A Service of **Midwest Energy Cooperative**

March 2013

Michigan COUNTRY LINES

Making a Difference

SPECIAL **GARDENING** EDITION

Hurry, this event ends on MARCH 31, 2013!

Some choices are clear.

WaterFurnace Geothermal	Fossil Fuel Furnace
☑ Even, luxurious comfort	☐ Hot to cold swings
☑ Savings up to 70% on bills	☐ Volatile fossil fuel prices
☑ Uses the clean, renewable energy in your backyard	☐ Relies on the combustion of fossil fuels
☑ Provides heating, cooling & hot water	☐ Provides heating, heating & more heating
☑ 25 year system life[1]	☐ 15 year system life

Life is full of difficult choices, but choosing a WaterFurnace geothermal heat pump isn't one of them. WaterFurnace can save you up to 70% on heating, cooling & hot water by capturing the clean, renewable energy in your backyard. Plus, for a limited time, we're offering ***instant rebates*** on any of three geothermal packages. Each is tailored to fit your needs - so every choice is perfect. And with an additional ***30% federal tax credit***, there's never been a better time to choose WaterFurnace. Visit your local WaterFurnace dealer for more information.

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Instant Rebate

Ultimate Comfort Package

Includes our variable capacity 7 Series—the most efficient unit on the market—installation accessories and choice of communicating thermostat and/or zoning system.

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Essential Comfort Package

Includes the most efficient dual capacity unit on the market—5 Series 500A11 with IntelliStart, AXB controls, installation accessories and choice of communicating thermostat and/or zoning system.

$1,000
Instant Rebate

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[1]According to ASHRAE estimate.
Rebate available only to residential customers through participating dealers. WaterFurnace is a registered trademark of WaterFurnace International, Inc.

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DEPARTMENTS

COLUMNS

FEATURES

YOUR CO-OP

Pages specific to your electric cooperative: 1, 2-3, 6-7, 18-19, 22-23, back cover

*Not in all editions

On the Cover

Residents from the African village of Morrumbala carry blackwood, which is especially valued for making musical instruments. A Cherryland Electric Co-op member and her family have boosted the village's economy by helping to market blackwood and starting a sawmill.

Photo Courtesy – Rachel Stivani

Michigan's Electric Cooperatives
countrylines.com

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

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Energy Use Snapshot

I recall a conversation with a gentleman a couple of years ago at one of our member meetings. The state-mandated Energy Optimization (EO) Program was new and he'd gone to the effort to replace all of the incandescent bulbs in his home with compact fluorescent lightbulbs (CFLs). He was frustrated, after going to the time and expense, that he didn't see a decrease in his overall energy use, as the CFL marketing materials suggested he would.

Robert Hance
President/CEO

Those who have heard me speak know I'm not a huge proponent of CFLs. I don't like the trumped-up claims of savings made in the marketing materials, and my wife is not a fan of the quality and color of light. Lighting tends to be a fairly small piece of the residential energy-use pie, and CFLs can make a difference, but really only when left on for extended periods of time.

There are many ways to better manage your energy use, and the EO program offers some great rebates and incentive programs (see p. 18) to encourage members and customers of Michigan-based electric utilities to reduce consumption. But at the end of the day, as I've said before, electricity is a great value for what it provides, and consumers really have to *want* to make modifications and change behaviors if they are going to impact the number of kilowatts flowing through the meter every month.

You have to really <u>want</u> to change behaviors if you're going to make an impact on your energy consumption...

In 2012, Midwest Energy's average residential consumption was 974 kWh (kilowatt hours) per month. In 2010 (the first full year of EO programs), the average was 975 kWh and in 2011, 981 kWh. Over a 10-year period (2003-2012), the average is 969 kWh per month, per residential member.

Average consumption for our residential users is basically flat. Does that mean EO is failing? Absolutely not. While I've never been a big fan of this state mandate, EO offers some good rebates and incentives that can make a difference in the big picture. Commercial and industrial users have the most room for improvements, and we've seen some significant savings result when EO-supported retrofits are made in those settings.

