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On the Cover

The West Michigan Underwater Preserve is our state’s newest shipwreck preserve, and one of 14 on lakes Michigan, Huron and Superior. These underwater museums offer opportunities for both divers and nondivers to view them, and they can be part of a fun family vacation destination to local communities.

Photo – Paul Chase
As I was flipping channels on my TV, I came across a scene wherein a character was hitting the head of a mole in a carnival game only to have another one arise elsewhere. We have all seen or done this over the years.

The energy scene has been like this for a few decades now. Take a look at the composition of the energy your electric cooperative purchases over a given year:

- Coal – 57.1 percent;
- Nuclear – 23.2 percent;
- Natural gas – 12.8 percent;
- Renewables (wind, solar, biomass) – 5.6 percent;
- Hydro (why this isn’t considered renewable is also an issue) – 1.1 percent; and
- Oil – .2 percent.

There isn’t one source of power that is immune to opposition by somebody or some group. As I have written in the past, there is simply not one “silver bullet.” We must keep working on the balance of all fuels that is affordable while safeguarding the future of our environment with technologies that are proven and available.

The coal versus natural gas debate has heated up considerably over the past year as gas prices have remained low. As I walked down Front Street the other day, a passerby was wearing a button that read, “No Fracking Way.” Well, that is all good and fine and I certainly respect the opinion of others.

But, let’s stop for a minute and play this button out.

Construction of gas generation has increased lately due to the price of natural gas. Anti-fracking groups run the risk of pushing the price of natural gas back up. Coal is a cheaper form of electric generation compared to natural gas and that will only get better as gas prices rise.

Well then, the answer must be solar? What about storage and overcast days? Do we have enough land to hold the panels necessary for a project of any significant size?

Even a successful conservation program can have issues. Lower the energy sales and the monthly fixed costs go up in order to meet financial requirements. Poles and wires have to be paid for regardless of the amount of energy sold.

I believe we need all forms of energy in our portfolio. I only write this in an attempt to shed some light on the frustration felt on my side of the desk at times. As a society, we need more cooperation and support rather than opposition and anger. We need true meaningful solutions and less rhetoric (says the man who just gave you 500 words of his own rhetoric).

I wish I could whack-the-mole and win the giant teddy bear for everyone. I have no silver bullet or golden hammer. My only solution is to continue to work at affordability while maintaining a track record of bringing you power that is cleaner than it has been in the past. It is simply a journey of small steps. After all, it’s whack-a-mole, not whack-a-grizzly.
Two Memorable Cherryland Days

They were two memorable days for Cherryland Electric Cooperative that dawned with beautiful, early June weather.

Cherryland hosted its 75th Annual Meeting on Thursday, June 6, at Wuerfel Park, home of the Traverse City Beach Bums. A record 2,500 members showed up. They were treated to a free ticket to a baseball game, along with a ballpark dinner and 75th anniversary giveaways that included Cherryland’s 75th anniversary hard cover book, a Willie Wiredhand figure, and prize raffles.

Member James Johnson of Traverse City won a $500 drawing for sending in his mail-in ballot from Country Lines magazine. Dan Bodary of Grawn won an IPad for signing up to be part of Cherryland’s grassroots network.

Board members John Olson, Melinda Lautner and Jon Zickert were re-elected by the membership.

On Friday, June 7, at Cherryland’s home in Grawn, a ribbon-cutting ceremony was held to unveil the first community solar farm in Michigan.

The effort is a collaboration between Cherryland and Traverse City Light & Power. The first 224 panels will be erected at Cherryland. Interest in the panels has been “very positive,” according to Cherryland General Manager Tony Anderson, who opened the ribbon-cutting ceremony.

Other speakers included Traverse City mayor, Michael Estes, Traverse City Chamber of Commerce board president, Rachel Roe, and Michigan Electric Cooperative Association CEO, Craig Borr.

Media outlets covering the event included TV 7&4, TV 9&10 and Interlochen Public Radio. Stories about the event had previously appeared in the Traverse City Record-Eagle, Grand Traverse Insider, and on WTCM radio.

PHOTOS: Cherryland’s Annual Meeting – (Top, L-R) Cherryland gave away copies of its 75th anniversary book to members, and board president Tom Van Pelt throws out the first pitch as his grandson watches. Solar Farm Unveiling – (Bottom, L) Tony Anderson, Cherryland Electric Cooperative’s general manager, joins TC Light & Power board chair Pat McGuire in cutting the ribbon to the community solar project. Looking on (from left) are TC mayor Michael Estes, Cherryland board member Betty Maciejewski and (far right) Cherryland board chair Tom Van Pelt.
Free Nature Preserve App

Since the Little Traverse Conservancy, a nonprofit land trust in Harbor Springs, covers five counties served by Michigan electric cooperatives, the group wanted to share the following with Country Lines readers:

“Last winter, one of our staff developed a nature preserve app that gives smartphone users easy access to a host of information about nature preserves located throughout the service area. For example, from where they are standing, they can see what preserves are close by, exactly how to get there, what activities are recommended at each preserve, how long the trail is, etc.

We are trying to get the word out about this free app simply as an educational, informational tool that encourages people to get outside and appreciate northern Michigan land.

For information and links to the free downloads, visit landtrust.org (or call 231-347-0991). Thank you.

— Anne Fleming, Communications Coordinator
Little Traverse Conservancy, 3264 Powell Road
Harbor Springs, MI 49740

Dessert & Raw Eggs

I felt I should write and tell you that we are told not to eat uncooked eggs anymore... the recipe “Raspberry Graham Dessert” (June) sounds great, but the eggs in it are not cooked... a “no-no” in this day, I believe.

Thanks for your attention.
If I am wrong please let me know, as the recipe looks great.

— Majean Sparks,
Cherryland Electric Co-op

Recipe Editor’s Note: Thank-you for writing. The recipe is indeed correct as written, using raw eggs. After some research, I found there is risk of salmonella from eating raw or undercooked eggs, but it is much lower than once thought. A 2002 study by the U.S. Department of Agriculture found that the risk of egg-borne salmonella was 1 in 30,000 eggs. Still, if you don’t feel comfortable eating raw eggs, I wouldn’t recommend it.

— Christin McKamey

Energy Story Idea

Why don’t you write about a family that uses lots of electricity and have high bills due to using BiPaps, pulseoxes, electric beds, monitors, nebulizers, chest vests, air conditioning, lifts, suction equipment, etc.

— Donna Miller,
Cherryland Electric Co-op

Editor’s Note: Thanks for the idea. Our editorial calendar is planned one year ahead, so we’ll consider it for 2014.

Sharing ‘Memories’ & Rescuing Animals

I really enjoyed the “Ramblings” piece in Country Lines (June), entitled ‘Memories.’ Thanks for bringing the Arts alive for one and all. I also enjoyed the cover feature on “Black Sheep Family” animal sanctuary—I find it inspiring.

I’m also wondering if your magazine prints local artists’ and poets’ works, and short stories/cartoons? I am a previously published poet/writer and would love to link up with other writers, poets and artists in West Central Michigan.

Also, I am living on Justice Rescue Ranch, owned by Jamie Piotrowski-Avilla of Morley, MI. The farm rescues horses, dogs and other wayward creatures, and could really use a hand by putting us in the public eye. We would love to be in your magazine. Also, any links/contacts that you feel may be valuable (readers—any ideas to share?).

We are in the heart of Amish land, and I believe tourists will love to visit us here.

Thank-you in advance for any help in this endeavor... reporters and photographers welcome! Please visit us!

— Julian St. John
DekalbPoet@yahoo.com

Editor’s Note: Story ideas (700 words or less) may be submitted to the address below.

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

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

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

DO YOU KNOW WHERE THIS IS?
Every co-op member who identifies the correct location of the photo at left by Aug. 10 will be entered in a drawing for a $50 credit for electricity from their electric cooperative.

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

The May contest winner is Melissa Porterfield of Lansing, who correctly identified the photo from Impression 5 Museum, Lansing.
Experience of a Lifetime

Michigan co-op students tour D.C.

Twenty-two high school students representing six Michigan electric co-ops recently joined more than 1,600 other youth from across the country at the National Rural Electric Youth Tour to Washington, D.C.

The experience is an extension of the Michigan Youth Leadership Summit held in April, and is designed to give students a behind-the-scenes leadership experience.

The Michigan students visited memorials, museums and monuments, including guided tours through Arlington National Cemetery and the U.S. Capitol, stops at the WWII, Vietnam and Korean War Veterans’ memorials, several Smithsonian museums, a performance at the Kennedy Center, and a riverboat cruise on the Potomac.

The group observed members of Congress debate and vote on important bills from the House of Representatives gallery inside the U.S. Capitol, then had personal visits with Sen. Debbie Stabenow and U.S. Reps. Justin Amash, Bill Huizenga and Dan Benishek.

