julie Grulke, Cheboygan

Photography by: 831 Creative



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 Jan. 2014 issue.

Thanks to all who sent in recipes! Upcoming: Please send in ASIAN INSPIRED recipes by Feb. 10 and MEXICAN recipes by March 10. Mail to: Country Lines Recipes, 2859 W. Jolly Rd., Okemos, MI 48864; or email recipes@countrylines.com.

Making Strides with Clean-Coal Technology

The Cooperative Research Network pursues new solutions that help Michigan electric co-ops deliver safe, reliable and affordable power to you.

espite the recent "green" energy revolution and the rapid expansion of natural gas drilling rigs across America, our nation's primary fuel for producing electricity is coal—as it has been for over a century.

Electricity generated by coal fell from 42 percent in 2011 to 37.5 percent in 2012, largely because of low natural gas prices, the retirement of older coal-fired power plants due to new emissions regulations from the Environmental Protection Agency (EPA), and uncertainty about further regulations.

But coal is far from dead. Electricity from coal is predicted to rise about 3 percent this year while the natural gas contribution drops from 30.5 percent to 27.3 percent, according to the U.S. Energy Information Administration's (EIA) Short-Term Energy Outlook. And, natural gas prices are forecasted to rise this year due to higher demand and a slowdown in production.

"Coal still has a future as a source of electricity," says Craig Borr, president/CEO of the Michigan Electric Cooperative Association. "Whether you are for or against the use of coal to generate electricity, the fact is the United States remains home to the world's largest coal reserves. That's why electric co-ops are fully behind efforts to explore and test clean-coal technologies."

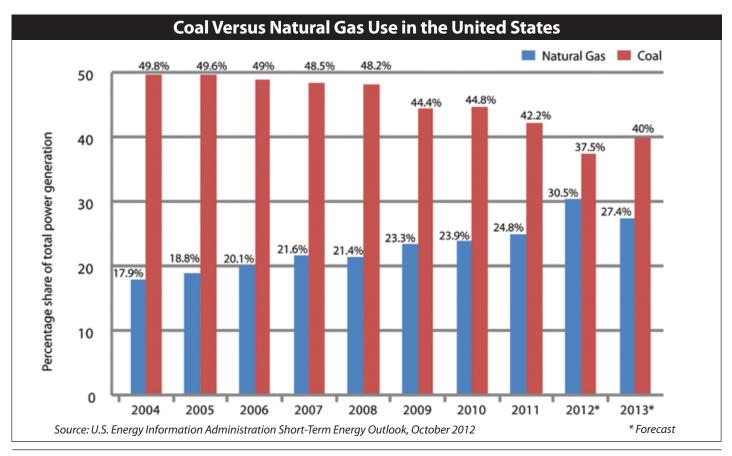
One driver is the EPA's Mercury and Air Toxics Standards rule, designed to significantly curb emissions of hazardous air pollutants (i.e., mercury and arsenic) from coal- and oil-fired plants 25 MW or larger by 2016. Some coal-fired plants will be shut down, rather than retrofitted, because the needed changes would be too costly to implement.

Electric co-ops and their trade association, the National Rural Electric Cooperative Association (NRECA), are exploring new approaches to burn coal more cleanly. NRE-CA's Cooperative Research Network (CRN) recently finished demonstrating an innovative new multi-pollutant control system that shows promise for helping coal-fired power plants meet stringent EPA emissions standards at a fraction of the cost of traditional measures.

The demonstration was conducted in July 2012 at an Arizona generation and transmission co-op (G&T). The results showed significant emission reductions by combining mercury controls—which CRN successfully tested earlier at a Texas G&T—with trona (a naturally occurring mineral similar to baking soda). The tested technologies also cut the cost of meeting new environmental rules by a factor of five to 10.

Results for these full-scale power plants were very encouraging, but based on shortterm runs, says John Hewa Jr., NRECA vice president of engineering, research & technical services. "To verify long-term performance, the results need to be confirmed with extended trials."

Electric co-ops support the multi-pollutant control technologies CRN is studying because they can learn how to best use one of our most abundant natural resources, coal, to continue providing safe, reliable and environmentally responsible power at the lowest possible rates.



Your Guide to the Michigan Legislature

Please pull out this guide and use it as you get to know the legislators in your co-op service area.

Who's Your Senator?

he state senators on this page represent districts that overlap electric co-op service areas. Although electric co-op issues are but a small part of their overall responsibilities, they have generally been supportive of the co-op agenda, which rests on the premise that as self-governed, member-owned and not-for-profit utilities, co-ops and their members ought to be treated differently than for-profit utilities.

