A Service of HomeWorks Tri-County Electric Cooperative

November/December 2013 November/December 2013 COUNTRY LINES

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Holiday Desserts

2 Coming: Community Solar Garden! Grants Available

6 Meet Your HomeWorks Team WATERFURNACE UNITS QUALIFY FOR A 30% FEDERAL TAX CREDIT



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Executive Editor Casey Clark

Editor Gail Knudtson

Design Editor Cindy Zuker

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

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

Change of Address: Please notify your electric cooperative. See page 2 for contact information.





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On the Cover*

Cook up some holiday fun with your family by trying some dessert recipes sent in by our readers. Thanks to all who sent in recipes in 2013!

Photo – Robert Bruce Photography/robertbrucephotography.com





COLUMNS

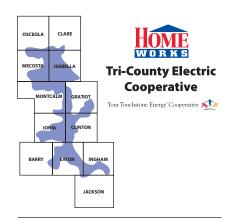
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Blanchard office: 3681 Costabella Avenue Blanchard MI 49310

Open 8 a.m.–5 p.m. Monday-Friday

Portland office: 7973 E. Grand River Avenue Portland, MI 48875 Open 8 a.m.-5 p.m. Monday-Friday

Electric bill/account questions: 517-647-7556 or 1-800-562-8232

Pay by phone, anytime: 1-877-999-3395

Service questions/outages: 517-647-7554 or 1-800-848-9333 (24 hours for emergency calls)

> Tri-County Propane: 1-877-574-2740

High Speed Internet 1-800-668-8413

homeworks.org E-mail: tricoenergy@homeworks.org facebook.com/HomeWorks.org

BOARD OF DIRECTORS

District 1 — Philip Conklin 5130 W. Gresham Hwy., Charlotte, MI 48813 517-726-0127 pconklin@homeworks.org

District 2 — Wayne Swiler Vice-Chairman 11750 Ainsworth Rd., Lake Odessa, MI 48849 616-374-3141 wswiler@homeworks.org

> District 3 — Carl Morton Chairman 11280 Eden Trail, Eagle, MI 48822 517-626-2258 cmorton@homeworks.org

District 4 — Laverne Hansen Secretary-Treasurer 1190 E. M-46 Hwy., Edmore, MI 48829 989-427-5851 Ihansen@homeworks.org

District 5 — Cara Evans 10180 Roosevelt Rd., Bannister, MI 48807 989-862-5590 cevans@homeworks.org

District 6 — Ed Oplinger 10890 W. Weidman Road, Weidman, MI 48893 989-644-3079 eoplinger@homeworks.org

> District 7 — Dean Floria 1163 Taft Rd., Remus, MI 49340 989-382-5230 dfloria@homeworks.org

Editor: Jayne Graham, CCC

Solar "Garden" is a Good Idea for Our Co-op Community

he holidays are nearly upon us, so it may seem an odd time to think about a garden growing in the sun.

But that's just we're doing at Home-Works. We're moving forward with the first phase of a community solar project, or garden, at our Portland Operations Center.

"Why community, and why solar?", you may ask.

We've had many members contact us about solar (photovoltaic) projects for their homes or businesses. But only a few have the right combination of site, technical knowledge and available funds to make those plans a reality.

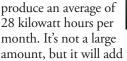
We have the right site, along with access to both expertise and funding, to put a project together. And it makes sense for us to take this step, since we've promoted solar energy through geothermal heating and cooling for many years.

By making it a community project, open to our members to invest in and take advantage of, we all win!

This first phase will include a number of photovoltaic panels. The way similar gardens have worked for other co-ops is this: each member has the opportunity to lease a panel. We're aiming for a net cost of around \$500 after an Energy Optimization program rebate of \$75.

The output from a member's panel would be metered and used here at Portland. Participating members would then get a bill credit for the power generated by their panel, at our purchased power cost.

Our planning is based on panels with a capacity of 290 watts, estimated to



amount, but it will add up to pay for the panel in about 20 years, possibly sooner.

There are a lot of questions to be answered, from the supplier of the panels and their source, to the actual dollar amounts involved. But our first question is: are you interested?

If you are, we invite you to let us know now. We're starting a mailing list to identify interested members, who would also have the first opportunity to be part of this exciting new project. Please email Nick Rusnell at solar@homeworks.org or call 517-647-1247 to add your name to the list; there is no commitment at this time.

And whether you'd like to be an active participant or not, be sure to watch *Country Lines*, our website, and our Facebook page for updates.

Speaking of the holidays, the HomeWorks family sends our best wishes to your families. Our employees—whether they're full- or part-time, working from Blanchard or Portland, in the office or the field—work very hard to make sure you get the best service possible.

So we've featured them in this issue. We hope you enjoy "meeting" them on the following pages as much as you enjoy the results of their hard work.

Happy holidays from HomeWorks!

Mark Kappler General Manager

HomeWorks offices will be closed on the following holidays: Thanksgiving – Thursday, Nov. 28 Christmas – Tuesday, Dec. 24 & Wednesday, Dec. 25 New Year's Day – Wednesday, Jan. 1 We will re-open at 8 a.m. the following day.

Your Board In Action

Meeting at Blanchard Sept. 23, your board of directors:

- Authorized staff to move forward with a community solar project, offering 72 panels of 290 watts each at an affordable up-front cost and a 16- to 18-year payback.
- Approved entering into a one-year line of credit with subsidiary Tri-Co Services, with the dual benefits of a lower interest rate for the cooperative and a higher rate of return for Tri-Co Services.
- Approved 2013 engagement letters for Eide Bailly to audit the cooperative, its subsidiary Tri-Co Services, and the Tri-County Electric People Fund.
- Reviewed the September safety report, listing employee training as well as employee and public incidents.
- Read and approved "Board Policy 102 Functions of the Board of Directors," and learned no incidents had taken place under board policies 211 – "Whistleblower" and 316 – "Identity Theft."
- Learned there were 152 new members in August.

Time Set Aside for Members to Comment Before Board Meetings

The first 15 minutes of every board meeting are available for members who wish to address the board of directors on any subject. Upcoming board meetings are set for *Nov. 25* and *Dec. 16 at Portland.* Members who need directions to either office, or who wish to have items considered on the board agenda, should call 517-647-7554.

Teachers: Apply for 2014 Grants!

A pplications are due **Jan. 15** for the 2013 Touchstone Energy Classroom Technology Grant program.

Public or private schools in our 13-county mid-Michigan service area that serve children of HomeWorks Tri-County Electric members can receive a grant of up to \$2,500 to fund innovative programs that enrich students' education.

Here are some examples of recent grants:

- Ashley High School: classroom software licenses for three-dimensional drafting;
- Mecosta Elementary School: five iPads;
- Emerson Elementary, Ionia: LeapFrog reading program;
- Ionia Middle School: soil erosion demonstration table, laptop, classroom projector;
- Woodland Elementary: six laptops for the 5th grade classroom;
- Pewamo-Westphalia: a video camera with quality audio for the band department, and two document projectors for math classrooms;
- Portland High School: help change the auditorium's house lights to long-lasting,



energy efficient LEDs;

- Eaton Rapids High School, materials for electric wiring learning kits in the Industrial Arts department;
- Reed City High School, a good-quality used telescope for the science department.

For an application form with grant guidelines, visit homeworks.org or call Jayne Graham at 517-647-1252.

Grant for Furnace Keeps Food Pantry Warm

eeting Sept. 25, the Tri-County Electric People Fund made six grants totaling \$16,291:

- \$5,000 to Housing Services in Charlotte for their housing assistance program;
- \$1,000 to the Richland Township Library in Vestaburg to purchase new library books;
- \$5,000 to Manna's Market, Inc., a food pantry in Woodland, for a new furnace;
- \$823 to an Montcalm County family to pay electric and propane bills;
- \$1,968 to a Isabella County family to help with medical bills and property taxes; and

• \$2,500 to a Mecosta County family to help pay their property taxes and make well repairs.

How To Apply For a Grant

Write to 7973 E. Grand River Avenue, Portland, MI 48875. We'll send you an application form, grant guidelines, and other helpful information. You'll also find details and application forms at homeworks.org.

Note: Applications must be received by Dec. 10 for the Dec. 19 board meeting; and by Jan. 20 for the Jan. 29 board meeting.

Notice to Members of HomeWorks Tri-County Electric Cooperative — Tariff and Billing Rule Changes Effective January 2014 —

The HomeWorks Tri-County Electric Cooperative Board of Directors adopted the following changes to the Cooperative's tariffs and fees at a Special Open Meeting held Sept. 23, 2013, in accordance with P.A. 167.

- 1) Established the 2014 Power Supply Cost Recovery Factor at \$.00192 per kilowatt-hour, based on annual cost forecasts from Wolverine Power Cooperative, effective with January 2014 billings.
- 2) Revised the cooperative's Requirements for Pole Attachments tariff sheet from \$11.50 per attachment point, per year, to \$14 for 2014.

For specific details of any HomeWorks tariffs or fees, please call us at 1-800-562-8232 or visit our website at homeworks.org. Full rate schedules are available at our website.