Brianna Fitzpatrick, a junior from Onaway, earned the support of her peers to serve on the National Rural Electric Cooperative Association’s Youth Leadership Council. She will return to D.C. in July to attend a youth conference that strengthens leadership and public speaking skills.

Youth Tour participants are chosen by their co-op, who sponsors them on the trip. Learn more about co-op-sponsored youth programs at miYLS.com, and find more Youth Tour photos on facebook.com/youthleadershipsummit.

Quilt Needs a Permanent Home

Remember the Michigan Heritage Quilt? It was created from 36 winning squares in a Country Lines contest held in 2002. For several years the quilt traveled around to craft shows, museums, festivals and gatherings as a way of commemorating our state’s rich heritage and to promote its sponsors, Michigan’s electric cooperatives.

The Country Lines staff now wishes to see it displayed permanently in a public place (i.e., museum, library, airport, municipal building, school, etc.). Preference will be given to a facility served by an electric co-op. The quilt measures about 90 inches square.

Please email your suggestions and ideas to czuker@meca.coop (put “Quilt” in the subject line) or mail to: Country Lines Quilt, 2859 W. Jolly Rd., Okemos, MI 48864.

The Adventure Began at YLS

The Youth Leadership Summit (YLS) is designed to grow leaders through team-building skills, including hands-on classroom exercises and a high-ropes challenge (over 30 feet in the air!). Sponsored by their electric cooperative, students from across Michigan gathered at SpringHill Camp near Evart this spring and tested their decision-making skills, learned how to respond in emergency situations and received valuable career information. Participants were then considered to attend the Rural Electric Youth Tour to Washington, D.C. (above). Learn more about both programs at miYLS.com.
Although it was built in 2006, the Tandem Ciders’ tasting barn looks as though it’s been there since the pioneer days of Leelanau County. This tasting room/cider pressing facility/neighborhood gathering spot is not a winery, not a brewery, but something else entirely unique.

Tandem Ciders, which is serviced by Cherryland Electric Cooperative, has an “everybody knows your name” feeling and an atmosphere of camaraderie, even if it’s your first time in.

In addition to the crowds of tourists and passersby on the Leelanau Peninsula wine trail, Tandem Ciders has attracted a strong local following of regulars and devotees who helped to plant the orchard last year and sing to the trees at the annual Wassail. What’s a “Wassail” you ask? In England, this tradition goes back hundreds of years, singing to the apple trees during the dormant season to wake them up, according to Dan Young.

Proprietors Dan Young and Nikki Rothwell value the strong connection between the land, the apple, and the community, which makes their location in traditionally agricultural Leelanau County a perfect fit. Tandem’s artisanal hard ciders are crafted with Michigan apples (and other local ingredients, like Kolarik’s honey) providing regional flavor and character, or what a wine connoisseur might call “terrior”.

Although it’s sometimes snubbed as “the fruity drink of the lightweight,” hard ciders are gaining traction and credibility nationwide. With an alcohol content of 4.6 to 9 percent, Tandem hard ciders weigh in comparable, if not more potent, than your favorite beer. Artisanal hard ciders also have complexity to rival even the finest wines.

Hard cider can be confusing upon first taste to your average beer or wine drinker. Many suggest trying multiple sips and varieties to obtain your “cider mouth,” as it can be an acquired taste. I personally have found the same to be true for wine, so I don’t think this unusual. Reader-be-warne that if you have tried more commercially-produced cider varieties from your everyday grocery store, this is an entirely different experience that any food and drink lover wouldn’t want to miss!

Hard ciders aren’t anything new. Our founding fathers were producers of this “fruit of Eden” beverage. Gentleman farmers like Thomas Jefferson and George Washington were rumored to be talented apple growers and cider makers. And, hard ciders can still be found on tap at most any watering hole in Europe.

Common pairings for hard cider include pork and the tastes of Thanksgiving (turkey, stuffing, potatoes). It is perfect either for drinking warm with spices in the winter months, or sipping chilled at a summer barbecue. Hard cider is also great used in place of white wine in a marinade or vinaigrette.

Even though Tandem has a little-guy feeling, they have made quite a name for themselves both locally and nationally. Their crowd-pleasing “Smackintosh” (my personal favorite) recently made Mario Batali’s list of “Northern Michigan’s 2013 Best Eats” and the hard cider family also brought home seven medals from the Great Lakes International Cider and Perry Competition.

If you haven’t done so already, visit Dan and Nikki at 2055 North Setterbo Road in Suttons Bay. Look for the white barn with a red tandem bicycle. Take the opportunity to enjoy the new outdoor serving area in the tree grove out front.

Do you know about a secret northern Michigan “foodie hot spot” located in Cherryland Electric Cooperative’s service territory? Email me at kime@cecelec.com with your ideas. We might just feature your hidden treasure!

Kim Crockett is a member service representative at Cherryland Electric Cooperative.
**Magic Summer Nights with AM Radio**

Gone are the summer nights of AM radio. If you're more than 50 years old, you know what I mean.

We'd be spinning that dial up and down, trying to catch the latest hits on Chicago's WLS radio.

Or we'd catch announcers Harry Carey and Jack Buck broadcasting Cardinals baseball games in the heat of the night on KMOX in St. Louis.

We'd hear them describe the scene and then let our minds take over, imagining what they were seeing as we listened.

On some nights, the static would drive you crazy when your favorite song was playing. On other nights, the sound would fade in and out as Bob Gibson delivered a fastball to Willie Mays.

So you'd turn the dial again, stopping to hear Ernie Harwell spin a tale about baseball's past in the middle of a Detroit Tigers game on WJR radio, the Great Voice of the Great Lakes.

Imperfection was part of the charm of AM radio. Radio waves determined whether you could listen to an entire song of the Beach Boys singing about surfing in the ocean's waves.

And yet, we loved AM radio. We had no choice. FM radio was in its infancy and it catered to the songs and choices that our parents liked. In other words, it wasn't cool.

In the fall, when we were out on a Sunday drive with our families, we would persuade Dad to turn on the Detroit Lions game over the protests of our sisters.

Then we'd hear the great Van Patrick describe a long pass thrown by Lions quarterback Milt Plum. “He throws the HOME RUN ball and its... he would leave dead air time so we were in suspense... CAUGHT by Gail Cogdill at the Colts 23-and-a-half yard line. We'll call it the 24 and make it even.”

We'd be going crazy in the car. Well, three of the six of us, anyway.

One Sunday I was getting ready to turn on the Lions game on TV. My mom walked into the room and announced we were going to take a day trip to the Upper Peninsula from Mancelona. I never got mad. But I did that day. I pouted. I didn't want to go.

Thirty minutes later, pushed into the car by my dad's icy stare, I was riding miserably and saying nothing. That all changed when Dad turned the radio on and we listened to the Lions game. I actually had a great time that day, since we had an interesting trip. And the Lions won.

In the winter, the AM dial searched for basketball games. We'd listen to Cincinnati Royals games because we thought Oscar Robertson was the greatest all-around player in the NBA. My hero was the University of Michigan great Cazzie Russell and we endured static, bad radio waves and my mom telling us it was time for bed, in order to hear the entire game.

When spring came again, we turned the sound knob way up to hear Ernie Harwell's “Song of the Turtle” proclamation before the first spring training game: “For lo, the winter is past, the rain is over and gone; the flowers appear on the earth; the time of the singing of birds is come, and the voice of the turtle is heard in our land.”

I miss “the turtle,” I miss Ernie, and I miss the imperfections of AM radio.

Well, make that 2-out-of-3. I only miss the memories of my life during the time of AM radio.

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**Cherryland Cares Seeks Grant Applications**

Area nonprofit agencies who are seeking financial help can apply for a grant through Cherryland Cares.

Cherryland Cares is a five-member board, made up of Cherryland Electric Cooperative members, who distribute money from Operation Roundup to area non-profits. The next quarterly meeting of Cherryland Cares is Monday, Sept. 16. The deadline for applications is Friday, Sept. 6.

Operation Roundup money comes from Cherryland members who elect to round up their bills to the nearest dollar every month. This amount averages $6 per year.

To receive a Cherryland Cares grant application or to join Operation Roundup, contact Nick Edson at Cherryland. His direct line is 486-9222 or email him at nicke@cecelec.com.

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**Next Member Input Session Is September**

The board of directors at Cherryland Electric Cooperative is offering another opportunity for members to provide direct input to the board on a quarterly basis. Members will be able to talk to the board next on Monday, Sept. 16, at 9 a.m. at the company office in Grawn.

Members are asked to come to the lobby and request to speak to the board. Members are asked to keep their comments to five minutes. Member attendance at the board meeting is allowed for the public input portion of the meeting only.

Cherryland members are afforded a chance to meet with the board on a quarterly basis during meetings in March, June, September and December.