► Find Your State Senator at senate.mi.gov

Alger Delta & Ontonagon



38th District (R) Tom Casperson 1st Term 517-373-7840

Thumb



31st District (R) Mike Green 1st Term 517-373-1777

Cloverland



37th District (R) **Howard Walker** 1st Term 517-373-2413



38th District (R) **Tom Casperson** 1st Term 517-373-7840

Cherryland



35th District (R) **Darwin Booher** 1st Term 517-373-1725



37th District (R) **Howard Walker** 1st Term 517-373-2413

Presque Isle



36th District (R) John Moolenaar 1st Term 517-373-7946



37th District (R) **Howard Walker** 1st Term 517-373-2413

HomeWorks



22nd District (R) Joe Hune 1st Term 517-373-2420



23rd District (D) **Gretchen Whitmer** 2nd Term 517-373-1734

Great Lakes



24th District (R) **Rick Jones** 1st Term 517-373-3447

34th District (R)

Goeff Hansen

517-373-1635



28th District (R) Mark Jansen 2nd Term 517-373-0797



30th District (R) **Arlan Meekhof** 1st Term 517-373-6920



33rd District (R) **Judy Emmons** 1st Term 517-373-3760



35th District (R) **Darwin Booher** 517-373-1725



36th District (R) John Moolenaar 517-373-7946



37th District (R) **Howard Walker** 517-373-2413

Midwest



16th District (R) **Bruce Caswell** 1st Term 517-373-5932



20th District (R) Tonya Schuitmaker 1st Term 517-373-0793



21st District (R) John Proos 517-373-6960



24th District (R) **Rick Jones** 1st Term 517-373-3447



32nd District (R) Roger Kahn 2nd Term 517-373-1760



33rd District (R) **Judy Emmons** 1st Term 517-373-3760



35th District (R) **Darwin Booher** 1st Term 517-373-1725

Find Your State Representative

Who's Your State Representative?

very 10 years, the Michigan Legislature goes through a redistricting process based on census information. Depending on population numbers, some districts were redrawn and some remain the same. Thus, there is a possibility that you may have a new legislator because of changed district lines or, due to term limits, someone new was elected.

In the House of Representatives, Republicans continue to hold the majority of 59-51. There will be 28 new faces in Lansing. Of the 28, 19 are Democrats and 9 are Republicans.

The state representatives on these pages represent a cross-section of Michigan. Whatever their background, most represent districts with large rural populations—areas where electric co-ops serve. In fact, several legislators are electric co-op members themselves.

Legislation affecting cooperatives and their owners most likely originates in those committees covering utilities, energy, technology, transportation, environment, land use, safety and taxes.

> Find Your State Representative at house.mi.gov



Cherryland Electric



101st District (R) **Ray Franz** 2nd Term 517-373-0825



102nd District (R) **Phil Potvin** 2nd Term 517-373-1747



103rd District (R) **Bruce Rendon** 2nd Term 517-373-3817



104th District (R) **Wavne Schmidt** 3rd Term 517-373-1766



Alger Delta Electric

Scott Dianda 1st Term 517-373-0850



108th District (R) **Ed McBroom** 2nd Term 517-373-0156



109th District (D) John Kivela 1st Term 517-373-0498



110th District (D) **Scott Dianda** 1st Term 517-373-0850

HomeWorks Tri-County



65th District (R) Mike Shirkey 2nd Term 517-373-1775





67th District (D) **Tom Cochran** 1st Term 517-373-0587



70th District (R) **Rick Outman** 2nd Term 517-373-0834



71st District (D) Theresa Abed 1st Term 517-373-0853



86th District (R) Lisa Posthumus Lyons • 2nd Term 517-373-0846



87th District (R) Mike Callton 2nd Term 517-373-0842



Cloverland Electric

107th District (R) **Frank Foster** 2nd Term 517-373-2629



108th District (R) **Ed McBroom** 2nd Term 517-373-0156



109th District (D) John Kivela 1st Term 517-373-0498



93rd District (R) **Tom Leonard** 1st Term 517-373-1778



97th District (R) Joel Johnson 2nd Term 517-373-8962



99th District (R) **Kevin Cotter** 2nd Term 517-373-1789



102nd District (R) **Phil Potvin** 2nd Term 517-373-1747

Presque Isle Electric & Gas



105th District (R) **Greg MacMaster** 2nd Term 517-373-0829



106th District (R) **Peter Pettalia** 2nd Term 517-373-0833



107th District (R) Frank Foster 2nd Term 517-373-2629

Great Lakes Energy



70th District (R) **Rick Outman** 2nd Term 517-373-0834



72nd District (R) KenYonker 2nd Term 517-373-0840



73rd District (R) Peter MacGregor 2nd Term 517-373-0218



Thumb Electric



83rd District (R) **Paul Muxlow** 2nd Term 517-373-0835



84th District (D) **Terry Brown** 3rd Term 517-373-0476



Robert VerHeulen 1st Term 517-373-8900

89th District (R)