Letters & More

Reader letters, Mystery Photo, phone scams and more. It's all here on your Readers' Pages.



Crisp Point Light

The [Sept. mystery] photo is Crisp Point Lighthouse, located on Lake Superior, 14 miles west of Whitefish Point. By car, it's accessible by following County Road 412 "forever" (about 18 miles off the main road). Our last visit was for our 45th anniversary in June 2012. Just after the Duck Lake fire in Luce County that threatened the whole area, CR 412 was the fire break line.

Built in 1904 as part of the U.S. Life Saving Station (USLS), it was part of a building complex established in 1878. The Light was automated in 1947. It is now manned by volunteer keepers. In 1965, all the USLS buildings and keepers' quarters were razed by the Coast Guard. Only the lighthouse and a reconstructed fog-signal building remain today. The light was deactivated in 1989, but is being restored and maintained by volunteers. Threatened by shoreline

erosion, it was once listed as the most endangered lighthouse on the Great Lakes. Much effort was put forth by the "Save Crisp Point Lighthouse" group, for a job well-done. Thanks for featuring one of the most remote land lights in Michigan.

> – Mary Ellen Krieg, Big Bay Alger Delta Cooperative

This little light has come a long way. Not that long ago, I stood with my dad at the base of it, thinking Lake Superior only needed a few more feet and that tower would be hers. I spent many free weekends, as did my siblings, dad and many more volunteers keeping Lake Superior at bay. Thanks to many, this light is now much more accessible than it was the day I stood at Crisp's tower watching the waves lash her base.

– Dianna Koteskey, Boyne City Great Lakes Energy

Crisp Point Light is a favorite place that we visit at least once a year. They have raised enough money to build a gift shop with bathrooms (all solar powered) and they just installed the light and stones on the eastern shore to help stop erosion. It is a great place! - Cindy Miller, Ravenna Great Lakes Energy

Getting Green...Again

While reading your September recycling issue, I was inspired to try, try again. My first attempt to get "green" was in the late '80s. I thought I could simply be a good example to my children by making it fun and educational, as my sixth grade teacher had at the beginning of my conservation era. Those concepts were similar to what my father ingrained in us at home. We were expected to make sure we left a room better than we found it, and no shirking. Unfortunately, what worked for our family's version of conservation probably wouldn't have worked for society.

To error on the fun side, we set up bins in the garage. As our children grew into teen-hood, crushing cans was a good vent for them. Then the novelty wore off and we moved, and my plans were lost amidst packing. Excited to get my act together, I called our disposal company and asked how to get rid of batteries (I collected a milk gallon full) only to be told it was best to just put a few in our garbage can per week. The not-somerry-go-round of recycling fizzled again. If only there was a "Crash My Bin" series for us recycling wanna-be's.

Now our kids are on their own, and hopefully recycling. I thought recycling would be easier as empty nesters. Not! We've made our last move, edging toward retirement. Yet, here I am back at the starting line reading an article that encourages me to try again. I read it several times and decided that instead of trying to race with what seems like Olympic conservationists, I will be content to be my own shade of "green." I may not be the deep-green oxygen-rich "rally the community with style" type, nor will I be the barely-green slug that snarls at any form of segregated refuse. I will inch my way into leaving things better than I find them and fight against becoming a shirker, 'cause that would be, you know, yellow.

– Sylvia Zion-Harris Midwest Energy

Shale Gas Story

Your "Shale Shock" article [October] failed to mention the costs that are not vet being met by the fractioning drillers. Below-ground fresh water consumption by the fractioning process threatens, in some cases, the ground water supply for neighboring homes and farms. Contamination of surface water sources by undefined effluent is real and very serious and damaging to human beings and other animals for great distances downstream. These costs MUST be borne by the drilling companies, and the ultimate cost will be passed on to individual and corporate consumers. Please publish!

– Rev. William Fleener Sr., New Era, Great Lakes Energy

I was disappointed in the way your article 'glossed' over the impact of hydro-fracking in the quest for natural gas. I recently read these statistics:

Hydro fracking is responsible for the following: 450,000 tons of air pollution produced in one year; 250 billion gallons of fresh water used since 2005; 360,000 acres of land degraded



DO YOU KNOW WHERE THIS IS?

Every co-op member who identifies the correct location of the photo at left by **Dec. 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 Jan. 2014 issue.

The September contest winner is Mary Lapinski of Mason, who correctly identified the photo as Crisp Point Lighthouse in Luce County on Lake Superior.



since 2005; 100 million metric tons of global warming pollution since 2005.

Those 250 billion gallons of fresh water are contaminated and lost to our use forever. Can we afford that? I think you owe it to your readers to disclose ALL the facts, not just the ones that support your argument.

– Duane De Vries, Newaygo Great Lakes Energy

Editor's Note: Thank you for taking time to write. The natural gas article wasn't intended to have a pro/con focus. Rather, it's part of a series on how various fuels (including coal, nuclear, wind and other renewables) are used to generate electricity. It also shares the fact that natural gas use is increasing and predicted to majorly impact America's energy future. Particularly, due to new emissions standards, power plants are moving away from burning coal and towards gas because most newer gas facilities produce emissions within range of the law limits.

Based on scientific research and facts, electric co-ops support natural gas exploration, but also recognize co-op member concerns about the environment. Our main objective is providing you with safe, affordable, dependable electricity in the most environmentally-sound manner possible.

In its fact sheet, "Questions and answers about hydraulic fracturing in Michigan" (tinyurl. com/o2yfr8j or call 800-662-9278), the Michigan Department of Environmental Quality (MDEQ) provides answers to the concerns noted in your letter(s). One section notes that, "Many people are surprised to learn that 99.5 percent of fracking fluid" is water and sand." Chemicals comprising the other .5 percent are also listed.

Michigan has some of the nation's most protective regulations governing oil and gas development, and are updated regularly. New rules, developed with public input, were released just this week that strengthen regulation and provide some answers to citizen concerns.

The MDEQ also notes that fracking has been used on over 12,000 wells here for over 50 years "without any consequence to the environment or public health."

Energy Efficiency Tip of the Month

Consider using solar lights for outdoor lighting. Solar cells convert sunlight into electricity that can be stored in a battery and tapped at night to make light. Check manufacturers' instructions to make sure your solar lights are situated to receive sufficient sunlight to recharge each day.

- Source: U.S. Department of Energy

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.

Scams Targeting Consumers Increase

he number of phone scams trying to get money and personal information from unsuspecting victims is increasing, reports the Better Business Bureau (BBB). Callers pose as representatives of utilities, Medicare, law offices, charities and even the BBB. Some scammers have even shown up at homes, demanding payments.



Electric co-ops are also being warned of increasing scams that target both the utility and their members, reports Timothy Johnson, deputy chief member counsel for the National Rural Electric Cooperative Association (NRECA).

The newest is a text message telling a co-op member their electric account has been hacked and asks them to text back "send now" to reactivate it. Immediately delete this type of text without replying, and call the co-op (preferably on a different phone). Texting back could completely compromise personal identification information.

Another scare-tactic is a call claiming your power will be cut off if you don't immediately pay the bill over the phone with a credit card. Utilities nationwide are reporting similar scams. Sometimes they instead ask you to make a payment through a third-party pay system or by getting a prepaid debit card. Others may say you have an unpaid credit card or traffic ticket and threaten legal action if you don't pay immediately.

In almost every situation, fraud experts say you should always be the one to initiate a call where you need to give personal information. It's your money and your identity, so ask questions and stay alert.

If it's utility-related, also contact your local electric co-op or other provider to report the incident. By calling directly, you can talk to a service representative who will confirm your bill and let you know of any problems with your account.

Your electric co-op will not call or email for your account number or password. Also, don't trust caller ID to show a location because scammers use internet calling technology that may not reflect where they really are.

Here are other tips from the Better Business Bureau:

• Always confirm that you are speaking to a legitimate company representative. If there's doubt, hang up and call the company back by using the phone number on your bill (not a number the scammer may have provided).

• Be wary of demands for immediate payment or in forms that are hard to trace, such as Western Union or MoneyGram.

• Never give your credit card, debit card, Social Security, ATM, checking or savings account numbers to anyone who comes to your home or asks for information by phone, text, or email. You should always be the one to initiate such transactions.

• Never allow anyone claiming to be a utility service person into your home unless you made an appointment and they show proper identification. Contact police if you become concerned for your safety.

If you have any concerns about calls or visits from utility representatives, please call your local electric co-op at the number on your bill immediately.

Meet Your Co-op's Team



PORTLAND LINEWORKERS

From left, Jeremey Smith, Mark Goodman, Kyle Balderson, Chris Teachout, Jeremy Zybtowski, Ryan Smith, Jon Shattuck, Brad Parkhouse, Rob Brennan, Chris Vallier, and Chris Reed.



TRI-COUNTY PROPANE, PORTLAND – From left, Marc Rusnell, Dan Peiffer, and Neal Swain.







TRI-COUNTY PROPANE, BLANCHARD From left, Randy Spayd, Lanny Withey and Trevor Wood.