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**Pay Your Electric Bill Online**

Want to save money and pay your Cherryland Electric Cooperative bill online? It’s easy to do. You can set up your accounts to get only an e-mail bill—no more paper bills.

If you would like to do this, access your account on cherrylandelectric.com. It will prompt you immediately after you sign in to make a decision on whether or not you want the paper bill to continue; if you do, check the box. If not, simply press “update.”

Questions about the online payment can be answered by Cherryland’s Member Service Department at 231-486-9200.

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**Follow “Cherryland Electric Cooperative” on facebook for all the latest news and happenings.**
Visit State’s Newest Shipwreck Museum: West Michigan Underwater Preserve

In the calm waters of Lake Michigan, north of White Lake, John Hanson emerged from the depths, his form taking shape in the bubbles that preceded him.

Hanson broke the surface and reached for a ladder rung. Then the 59-year-old scuba diver from Montague climbed up on deck and announced his find: the Interlaken, a 170-foot wooden schooner. It had founderd and sunk in a fierce Lake Michigan storm in 1934.

“I’ve never seen it like that,” Hanson said excitedly. “Much more is exposed than five or six years ago. I went down the entire length of it. It was really cool.”

The Interlaken hull lies in 15 feet of water, much of it under sand. It was once a handsome three-masted cargo ship, built in 1839 by the Abram Smith and Sons shipyard, of Algonac, on the St. Clair River.

Today it is one of a dozen charted shipwrecks in the 400-square-mile West Michigan Underwater Preserve (WMUP), our state’s newest underwater museum. The Preserve was dedicated in 2012 and is open to the public. Hanson, an experienced wreck diver, is chairman of the Preserve’s board of directors.

The Preserve is one of 14 found on lakes Michigan, Huron and Superior. All are part of Michigan’s Underwater Preserve System. The state program was created in 1980 by legislation with support from Michigan sport divers who were concerned about protecting maritime antiquities.

State officials estimate as many as 6,000 vessels have gone to the bottom of Lake Michigan and other Great Lakes. Approximately 2,000 are located in Michigan waters. It is illegal to remove artifacts from the sunken ships. Information about the shipwreck sites is available at michiganpreserves.org.

Diving this day proved a bit of a challenge, as visibility was not at its best. Recent storms had made the nearshore Lake Michigan waters cloudy. Hanson knew the Interlaken’s GPS coordinates, but he didn’t drop anchor until he saw the wreck’s image outlined on the electronic side-scan sonar he uses on his boat.

Even then it was up to Mark Gleason to find it using a portable remote sub called an ROV, or remotely operated vehicle. Gleason, a Hospitality, Tourism and Management professor at Grand Valley State University, is a professional ROV pilot who has used them to explore for Great Lakes shipwrecks and offshore oil wells in the Middle East. His device is equipped with a video camera that transmits images to a portable monitor in the boat cabin, where Gleason controls its movements with a joystick.

“There’s the bottom,” Gleason called out cheerfully after Hanson launched the ROV from the front deck. “And there’s the wreck,” he added a few minutes later, prompting Hanson to suit-up and go over the side.

The group, which included Paul Chase, an underwater photographer, had planned to dive on the State of Michigan, a 165-foot steamship built in 1873. It sunk in 1901 after a mechanical failure just 4 miles from the port of Whitehall on White Lake. But Gleason’s ROV showed the divers that visibility on the bottom was practically zero at the State of Michigan, so they motored 5 miles north hoping for clearer water at the Interlaken.

THE WEST MICHIGAN PRESERVE stretches from Port Sheldon to north of Ludington. It is the resting place for ships like the Anna C. Minch, a 380-foot freighter that sunk in a 1940 storm, and the 320-foot Henry Cort, a bulk-cargo ship that sunk off Muskegon in 1917, among others.

Hanson said there are more to find. “There

You don’t have to be a diver to enjoy some of Michigan’s 14 underwater shipwreck preserves. They can offer a great vacation for families—divers and non-divers—including dive charters and glass-bottom boat tours. Read on for more details.

The State of Michigan shipwreck, and diver John Hanson.
are 64 ships listed as unaccounted for within the preserve boundaries,” he said. “Some are over 120 feet long.”

Hanson began diving in high school, inspired by the 1950s and ‘60s era “Sea Hunt” TV series, starring Lloyd Bridges as the rugged, ex-Navy frogman, Mike Nelson. Shipwreck diving came later.

He made his first wreck dive nine years ago on the 253-foot long Salvor, a steamer built in England that sunk in 1930 between Muskegon and Whitehall.

“There wasn’t much to see, but it was exciting. I was diving on a piece of history,” Hanson said. “That triggered my interest in wrecks and finding out more about others. I started diving wrecks and found it fascinating. These are underwater museums.”

**THE MYSTIQUE OF SHIPS** going to a watery grave on the Great Lakes, and the harrowing stories of lives lost or forever changed, is part of the appeal for divers and tourists who visit the preserves, explains Debbie Chase, a Great Lake Energy Cooperative member from Walkerville and president of the Michigan Underwater Preserve Council. She is also vice-chair for the West Michigan Preserve.

“I read about shipwrecks in my 20s and thought they would be very scary to dive upon. But they are fascinating,” said Chase, who began diving in 2004 with her husband, Paul Chase, the underwater photographer.

“I think the coolest dive I’ve made is on the William Young in the Straits of Mackinac Shipwreck Preserve. It was a sailing vessel and still has coal on it,” Chase said.

The *William Young* sits upright in 120 feet of water. The 139-foot wooden schooner was built in 1863 in Marine City, MI, and its home port was Detroit. It sank with a load of coal in 1891 and is one of 13 shipwrecks in that preserve.

Michigan’s underwater preserves provide a great opportunity for tourism in Michigan, Chase notes, and can be a family vacation destination. All are located near one or another shoreline community, she adds, where family members that don’t dive can enjoy themselves at local beaches and shops.

**Glass-bottom boat shipwreck tours:**
- Munising – shipwrecktours.com or 906-387-4477
- Alpena – alpenashipwrecktours.com or 888-469-4696

**Dive charters:**
- Straits of Mackinac to Alpena – greatlakesdivecharters.net
- Lake Huron – rectecdivecharters.com and blueheavenscuba.com
- More dive info at michiganpreserves.org

Learn more about the shipwreck preserves at [michiganpreserves.org](http://michiganpreserves.org) and the West Michigan Preserve at [wmup.org](http://wmup.org)
For many, answers to our nation’s energy and climate change challenges lie in the wind. From commercial wind farms to backyard setups, the sky scraping structures with massive rotating blades have become synonymous with “going green.”

At the end of 2012, wind generated about 60,000 megawatts of electricity in the United States—enough to serve over 15 million homes. Wind power production is booming, with output increasing leaps and bounds over the past several years.

Costs are dropping for wind power projects, although federal subsidies are still necessary for wind to compete with traditional sources of electricity generation. A January 2012 study from the U.S. Department of Energy’s Lawrence Berkeley National Laboratory reports it costs between 24 percent and 39 percent less to produce wind energy on a per-kilowatt-hour basis today than it did a decade ago.

As of early 2013, 50 electric co-ops either own wind turbines or buy output from wind farms, amounting to 4.3 gigawatts (GW), or about 9 percent of the U.S. wind generating capacity, according to the American Wind Energy Association.

Like any resource, wind has pluses and minuses when it comes to making electricity. Here’s a look at how wind power stacks up.

**Intermittency Issues**

Wind power development opportunities vary greatly throughout the country. It’s viable in many states, ranging from the Great Plains and Midwest as well as the Atlantic Coast, but is limited in the Southeast and Southwest.

Yet even in locations with strong wind resources, an active wind turbine typically only generates 30 to 40 percent of its “capacity factor”—the total electricity it could generate operating around-the-clock. A 2010 National Renewable Energy Laboratory survey found less than 1 percent of land in states like Alabama, Kentucky and Georgia was windy enough to achieve at least 30 percent capacity factor.

Wind is also an “intermittent” fuel source. The wind doesn’t blow all the time, so electricity generation is not reliable or constant. Energy from wind usually peaks in the early morning, when most people are still sleeping and not using electricity. Intermittency means coal- and natural gas-fired power plants must act as backups so electricity continues to flow as needed when the wind isn’t blowing. Backup power sources increase the total cost of wind generation.

**Energy Storage**

As of now, technology to store power from renewable energy—so it can be used later—is still immature and expensive. Wind and other renewables could become more valuable as advancements in energy storage systems are tested. First developed in the 1970s, energy storage is becoming more economical on a large scale thanks to recent manufacturing breakthroughs that increase the longevity while lowering the cost of batteries. With energy storage, the electricity produced by wind can be used during times of peak demand—the electric utility industry’s version of rush-hour traffic, when power use skyrocket—to avoid buying expensive backup power.