My point is that our collective habits as residential users aren't necessarily changing. I know many who have made significant changes in their own homes, such as upgrading to a more efficient water heater and recycling the 20-year old "beer fridge" that occupied a corner in the unconditioned garage. But as we make these improvements, we also continue to add to our home energy load with new appliances and gadgets that we can't live without. Bottom line is that residential members seem to like what they get in terms of comfort, convenience and quality of life for the average $130 they pay for monthly electric service. We don't seem terribly motivated, at least yet, to make significant changes.

What is the tipping point for implementing real modifications to our homes and behaviors to better manage energy use? Think about how you responded to prices at the gas pump. Many continued to purchase and drive large, gas-guzzling vehicles as prices continued their upward climb. Seems like $4/gallon was the point at which some consumers began rethinking vehicles and driving habits.

Energy use is no different. Power supply prices, as we've suggested over and again, will continue to rise in response to market-driven issues and climate-change and other regulations. That means your bill will continue to go up even if your consumption remains flat. What's your tipping point as it relates to energy use and your bill?

'Live Chat' Now Available at TeamMidwest.com

Regularly staffed Monday – Friday, 8 a.m. – 5 p.m.

The world of technology has virtually exploded, giving us the online ability to do, buy and act on almost anything. But sometimes we get lost in that world and yearn for a human interface to answer a question, provide information, or just guide us in the right direction.

Midwest Energy offers many options for members to contact us, and one of our newest features is our "Live Chat." It's a tool you can use on our website that allows you to engage in a real-time, online conversation with a member of our expert customer care team. Whether you want to report an outage, get information about your recent bill, or learn more about an upcoming energy education program, this tool offers you the flexibility to engage from the privacy of your own computer and get your answer fast.

"Live Chat" is regularly staffed Monday through Friday from 8 a.m. to 5 p.m. If you want to make contact outside of those hours, you have the option to leave contact information and a message, and a member of our team will be back in touch during regular business hours. For more urgent needs, please call us after hours at 800-492-5989. That line is staffed 24/7 to allow us to handle emergency after-hours outage calls and other situations in a more immediate way.

Kill-A-Watt Meter Can Help You Determine Energy Hogs

As energy costs continue to rise, consumers are more and more motivated to find creative, new ways to reduce consumption and take control over their use. But where do you start?

So much of what we do in daily life is connected to a wall outlet, and all of those applications contribute to the monthly bill. So, understanding how different appliances impact your overall bill is a huge step towards understanding and controlling your energy use.

Midwest Energy offers a tool to help you better understand how various appliances impact your energy use, and ultimately your bill. The Kill-A-Watt meter records various power measurements of a selected appliance, including volts, power factor, hertz, watts and amps. Simply plug your electric device into the Kill-A-Watt meter and the easy-to-use tool begins accumulating data on the appliance. The units come pre-programmed

with Midwest Energy Cooperative's rates and will ultimately project the cost of running that item for various periods of time, including an hour, day, week, month and year.

Kill-A-Watt meters are available to borrow from Midwest at no charge for two-week periods. Interested members may visit one of the co-op's three district service centers, where a customer care representative will explain and demonstrate the unit. If the unit is not returned within the two-week period, or is returned damaged or broken, you may be charged $80 to replace it. Kill-A-Watt meters are also available through a Midwest donation at public libraries across Cass and Lenawee counties.

Please call us at 800-492-5989 before visiting to make sure a unit is available.

Co-op Connections Card Helps You Save!

Your co-op works hard to strengthen and support individuals and businesses across the communities we serve. That's one reason we offer the Co-op Connections® program. It's a way for you and your fellow electric co-op members around the country to receive discounts on products and services from participating local, regional and national businesses and pharmacies. There is no sign-up or annual fee, and you get the benefit just by being a Midwest Energy Cooperative member!