Tri-County Electric Cooperative

We were formed in 1937 by farmers in Eaton, Ingham, and Jackson counties, and have grown to provide electric power to over 25,000 homes and businesses in 13 mid-Michigan counties. We created Tri-County Propane in 1999 to bring a new level of propane service to our area.

Our mission is to provide our members and customers with energy, comfort, and communications solutions that will enhance their quality of life.

Photos taken by: Tanya Schneider, Karen Beard, and Matt Miller.



Jeannie Porritt WAREHOUSE CLERK, Blanchard





▲ ENGINEERING/DISPATCH, PORTLAND From left, Val Wohlscheid, Deb Rogers, Roger Riebow, Chris Jensen, Brian Thompson, Kelly Vroman, and Courtney Beard.

BLANCHARD LINEWORKERS

- Left: Calvin Foster and Danny Fredricks.
- Below, from left, Rick Warchuck, Kevin VanDePerre, Jeremy McVeigh, Adam Doughty, Dan Dexter, Jody Birch, Bob Verhaar, Tom Hoffmeyer, and Jon Karcher.



Extreme Efficiency Makeover

Wrap your home in savings.

xtreme home makeovers can update your living space, but an energy efficiency makeover will ensure your home performs at its peak. Everything from "low-hanging fruit," like swapping out lightbulbs, to "bigger ticket" items such as replacing appliances with newer, energysaving models is fair game.

Finding 'Energy Hogs'

If you're ready to take on a home efficiency makeover, the first step is to call your local electric co-op about an energy audit.

Your electric co-op or a qualified, licensed contractor can conduct blower-door tests or even imaging tests with an infrared camera. less energy than a traditional incandescent bulb, lasts up to 10 times longer, and can save about \$40 in energy costs over its lifetime. Light-emitting diodes (LEDs) can last even longer, but costs are still high although they keep dropping as the technology becomes less expensive to produce.

A word of warning when purchasing new types of bulbs: You generally get what you pay for.

"Some manufacturers exaggerate claims of energy savings and lifespans, and cheaper models probably won't last as long as higherquality bulbs," says Brian Sloboda, senior program manager for the Cooperative Research Network, an arm of the Arlington, Va.-based dryer vents, and fans, and weather strip around doors.

There are also some not-so-obvious places for air to flow in and out of your home, notably outlets and behind switch plates. To see if you have air flowing through your outlets or switch plates, light a stick of incense, hold it in front, and watch for the smoke to be disrupted. You can find special sealing kits for outlets and switch plates at home improvement stores.

And don't forget about applying weather stripping around your attic hatch or pulldown stairs. You may also want to install an insulator box to place over the opening. A kit costs around \$40.



Infrared cameras can help energy auditors pinpoint areas of air loss.

Blower-door tests find out how much air your home loses every hour, while infrared cameras can more accurately pinpoint where your home loses air. Common culprits include windows, doors and roofs, but air loss can occur in small and innocuous places, such as recessed canister lights and outlets, too.

Next, evaluate your appliances, HVAC (heating, ventilation and cooling) system, and even landscaping for more opportunities.

Lighting

An ENERGY STAR®-qualified compact fluorescent lightbulb uses about 75 percent



Sealing up cracks and joists in your attic will help your insulation do its job. Additional or a different type of attic insulation might also be necessary for the roof.



Sealing leaky ductwork will go a long way to improving your home's energy efficiency.

National Rural Electric Cooperative Association. "If you look for the ENERGY STAR label, that means the bulb exceeds minimum efficiency standards as tested by the federal government."

He adds: "The best way to benefit is to purchase a more energy-efficient lightbulb the next time you need one."

Visit energysavers.gov/lighting to learn about other lighting options.

Seal Air Leaks

A tube of caulk and a roll of weather stripping can go a long way toward saving money on your electricity bill. Caulk around windows, Sealing up cracks and joists in your attic will help your insulation do its job. But if an infrared scan reveals heat loss through the roof, additional or a different type of attic insulation might be necessary. Use the U.S. Department of Energy (DOE) calculator to see how much is recommended for your climate: tinyurl.com/nbtmt5y.

Programmable Thermostats

A programmable model could help you save big bucks if it fits your lifestyle. This device will turn your temperature up automatically during times of the day you specify. But if you purchase one, it's important to take TREES around your home can increase its value up to 15% or more. The trees you plant remove CO₂ from the air, produce oxygen and give songbirds a home. Trees provide many other benefits:

A WINDBREAK can lower heating bills 10-20%.

NUT TREES can be incorporated into windbreaks or serve as shade trees.

A BACKYARD ORCHARD lets you grow your own fruit.

the next step and program it—a step many people fail to take.

"A programmable thermostat is an excellent tool to improve your home's energy efficiency, but you have to actually program it, and then you have to leave it alone," Sloboda explains. "Fiddling with the settings won't help—but getting the settings to where you're comfortable when you're home and then forgetting about it will really help with energy savings."

Programmable thermostats are best for people who regularly leave their homes (without pets inside) for at least eight hours at a time.

Sealing Ductwork

Ductwork could be the most important piece of equipment to seal. If it's exposed, you can do this yourself with a paintbrush and mastic, which you can purchase at any home improvement store. If not, hire a professional HVAC contractor.

Leaky ductwork will make your HVAC system work a lot harder than it should have to, which drives up your electric bills and wears out HVAC equipment more quickly.

"Ductwork is one of the first places you should look if you're trying to lower your energy costs," stresses Art Thayer, energy efficiency programs director for the Michigan Electric Cooperative Association. "Sometimes, ducts aren't even properly joined at all. That wastes a huge amount of energy. Sealing them up goes a long way to improving your home's energy efficiency."

Landscaping

Planting a tree or climbing vine not only adds flavor to your home's landscape; it can also cool down your house when the sun beats down. Trees in the right spot can decrease your home's energy use by up to 25 percent, according to DOE.

Plant deciduous trees—those that lose their leaves every year—to the south and west of your home, and you'll gain shade in the summer and sunshine in the winter. According to DOE, a 6-foot, 8-inch deciduous tree will <complex-block>

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begin providing shade the first year. And it only gets cooler after that, reaching your roof line in five to 10 years.

If you want shade all the time or need to block wind, choose evergreens. But when you're preparing to choose your greenery, keep in mind that trees should never be planted underneath a power line. Call your electric co-op to find out how far from lines you should plant, and visit **ArborDay.org** to learn about the types of trees that are best for your home's landscape.

Appliances

Appliances more than 10 years old don't work as efficiently as newer ENERGY STAR-rated models. ENERGY STAR-qualified refrigerators are 15 percent more efficient than non-qualified models and are 20 percent more efficient than models that simply meet the federal minimum standard for energy efficiency.

Clothes washers manufactured before 1998 are significantly less efficient than newer models; ENERGY STAR-certified washers use about 20 percent less energy and 35 percent less water than regular washers.

ENERGYSTAR.gov lists dozens of appliances and electronics that exceed efficiency standards; check there for more information.

Magen Howard writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association, the Arlington, Va.based service arm of the nation's 900-plus consumer-owned, not-for-profit electric co-ops.

Biomass Fuels Renewable Energy

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

iomass" consists of any biological material that can be burned as fuel to produce electricity, and it's everywhere. A quick drive down a country road provides a virtual tour of this renewable energy resource: trees, grasses, crops, livestock waste, and even landfill gas. Recent advances in technology have made it possible to use tried-and-true biomass in more efficient ways.

Today, the U.S. has over 13,000 megawatts (MW) of biomass generating capacity, making it the third-largest source of renewable energy behind hydropower and wind.

How It Works

The basic premise behind this power source is simple: Burning actual biomass feedstock or methane gases produced by decomposition of organic material—in whatever form—creates steam, which then spins a turbine and generates electricity.

Given the wide variety of biomass resources available, questions on what to burn and in what manner can be answered in a number of ways: ▲ Direct-fired systems: This remains the most straight-forward, time-tested means of producing electricity with biomass. Quite simply, material (like wood "slash" from timbering operations) is shoveled into a boiler to produce heat and steam. Residual heat from the process can be piped off to heat buildings or re-used in other ways, increasing plant efficiencies.

▲ **Co-fired systems:** This method adds biomass to existing fossil fuel-fired plants, mixing wood chips with coal, for example. In this way, fossil fuel plants can lower emissions of certain pollutants while maintaining the same electrical output.

▲ **Gasification:** Slightly more complex, this process converts biomass to a gas through superheating. The resulting synthetic gas (syngas) can be burned in a conventional boiler or used as a substitute for natural gas.

▲ **Pyrolysis:** This technical term describes changing solid biomass into a different form. If biomass is superheated in an area void of oxygen, it will not catch fire but instead will liquefy. The resulting oil can be burned to generate electricity or used in making plastics,

adhesives and other products.

▲ Anaerobic digestion: Instead of burning biomass as fuel, this method amounts to piling up waste and waiting. As the name implies, bacteria (anaerobes) literally digest molecules in waste—be it livestock manure or garbage—and produce methane as a byproduct. The gas is then captured and burned to make electricity. Leftover material, in many cases, can be used as compost.

The Future of Biomass

Biomass has come a long way from putting a log on a fire. Applications continue to develop, many of which involve converting biomass to other forms to supplement petroleum use.