Amanda Price

2nd Term

517-373-0838



80th District (R) Bob Genetski II 1st Term 517-373-0839



87th District (R) Mike Callton 2nd Term 517-373-0842



88th District (R) **Roger Victory** 1st Term 517-373-0836

Midwest Energy



56th District (R) **Dale Zorn** 2nd Term 517-373-2617



57th District (R) **Nancy Jenkins** 2nd Term 517-373-1706



59th District (R) **Matt Lori** 3rd Term 517-373-0832



100th District (R) Jon Bumstead 2nd Term



90th District (R) Joseph Haveman 3rd Term 517-373-0830



91sth District (D) **Collene Lamonte** 1st Term 517-373-3436



97th District (R) Joel Johnson 2nd Term 517-373-8962



61st District (R) Margaret O'Brien 2nd Term 517-373-1774



63rd District (R) Jase Bolger 3rd Term 517-373-1787

78th District (R)

Dave Pagel

1st Term

517-373-1796



65th District (R) Mike Shirkey 2nd Term 517-373-1775



66th District (R) **Aric Nesbitt** 2nd Term 517-373-1784



79th District (R) Al Pscholka 2nd Term 517-373-1403



101st District (R) Ray Franz 2nd Term 517-373-7317 517-373-0825





102nd District (R) **Phil Potvin** 2nd Term 517-373-1747



103rd District (R) **Bruce Rendon** 2nd Term 517-373-3817



104th District (R) Wayne Schmidt 3rd Term 517-373-1766



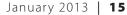
105th District (R) **Greg MacMaster** 2nd Term 517-373-0829



106th District (R) Peter Pettalia 2nd Term 517-373-0833



107th District (R) Frank Foster 2nd Term 517-373-2629





Be a Fam With a Plan

which making an easy plan that can save lives an imposs and community pr Resolve to be emergency-ready this year by making an easy plan that can save lives and property. Following these simple steps can help your family, home, business and community prepare for a fierce winter storm or other disaster...

BEFORE

Communicate. Talk with your family about who to call, where to go, and what to do during an emergency. Talk with neighbors about how to work together if disaster strikes.

Educate. Plan different strategies for different situations. Map out a fire escape route from all areas of your home, and establish a safe place to go during threatening weather. Make sure all family members know their full name, address and phone numbers. Agree on an out-of-town relative or friend to call if everyone gets separated, and have an ICE (In Case of Emergency) contact in your cell phone that first responders can call. For example, if you had to evacuate, where would you go? How would you reach your kids at school or your spouse at work? Also consider being an educator for safety and emergency preparedness in your community by calling your local Citizen Corps.

If you are a parent, or guardian of an elderly person with special needs, including kids and adults with disabilities, make sure schools and care providers have emergency plans. Ask how they will communicate with families during a crisis, whether they store adequate food, water and other basics, if they are prepared to "shelter-in-place," and where they will go if they must evacuate.

Prepare. Use technology to help, for example: Learn how to send updates by text and

internet from a cell phone to contacts and social channels in case voice communications become unavailable.

- Store important documents such as personal and financial records in the cloud or on a USB stick that can be kept ready and accessible from anywhere;
- Visit ready.gov or call 800-237-3239 (text 800-462-7585) or ready.gov/michigan to stay informed and get free templates for creating emergency documents and plans for homes and businesses:
- Make sure fire detectors and carbon monoxide alarms are working by installing fresh batteries annually. Use a battery-

operated weather radio for advance storm warnings, and subscribe to your local Office of Emergency Management alerts by text or email, if available.

■ If you have a land-line phone, it will work without electricity; keep emergency numbers next to it.

Keep an emergency supply kit:

- Five days worth of non-perishable food and water, first aid supplies, phone numbers (including your electric co-op and other utility outage numbers), medicines, and cleaning supplies.
- Include items for meeting unique needs, such as:
 - Prescription medications and glasses;
 - Infant formula and diapers;
- Food, extra water, and a leash and collar for your pet;
- Important documents, such as copies of insurance policies, identification, and bank account records in a waterproof, portable container;
- Books, games, puzzles or other activities for kids;
- Keep an emergency kit in the car, too, including water, food and first aid supplies in the event you lose power or get stranded in the car during a winter storm. (Consider including a cell phone charger that works in the car outlet).