If you're planning a vacation or trip, be sure to include Co-op Connections research as you're making plans. The family of electric cooperatives across the country has created hundreds of great deals, and you can access any of those because you are a member of the co-op family! Just show your card to access any current Co-op Connections deal.

In addition to local and national discounts, you have access to a pharmacy prescription drug benefit. By using your Co-op Connections Card you receive a 10 to 60 percent discount on prescription drugs at over 60,000 national and regional pharmacy chain stores—including CVS, Walgreens, Wal-Mart, Target, and many more. Our members have saved over $65,000 on pharmacy costs since March 2011. Additionally, the Healthy Savings Program provides valuable savings on dental, vision, hearing, lab and imaging services, and chiropractic care.

Click on the Co-op Connections ad on our homepage at TeamMidwest.com to learn more about these discounts. If you need a new card, contact us at 800-492-5989 or print a new one from our website.

Midwest Energy offices will be CLOSED FRIDAY, MARCH 29, in observance of Good Friday.

Payments may be made at the drop box and will be posted on the next open business day.

From our family to yours, have a happy & blessed holiday weekend!

ATTENTION READERS:

The publisher of *Michigan Country Lines* magazine is working with Marketing Resource Group (MRG), a reputable public opinion research company, to conduct a confidential survey for Michigan's electric cooperatives. If MRG contacts you by phone or email, please be assured they are not selling anything. The short, confidential survey will help your co-op serve you better.

Changing Careers & Education

Thank you very much for the interesting education articles in *Michigan County Lines* (Feb., "Education in 30 Years," p. 4; "Changing Hats at Halftime," p. 8). Through these, you increased public awareness of opportunities for creative improvement and positive thinking, both within the K-16 educational systems and for individuals considering new professions.

At the University Center Gaylord, through our partnership of two community colleges and seven universities, we strive to offer excellence for students to achieve post-high school academic goals…from technical trades to associate, bachelor, master and doctoral degrees. With a stronger educational base, individuals are better equipped to provide for themselves, their families, and to help their communities thrive, which enhances economic growth for all.

We are among the few state locations offering GED completion, with an advisor to help students learn about financial aid and college options to help them build on their achievement. We also offer community education for adult life-long learners and special summer hands-on programs for kids to strengthen their interest in science, technology, engineering and math (STEM). Such programs include Lego Robotics, the Natural World Explored Through Technology and Introduction to DC Electronics.

With the above information, you can see why we appreciate your magazine's educational focus in February!

– Sheila Simpson, MA Advising & Marketing Coordinator, University Center Gaylord

'Tortured Text' Column

Your column on cursive handwriting (Mike Buda/Jan. *Ramblings*) was an enjoyable read. I, too, find that the more I depend on keyboards to communicate, the less muscle memory I have in my hands for penmanship. I'm trying calligraphy.

I thought you might get a kick out of these "Save Cursive" items by beanforest (see sample, below), a Grand Rapids-based Etsy entrepreneur. I'm not connected with beanforest or The Calamity Collective, except as a happy customer.

– Teresa Fowler, Naubinway Cloverland Electric Co-op

Mike Buda's column appeared at an opportune time, as I just discovered in the last three months that cursive was no longer being taught in the public schools. I realize that some people may suffer from motor

skills that prevent legible handwriting, and I also realize one must prioritize the curriculum, but I wonder what criteria was applied when making this decision, and what replaced the instruction time.

There is no question that cursive writing is much faster at recording thoughts and is necessary many times when computers or other processors are unavailable. During the 20th century, many people (including even some of the most primitively educated, such as George Elson) journaled life experiences that have added much to our recorded history.

I find it a shame that our young people today are denied this useful development in communicative skills.