New sources of electricity and fuel production are researched every day, and soon, waste such as corn stover (stalks, leaves and husks) and wheat straw will be added to the mix. Non-food crops such as trees and grasses are also being researched for their energyproducing potential, especially in liquid form.

Scott Gates writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association.

Sources: U.S. Department of Energy, U.S. Energy Information Administration



Plants for a Cause

is' the season for giving, as is apparent by the pleas that appear in our mailboxes from worthwhile charities this time of year. Gardeners can get in on the giving in their own special way by purchasing plants that support a cause.

There have been some very successful campaigns to raise money for different causes by selling plants that are appealing to gardeners and carry a message of hope and inspiration.

Remember Your Loved Ones

'Hosta Remember Me' is a plant that was bred as "June" for Walters Gardens of Zeeland, MI. They renamed it in honor of one of their co-workers, Sandy de Boer, who succumbed to breast cancer in 2001. The folks at Walters Gardens have since raised over \$60,000 to give to the Grand Rapids affiliate of the Susan G. Komen for the Cure organization by donating a portion of the sales of this beautiful plant.

"We are proud to support this cause in the name of Sandy and countless others whose lives have been affected by breast cancer," says Susan Martin, director of Marketing communications at Walters Gardens, Inc.

If a plant could talk, I think 'Hosta Remember Me' would speak of hope and inspiration. The spring leaves emerge in a bright yellow with a narrow, dusty-green edge. By summer they turn a pure white, signaling peace and hope. Like most hostas,this variety is hardy throughout the state. To find it at a garden center near you, visit perennialresource.com and enter the plant name into their plant locator.

Susan G. Komen For The Cure (visit komen.org) was founded in 1982 by Nancy Brinker in honor of her sister, who died of breast cancer at the age of 36.

Pink in the Garden

If you're a hockey fan you may have heard of "Pink in the Rink," a hockey fundraiser for





cancer research and awareness. There's also "Pink in the Garden," thanks to the Proven Winners company and their introduction of Invincibelle" Spirit Smooth Hydrangea. Sales of the Invincibelle Spirit has not only raised cancer awareness, but over \$645,500. Of each plant sold, \$1 is donated to the Breast Cancer Research Foundation. Sales of this popular plant and the corresponding Pink Day Fundraisers hosted at garden centers across North America, have helped Proven Winners raise 65 percent of their goal of \$1 million for cancer research.

This is the first pink hydrangea of its kind, according to Proven Winners. It will start flowering in early summer and continue blooming into fall. Like 'Remember Me Hosta,' Invincibelle Spirit is not only beautiful, but hardy even in the Upper Peninsula, which is better known for snowmobiling than lovely gardens!

Honor Our Heroes

Another fundraising campaign initiated by Walters Gardens benefits the troops that so courageously defend our country. For each



Hosta "American Hero" sold, the company donates 25 cents to Project EverGreen, a national nonprofit organization and creator of the GreenCare for Troops program. To date, Walters Gardens has donated over \$4,500 to the program, and the fundraising continues.

The GreenCare for Troops program (visit projectevergreen.org) offers military families assistance in sprucing up their yards by providing landscaping services while their loved ones are off serving their country. Thus far, over 9,000 military families have been connected with over 2,400 volunteers.

Like the heroes they honor, hostas are tough hombres, and the 'American Hero' variety is no exception. This particular hosta has bold variegation that will light up your garden and thick, durable foliage that looks great all summer while you honor the people that serve our country.

Perhaps this holiday season you can buy a gift card to a garden center near you that carries these beautiful plants, or keep them in mind when you're planning ahead for the next growing season.



Croff Craft Custom Driftboats





Small Boats With Big Attitude

hil Croff wasn't planning to start a boat-building business when he constructed his first driftboat in 2006, using Michigan cedar and walnut. He was looking for a safe way to fish rivers at night—a time when big brown trout come out to feed and anglers wade cautiously to avoid stumbling in the dark.

Croff had worked in the construction trade for years as a finish carpenter. He envisioned a small-but-wide and very stable craft, just perfect for the "tip of the mitt" rivers he likes to fish. When others saw what he built, he

began getting orders from anglers who wanted one. And so, a new Michigan

business was born: Croff Craft Custom Drift Boats. Its catchy slogan is: "Small Boats with Big Attitude."

Now, seven years later, Croff's boats are being showcased by Orvis Co., the Vermontbased fly-fishing giant, known for its discerning client base. The company's website features a special 12-foot Orvis Edition Croft Craft that sells for \$10,000.

"I had discovered night fishing for big

brown trout," explains Croff, the 43-year-old master wood craftsman from Alanson. "It's very addicting, but I hated wading at night. So I got online, trying to figure out how to get on the water to do it. The rivers up here are small. There were 12-foot boats out there, but I couldn't find one stable enough.

"So, I told my wife, 'I am going to build a boat.' And her response was: 'But you don't build boats.'"

Trude Bigelow Croff, his wife of 16 years, laughs about the story. She loves floating on rivers with her husband. Wooden boats have

> "atmosphere," she notes, more so than fiberglass, the typical construction

material. She's noticed that heads turn when people see a Croff Craft boat go by.

"When Phil told me 'I am going to build a boat,' I said 'you've got to be kidding,' Trude says wryly. "But Phil is that kind of guy, even in our house. He can't go out and buy something. He has to make it.

"He drew that design on a napkin and I'll be darned if he didn't do it."

Croff Craft driftboats are handcrafted, one



croffcraft.com

at a time, to customer specifications. Croff builds them from 12 to 15 feet long. Their deck layouts can be customized, and each offers seating, dry storage, rod storage, an anchor system, and casting braces.

Building a driftboat requires 350-plus hours of labor, Croff explains. The hull is coated with epoxy and fiberglass and then sprayed with a Kevlar-enhanced polyurethane product. All of the other woods get two coats of epoxy and seven coats of clear varnish for a brilliant sheen. His custom oars are built from Douglas fir and clear cedar. Each boat is delivered on a trailer for \$14,000.

"Upper Peninsula cedar is the most outdoorsy wood there is," adds Croff, a Petoskey native and Great Lakes Energy Cooperative member. "It is the lightest and most weatherworthy wood I can use to build these."

Croff grew up fishing northern Michigan's small, spirited streams, so he knew a wide, stable hull was in order—one that draws just a few inches of water.

The Croff Craft driftboat is the product of an inspired moment in 2005 when Croff was sitting in a local pub with a buddy. They were comparing notes about boat design, so he grabbed a napkin and began sketching lines. The result became his signature design.

"He's gotten a lot of attention for it," adds Trude, an artist and the owner of Beveled Edges, a Harbor Springs custom frame shop. "He built that first one for himself, but people keep asking him to build one.

"We still have that napkin. I am going to frame it someday."

Page 12: Top – A Croff Craft three-seat driftboat model called "Traditional," is the type Phil Croff uses to guide clients in his fishing guide business. A magazine for engaged couples, called "Destination I Do" (spring 2012), also featured his guided fly-fishing trips as an idea for a customized bachelor party. Left – Phil Croff gears up for some river fishing on one of his favorite northern streams. **Right** – To find out more about these handcrafted boats call 231-330-5762, visit croffcraft.com or join a blog about them at http://tinyurl.com/k9tsnsr.

Page 13: Phil Croff displays a beautiful 19-inch rainbow trout that he caught on an egg-fly while fishing the Pere Marquette River.

Give Thanks!

Kids who practice gratitude grow in health, happiness and learning.

y grandson D.J. performs a trick these days that makes us all melt. His dad calls out, "D.J., you're welcome." To which D.J. chirps, "Thank-you!" in his not-quite-2-year-old dialect.

He also says "thank you" when you hand him something he loves—say a blueberry, a ball, or his own special blankie.

Some experts would say that D.J. is too young to understand the concept of gratitude—that he's just learning by rote what might better be taught later on. I'm not worried. His older sisters learned the habit of gratitude early and, wow, has it caught on.

Last November, the girls created a yards-long paper chain in preparation for Thanksgiving. On every link is written something they expressed thanks for. The attitude stuck, and over the past year they've initiated a "Thankful Christmas Tree" and a "Thankful Birthday Countdown" poster.

Now, here's what's great: this attitude of gratitude is propelling D.J. and his sisters toward health and happiness, and there is hard science to prove it.

Robert Emrons, a PhD, psychology professor at UC Davis, and arguably the world's leading expert on the science of gratitude, has compiled the work of dozens of scientists and philosophers in his book, "Thanks!: How the New Science of Gratitude Can Make You Happier" (Houghton Mifflin Harcourt, 2007).

Emmons reports that in contrast to people who listed their hassles, people who wrote down blessings they were thankful for slept better, had more energy, suffered less illness, exercised more, were more optimistic about their future, and felt better about their lives.

And here's a really surprising part: It turns out that the simple act of giving thanks can even affect how much our kids learn.

The best part is, modeling and teaching gratitude doesn't cost a dime. It doesn't take special training, and no special equipment is needed.