DURING & AFTER

Keep calm. Think clearly and follow your plan. Use the resources you prepared.

Be patient. Wait for all danger to pass. If an area is evacuated, never re-enter without permission, and remember to use caution when you go back into your home—you can't always see danger, such as a ruptured gas line.

Avoid delayed danger. Do not approach downed wires or power lines, watch for rising waters, and see the box on this page for more electrical safety tips.

Practice your emergency plan, and encourage friends and community members to take - Kelly Trapnell these simple steps, too.

Winter Storm Electrical Safety Tips

- Never touch a fallen power line and report it immediately to your local electric co-op. Assume all downed wires are electrically charged. Avoid contact with overhead lines during clean-up and other activities.
- In an outage, an alternate fuel or wood-burning heating source—such as a fireplace, propane space heater, or wood stove—may be used, but use extreme caution by following the manufacturer's directions and venting them properly.
- Do not use a gas oven for heating—it may go out or burn inefficiently, leading to carbon monoxide poisoning.
- Make sure carbon monoxide and smoke detectors are working properly.
- Do not use a gas or charcoal grill inside the home, and do not use charcoal briquettes in the fireplace.
- If using a portable generator to power a heating source, be sure the generator is located outside your house for proper ventilation. Do not use a generator in an attached garage, and follow the manufacturer's operating instructions.
- Do not overload a generator. Use properly-sized extension cords that have a grounded three-prong plug and are in good condition. Never run cords under rugs or carpets.
- Never connect generators directly to power lines—the reverse flow of electricity can electrocute an unsuspecting utility worker.
- ► Watch the elderly and young kids for signs of hypothermia, which include shivering, drowsiness, and mental and physical slowness. Call 911 immediately.

- Chris Grammes

A Blizzard of Kindness

o one will forget the "big one" of March 2nd, 2012. Over 2 feet of heavy, wet snow fell overnight throughout northern Michigan, and left thousands of people without power. Some weren't prepared and needed food and water. Cars were left vacant in ditches on the roadside. Others were stuck at home because the snow was too heavy and deep to shovel. Fallen trees canvassed the landscape and roadways, making it hard to navigate and dangerous to even walk your dog. But the blizzard, in all it's fury, couldn't match the warm generosity and overflowing kindness that began to grow...

Love Thy Neighbor

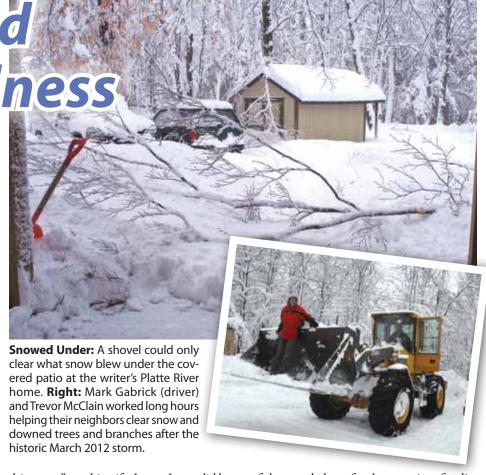
After waking up to a gorgeous view of trees blanketed in snow it was time to dig out and get households in order. Snowplow trucks, snow blowers, and the occasional front loader quickly turned a serene, quiet morning into a full war on snow removal.

Amy Rose of McBain was one of those who felt blessed when her driveway was suddenly cleared. "A young man with a front loader showed up on my street and just started clearing driveways, expecting no money in return. He helped so many people that day!"

Mark Gabrick of Lake Ann and Trevor McClain of Traverse City logged in 36 hours clearing driveways and roadways of snow and fallen trees. Amy and Kyle Rosa were one of the first recipients of Gabrick's generosity. "My husband Kyle is a deputy for Benzie County and needed to get his patrol car out for work. Mark came over with his loader right away and wouldn't take any money for it," says Rosa. "It was just another day in the work of the Lord," says Gabrick. "We saw the need and answered the call."

Feeling Good in the Neighborhood

Tom and Laura Phillips of Traverse City felt guilty about having a generator while others went without power, but they didn't sit selfishly by and watch their neighbors muddle through. "Tom helped neighbors turn on their gas fireplaces and pitched in shoveling



driveways," says his wife, Laura. Laura did her part by using her generator-powered kitchen to make large pots of chili and goulash, and distributed them to the neighbors so they could have a warm meal.