“Energy storage would also reduce the intermittency of wind, which allows for more efficient use of backup generators, among other benefits,” says Doug Danley, technical liaison on renewable and distributed energy for the Cooperative Research Network. “CRN is continuing to study energy storage systems so that electric co-ops can best use these technologies to the advantage of their consumer-members.”

**Environment & Transmission**

Before turbines go up, studies must be done to judge the wind’s variability in a given area. And although the sight of a tall, white wind tower may not be as intrusive as other types of power plants, environmental and economic impacts must be assessed. Will the turbine kill songbirds and bats, or disrupt their migratory patterns? Will shipping routes be affected by an offshore wind farm?

Once the electricity is produced, moving it from a wind farm to homes can be difficult. Transmission infrastructure may not be available in areas where the wind blows best, and building new transmission lines takes time, money, and a lengthy regulatory approval process.

**Investing in Local Communities**

The clear advantage to wind power is its “renewable” status, but there can be economic benefits, too. Fifty-three remote communities served by Alaska Village Electric Cooperative, based in Anchorage,
are able to harness wind and reduce their dependence on pricey diesel fuel that led to retail electricity rates of 51 cents per kilowatt-hour, almost five times the national average.

Some rural communities are developing wind power to revitalize their economies. In Missouri, Atchison-Holt Electric Cooperative was losing businesses and young people until it discovered growth through renewable energy. Building several wind projects spurred an economic renaissance that included biodiesel plants and new small businesses.

In a similar boon of local investment in 2010, the South Dakota Wind Partners venture garnered $16.6 million from over 600 investors to build the Wessington Springs Wind Farm near White Lake. As required by law, all investors were South Dakotans, but most were also associated with one or more of the farm’s organizers: East River Electric Power Cooperative, a generation and transmission co-op in Madison; South Dakota Farm Bureau Federation; South Dakota Farmers Union; and the South Dakota Corn Utilization Council.

South Dakota Wind Partners was possible after the passage of the federal stimulus bill, which created the 1603 grant-in-lieu of tax credits program providing a cash payment (tax grant) of up to 30 percent of qualifying project costs. This provision expired in 2011. “Were it not for 1603 tax grants, the Wessington Springs Wind Farm would not have happened,” notes Jeff Nelson, East River Electric Power general manager. “It opened the door for small investors to come together to create a unique, locally-owned community wind project.”

Electric Co-ops Working For You

While great strides have been made to include renewable energies like wind power into America’s electricity generation portfolio, making wind work as a reliable, affordable energy source will take time. Electric co-ops, including Michigan’s, have long been on the forefront of new technologies.

For example, Wolverine Power Cooperative, in Cadillac, MI, has purchased the total output of the Harvest Wind Farm, the state’s first commercial-scale wind project, to serve its member co-ops since the farm began generating electricity in December 2007.

All Michigan electric co-ops will continue to evaluate and implement renewable energy opportunities that work for their member-owners. To find fuel mix percentages for your co-op, go to countrylines.com and click on “My Co-op/co-op name/March issue.

Geothermal: Energy from the Ground Up

Geothermal energy—created from Earth’s natural heat—has been used for thousands of years to cook and bathe. But modern technology has unlocked new ways to harness geothermal’s energy potential by using the hot water and steam locked below the Earth’s surface to produce electricity and heat and cool buildings.

America leads the world in geothermal power production. Nine states (Western states produce the most) generate nearly 3,200 megawatts (MW) of capacity, and over 100 new projects are developing in 14 states, reports the Geothermal Energy Association, the national trade association for geothermal companies. For comparison, 1 MW can power 750 to 1,000 average homes.

How It Works

Typical fossil fuel-burning and nuclear power plants heat water to boiling to create steam. The steam turns a turbine, which generates electricity.

Geothermal power stations cut out the middle man by piping naturally-heated water (changed into steam) or naturally occurring steam into a plant to spin turbines. Three types of geothermal generation exist; the choice depends on the state of the steam or water and its temperature.

Dry steam: The first type of geothermal power plants built, these use steam from a geothermal reservoir (pulled from wells) and route it directly through turbines to create electricity.

Flash steam: The most common, these plants pump water with temperatures over 360 degrees F under high pressure to generation equipment. The steam is separated from the water and used to make electricity; leftover water and condensed steam are channeled back into the reservoir.

Binary cycle: These plants use moderately- to low-temperature groundwater or steam. In this type of system, hot water is pumped from a well and passes through a heat exchanger, where it warms a secondary fluid with a lower boiling point than water. This causes the secondary fluid to flash to vapor, which then drives a turbine. The secondary fluid then condenses and returns to the loop system, and the water gets pumped back into the well.

Other Uses

Geothermal energy offers an array of benefits beyond power generation. In some cases, hot water can be piped directly into systems to heat buildings, greenhouses and fish farms. Some cities run hot water under roads and sidewalks during winter to melt snow and ice.

The top 10 feet of earth stays a mostly constant 50 to 60 degrees F year-round. Geothermal heat pumps rely on the ground’s energy to move heat into and out of a building, providing heating and cooling. Also called ground-source heat pumps, these come in two types: a groundwater (open-loop) unit uses well water; an earth-coupled (closed-loop) model moves a water and antifreeze solution through underground pipes to disperse heat.

While geothermal heat pumps generally operate more efficiently than their air-source cousins, they are more expensive to purchase up-front, and a heat pump may not always be the best option for every situation. However, a federal tax credit equal to 30 percent of the cost for materials and installation, with no limit on total project expenses, applies to geothermal heat pumps through Dec. 31, 2016.

To decide if a geothermal heat pump is right for you, find requirements and product lists at energy.gov/taxcredits. More information, including a list of contractors and tips for finding one, is available from the Michigan Geothermal Energy Association at earthcomfort.com (248-396-8231). To check for other rebates, see the Database of State Incentives for Renewables and Efficiency (dsireusa.org).


After the sun warms the Earth, a geothermal heat pump system can use that stored heat energy to heat your home (and cool it, in a reverse process).
After many years, my geothermal system developed a freon leak in May of this year. The leak was in the worst of all places, and fixing it would cost about $2,000. We had already been debating when to replace our geothermal system for the past three years. Should we replace it while the system is still working to take advantage of the 30 percent tax credit, or do we wait until the system breaks down and take the chance the credit may be gone? As the executive director of the Michigan Geothermal Energy Association (MGEA) it would be really embarrassing to replace it with a gas or propane system. The question was not what kind of system to buy, but when.

Over the past 14 years, the average heating and cooling bill for our 2,700-square-foot house (with a 1,200-square-foot basement) has been less than $60 a month. I know many of you have heard that a geothermal home must be kept at 60 degrees in the winter and 88 degrees in summer, but that is an Urban Legend (Country Lines told me I had to include the word “urban” in every article). I prefer to keep the house at 71 degrees in the winter, but my wife prefers 72, so we keep our house at 72 degrees (every husband needs to reread this line). We keep our house at 73 degrees in the summer. Even at those settings, we have paid for our geothermal system many times over, and my bills are about $1,000 a year less than my neighbors—who keep their homes at 68 degrees.

The real question was timing. Currently, there is a 30 percent federal tax rebate on geothermal through 2016, and it is unlimited. About three years ago, we got a 2.4-kilowatt solar panel array on our roof and got a 30 percent tax credit (about a $7,500 credit) for that. Now we will get another tax credit, but we all know how government programs work—funding can run out (cash for clunkers) and the program can end prematurely. It is equally likely that the 30 percent tax credit could be extended. Who knows? If anyone thinks they can predict government, I have a bridge in Brooklyn to sell you.

So, the question is: Do you buy a new geothermal system now before the tax credit runs out or do you wait till the unit dies and replace it without the tax credit? Here is how I looked at it: We intend to stay in our house for at least 10 more years. The current geothermal system will probably not last another 10 years. Therefore, we are going to have to replace it anyway in the next 10 years. Therefore, it makes more sense to do it with a 30 percent tax credit. My new unit should last 20 years, so this will be the last heating and cooling system I buy.

When my existing unit needed repair, it expedited the decision. Either that or it was incredibly brilliant planning on my part to replace the unit in May when we didn’t need heating or air conditioning that week.

Of course, my new unit will be more efficient and quieter. Between my solar panels and geothermal unit my summer bills are quite low—52 cents last July. June was less—where the utility actually paid me. I mention this even though I know I get absolutely no sympathy from anyone (maybe my accountant).

If you’re thinking about a geothermal heating and cooling system, check out the MGEA website at earthcomfort.com to find a dealer near you. I would also urge you to take advantage of that 30 percent credit before it is gone. Getting money back from the government really feels good. Almost as good as a 52-cent electric bill in July.

Larry Kaufman is executive director of the Michigan Geothermal Energy Association. MGEA is a 20-year trade organization that promotes high-quality geothermal energy systems that meet the comfort, efficiency and environmental needs of customers.
Tell us about your favorite Michigan-Made product! Please send a few short paragraphs describing the product and why you like it, along with your email and phone number to gknudtson@meca.coop or call 517-913-3531.