Ann Voskamp, author of the best-selling

book, "One Thousand Gifts," posted a blog describing "15 Happy Ways to Grateful, Joyfilled Kids." Here is just a sampling of her ideas:

▲ Post a sticky note on the mirror that asks, "*What are you grateful for right now?*"

▲ Make space for thanks. Fill a window or wall with sticky notes of thanks. Hang a paper banner or "Grateful Tree" at the back door and invite the whole family (guests, too) to grab a pencil and writing down one or two gifts every time they come in or out the door.

▲ Leave out a basket of thank-you notes, an invitation to always give thanks to someone.

▲ Leave a "Family Gratitude Journal" permanently open on the counter.

▲ Tuck a note into a lunchbox or a coat pocket inviting kids to focus on what's good, and write it down. Share their finds every night at dinner.

▲ Take the "no complaining" challenge. Dare to go all day with no complaining. Slip a rubber band or bracelet on your wrist and every time you complain, move it to the other wrist. Celebrate with a special treat when the whole family can go the whole day without moving their bands.

▲ Model gratitude yourself. More is caught than taught. Intentionally live wholesale gratitude. *Let your family see your joy!*

Whatever you decide to do, establish your own daily ritual of sharing thanksgiving...not just in November, but all year long. Chances are, you'll experience a happier, healthier family.

NOTE: You can read Anne Voscamp's entire blog post at aholyexperience.com/ 2012/03/how-to-help-raise-grateful-kids/

Not your style? Check out the PBS Parents article, "10 Ways to Raise a Grateful Kid" at pbs.org/parents/special/ article-ten-ways-raise-grateful-kid.html

Call 2-1-1 For Heating, Human Services Help

hanks to 2-1-1, a free community health and human services information and referral service, help is available to people in need.

By simply dialing 211, available 24/7, callers will be connected with a trained, caring professional who will confidentially assess their situation, identify their needs and refer them to local resources for help.

The 2-1-1 program provides information and referral for:

• **Basic Human Needs:** food, clothing, shelter, **utility assistance**, etc.

• Physical and Mental Health: medical information, crisis intervention services, support groups and counseling, etc.

• Support for Older Americans and People with Disabilities: home health care, adult day care, independent living, workforce training, Meals on Wheels, etc.

• Support for Children, Youth and Families: quality childcare, early childhood programs, after-school programs, summer camps, mentoring, tutoring, etc.

• **Crisis Calls:** suicidal thoughts, domestic violence, Public Health Emergencies, etc.

The implementation of 2-1-1 is spearheaded nationwide by United Way and information and referral agencies in states and local communities.

Individuals who need information on how to volunteer or have items to donate to their community can also connect by calling 211.

For more information about services in Michigan, visit **uwmich.org/2-1-1**; nation-wide, visit **211us.org**; or, simply dial **211**.

Michigan 2-1-1 Service Areas By Regional Call Center



Home Heating Assistance Programs • 2013–2014 Season

Program: Winter Protection Plan

Contact: Your Local Utility Company

Income Guidelin	nes 2013–2014		
# in Household	150% Poverty Guide		
1	Maximum Income \$17,235		
2	23,265		
3	29,295		
4	35,325		
5	41,355		
6	47,385		
7	53,415		
8	59,445		
Add \$6,030 for each additional member.			

Note: All customers 65+ are eligible regardless of income. Customers are responsible for all electricity and natural gas used. At the end of the protection period, participants in the plan must make arrangements with their utility company to pay off any money owed before the next heating season.

Program: Home Heating Credit *Contact:* Mich. Dept. of Treasury

# Exemp.	Max. Income	# Exemp.	Max. Income		
1	\$12,642	4	25,929		
2	17,071	5	30,328		
3	21,500	6	34,757		
Add \$4,429 for each additional member.					

Program: Earned Income Credit

<i>Contact:</i> U.S. Treasury Dept., Internal Revenue Service irs.gov/EITC Michigan Dept. of Treasury michigan.gov/treasury	working individuals and families who meet certain requirements and file a tax return. Those who qualify will owe less in taxes and may get a refund. Even a person who does not generally owe income tax may qualify for the EIC, but must file a tax return to do so. If married, you must file jointly to qualify. File Form 1040 or 1040A and attach the EIC. You may claim a Michigan earned income tax credit for tax year 2013 equal to a percentage of the federal earned income tax credit for which you are eligible. Visit the website or see the 2013 MI tax booklet for additional information.
Program: Crisis Assistance Program Contact: Local Michigan Department of Human Services (DHS) michigan.gov/mdhs	State Emergency Relief Program (SER): You do not have to be a DHS client to apply. All energy- related SER requests, including furnace repairs, heat and electricity services must fall within the crisis season, which now runs from Nov. 1 through May 31 each year. Program is subject to funds availability to assist low-income households, and other requirements. However, if you receive a DHS cash grant, you may vendor part of it towards heat and electric bills. Contact your local DHS or call the Home Heating Hotline, 855-275-6424.
Program: Low-Income Home Weatherization Contact: Local Community Action Agency	You may be able to receive help with weatherizing your home to reduce energy use if you meet low-income eligibility guidelines (150% of poverty guidelines shown above) and funding is available. Weatherization may include caulking, weatherstripping, and insulating. Contact your local Community Action Agency for more information. Visit mcaaa.org to find one in your area.
Program: United Way Contact: Call 2-1-1 or UWmich.org/2-1-1	2-1-1 is a free phone service operating 24 hours per day providing callers information about resources that may be available in their particular area to help with utilities and other needs. Learn more at UWmich.org/2-1-1.
Program: Medical Emergency Protection Contact: Local Utility Company	You are protected from service shut-off for nonpayment of your natural gas and/or electric bill for up to 21 days, possibly extended to 63 days, if you have a proven medical emergency . You must provide written proof from a doctor, public health or social services official that a medical emergency exists. Contact your gas or electric utility for more information.
Program: Shut-off Protection for Military Active Duty Contact: Local Utility Company	If you or your spouse has been called into active military duty you may apply for shut-off protec- tion from your electric or natural gas service for up to 90 days. You may request extensions. You will still be required to pay, but your utility company will help you set up a payment plan. Contact your utility service provider.
Program: MI Energy Assistance Program Contact: Utility or 2-1-1 in late November	Agency assistance through MEAP, which includes funds from the Low Income Energy Assistance Fund (LIEAF), will be available Dec. 1. Visit Michigan.gov/mpsc for details about organizations that have received MEAP grants. Shut-off protection is provided Nov. 1-April 15 for all residential customers (regardless of income) of any Michigan electric that has chosen not to collect 99 cents monthly from its customers for the LIEAF fund.
See story on p. 14 or dial 211	for more information on heating and other human services programs and help.

The **Winter Protection Plan** protects eligible senior and low-income customers from service shut-offs and high utility bill payments during the winter months (Nov. 1–March 31). You may enroll between Nov. 1 and March 31. If you are an eligible low-income customer, your utility service will remain on from Nov. 1 through March 31, if you:

• pay at least 7% of your estimated annual bill each month, and

• make equal monthly payments of 1/12 of any past due bills.

When the protection period ends (March 31), from April 1 through Oct. 31, you must begin to pay the full monthly bill, plus part of the amount you owe from the winter months when you did not pay the full bill. **Participation does not relieve customers from the responsibility of paying for electricity and natural gas usage, but does prevent shut-off during winter months.** You qualify for the plan if you meet at least one of the following requirements:

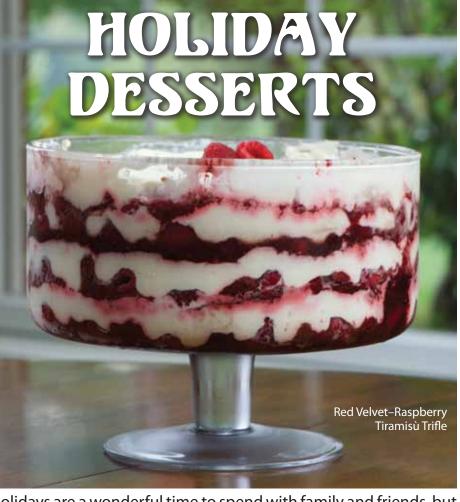
- you are age 65 or older,
- you receive Department of Human Services cash assistance, including SSI,
- you receive Food Stamps,
- you receive Medicaid, or
- your household income is at or below the 150% of poverty level shown in the Income Guidelines chart at left.

Senior citizen customers (65 or older) who participate in the Winter Protection Plan are not required to make specific payments to ensure that their service will not be shut off between Nov. 1 and March 31. However, seniors are encouraged to pay whatever they can during the winter so they will not have large, unmanageable bills when the protection ends.

You can apply for a **Home Heating Credit** for the 2013 tax year if you meet the income guidelines listed at left, or you qualify based on alternate guidelines including household income, exemptions, and heating costs. Additional exemptions are available for seniors, disabled claimants, or claimants with 5% or more of their income from unemployment compensation.

If you qualify, you may receive assistance to help pay for your winter heating bills. Forms are available mid- to late-January wherever tax forms are provided, or from the Michigan Dept. of Treasury (517-636-4486, or michigan.gov/treasury). The Home Heating Credit claim form must be filed with the Michigan Dept. of Treasury *before Sept. 30, 2014*.