– Phillip Kenney, Presque Isle Electric & Gas Co-op

I greatly enjoyed your article in *Michigan Country Lines.* I have always been interested in the art of handwriting. In fact, I am a left-handed calligrapher and I think about today's young adults who text-only and are now permitted to print rather write their schoolwork. When they apply for a job and must affix a signature to a contract or employment papers, will they text?

I was the U.S. vice-president for a German writing instrument company. We manufactured writing and drawing instruments and did a large business in fountain pens. Children in Europe are very familiar with fountain pens, but children in the U.S. have, for the most part, grown up with ballpoint pens. We contacted over 200 school systems in the States, offering instruction in cursive writing and free pens and inks. We received *one* reply.

I have serious concerns about the future of our youth. Thanks for your input.

– Patt Hopkins, Atlanta, Presque Isle Electric & Gas Co-op

I read your article in *Country Lines* with interest, as my handwriting is also unreadable. When I mentioned it to my doctor, he diagnosed Parkinson's disease, as many PWP's (people with

DO YOU KNOW WHERE THIS IS?

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

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

The January contest winner is Kathy Sparr of Byron, who correctly identified the photo from Grand River Ave., between Portland and Eagle.

St. Joseph Student Represents Michigan at National Co-op Meeting

Drew Graeber, a junior at Lake Michigan Catholic High School in St. Joseph, and a Great Lakes Energy Cooperative member, represented Michigan electric co-ops at the National Rural Electric Cooperative Association (NRECA) annual meeting in New Orleans, LA, recently.

As part of his year-long service on the NRECA Youth Leadership Council (YLC), Drew joined over 40 students from co-ops across the country to assist at the convention that brought together over 12,000 co-op directors, managers and staff. Shown above, YLC students each carried their state's flag in a procession to kick-off the huge event, where industry issues affecting electric co-ops and their member-owners were discussed and voted on.

Drew was elected by his peers to serve on the Youth Leadership Council during the Rural Electric Cooperative Youth Tour to Washington, D.C., where each June electric co-op students from across the country join together to meet their legislators and see the sights.

Learn more about co-op youth programs at miYLS.com.

Drew Graeber

Letters, *continued*

Parkinson's) develop tiny or unreadable handwriting. I enjoyed your article, and thank heavens for computers.

– Belinda Garvon

Plasma Converter Better Than Nuclear?

Have the many Michigan electric co-ops ever considered a shared electrical generation project? In particular, have you considered StarTech's Plasma Converter System? (See theplasmasolution.com)

Until nuclear fusion becomes possible, this is the next best thing with none of the dangers of nuclear power. It's the solution for clean electric power, pure water, 100 percent recycling, greenhouse gases, industrial pollution, municipal trash, and emptying landfills. Although, gold and silver deposits have to be occasionally scraped off the bottom of the plasma chamber. Thanks for answering my question.

– Beth Clemensen, Scottville
Great Lakes Energy

Editor's Note: *Michigan co-ops are involved in shared electrical generation. Examples are Wolverine Power Cooperative, which has seven member co-ops, a 15-megawatt interest in Campbell 3, a coal-fired, base load facility primarily owned by Consumers Energy, and Presque Isle & Gas Co-op also participates in shared generation.*

About the StarTech Plasma Converter, here's what Brian Sloboda, of the Cooperative Research Network says: "Co-ops have been looking at this technology since the 1990s. The main issue is that it has never proven to be economical. It must operate at a very high temperature, which takes a lot of energy, so it's highly unlikely the process produces significantly more energy than it uses. Also, StarTech's website is incomplete and doesn't indicate that an independent test was conducted.

Many technologies claim to create gold and silver byproducts, which is often used to get people excited, but the real focus needs to be on efficiency and economics. This technology doesn't currently pass those tests. Also, their website says they are under Chapter 11 bankruptcy protection.

Fusion energy may have a bright future,though. A group of electric co-ops recently toured The National Ignition Facility at Lawrence Livermore National Lab, which is using lasers to create energy. In fact, they are on the verge of a major breakthrough that has been 50 years in the making. The technology promises a new way to generate electricity with no long-term radioactive waste or dependency on foreign energy sources. The U.S. leads the world in this technology and co-ops are closely monitoring its progress.