Cheers to Michigan Beers

July is Michigan Craft Beer Month for the state’s more than 100 commercial craft brewers and their growing economic impact on agriculture and tourism. Michigan ranks fifth among states in number of breweries, microbreweries and brewpubs, and its 20 percent growth last year outpaced the nation. The hopping beer scene is so vibrant that the Pure Michigan advertising campaign is airing a radio spot about it, and carries information on beer trails and brewery tours at michigan.org/breweries.

Larry Bell is the founder of the state’s modern craft beer movement; he made his first beer in a 15-gallon soup kettle in 1985. Today, Bell’s Brewery is one of the top craft brewers in the country and is still located in its hometown of Kalamazoo. That city placed second in the 2013 Beer City USA poll, just behind winner Grand Rapids and ahead of fourth-place Ann Arbor.


Mitten Bar Fits Her Like a Glove

When is a beer not just a beer? When it’s the ideology behind a gathering place for those who enjoy the camaraderie shared over a handcrafted adult beverage. That’s the thinking that launched The Mitten Bar, a Ludington hangout that serves only Michigan-made beer, wine, spirits and hard cider.

The concept came to owner Megan Payment and Brian Josefowicz, her fiancé and business partner, as they sampled their way across the state’s wine and beer trails. “The beer was great,” says Payment about their tasting tour of brewpubs, microbreweries and breweries. “But that was almost secondary. It was how people treated each other, how everyone could get along,” that she says impressed the couple and inspired them to open their business in July 2011.

Payment, 27, who graduated from Aquinas College with dual major in business administration and communications, is no stranger to the food and beverage industry. Her parents, Mike and Julie Payment, own the Sportsman’s Restaurant and Irish Pub, a Ludington landmark since 1955. But she wasn’t planning on it as a career. “I wanted nothing to do with my parents’ place,” she says. “I have a lot of great childhood memories, but it’s just not me. This (The Mitten Bar) really fits who I am.”

Named for the Lower Peninsula’s shape, The Mitten occupies a 1900s building with exposed brick walls and vintage wood flooring. The cozy tavern serves no food (guests can carry-in, and Sportsman’s is next door), just a changing menu of 40 Michigan bottled beers and a selection on-tap, plus about two dozen spirits and a small selection of wines. But here, Payment says, “It’s not just about drinking, by any means. It’s a ‘third place’—not home, not work—we’ve developed a community place. Our regulars have become family. It’s more about the interaction.” She and Josefowicz, 31, who studied business and photography at Grand Valley State University, post short, “wonderfully awkward” videos on Facebook with updates on beverage releases, weekly band appearances, and progress reports on their new venture, Barley & Rye.

Housed near The Mitten, Barley & Rye offers craft beer and whiskey from around the world and a short menu of “fast, casual foods,” like charcuterie (cooked, cold meats) and pulled pork, specialties of foodie Josefowicz. The hop vines growing in the outdoor beer garden make it an especially good setting for sipping a refreshing brew.

The Mitten Bar: A Michigan Ideology
Ludington, MI
mittenbar.com • 231-843-7616
megan@mittenbar.com

Short’s Brewing Company, Bellaire

July/August 2013 | 13
FAMILY | Lisa Marie Metzler

**Park, Picnic & Play**
Family friendly places to enjoy the outdoors.

Nothing embodies summer more than a casual picnic. Mention it to your kids and they instantly smile. There’s just something magical about eating food outside on a picnic table or on the green grass. Pack your own picnic or stop at a roadside market along the way to add to the adventure. Here’s five suggestions that will make any picnic a memorable experience.

1 **SILVER BEACH**
   101 Broad St, St. Joseph
   Located at the mouth of the St. Joseph River, this park provides river and beach activities. It boosts three playground structures with soft surfaces; two are age specific. One is for children ages 2-5. The other is designed for children 5-12. Kid’s will imagine life on the high seas with the red and blue “boat” structure. Nautical talking-and-listening tubes will give the captain and the crew hours of fun. Enjoy your picnic and playtime in the park then take a 5-minute stroll on the boardwalk from the beach to the Silver Beach Carousel, Curious Kids’ Museum and the free interactive Whirlpool Compass Fountain for more hours of family fun.
   **Fees:** $6/vehicle for Berrien County residents, $8 for non-residents (carousel and museum have additional fees)
   **Website:** berriencounty.org

2 **HAWK ISLAND**
   1601 E. Cavanaugh Rd., Lansing
   Work up an appetite first by renting a rowboat or pedal boat for a small fee. Picnic spots abound at various locations around the beach. Paved accessible walkways for walking or bike riding (1.5 miles), fishing docks, horseshoes, playgrounds and the popular Splash Pad® beckons young and old alike. A concession stand is also available if you didn’t pack enough treats in your picnic basket.
   **Fees:** $3 annual fee per vehicle for Ingham County residents or $5 for non-residents
   **Website:** pk.ingham.org

3 **EAST PARK**
   Little Traverse Wheelway, Petoskey
   This $13 million renovation project has been touted the “crown jewel of the north” in downtown Petoskey. You’ll have plenty of green space to picnic, or choose from one of the many picnic tables along the park’s paved walkway. Take in the beautiful boats and yachts docked in the marina during your stroll. You may never get the kids away from the Charlevoix Fountain of Youth, a state-of-the-art interactive kids’ fountain. The water is heated and there are multiple water nozzles and choreographed LED lighting and music. Don’t forget to check out the East Park Trout Habitat while you’re there. This fully functioning trout ecosystem replicates the conditions found in a northern Michigan trout system.
   **Fees:** free
   **Website:** charlevoix.org

4 **DUCK PARK & ISLAND PARK**
   Corner of U.S.-31 and Long Rapids Road, Alpena
   Picnic in Duck Park along the 1,200 feet of Thunder Bay frontage and stroll across the walking bridge into Island Park, a 17-acre island in the middle of the Thunder Bay river. Pack your binoculars to zoom in on the various bird species, including the mallard duck, great blue heron, or mute swan. These parks boast a 500-acre wildlife sanctuary with varied ecosystems including sand dunes, meadows, woodlands and marshes with viewing platforms so you’re bound to see all kinds of wildlife, including the amusing antics of beavers. Fish from wooden platforms or take a self-guided 3/4-mile nature walk.
   **Fees:** free
   **Website:** alpena.mi.us

5 **HORSESHOE FALLS**
   Munising
   An abundance of photo ops await at this privately owned attraction. One million gallons of pristine water fall over the top of Horseshoe Falls, which is fed by the underwater springs of Lake Superior. Bring your picnic basket, but save room for ice cream at the gift shop. Walk the well-maintained gardens and follow the gentle stream. Feed the rainbow trout and ducks at the trout pond. Scavenger hunts will keep the kids entertained by looking for a variety of items, including the whimsical Laafs (pronounced laughs) figurines. Adults can enjoy the many points of interest, such as the sundial, totem pole, water wheel and Indian 10 Commandments.
   **Fees:** $6/adults, $5 and under for children depending on age, or family ticket, $19
   **Website:** uppermichiganwaterfalls.com

For a listing of Michigan state parks, nature preserves, refuges, gardens, arboretums and other “hot spots” across the state, visit michigan.org/nature-parks or call (888) 784-7328.

Janet TenHove and sons Cody and Jesse take a break break from watching muskrats at Hawk Island.
Create Tasty Centerpieces

...with veggies from your own garden.

When most people think of centerpieces they think of flowers, but not Tim Latimer, a certified florist and floral design instructor at Michigan State University (MSU). “Vegetables are every bit as colorful as flowers,” Latimer notes. His own bountiful centerpieces are proof, with artful clusters of vegetables catching the eye with pleasing textures and a rainbow of colors.

It all started in the mid-1990s when Roger Swain of the PBS “Victory Garden” TV show came to speak at an MSU Garden Days event. “I thought it would be neat to try something different,” Latimer recalls. “Given Roger’s affiliation with the Victory Garden, vegetables seemed a natural for a centerpiece for his hotel room.” Latimer’s centerpiece was a big hit, and he’s been designing with vegetables ever since. “When you think of it, many vegetables ARE flowers – cauliflower, broccoli heads, asparagus tips,” he explains.

Firm vegetables work best in these arrangements, since they have to be inserted in floral foam (ripe tomatoes wouldn’t work well!) in order to use them in a centerpiece, Latimer says. First, cut the foam to the container size, then soak the foam in water. Hide the foam with dried moss that has been wetted down, or bark also works, and both can be found at craft stores. If you are going to eat the centerpiece afterwards, use sturdy natural toothpicks instead of painted floral picks. With a round vegetable, like Brussels sprouts or radishes, insert the pick into its base and then insert the pick into the foam. With long vegetables, such as asparagus or carrots, trim the end to a point so it can be easily inserted into the foam, or use wire to attach it to a floral pick.