The Earned Income Credit (EIC) is a refundable federal income tax credit for low-income



Holidays are a wonderful time to spend with family and friends, but don't forget about the great food! These festive dessert recipes will bring holiday cheer in every bite.

Red Velvet–Raspberry Tiramisù Trifle

1 c. seedless raspberry jam 1/4 c. black raspberry liqueur 1/4 c. fresh orange juice 2 8-oz. containers mascarpone cheese 2 c. heavy cream 1/3 c. sugar 1 t. vanilla extract Red velvet cake, broken in pieces 3 6-oz. containers fresh raspberries Whisk together first three ingredients in a small bowl. Stir together mascarpone cheese in a large bowl. In another bowl, beat heavy cream at high speed with an electric mixer until foamy; gradually add sugar and vanilla, beating until soft peaks form. Stir one-fourth of whipped cream into mascarpone using a rubber spatula; fold in remaining whipped cream. Arrange one-third of Red Velvet cake pieces in a 3-quart trifle dish, drizzle with one-third of jam mixture, top with one container of raspberries, and dollop with onethird of mascarpone mixture. Repeat layers twice. Cover and chill 4 to 24 hours before serving. Make snowflake garnishes by tracing snowflake templates on wax or parchment paper with royal icing. Let them dry at room temperature; peel off and place on top.

Amy Breimayer, Westphalia

Chocolate–Cherry Bars

2 c. all-purpose flour 2 c. quick-cooking oats 1½ c. sugar 1¼ c. butter, softened 1 21-oz. can cherry pie filling 1 t. almond extract 1/4 c. semi-sweet chocolate chips 3/4 t. shortening In a mixing bowl, combine flour, oats, sugar and butter until crumbly. Set aside 1½ cups for topping. Press remaining crumb mixture into an ungreased 9x13-inch baking dish. Bake at 350° for 15 to 18 minutes or until edges begin to brown. In a bowl, combine pie filling and extract; carefully spread over crust. Sprinkle with reserved crumb mixture. Bake 20 to 25 minutes more or until topping is lightly browned. Melt chocolate chips with shortening in microwave; stir until smooth. Drizzle over warm bars. Makes three dozen. These bars are not only delicious but very festive-looking.

Bonnie Gauld, Fife Lake

Cranberry Pudding

1/2 c. boiling water
2 t. baking soda
1/2 c. dark molasses
1 1/3 c. flour
1 t. baking powder
1 c. whole, raw cranberries
Sauce:
1/2 c. sugar
1/2 c. whipping cream
1/4 c. butter

Mix water, soda and molasses. Add flour and baking powder. It will foam and look terrible. Add cranberries. Pour into a quart-size greased, steamed pudding mold or coffee can. Cover tightly. Place in a steamer or large pan with about 2 inches of water. Cover tightly and steam gently for two hours or until center is set. When ready to serve, unmold and slice or scoop out of steamer into individual bowls. For sauce, mix ingredients together. Heat over low heat until butter melts and mixture is hot, but not boiling. Pour sauce over pudding while sauce is still hot. This is my grandmother's recipe, and I've never seen one quite like it.

Chris McAfe, Pointe Aux Pins

Double Chocolate Bread Pudding

2 packages (4-serving size) chocolate cook ♂ serve pudding and pie filling

5 c. milk

5 c. french bread cubes

4-oz. package Baker's German Sweet Chocolate, chopped

In a large bowl, stir pudding mixes into milk with wire whisk for 1 minute or until well blended. Stir in bread. Pour pudding mixture into 9x13-inch baking dish. Sprinkle evenly with chopped chocolate. Bake at 350° for 40 minutes or until pudding just comes to a boil in the center. Remove from oven and let stand for 10 minutes before serving. Serve warm. Store leftovers in fridge.

Marcia Scully, Atlanta

Photography by: 831 Creative



Pretzel Treats

1 bag small round pretzels (or waffle-style) 1 bag M&M's° 1 bag Hershey's Kisses°

Put small round pretzels on cookie sheet and place an unwrapped Hershey's Kiss[®] on top of each pretzel. Put in 200° oven for 5 minutes. Take out and add an M&M to each top. *Caroline Dinse, Idlewild*

Layered Christmas Jello

1 small package lime jello 1 c. pineapple tidbits, drained 1/3 c. drained pineapple juice 1 c. boiling water 1 package unflavored gelatin 2 T. cold water 8-oz. package cream cheese (softened) 1/4 c. milk 1 large package strawberry jello 2 c. boiling water 1 can whole cranberries Dissolve jello in boiling water. Add pineapple and juice. Chill in a glass serving bowl. Sprinkle gelatin over cold water to soften. Add cream cheese softened with milk. Mix well and spread over firm lime layer. Dissolve strawberry jello in hot water. Add cranberries; cool. Pour over cheese layer. Chill until firm. This dessert is prettiest when served in a trifle-shaped bowl, but any container works. Jan Seidel, Gaylord

Oatmeal Cake

 $1\frac{1}{4}$ c. boiling water $1\frac{1}{2}$ c.1 c. quick oatmealPreh1/2 c. shorteningroum1/2 c. shorteningroum1 c. brown sugarbeat1 c. white sugarlight2 eggsblend1 1/3 c. flourcake1/2 t. saltmixt1/2 t. nutmegovern1 t. baking sodacake1 t. cinnamonlight $1\frac{1}{2}$ c. raisins (optional)cool1 c. walnut pieces (optional)ummPour boiling water over the oatmeal and letcakestand for 20 minutes. Cream shortening anding a

sugars, then add softened oatmeal and rest of ingredients; raisins and walnuts last. Pour into greased and floured 9x13-inch cake pan. Bake at 325° for 40 to 45 minutes or until toothpick comes out clean. This cake does not need icing, as it is moist and tastes just as good without it.

Jean Onsted, Adrian

Cinnamon Cream Cheese Delight

2 containers crescent rolls 2 8-oz packages cream cheese (softened) 1½ c. cinnamon sugar

1 stick of butter Spray a 9x11-inch pan with non-stick cooking spray. Place one layer of the rolls on bottom. Mix cream cheese with 1 cup cinnamon sugar until smooth. Smooth mixture over first layer of rolls. Layer another set of rolls. Melt butter and pour over second layer. Sprinkle top with remaining cinnamon sugar. Bake at 350° for 30 to 35 minutes. To make it as a holiday dessert, sprinkle top with colored sugar. Enjoy!

Deborah Wright-Finedell, Kalamazoo

Christmas Coconut Cake

1½ sticks unsalted butter, softened 2 c. sugar 6 egg whites 2¼ c. cake flour 2 t. baking powder 1/2 t. salt 1 t. coconut flavor 1 c. unsweetened coconut milk 1 c. flaked coconut garnish: 2½ to 3 c. flaked coconut **Icing:**

2 sticks butter
1/4 c. shortening
1/2 lbs. confectioner's sugar (3/4 of 32-oz.bag)
1 t. coconut flavor
4-5 T. unsweetened coconut milk (shake can well)
11/2 c. flaked coconut
Preheat oven to 350°. Butter and flour two round 9-inch cake pans. With electric mixer, beat butter with sugar for 3 minutes, until light and fluffy. Slowly add egg whites until blended. In a large bowl, sift together the cake flour, baking powder and salt. Add flour mixture to butter mixture until blended; don't overmix. Divide batter evenly between the

cake pans. Bake for 30 to 35 minutes, until lightly golden and firm to touch. Completely cool in pans on wire rack, then carefully unmold. Using a serrated knife, cut each cake horizontally into 2 equal layers (creating a total of 4 layers). For icing, cream butter, shortening and confectioner's sugar in a stand mixer until light and fluffy. In another bowl, combine coconut flavoring and coconut milk; add 1 cup flaked coconut. Beat coconut mixture into fluffy icing. Remove 2 cups of the whipped icing and stir 1½ cups flaked coconut into it; set aside.

When ready to ice cake, place first cake layer on serving dish. Dollop one-third of frosting with coconut flakes and spread evenly; continue for each layer. With the remaining frosting, frost the top and sides of cake. Finish by gently pressing the remaining 2½ to 3 cups flaked coconut on frosted cake. Serve on elegant glass cake stand.

Karen Belinger, Rothbury

Pecan Derby Pie

1 9-inch pie crust 3 eggs 4 T. butter, melted 1/2 c. granulated sugar 1/4 c. brown sugar 3/4 c. corn syrup 2 T. flour 1 t. vanilla 1 T. bourbon (optional) 3/4 c. chopped pecans 1/2 c. chocolate chips Prick piecrust with fork; set aside. In blender, beat eggs, butter, sugars, corn syrup, flour, vanilla, bourbon and pecans. Blend until combined. Spread chocolate chips on bottom of crust. Pour egg mixture over chocolate and bake at 350° for 45 minutes.

Jennifer Sylvester, Sand Lake

Submit your recipe! Contributors whose recipes we printed in 2013 have been entered in a drawing: *Country Lines* will pay the winner's January 2014 electric bill (up to \$200)! The winner will be announced in the January 2014 issue. A new contest will begin with the January issue.