Mystery Photo

The New Era Potato Chip silo (Mystery Photo/January) is located on Grand River, Portland, Michigan. This is at my Aunt Esther Schrauben's home.

When she turned 100 years young, they repainted the silo for her birthday. She is going to be 103 years young in July 2013 and still enjoys tying quilts to keep her company.

– Trish Martens, St. Johns
HomeWorks Tri-County
Electric Co-op

New This Year: Adult Scholarship Opportunity

For many years Midwest Energy Cooperative has recognized excellence among graduating high school seniors with an annual scholarship program. In 2013, Midwest adds an additional scholarship opportunity to help meet the needs of non-traditional students.

Countless adults have found themselves unemployed and underemployed as a result of the economic downturn and resulting recession, and have pursued new career opportunities as a way to support their lives and families. For many, that has required further training and education.

Midwest Energy is offering two $1,000 scholarships to support adults who are returning to school. Adults age 21 years and older who receive monthly electric service from Midwest Energy, and whose primary residence is in our service area, may apply for the scholarships. One will be awarded for the fall semester and one for winter. Scholarships may be used for tuition, fees and/or book expenses, and will be paid directly to the college or university.

Applicants must be enrolled for a minimum of six credit hours at a community college, a four-year university, or an accredited trade school. Two letters of recommendation from non-family members are required, and each scholarship will be payable over two semesters ($500/semester) in one 12-month period. Applications and all pertinent information must be postmarked by *May 17, 2013,* for the fall semester and *October 25, 2013,* for winter.

Adult and high school senior scholarship applications are available online at TeamMidwest.com.

Midwest will also continue to award its traditional college scholarship. High school seniors whose parents or guardians currently receive monthly electric service from Midwest Energy Cooperative, and whose primary residence is in our service area, may apply for one of four $1,000 scholarships to be presented in spring 2013. Selection is based on academic performance, extra-curricular activities, community involvement and/or employment, and honors and awards. Applicants must also submit a short essay. A minimum cumulative grade point average of 3.5 on a four-point scale is required, and students must submit an official transcript for final approval. Applications and required documents must be postmarked by Friday, *March 15, 2013.*

Both of the applications are available at TeamMidwest.com to download and print or submit online.

Line Clearance Policy

In an effort to protect members from the dangers of electrical contact, Midwest Energy Cooperative has a policy related to line clearance.

The policy stipulates that members who build structures closer to power lines than what is allowed by the most current version of the National Electrical Safety Code will be required to either move the structure or pay to relocate the power line. Structures may include new homes, home additions, grain bins, signs and outbuildings.

"Every year, we hear tragic and preventable stories of people who come into contact with power lines. Our objective is to eliminate that danger and keep our members safe," says Terry Rubenthaler, vice president of engineering and power supply.

If you have questions about the location of a planned structure with regard to the location of overhead power lines, please call the cooperative's engineering department at 800-492-5989. We will happily work with you in planning the location of your structure so that it falls within all applicable guidelines and keeps you and your family safe.

Fuel Mix Report

The fuel mix characteristics of Midwest Energy Cooperative as required by Public Act 141 of 2000 for the 12-month period ended 12/31/12.

COMPARISON OF FUEL SOURCES USED

FUEL SOURCE	Your co-op's fuel mix	Regional average fuel mix used
Coal	57.1%	57.9%
Oil	0.2%	0.4%
Gas	12.8%	12.2%
Hydroelectric	1.1%	0.9%
Nuclear	23.2%	25.0%
Renewable Fuels	5.6%	3.6%
Biofuel	*0.3%*	*0.1%*
Biomass	*0.2%*	*0.4%*
Solar	*0.0%*	*0.0%*
Solid Waste Incineration	*0.2%*	*0.5%*
Wind	*4.6%*	*2.2%*
Wood	*0.2%*	*0.5%*

NOTE: Biomass above excludes wood; solid waste incineration includes landfill gas, and wind includes a long-term renewable purchase power contract in Wolverine's mix.