Gary and Lori Florip, of Lake Ann, were just coming off a 12-hour EMS shift, but instead of going home to sleep they continued to help their friends and neighbors. Tera and Scott Konchek, also of Lake Ann, and their three children weren't able to get out of their driveway and were low on food. Scott suffers from Devic's disease, a disorder of the central nervous system involving inflammation of the optic nerves and spinal cord, so Tera wasn't going anywhere anytime soon. "They brought us food and cleared my driveway. They are two amazing people that went out of their way to help our family and many others without stopping to think of themselves," Konchek says. "People helping people—that's why we moved to Northern Michigan."

Unplugged and Loving It

Why is it so frustrating when our internet or cable service is temporarily interrupted, yet when the power was out for days most of the people have fond memories of rediscovering family time and connecting with neighbors? Perhaps it's because we were all in the same predicament. We had a good "excuse" not to be tied to our cell phones and constantly checking email messages.

Linda Snow, of Traverse City, fondly recalls passing the time with her grown children. We played cards, had fun melting snow on our gas stove, and my daughter Torre made bracelets," Snow says. They even brought out the old "I Spy" books from the kids' younger days. "We were all playing cards when the power came back on. I was actually disappointed our 'Little House on the Prairie' days were over."

In a chaotic world where criminals and corruption sometimes take center stage, it was heartwarming to witness the human spirit at its best. The kindness and generosity of compassionate people and the fun and creative ways we passed the time brought us all closer together. Even though March came in like a lion last winter, the spirit of goodwill left an impression in our hearts that will get us through another winter and perhaps encourage us to have a little creative fun with any down-time caused by bad weather.

Energy Optimization REBATES:

ou know the story. The clock strikes midnight and millions of people make resolutions to change. But, if something is working great, why fix it? Our thoughts exactly. Thumb Electric Cooperative is keeping its most popular 2012 Energy Optimization (EO) rebates for 2013. It's your turn to save this year.

Reducing energy use is a win for everyone—homeowners, businesses, and the buildings themselves. Did you know that one of every two people prefer to make his/ her home more energy efficient instead of more beautiful because of the short- and long-term benefits? That's because saving energy gives you more control, increases your freedom, and improves your home.

The list at right shows the energy rebates your fellow Michiganders used the most in 2012. All of these rebates help you save energy easily, keep you comfortable, and provide the best value.

Find more rebates at michigan-energy. org. Email (michigan-energy.org/contact) or call (877-296-4319) with questions about applications or product eligibility.

Back By Popular Demand!

REBATE & FEATURES	INCENTIVE AMOUNT
ENERGY STAR® DEHUMIDIFIER Choose any ENERGY STAR model; use 15% less energy	\$20
EFFICIENT HVAC—FURNACES with electric commutated motors Effectively converts energy to generate heat instead of energy wastes save as much as \$800 in the next 10 years	
ELECTRIC WATER HEATERS 0.93 energy factor (EF) or higher	\$50
HEAT PUMP WATER HEATERS. Heat pump model 2.0 EF or higher	\$100
ENERGY STAR REFRIGERATOR. FREE appliance recycling; choose any ENERGY STAR model; use at le	
ONLINE HOME AUDIT (Home Energy Optimizer) FREE Energy-Pinpoint where your home wastes energy; access at michigan-energy provider, and click "Home Audit"; receive free EO kit (contains five aerators, and a showerhead) when you complete the online assessment	y.org, select your energy e CFLs, energy efficient

ATTENTION FARMERS! The Energy Optimization Farm Program invites you to get a **free** engine block heater timer. Call 877-296-4319 or visit michigan-energy.org/heatertimer.



SAVE ON

You're in for a great new year. Our most popular Energy Optimization **REBATES** are back by popular demand! You can now choose from more than 50 easy ways to save energy at home or work.

- **★ FREE refrigerator recycling** Get \$30 to recycle your old refrigerator
- **★ \$15 Rebate Outdoor CFL light fixtures**
- **★ \$20 Rebate ENERGY STAR dehumidifiers**
- **★ \$20 Rebate ENERGY STAR refrigerators**
- **★ \$50 Rebate Electric water heaters**
- **★ FREE** online home audit and energy-saving kit
- **★ \$150 Rebate ECM furnaces**

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.

Where do your heating dollars go?



Insulate and \$AVE!

Call the energy experts today for your free in-home analysis. We offer energy efficiency loans up to \$15,000 at 7 percent interest, payable over 7 years, to qualified members.