Herbs, kale or sturdy leafy vegetables make a great filler. Latimer especially likes rosemary, dill and fennel, which add both texture and aroma. Latimer also plants his garden with vegetables that he knows work well in his arrangements: squash, pumpkin, eggplant, green tomatoes, corn, potatoes, onions and green beans. “The important thing is to use a variety of textures, height, shapes and sizes when selecting your vegetables, and I like to use vegetables that are in season,” he adds.

Vegetable centerpieces can work for any occasion except more formal events. Keep in mind the size of your container when choosing vegetables. For large containers, Latimer has even used whole cabbage heads and large eggplants. For smaller arrangements, choose vegetables that will not overwhelm the container.

For even more texture and color, he suggests adding more natural-looking flowers, since vegetable arrangements are more informal. Other ideas include adding natural branches, dried lamb’s ear, thistle or ornamental grasses to finish your centerpiece.

Rita C. Henehan is an author, freelance writer and photographer. For more on vegetable centerpieces, visit her website, migardenerscompanion.com.

CLASS OFFERED:
Floral designer Tim Latimer will offer a class entitled “Designing from the Garden,” for both home gardeners and professional designers, on Aug. 17, noon to 4 p.m., at the Michigan Floral Association in Haslett (near East Lansing). Find more information about it and other classes at michiganfloral.org.
Seafood recipes are some of the most popular with Country Lines readers. Low in calories, cholesterol and sodium, seafood is a healthy (and delicious!) addition to your diet.

**Crab Cakes with Lime Sauce**
1 medium lime
1 c. Hellman’s® mayonnaise, divided
1 envelope Good Seasons® Italian Salad Dressing mix
2 T. dijon mustard
2 6-oz. cans crab meat, drained, flaked and small shells removed
25 Ritz® crackers, finely crushed, divided
2 T. chopped green onions
1/4 c. sour cream

Grate the peel and squeeze the juice from the lime. Mix half of lime juice, 1/2 cup mayonnaise, salad dressing mix, and mustard in medium bowl until well-blended. Add crabmeat, 1/2 cup cracker crumbs and onion. Mix lightly. Shape into 16 (1/2-inch thick) patties; coat with remaining cracker crumbs. Add crabmeat, 1/2 cup cracker crumbs and onion. Mix lightly. Shape into 16 (1/2-inch thick) patties; coat with remaining cracker crumbs. Add crabmeat, 1/2 cup cracker crumbs and onion. Mix lightly. Shape into 16 (1/2-inch thick) patties; coat with remaining cracker crumbs. Add crabmeat, 1/2 cup cracker crumbs and onion. Mix lightly. Shape into 16 (1/2-inch thick) patties; coat with remaining cracker crumbs.

**Smoked Salmon Dip**
8 ozs. cream cheese, at room temperature
1/2 c. sour cream
1 T. lemon juice
1 T. fresh dill, minced
1 t. prepared horseradish, drained
1/2 t. salt
1/4 t. black pepper
1/4 lb. (4-oz.) smoked salmon, minced

Cream together cream cheese, sour cream, lemon juice, dill, horseradish, salt and pepper. Mix well. Add the smoked salmon and mix again. Chill and serve with crackers.

**Coconut Mahi Mahi Over Rice**
4 mahi mahi fillets
1 small can sweetened condensed milk
1 small can coconut milk
flaked coconut, unsweetened
1 T. parsley
4 T. sliced almonds (optional)

Preheat oven to 350°. Place Mahi Mahi fillets on a baking sheet and bake for 10 minutes. While fish is baking, prepare instant rice according to package directions except decrease the water by half and replace with coconut milk. After fish has baked for 10 minutes, generously coat the fish with the condensed milk. Bake for additional 5-7 minutes or until condensed milk begins to thicken. When rice is done cooking, pour onto serving plate. Sprinkle with flaked coconut, parsley and sliced almonds. Place fish atop the rice and serve.

**Shrimp With Gnocchi**
1 lb. fresh or frozen shrimp, peeled, deveined and tails removed
2 lb. gnocchi (fresh or dried)
1/2 c. butter
4 T. olive oil
1/2 c. white wine
1 t. garlic powder
1/4 t. salt
1/4 t. ground pepper
1/4 t. Italian seasoning (optional)

Boil 4 quarts of water. Add gnocchi and cook for 3 to 4 minutes, until done. Drain. Meanwhile, melt butter and oil in large skillet. Add shrimp and cook until pink. Mix in wine and spices and simmer for about 5 minutes. Mix shrimp with gnocchi and serve warm.

**Fish Tacos**
1/2 c. sour cream
1/2 c. mayonnaise
1/4 c. fresh cilantro, chopped
1 package taco seasoning mix, divided
1 lb. cod or whitefish fillet, cut in 1-inch pieces
2 T. vegetable oil
2 T. lemon juice
1 (12 count) package taco shells or flour tortillas, warmed

**Toppings:**
shredded cabbage
chopped tomato
lime juice
taco sauce

Combine sour cream, mayonnaise, cilantro, and 2 tablespoons seasoning mix in small bowl. Combine fish, oil, lemon juice and remaining seasoning mix in medium bowl; pour into large skillet. Cook, stirring constantly over medium heat for 4 or 5 minutes, or until cod flakes easily with fork. Fill taco shells with fish mixtures. Top with toppings. Serves 6.

**Myrna Smith, Walkerville**
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 send in recipes!** Please send in “Holiday Desserts” by Aug. 10 and “Shakes & Smoothies” by Oct. 10.

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

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**Parmesan Baked Salmon**

1/4 c. salad dressing  
1/8 t. red pepper flakes  
1/2 t. salt  
4 1-lb. salmon fillets  
2 T. parmesan cheese  
2 t. lemon juice  
1/2 c. Ritz® cracker crumbs  

Mix all ingredients except salmon and cracker crumbs. Place salmon in baking dish. Spread cheese mixture over salmon. Sprinkle with cracker crumbs. Bake at 400° for 12 to 15 minutes, or until salmon flakes easily.  

_Arlene Yoder, Scottville_

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**Easy Clam Chowder**

3 slices of bacon, diced  
1 c. diced onion  
3 c. diced potatoes  
1 8-oz. bottle clam juice  
1 t. salt  
1/4 t. pepper  
2 bay leaves  
2 dashes hot sauce  
2 7-oz. cans minced clams  
3 T. flour  
1 1/2 c. half and half  
1 1/2 c. whole milk  

In a Dutch oven, cook bacon until crisp. Remove with a slotted spoon and drain on paper towels. Add the onion to the bacon drippings and sauté until softened. Add potatoes, clam juice, salt, pepper, bay leaves and hot sauce. Cover and simmer for about 15 minutes, or until potatoes are tender; remove from heat and add clams (with their liquid). Whisk the flour into the milk and add to the chowder, then add the half and half. Cook over medium heat, stirring constantly, until chowder thickens and bubbles. Remove the bay leaves prior to serving. Garnish with a dollop of sour cream and chopped fresh chives (if desired). Serves 4.  

_Leanne Walling, Munising_

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**Seafood Lasagna**

1 garlic clove, minced  
1/2 lb. crab, cooked, shredded as bite-size pieces  
10 ozs. shrimp, cooked (if large shrimp are used, cut into bite-size pieces)  
3 T. butter  
3 T. flour  
1 t. Italian seasoning  
1/8 t. pepper  
1 c. milk  
1 c. chicken broth  
1 c. ricotta cheese  
2 t. lemon peel  
1 T. lemon juice  
5 lasagna noodles  
3/4 c. shredded parmesan cheese, divided  

Heat oven to 375°. Lightly butter the bottom and sides of an 8- or 9-inch baking dish. Set aside. Cook garlic in butter over medium heat, until soft, approximately 1 minute; stir while cooking. Remove from heat and stir in flour, Italian seasoning and pepper, until sauce is smooth. Gradually stir in milk and broth until smooth; heat to boil over medium heat, stirring frequently. Boil and stir 1 minute; remove from heat.

Gently fold cooked shrimp and crab into the sauce. Divide the sauce into fourths; set aside. In a separate bowl, combine ricotta and lemon juice; set aside. Cook noodles per directions on the box; drain and cut each noodle in half.

Spread one-fourth of the cooked sauce in bottom of greased baking dish. Lay three noodle pieces over the sauce and top with 1/2 cup of the ricotta mix, one fourth of the seafood sauce, and 1/4 cup parmesan cheese. Repeat, covering noodles with ricotta mixture, sauce and cheese. Top with another 3 noodle pieces and remaining seafood sauce. Cover with foil and bake for 30 minutes. Uncover and top the lasagna with the remaining 1/4 cup parmesan cheese. Bake 10 minutes more to melt cheese. Remove the baked lasagna from the oven, or place it under the broiler, briefly, until lightly brown. Let it rest a few minutes before serving.  