Thanks to all who send in recipes! Please send in your favorite "Cooking For One" recipes by Dec. 10 and "Easter" recipes by Jan. 10.

Mail (handwritten or typed on one side) to: Country Lines Recipes, 2859 W. Jolly Rd., Okemos, MI 48864; or email recipes@countrylines.com.



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

Meet Your Co-op's Team, continued from page 7



▲ CUSTOMER SERVICE, PORTLAND Luanne, Karen, Jessica, Jeff, Madison, Angel, Lesa, Joy, Michelle, Stacey, Mary Jane, and Becky.



▲ **BILLING** Rita, Christy, and Jo, front; Darlene, back.



▲ CUSTOMER SERVICE, BLANCHARD Stacey, front; Laura, Cathy and Cheri, back.



Kevin Blundy FIELD TECHNICIAN



Nick Rusnell KEY ACCOUNTS/ ENERGY ADVISOR



Chris O'Neill LOSS CONTROL



Jamie Trommater INFORMATION TECHNOLOGY



ADMINISTRATIVE STAFF

From left, Tom Manting, Finance & Information Technology; Matt Miller, Electric Operations; Missy Robson, Customer Service; Pat Simmer, Accounting; Tanya Schneider, Staff Assistant; Randy Halstead, Propane Operations; Denise Weeks, Administrative Assistant; Jayne Graham, Communications; and Mark Kappler, General Manager.



▲ ACCOUNTING Sara Urie, Cheryl Blaschka, Jeralyn Marshall, and Christina Pulling.

METER READERS ► From left, Deb Hotchkiss, Portland; Dave Parkhouse and Terri Larsen, Blanchard.







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MDEQ Issues Draft Air Quality Permit

he Michigan Department of Environmental Quality (MDEQ) issued a draft air quality permit in late September for installation of an air quality control system (AQCS) at the Presque Isle Power Plant in Marquette.

Wolverine Power Cooperative and We Energies announced plans to pursue joint ownership of the power plant in 2012. In exchange for an approximate one-third ownership in the facility, Wolverine agreed to fund construction of a state-of-the-art AQCS.

"The new AQCS will meet current and

proposed air quality requirements," explains Brian Warner, vice president of environmental strategy for Wolverine. "It will help keep an important source of electric generation in the Upper Peninsula running."

The MDEQ will review public comments on the draft air quality permit and is expected to approve or deny the permit by year end. The air quality permit is one of several regulatory authorizations needed to proceed. The Michigan Public Service Commission, Public Service Commission of Wisconsin and Federal Energy Regulatory Commission have approved the partnership between Wolverine and We Energies at the Presque Isle Power Plant.

Located on the Lake Superior shore, the plant consists of five coal-fueled units built between 1974 and 1979. Under the joint ownership agreement, We Energies and its employees will operate both the plant and AQCS.

Construction of the AQCS is expected to take two years to complete. Operation of the power plant with the new controls is planned for 2016.

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It's been a great year for our state's Centennial Farm Program. "The Historical Society of Michigan has certified 41 Centennial and 14 Sesquicentennial farms," says Kellie Bolster, membership and awards coordinator. "There have also been 22 orders for replacement Centennial signs."

As a result of this growing interest, the Historical Society is now certifying Bicentennial farms and has updated the Centennial and Sesquicentennial certification applications, making them more organized and easier to understand. The new signs look similar to the Centennial signs, with the exception of the "Bicentennial" wording.

Visit hsmichigan.org/programs/centennial-farm-program/ apply-or-order/ to find the new applications, call 517-324-1828, or email bolster@hsmichigan.org.

Sizing Up Storm Doors

A variety of options can fit any efficiency need or budget.

I feel air leaks around my doors, so Im thinking about adding storm doors. I want ones that also have screens, but my budget is limited. Is it worthwhile adding storm doors, and what should I look for?

Even though it is a relatively small area compared to the entire wall of a house, just one door can lose a significant amount of energy. Even insulated doors typically have some glass, which have lower insulation value, and inadequate weather stripping will allow air to leak through.

Before buying anything new, make sure your primary doors are as airtight as possible. Adding storm doors can certainly improve the energy efficiency of almost any house, but they are not designed to correct efficiency problems of an old, warped primary door.

If possible, buy replacement weather stripping for your existing doors from the original manufacturer. If you can't find it, most home improvement stores sell many generic types that should fit. Pry off the old door molding, fill any gaps around the framing with non-expanding foam insulation, and caulk around the door frame.

The quality of the storm door construction is important for a nice appearance, long life, and security. It must withstand a lot of abuse, so it's best not to pick the cheapest one. From an energy efficiency standpoint, however, the most important factors are the dead air space between the storm and primary doors and how well it blocks the wind.

Buying an aluminum storm door and installing it yourself is the typical low-cost option. They're very lightweight and made to fit standard-size openings, so installing one is a simple do-it-yourself project.

When you see the door on display attached to a wooden frame at the store, the aluminum frame will feel very strong. When you open the box at home, you may find the unattached aluminum frame strips are somewhat flexible. Be careful not to kink them during handling. Apply a generous bead of caulk on the back of the aluminum frame when screwing it to the door frame.

If you plan to use natural ventilation in the summer, a self-storing triple-track storm/ screen door is your most convenient option. The screen panel has its own vertical track in the door, so it never has to be removed. At the end of winter, just slide one of the glass panels down and slide the screen panel up for ventilation.

A fairly new design of storm/screen door uses a spring-mounted roll-up retractable screen that is built into the door. When you're ready for ventilation, just lower the glass and pull the screen down as far as you wish. This design is attractive because the screen is hidden away during winter without having to remove and store the screen panels.

If your budget allows, some very attractive all-wood framestorm/screen doors (made with mortise and tenon joints) are available. These are strong and secure, but do require some regular maintenance-similar to any wood door. For added security, ornate wrought iron storm doors are available with actual deadbolts and very tough, break-in resistant stainless steel screens.

If your budget is really tight, consider making your own storm door. It is easy to mount hinges in the existing door opening for the storm door. Make a simple wooden frame with only the top half open and a plywood lower panel. This panel improves rigidity

The following companies offer storm/screen doors:

- Cumberland Woodcraft 800-367-1884 cumberlandwoodcraft.com
- Emco Specialties 800-933-3626, emcodoors.com
- Homeguard Industries 800-525-1885 home-guard.net
- Pella 800-374-4758, pella.com
- ProVia Door 877-389-0835, proviadoor.com.



It is easy to install a storm door. With preassembled parts, no cutting is required, and pre-drilled installation and assembly holes eliminate any guesswork.

for a more airtight seal and better durability.

Most home improvement stores carry sheets of clear acrylic plastic to mount in the frame. Make another narrow wooden frame slightly larger than the open half and mount the acrylic sheet in it. Screw it over the storm door opening. Make a similar frame with screening in it for summer use. If you prefer more durability and efficiency, and a perfectly clear view outdoors is not critical, select double-walled polycarbonate instead of acrylic. You can barely break the polycarbonate, even with a big hammer.

Nail spring-steel weather stripping in the door opening on the latch side, and top and bottom. This type of weather stripping is very durable where there is sliding friction. Adhesive-backed foam weather stripping is effective in compression on the hinge side.

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 Cooperaive Association.



Safety Tips for Portable, Standby Generators

hen Superstorm Sandy knocked out power to millions on the East Coast last fall, many of those affected turned to portable, standby generators to help keep food safe, lights on, and safety and medical equipment operating. The growing popularity of emergency generators has resulted in several million being placed in homes and small businesses across the nation.

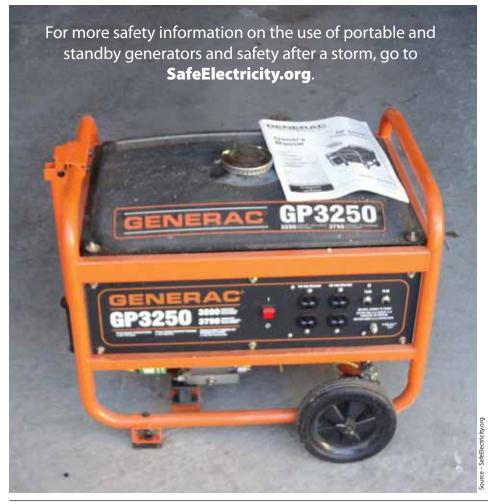
However, only a small percentage are hooked up or used correctly, so it's important for consumers to understand proper generator safety steps.

"Generators can be a lifesaver for some and can improve the quality of life after a natural disaster such as a hurricane, tornado or earthquake," explains Molly Hall, execuPortable generators are helpful during an extended power outage, but they can be extremely dangerous if not used properly.

tive director of the Safe Electricity program. "However, it's critical that proper safety precautions be taken to prevent accidents that could affect you, a family member, neighbor or utility lineworker."

Generators can be installed temporarily or permanently. A permanent generator is wired into a house by a qualified electrician using a transfer switch. This protects you, your neighbors, and repair crews from electricity backfeeding onto power lines. This

Safe Electricity is the safety outreach program of the Energy Education Council, a nonprofit organization with over 400 electric co-op members and many others who share the mission of educating the public about electrical safety and energy efficiency.



can seriously injure anyone near those lines, especially co-op crews working to restore power. A temporary generator fired by gas or diesel fuel should not be attached to a circuit breaker, fuse or outlet.