989-658-8571 *or* 1-800-327-0166

Wolverine, We Energies Agree to Joint Ownership of U.P. Power Plant

Wolverine will fund a new air quality control system.

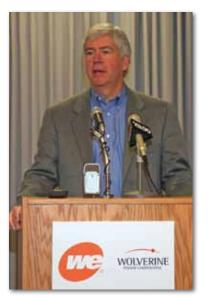


Aerial view of the Presque Isle Power Plant in Marquette.

Governor Joins Wolverine, We Energies to Announce Power Plant Opportunity

Michigan Gov. Rick Snyder was in Marquette in late November to express his support for the continued operation of the Presque Isle Power Plant.

"The partnership of We Energies and Wolverine Power Cooperative to keep the Presque Isle Power Plant open is good news for the current and future availability of a reliable electric supply for businesses and residents in the Upper Peninsula," Snyder said. "The agreement will also be good for the economy with more than 100 workers remaining on the job, and for the environment with the plant's new state-of-theart emissions equipment. This is a great example of how, through relentless, positive action, we can come together to make Michigan a better place to live and work."



olverine Power Cooperative and We Energies agreed in late November to pursue joint ownership of We Energies' Presque Isle Power Plant. In exchange for an approximate one-third ownership interest in the facility, Wolverine will fund construction of a state-of-the-art air quality control system for the plant.

The plant, located along the shore of Lake Superior in Marquette, consists of five coal-fired units capable of generating approximately 344 megawatts of electricity. In October 2011, We Energies announced the plant's potential retirement, targeted for 2017.

"We met with executives from We Energies in November 2011 to discuss opportunities for working together," explains Eric Baker, president and CEO of Wolverine. "The discussion led to a proposed joint venture that would keep the Presque Isle plant open and meet new air quality requirements."

Wolverine will invest between \$130 million and \$140 million to retrofit the plant's units. In return, the cooperative will own approximately 30 percent of the plant's output to serve its members, including Cherryland Electric Cooperative, Great Lakes Energy, HomeWorks Tri-County Electric Cooperative, Midwest Energy Cooperative and Presque Isle Electric & Gas Co-op.

We Energies and its employees will continue to operate the plant, as well as the air quality control system.

The two companies must first obtain approvals for joint ownership, as well as installation of the air quality control system, from state and federal agencies, including the Michigan and Wisconsin public service commissions, the Michigan Department of Environmental Quality, and the Federal Energy Regulatory Commission.

"The Presque Isle Power Plant provides needed baseload power supply for our members, in addition to protecting grid reliability in northern Michigan," Baker says. "We are pleased to have a quality operating partner in We Energies."

Insulate Cracks, Gaps for Maximum Efficiency

The wall and blown-in attic insulation in my fairly new house are at recommended levels, but my utility bills are still too high. What other areas should *I check for inefficiency?*

You are correct that the walls and ceiling are the areas of the greatest heat loss from a house—proper insulation in those areas is of utmost importance. But it's also possible that many other areas in the exterior "thermal envelope" of your house have insulation voids or air leakage which can contribute to unnecessarily high utility bills.

First, check your walls and attic. As your house is "fairly new," you can probably rest easy that the walls are adequately insulated, most likely with faced batts that fit tightly between wall studs. "Facing" refers to a material that acts as a vapor barrier.

ATTIC INSULATION – Since you have blown-in attic insulation, check its depth. Depending on how it was blown in, it may have settled and no longer reaches the required depth and R-value for your climate.

The U.S. Department of Energy has a calculator that figures the amount of insulation you need for your climate zone at: ornl.gov/~roofs/Zip/ ZipHome.html

Also, using a rake, make sure it's level across the attic floor. Wind coming in the attic vents can blow it around, creating high and low spots.

WALL OUTLETS – Where there's a break in the thermal envelope of your home, there's potential for energy loss. One common spot is electrical wall outlets and switches on outside walls. Often, they are completely uninsulated and the vapor/air barrier is not taped tightly to them.

Switch off the circuit breaker to these outlets and switches. Remove the faceplate. If you can get the tube from the urethane foam spray can into the wall around the conduit box, shoot some expanding foam in there. This should fill insulation voids and seal it.

Even if you were able to shoot in insulation, and definitely if you could not, install

foam draft sealers behind the faceplates. They add only a slight amount of insulation, but they will improve the overall seal to reduce air infiltration.

RECESSED CEILING LIGHTS are another typical area of energy loss. These are particularly bad because they get hot, which creates a natural upward draft. The most efficient option is to replace your old canister recessed lights with new, efficient sealed models.