_Debbie Coombs, Wayland_

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**Fool-Proof Shrimp Creole**

2 T. olive oil  
1/2 c. onion  
1/2 c. green pepper  
1/2 c. celery  
1 t. chili powder  
1 1/4-oz. can diced tomatoes  
1 8-oz. can tomato sauce  
1 T. tabasco sauce  
1 T. Worcestershire® sauce  
1 t. white sugar  
salt and pepper to taste  
1 1/2 lbs. raw shrimp, peeled and deveined  
cooked rice  
chopped green onions  

Heat olive oil in skillet. Add onion, green pepper and celery; cook until soft. Add chili powder. Transfer all to slow cooker and add tomatoes, tomato sauce, tabasco, Worcestershire, sugar, salt and pepper. Cook on high 3 hours. Add shrimp and cook 3 minutes. Serve over rice and garnish with chopped green onions.  

_Tommie Schmidt, Union_

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_Crab Cakes with Lime Sauce_
How Cherryland Electric Cooperative’s Community Solar Works

**SUN Share contract**

Solar Up North (SUN) members sign a contract to purchase a SUN share. Members can purchase multiple shares. Each share represents one full panel in the array.

**Panels installed in community solar array**

After the member purchases a SUN share, one panel is installed in the array for every share sold. If a member purchases one share, one panel will be installed. If a member purchases 10 shares, 10 panels will be installed.

**Solar array produces electricity**

Each panel in the array can produce approximately 300 kWh annually. As electricity is produced by the array, it is fed into Cherryland’s office and used to power our community.

**SUN member receives monthly bill credit**

Each month, SUN members will receive a bill credit for the return on their shares.

Reserve your shares today cecelec.com
Last year I wrote an article about the emerald ash borer (EAB) and its effect on trees in our service area (July/August 2012).

The winter of 2013 seemed hard on the affected trees and we received many calls from our members worried about dying trees near the lines. Most notably, after the winter was the change in bark color of the damaged trees.

This discoloration was actually caused by woodpeckers and not by the beetle. And while these trees look bad, they are not an immediate threat to our power lines. You will also likely have noticed that these trees have actually developed leaves this year.

If the damaged tree has retained 70 percent of its crown, it may still be saved by injections of pesticides. Contact a tree care specialist near you for more information if you are interested in saving your trees.

Cherryland Electric Cooperative has begun the process of inventorying the affected trees that could damage our primary lines. Most of these trees are outside of our 30-foot easement, but will likely cause outages for many members if no action is taken.

The trees that we believe are a threat will be marked with a red ribbon for destruction. Trees that will be cut down will be sawed into a manageable length and the brush stacked. Nothing will be removed from your property by our tree trimmers.

If you have trees that are a threat to your service line, we will disconnect your service while you have a tree service remove the trees.

We will not remove trees that are a threat to a member’s service lines. A postcard informing you of tree work in your area will be sent prior to any cutting being done.

We will also provide updates on our Facebook page. There are thousands of trees that are affected at this time. We have begun the process of cutting them down and the work will unfortunately need to continue for several more years.

You can help stop the EAB problem by not moving wood to other areas. If you have questions or concerns, please call me at 231-486-9217.

Visit emeraldashborer.info for more information about this insect and how to deal with damaged trees.
Wolverine Power Cooperative (Cadillac, MI) and We Energies (Milwaukee, WI) have received regulatory approvals from three agencies for their partnership at the Presque Isle Power Plant in Marquette, MI. The Michigan Public Service Commission, Public Service Commission of Wisconsin and Federal Energy Regulatory Commission have approved the partnership between the two companies.

Two additional approvals are needed before proceeding with the construction of an air quality control system (AQCS) at the power plant. Wolverine and We Energies are required to obtain approval from the Federal Trade Commission for the transaction. The Michigan Department of Environmental Quality (MDEQ) must also approve an air quality permit for the construction project.

“MDEQ staff members are currently reviewing the permit application,” reports Brian Warner, Wolverine’s vice president of environmental strategy. “We are working closely with them and anticipate a draft permit will be issued later this summer.”

Once a draft air permit for the AQCS is issued, the MDEQ will accept written comments from the public and schedule a hearing in Marquette to provide an opportunity for additional comments.

“If all regulatory approvals are received, Wolverine will invest in construction of the air quality control system. In return, the cooperative will own approximately 30 percent of the plant’s output.”

If all regulatory approvals are received, Wolverine will invest in construction of the AQCS. In return, the cooperative will own approximately 30 percent of the plant’s output. We Energies and its employees will operate both the plant and new AQCS.

The project is proceeding according to the timeline anticipated by Wolverine and We Energies. The companies expected regulatory approvals to take the majority of 2013. Construction of the AQCS is slated for 2014 and 2015, and operation of the plant with the new controls is scheduled for 2016.

“The new controls will meet state and federal air quality requirements and ensure continued operation of an important source of electric generation in Michigan’s Upper Peninsula,” Warner says. “The Presque Isle Plant is key to electric reliability in northern Michigan.”

Michigan Gov. Rick Snyder voiced support for the project in November 2012 at a news conference held by Wolverine and We Energies in Marquette to announce the partnership.

“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-the-art emissions equipment.”

The Presque Isle Plant, located on the Lake Superior shore, consists of five coal-fueled units capable of generating approximately 344 megawatts as currently operated. The units were built between 1974 and 1979.
What Do You Need From Extra AC?

Ask yourself what you want from a supplemental air-conditioning unit before buying one—window units and mini-split heat pumps both have good qualities.

Q: We added a room, but our central air conditioner doesn’t cool it well. Our second-floor master bedroom also does not stay cool. Does it make more sense to install a window air conditioner or a mini-split system?

A: This is a common problem, especially for second-floor rooms. Cool air is denser than warm air, so it can drop to the first floor through cracks, gaps and stairs. Second-floor ceilings are also exposed to the hot underside of the roof, and tend to stay warm well into the evening.

Whether you install a mini-split heat pump or a window air conditioner depends on what you need and want. Most people install a window air conditioner to provide extra cooling in a room at a low initial cost, and energy efficiency is not their primary concern. Mini-split heat pumps offer many bonus features (heating and cooling, quiet operation, flexible installation, control) and increased efficiency, but at a higher initial cost.

The main drawback for mini-split heat pumps is cost. A window unit generally sells for under $300; mini-splits can run to $1,000 or more, plus the installation cost. Also, unlike a window unit, mini-splits can’t be moved once they are installed.

I have a two-story house with a central heat pump. I recently installed an LG Art Cool® mini-split system in the master bedroom. I selected the smaller output 9,000 Btu-per-hour model, which has a seasonal energy efficiency ratio (SEER) of 28 and inverter compressor technology—twice as efficient as the central heat pump. I chose the heat pump version so it can also heat efficiently during winter.

A window air conditioner has all its components—compressor, air circulation fan, condenser fan, etc.—in the cabinet mounted in the window. While it is insulated against heat flow and sound, it still is not ideal for energy efficiency. The newest ones are fairly quiet, but may still be annoying in a bedroom. When it’s not running, more outdoor road noise can also be heard.

A mini-split system is similar to a central air conditioner or heat pump, with the condenser fan, coils and compressor in an outdoor unit, which is flat and small. Mine is mounted high on the garage wall so I can walk under it on an existing walkway.

Some models allow the outdoor unit to be placed up to 100 feet from the room or group of rooms to be cooled or heated. This virtually eliminates indoor noise pollution from these components.

Instead of having the indoor cooling coil in an air-duct system, as with most central air conditioners, the coil is mounted in a fan unit on the wall or ceiling of the room. It’s connected to the outdoor unit by refrigerant and electric lines. Only a 3-inch-diameter hole needs to be cut through the wall, and the condensate drain from the evaporator coils can go out through the same hole.

Mini-split systems can also be used to cool an entire house by installing indoor wall units in several rooms. The conditioned air will naturally circulate throughout the house. This is commonly used in homes with baseboard electric or hydronic heat, which lacks a duct system. Installing a duct system for central air-conditioning in an existing two-story house can be an expensive project.

In addition to the high SEER rating, installing a mini-split unit allows for zone cooling of your house, which can also lower your electric bill. In my case, there’s no need to keep the downstairs cool all night when I’m in the upstairs bedroom. The mini-split system allows me to set the central heat pump thermostat higher at night so it runs very little. This provides substantial electricity savings.

Inverter compressor technology is the newest, most efficient trend in air conditioning. The compressor runs at variable speeds to provide for variable cooling output. Once the room cools down to the thermostat setting, the inverter compressor speed slows to keep the room at that temperature.

The remote control has several modes of operation, including a dehumidification setting for summer, which slows the fan speed so the indoor air is dehumidified more than it is cooled. This is ideal for allergy sufferers who are sensitive to high humidity but don’t want a cold room.