Improper use of a standby generator can lead to injury or death, so please follow these usage tips to keep you and your family safe:

Read and follow all manufacturer operating instructions to properly ground the generator. Be sure you understand them before starting it up.

► Standby generators should have a transfer safety switch installed by a professional. Portable generators should never be plugged directly into a home outlet or electrical system—use an extension cord to plug appliances into an outlet on the generator.

Never operate a generator in a confined area, such as a garage. Generators produce gases, including deadly carbon monoxide. They require proper ventilation.

When venturing outside after a severe storm, stay away from downed power lines and be alert to the possibility that tree limbs or debris may hide an electrical hazard. Assume that any downed or dangling wires you encounter are electrical, and treat them as if they are energized. Warn others to stay away, and then contact the electric utility.

Generators pose electrical risks, especially when operated in wet conditions. Use a generator only when necessary when the weather creates wet or moist conditions. Protect the generator by operating it under an open, canopy-like structure on a dry surface where water cannot form puddles or drain under it. Make sure your hands are dry before touching a generator.

When refueling a generator, make sure the engine is cool to prevent a fire, should the tank overflow.

▶ Make sure nothing is plugged into a generator when you turn it on. This prevents a surge from damaging your generator and appliances.

Keep children and pets away from the generator, which could burn them.

Save Energy While Enjoying the Holidays!

hances are you're already planning your festivities and pondering that gift list. But there is one thing you may not have thought about yet—your energy use. The holidays are one of the most energyintensive times of year, but making even small adjustments can turn into big savings! Read below how HomeWork Tri-County's Energy Optimization program can help.

Deck the halls with LED lights. Lightemitting diode (LED) holiday lights are a hot item for many reasons. They use up to 90 percent less electricity and last up to 10 times longer than standard bulbs, produce almost no heat, and are nearly impossible to break.

2. Be smart about lights. Wait until it gets dark to turn on your holiday lights and turn them off before going to bed. Or, put them on a timer to automatically save energy and money.

3 Choose energy-efficient electronics. Any equipment with a plug comprises, on average, up to 15 percent of your electricity use. When buying electronics this holiday (plan on surprising your spouse with a new



water heater?) or anytime, shop the ENERGY STAR[®] label. You'll get all the same features plus proven, long-term energy savings.

Become an efficient chef. No, we're not talking about cranking out 50 pounds of peanut brittle in an hour. It's easy to become an energy-efficient cook! First, preheat your oven as late as possible —there's no sense in wasting heat while you gather ingredients. Second, don't open the oven door to check on your treats—use the oven light instead. Opening the oven door lowers the temperature by as much as 25 degrees, increasing cooking time and wasting energy.

5. Turn down the thermostat when you have guests. With extra warm bodies in the house, you won't need to crank the heat. Save energy and keep your guests comfortable by turning down the thermostat. Also, remember to lower the thermostat when you're asleep or away. **BONUS:** Get an Energy Optimization rebate with a programmable thermostat.

6. Before heading off to grandma's house,

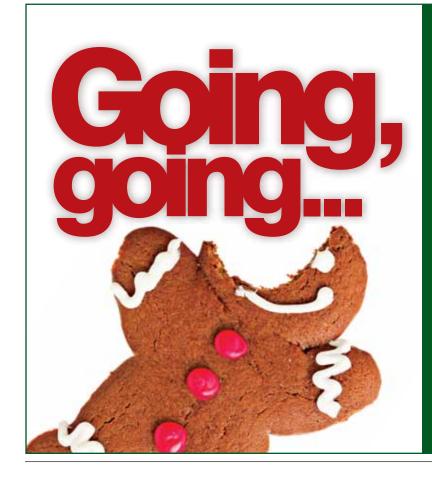
unplug as many appliances as possible because many of them continue using energy even when they are turned off. You can also safely lower your thermostat to 55 degrees and turn your water heater to the lowest setting.

Take advantage of rebates. Before ringing in the New Year, take advantage of 2013 Energy Optimization rebates and tax credits! There are many options available for residents, businesses and farms.

Rewards are available on countless energyefficient products, including:

- Lightbulbs
- Furnaces
- Water heaters
- Refrigerators
- Washing machines
- Clothes dryers
- Commercial equipment
- Farm systems
- Smart power strips

Visit **michigan-energy.org** to view current incentives or call 877-296-4319 for details.



Claim your rewards before 2013 is GONE!

Looking for ways to save money this holiday season and beyond? HomeWorks Tri-County Electric Cooperative's Energy Optimization program offers rebates on LED holiday lights, ENERGY STAR® appliances, smart power strips and more. **Take advantage of holiday sales AND Energy Optimization rebates** to save now and into the New Year.

ENERGY TIP: Make your energy efficiency purchases by December 31, 2013, before rebates run out and tax credits expire.

ONLINE: michigan-energy.org PHONE: 877.296.4319



HOME Tri-County Electric

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



Friendly Skies

f you're flying somewhere this Thanksgiving, good luck. Not only will you be joining millions of other passengers in the friendly skies on one of our busiest travel weekends, but you'll be on planes that have become more like cattle cars than the civilized cabins they once were. (Thanksgiving is our biggest travel weekend, but not the biggest for air travel. Those largely fall in the summer, travel experts say.)

Flying isn't what it used to be. No longer can we run into an airport terminal and book a same-day flight without a satchel of credentials, a body search and myriad questions from security personnel. Seats sure seems smaller, too (even as we get bigger). We have to pay extra for luggage, drinks (even water, on some airlines) and snacks. We can carry-on our own food if we don't wish to subsist on peanuts (also missing on some airlines). Some of this inconvenience is the result of security needs, but others are profitdriven, thanks to fewer airlines with fewer seats to sell.

We can still call a travel agent or airline to book flights, but it's often faster and cheaper to go online and do it yourself. That's intimidating, too. An internet search can reveal a squadron of possibilities, ranked by cost and date; organized by airline. Do you fly out in the morning or on the red-eye? Direct flight or connecting? Carry-on luggage or checked? By the time you're done making decisions, you're worn out and don't even want to think about packing.

My wife Barbara and I have family scattered around the country, so flying is sometimes the only smart option. Still, we try to avoid it—mostly because it's often more trouble than it's worth. Flying is easy from gate-to-gate, but home-tohome can be a different calculation. We figure that the hours waiting in airport lines and sitting on the tarmac might be worse than driving or even staying overnight on the way, if the scenery is decent and interesting, the traffic is acceptable and we can visit friends along the way.

Then there are the germs. Is there any better place to catch an illness (other than a hospital)? That closed cabin with hundreds of people inside is the perfect place to latch onto a tricky virus just waiting for a host. Almost every trip we've taken recently has ended with one or both of us sick. When I see an airplane now, I think of it as a ferry for viruses spreading from one part of the country to another.

But serendipity does happen on planes sometimes.

A month ago we went to Arizona, where we visited Barb's brothers, drove a restored 1960 MGA into the mountains, participated in an old car show, and got sunburned.

We got there in five hours' flying time, but it took us all day with a plane change in Denver, and we never caught up on the sleep we missed until days after we got back home. We had a great time, but we don't travel as well as we once did.

The trip back from Phoenix was uneventful until we changed planes in Denver. We had only 36 minutes between planes. I asked the flight attendant if we would have a problem making our connection. "You'll have the same problem everybody else will have," she said. Like that really answered my question. It occurred to me that the airline would like to charge extra for information, too.

We made our flight, but sat apart because adjoining seats weren't available when I booked it. I sat next to a mother and her young son, Jayce. He was a handful, as all 22-month-olds are bound to be on a long flight. (I remember those days with our boys.) They were on their way to visit his grandfather in Macomb County. Jayce had trouble sitting on his mother's lap. He squirmed and jostled, ate snacks and drank milk, kicked the seat in front of him, tried coloring and watching a



"Cars" video, played with a "Cars" metal replica, and started dropping it in hardto-reach places. His mother tried reading to him. He wasn't having it.

I found a card of oxygen mask instructions in the seat pocket, folded it to make a tunnel, put it on the tray and showed Jayce how to push the car through. It intrigued him for several minutes. Then he started calling me "daddy."

He finally settled down, with about a half-hour left in our flight, as his mother had predicted. He grabbed one of my fingers in his small hand and pulled it to him. He fell asleep in his mother's lap, holding my hand in his lap. There is nothing quite like the human connection of a child's grasp.

So, sometimes flying is worth it.

But it's always good to be back home, in Michigan, with reasonable temperatures, four seasons, real trees, snow, lakes, and your own bed.

Happy Thanksgiving.

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





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We're planting a Community Solar Garden!

Phase 1

will be installed at our Portland Operations Center

We install and maintain the panels— YOU get the credit each month as it's metered

> Join our mailing list now to be the first to get updates as we make our plans

For more information about our Community Solar Project, contact Nick Rusnell at 517-647-1247 or email solar@homeworks.org