Don't just pour or pack insulation against recessed lights in the attic. This can cause older styles, which were not designed to be insulated, to overheat. You can caulk around the hole in the attic floor and the canister, but some room air will still leak out through the canister itself.

CEILING PADDLE FANS are another place to check. If you installed them yourself after the house was built and added support blocking, the insulation level will be less there. There may also be air leakage where you cut the hole to run the wiring. Push the insulation away and caulk the attic floor hole around the wire, then cover it with additional insulation.

DOOR AND WINDOW FRAMES – Next time you are painting the trim around doors and windows, pry off the decorative molding. You may find quite a large uninsulated gap between the rough opening and the door or window frame. Apply low-expansion foam in the gap-but use it sparingly because it can deform the frame as it expands.

SILL PLATES AND RIM JOISTS – The sill plate is the piece of lumber that rests on the top of the foundation. The rim joist rests on top of the sill plate, and your house walls rest

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

Visit dulley.com for more home improvement and do-it-yourself tips.



Seal gaps around recessed light fixtures, but keep attic insulation away from direct contact with canister, unless you have newer models that have been approved for insulation.



Make sure the hole cut in the ceiling for fan wiring is sealed on the attic side.



Apply expanding foam insulation in gaps between foundation top and sill plate.

on the rim joist. The rim joist, often 2x10 feet or larger lumber, typically is not insulated.

Buy kraft paper-faced fiberglass batt insulation and cut it into short lengths to fit against the rim joist between the floor joist. Standard wall insulation batts are effective. With their short length and the floor joists, they should stay in place without stapling.

FOUNDATION WALL INTERFACE - While you are looking at the rim joist and sill plate, you will probably see a gap between the top of the foundation and the sill plate in spots. The top of a concrete foundation wall is seldom perfectly level and smooth. Apply urethane foam insulation from a can all along the sill plate/foundation wall interface. This will block outdoor air leakage and add some insulation value to that area.

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





Paul Starner demonstrates an eco-friendly, easy-to-use snow plow that he and his neighbor, Jerry Schichtel, developed and call the "Snow Bully." Their website is The Snow Bully.com.

ired of being "bullied by the snow," Paul Starner and Jerry Schichtel, of Traverse City, decided to fight back.

They created the Snow Bully, a fourwheel steel shovel with a 34-inch blade that clears snow easily.

"It was an invention of necessity," says Starner, a Cherryland Electric Cooperative member who's in charge of marketing the product that Schichtel created.

"I have a lot of physical challenges and I don't move around very well. I needed something to move snow with that didn't take very much effort," Starner explains. "That's what the Snow Bully is."

Five years ago, Schichtel watched neighbor Starner struggle as he attempted to use his snow blower. That gave Schichtel an idea. He and his brother had already created the prototype for the Snow Bully back in the 1940s when they were growing up on a farm. It was made out of wood.

After watching Starner finish up that day, Schichtel walked over and told him about his idea to re-create his wooden snow remover.

Starner listened, and then asked Schichtel to make a modern version. It took five attempts, but they finally came up with a product both liked, and so they shook hands and became partners.

The next step was finding someone to produce the Snow Bully. Starner, who has spent his career in the real estate business, searched the state and found Mark Goodman of MDG Welding in Blissfield.

"Last winter was our first selling the Snow Bully, and wouldn't you know it, we didn't get much snow," Starner laughs. "Still, we sold 161 of them.

It sells for \$249, plus \$29.95 shipping in the U.S.

"We market our product on the internet," Starner says. "People can go to our website and do it all—read about it, see pictures and videos of it in action, and then order it. The orders go directly to Mark Goodman in Blissfield and UPS ships them from his business."

Starner not only likes the ease of using the Snow Bully, he calls it "eco-friendly."

"You use calories, not gasoline," he says. "It is very friendly to the environment,

and we're in the process of creating attachments for the Snow Bully. We're working on a scraper blade, a garden cart basket, and we're also looking at an eco-mower. That would make this something you can use year-round and not use any gasoline."

So far, the Snow Bully has been an internet hit.

"We've sold it to as far away as Newfoundland," Starner explains. "And in the states, from Washington to Maine and then from New York to North Carolina.

"Social media is the new way to market. Not only do we have our internet site, we post videos on YouTube," Starner adds. "Jerry and I really don't see the product after we give the okay to have it made. People agree to buy it online, pay for it through their PayPal account, and then it's shipped from Blissfield. It's all pretty clean."

And it's all pretty satisfying to Paul and Ierry.

"There's nothing more frustrating to me than moving snow," Starner says. "That's why the 'Snow Bully' is great....it's just simple. You don't need to have much upper body strength to move snow."