There’s also a “jet” setting that switches either the heating or cooling mode output and fan speed to high for changing the temperature quickly. This conserves energy because you can turn it on only when you use a particular room instead of keeping the room hot or cold continuously.

To learn more, visit:
- energy.gov/energysaver/articles/ductless-mini-split-heat-pumps
- energystar.gov > Products > Find ENERGY STAR Products > Ductless Heating and Cooling

Companies offering mini-split units:
- Carrier, 800-227-7437, carrier.com
- Fujitsu General, 888-888-3424, fujitsugeneral.com
- LG, 888-865-3026, lg-dfs.com
- Mitsubishi Electric, 800-433-4822, mehvac.com
- Samsung, 888-699-4351, quietside.com

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

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

Check Your Boats & Docks

For a fun, safe season on the water, there are items you must legally have on-board your watercraft—life vests, a fire extinguisher, a throwable flotation device, and properly working lights. But the list should not end there when it comes to helping prevent a tragedy, so make sure the boat itself and the dock is safe, too!

July 2012 saw some horrific fatal accidents near boats and docks. A 26-year-old woman was swimming in Lake of the Ozarks and was electrocuted when she touched an energized dock ladder, and a 13-year-old girl and her 8-year-old brother received fatal shocks while swimming near a lighted dock with an improperly grounded circuit.

Two young Tennessee boys died from electric shock while swimming between house boats when current from an on-board generator entered the water through frayed wires under the boat.

In Michigan, a 20-year-old Port Huron man entered the water behind a moored boat and became disabled as he tried to climb onto the swim platform. Friends trying to pull him onboard reported getting shocks. He could not be resuscitated. An investigation confirmed voltage behind the boat, caused by an AC to DC fault in the battery charger that energized the underwater gear; and there was no AC to DC bonding connection.

To help prevent such tragedies, it’s important to ensure proper installation and maintenance of electrical equipment and inspect all electrical systems on or near the water. Also, remember that ropes, string, masts and rigging can also conduct electricity.

Don’t be the common ground between water and electricity!

Safe Electricity (SafeElectricity.org) urges boat owners to have dockside electrical systems installed by professional electricians guided by the National Electrical Code, and have them inspected regularly to avoid tragedy.

**Check Your Boat**

When it comes to a boat’s electrical system, particularly those with onboard generators, use these tips:

- If you are unsure about how to install something, call an ABYC electrical certified technician.
- Household wire is not suitable for boats, as houses are motionless and generally dry. Even marine-rated wire that is not supported along its length will break with constant motion stress.
- Do not use wire nuts or splice connectors! (Wire nuts are for solid conductor wire, which should never be on a boat, and splice connectors can cut wire strands.)
- Fuses are rated to protect the wire, not the stereo. If a fuse blows continuously, it should not be replaced with a larger one just to keep it from blowing again—something else is wrong.
- Have your boat’s electrical system checked at least once a year, and also when something is added or removed from it.

Most wet environments are dangerous when it comes to electricity, but related drownings can be prevented by regularly inspecting for ground-fault failure and strictly enforcing the National Electrical Code through frequent pool, dock and boat inspections.
Judging By the Numbers…

Buried in our energy sales data is what some would consider a troubling revelation: Despite dire warnings and predictions; exhaustive coverage by media; saturation in our schools, work and politics; and cutting edge energy-smart product development, our energy sales continue to grow.

As I reported last month here in Country Lines, Cherryland Electric Cooperative has fully satisfied its state-mandated Energy Optimization objectives for four years running.

Those initiatives, including passing out 30,000 CFL lightbulbs, have resulted in a deemed energy savings of over 9,000,000 kWh (kilowatt hours). Further, during that same timeframe, myself and numerous other contributors to this magazine have talked conservation, energy use, load shedding, and energy-saving tips ad nauseam, yet we continue to grow.

Why? My initial thoughts on growth centered on new members. Surely, I reasoned, the increased energy sales must be driven by new members, given our desirable location within the state. That theory proved true only to a point. While our member count has steadily increased, energy sales have increased faster.

I suspect part of the problem is that our green conversation tends to focus on generation rather than consumption. From a lifestyle perspective, sustainable generation promises a somewhat more pain-free solution. A serious look at consumption at some point leads to undesirable lifestyle changes.

Further, the economics of energy consumption, especially in the home, remain undeniably difficult. Take refrigerators, for example. Quoting from energystar.gov, “ENERGY STAR certified refrigerators are required to use about 15 percent less energy than non-certified models. Choose a new certified model rather than a standard model and cut your energy bills by more than $80 over the lifetime of your fridge.”

Clearly, the savings will be greater if you replace an older model refrigerator, somewhere around $200 – $1,100 according to the same website. In other words, you are lucky if the energy savings eventually pay for the cost of the upgrade.

On the bright side, our mix of generation has never been cleaner. Since 2008, Cherryland Electric Cooperative has received energy from the Harvest Wind Farm located in the thumb of Michigan. For the first four months of 2013, our allocated share of wind energy from that project is just shy of 7,000,000 kilowatt hours.

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Independence

The boy stood on second base waiting for the next batter to get to the plate. He looked towards the outfield and saw a bunch of boys slow their bikes, watching the game from the sidewalk that circled the ball field. Then the chatter started. “Hey batter, batter, batter. Can’t hit, batter, batter, can’t hit, batter, batter.”

There were 14 boys on the field, each team playing without a shortstop and with only two outfielders. The boys, mainly 5th and 6th graders, played baseball every day, all summer long, from morning to night, in this neighborhood park within a few blocks of their homes.

This game was stretching into twilight, with the sun pushing long shadows from the stately elms and maples out past the pitcher’s mound and second base and into center field. There were no lights for the field and it was getting hard to see the ball, no longer white from all the dirt rubbed in it. This would probably be the last inning.

The boy edged off second and joined his teammates in calling for the batter to get a hit. “Watch the ball, watch the ball, get a hit, c’mon, get a hit.”

The volume picked up as both sides kept up the chatter. Then it dropped. Slowed. Stopped. The boy on second base turned around to see that the boys with the bikes were riding right through the outfield, toward the diamond and toward him.

“Hiya dumbass. How smart do you think you are?” asked the tough kid with his shirt collar up as he pushed into the boy’s chest, knocking him to the ground. He straddled the boy’s chest and pinned his arms with his knees, then grabbed a handful of dirt from the base path and rubbed it in his face. “That’ll teach you,” he said.

The boy heard his tormentor’s four friends chanting obscenities above him, but heard nothing from his friends, the other players.

When he was finally let up, the Jesseville boys, outnumbered but unchallenged, taunted the remaining players still huddled around third base and then found their bikes and rode off.

It was near dark. The players walked over to see if the boy was okay. He pushed through them and went to find his glove. The game was over and he wanted to go home. One of the players came to him.

“I tried to get the rest of them to help,” he said, “but couldn’t get them to.”

This wouldn’t have happened in daytime, the boy thought. His grandfather was filling out the last years of his work life as the park’s caretaker, so he quietly watched over the boy, who spent almost every waking moment of many summers in the park, where there were often city-sponsored activities for kids. The boy was always aware of his grandfather (who never interfered with what the boy did) but didn’t pay much attention to him. He was known as “Parkman” to the kids who lived near by (something the boy didn’t know until years later). He was a thin, kind man who took care of this block of green as if he were tending his own garden. (In the boy’s earliest memory he is kneeling in a strawberry patch, picking and eating the red fruit while the old man tilled with a hoe, the large garden around him.)

In the evenings, though, he was on his own, left to fend for himself like all of the other kids always were.

He found his old Schwinn, hung his glove on the handle bar, and rode through the dark out of the park and then four blocks home.

Later, as he was lying on the living room floor playing a dice baseball game he had created with friends, his mother asked him what happened at the park.

“I got in a fight,” he said.

“Did you get hurt?” she asked.

“I’m okay,” he sobbed.

Then, life changed when Little League came to town. The summer days of carefree wandering, pickup games and learning the ways of the world on your own turned into structure, uniforms and adult supervision. We gave up the freedom to grow for the safety of organization.
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Have you ever wondered:
- Why electricity costs keep rising?
- How Cherryland prioritizes outage restoration efforts?
- How Cherryland is affected by energy regulations?

JOIN our new Member Advisory Committee (MAC) to find out more about your electric cooperative and to provide valuable feedback on our programs and services. Our MAC will consist of representatives from all of our service areas. You must be a Cherryland member to serve on the MAC. MAC members will serve 2-year terms and are limited to 2 terms of consecutive service.

We will hold the first MAC meeting in September. The committee will meet 5 times — September, October, January, March and May — on the second Tuesday of the month, at 6 p.m.

If you are interested in volunteering, contact:
Rachel Johnson — 231-486-9275 — rjohnson@cecelec.com