Green Thumb Home Heating

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

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Factors Used: Electric Baseboard, Air-Source Heat Pump and Geothermal-based on TEC's 6.05¢/kWh dual-fuel rate. **LP gas**-based on \$2/gal. and 90% efficient furnace. **Fuel Oil**-based on \$3.50/gal. and 80% efficient furnace. Natural Gas-based on \$1.08/therm., 90% efficient furnace including \$9/mo, service charge. Corn-based on \$8/bushel. (Electric baseboard and corn operating costs do not include air conditioning.)

Tortured Text

recently wrote a note in a card. It was a simple note in a simple card for my wife Barbara's birthday. The card was bought years ago, but never given for one reason or another. (I have cards, bought for immediate use, stashed away for happy and sad occasions that haven't seen a stamp yet. I'm not a big fan of cards, paper or digital, which is a different animal and doesn't deserve to be called a card. I don't like shopping for cards, and the novelty of digital cards wore off after about two.)

But this is not about the card, it's about the note and how awful it looked after I finished writing it. "Writing" isn't the right word, because I couldn't read the note after I finished. I even butchered her name. At first glance, it looked like "Bondt," which isn't really close to "Barb."

I used to laugh-off my handwriting. Now it embarrasses me. I have to warm up just to sign my name; otherwise, my hand muscles won't follow my brain signals in any recognizable pattern. My signature is worse than any doctor's. At least a doctor mangles his or her name in the same way consistently. Their signature is a mark that the pharmacist knows on sight; it doesn't matter that the name isn't readable.

Some say our signature is important because it's our legal mark, without which we couldn't enter into contracts, cash checks or approve credit card payments. I think those digital signature pads in grocery and other stores must have some other way of verifying who I am because they certainly can't tell by my signature. It's different every time. Who can write on those things, anyway?

It wasn't always so. I once had decent handwriting. It flowed, one letter to the next, in an unbroken line, with recognizable letters and little upturns at the ends. This skill was taught, almost religiously, in grade school, following the precepts of popular programs, such as the "Palmer

Method," a rigorous set of rules for hand and arm control of a pen that swooped and swirled on lined paper until pages and pages were filled with the same whirly strokes. It was pretty, but not many of us write like that anymore.

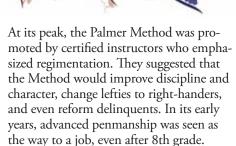
My mother's writing is beautiful, and so is Barbara's Aunt Jeanette's. They spent a lot of time practicing in the 1930s. Since then, the teaching of handwriting skills has steadily disappeared from many school curriculums.

The likely cause of all this is that we don't have to write much anymore. Now we have mechanical messaging, with keyboards and texting, even voice recognition software that takes dictation. It's easier to use a phone than a pen. It's quicker to text than write. We can reach more friends on Facebook than we can with a card. No wonder the Post Office is in trouble—but that's another issue.

The point is, handwriting—that is, "cursive" writing—seems doomed. Once our kids learn how to print, they get little instruction in cursive penmanship before they move on to computers. It's not out of the curriculum yet, but penmanship as a skill is in sharp decline. As with most states, penmanship is still required to be taught in Michigan schools, but it is not included in national curriculum guidelines set for 2014.

Before you bemoan the loss, consider that handwriting for the masses is a relatively recent phenomenon. Its use grew in 17th century Britain along with the Industrial Revolution and the growth of business, which sought to standardize writing to make it faster and more legible. Our Declaration of Independence, rewritten in impeccable longhand by a professional writer, from Thomas Jefferson's original cursive, is a prime example of connected writing at its best.

Austin Palmer introduced his method in 1894 to compete with the typewriter.



The schools doing away with cursive instruction say time is better spent on other skills - those needed in today's job market. But cursive instruction has its defenders, too. They say penmanship practice improves kids' motor skills, eye-hand coordination, and artistic aptitude. Plus, they ask, if kids are not taught cursive, how will they read historical documents like the Declaration of Independence?

Barbara's Aunt Jeanette sends us handwritten notes that are models of penmanship. The letters flow into each other like waving fields of grain. They're easy to read and look good on the page. My writing, however, looks like I'm a tortured soul. Our sons, who had cursive instruction, are also converts to the dark side.

It turns out, though, that we're not alone. Studies have shown that my tortured script is commonplace. In fact, most people abandon the strict cursive writing they learned in school in favor of a more casual combination of cursive and block print that has the advantage of being a more natural, and faster, way to write.

Still, it would be nice if you could read it.

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



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