Your Co-op's Fuel Mix

Regional Avg. Fuel Mix

EMISSIONS AND WASTE COMPARISON

TYPE OF EMISSION/WASTE	lbs/MWh Your Co-op	lbs/MWh Regional Average*
Sulfur Dioxide	6.3	7.6
Carbon Dioxide	1,697	2,170
Oxides of Nitrogen	2.1	2.0
High-level nuclear waste	0.0077	0.0083

*Regional average information was obtained from MPSC website and is for the twelve-month period ending 12/31/12.

Midwest Energy purchases 100% of its electricity from Wolverine Power Cooperative, which provided this fuel mix and environmental data.

The Biggest User

Estimating the energy used by your appliances can help determine if it's time to upgrade them.

You've had your fridge forever. With the exception of some crumbling parts of the seal, it's in pretty good shape and keeps your food cold. Why worry about budgeting for an upgrade?

For starters, inefficient appliances can have a huge impact on your monthly electric bill. Replacing a refrigerator made before 1993 with a new, ENERGY STAR®-rated model can save up to 30 percent on energy use each year.

When evaluating older appliances, one key question emerges: Which is the biggest user? To estimate the energy consumption of an appliance, use this general formula provided by the U.S. Department of Energy (EnergySavers.gov):

(Wattage × Hours used per day × Days used per year) ÷ 1,000 = Annual kilowatt-hour (kWh) used

[Remember: 1,000 watts = 1 kilowatt (kW)]

Then, calculate the annual cost to use an appliance by multiplying the kilowatt hours per year by your electric cooperative's rate per kilowatt-hour used.

For example, a PC and monitor:

[(120 Watts + 150 Watts) × 4 hours per day × 365 days per year] ÷ 1,000 = 394 kWh × 11 cents/kWh = $43.34/year

You can usually find the wattage of most appliances stamped on the appliance bottom or back, or on the nameplate. The wattage listed shows the maximum power drawn by the appliance. Because some appliances have a range of settings—just like the volume on a radio—the actual amount of power consumed depends on the setting used at any one time.

Keep in mind that as electronics and appliances become more high-tech, they draw power even while they are turned off. A good indicator of this—called "phantom load"—is to check the device for a light that stays on all the time.

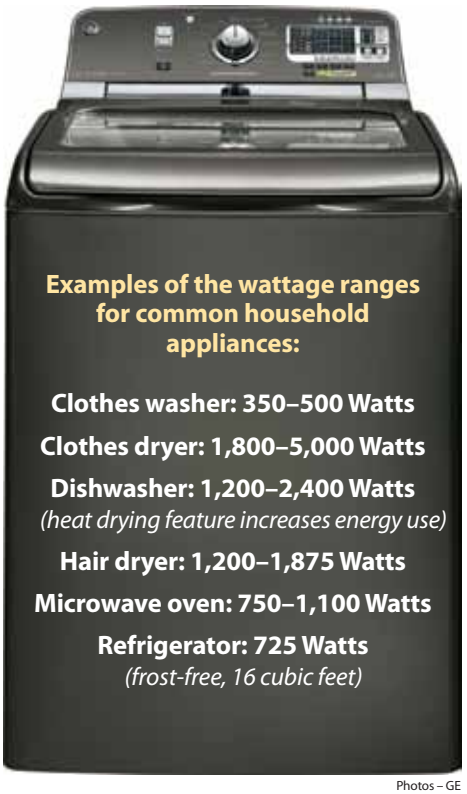
Phantom load will add a few watt-hours to energy consumption, but a few watt-hours on each of many electronic devices adds up. To avoid this silent power draw, unplug the device or invest in a "smart" power strip, which allows certain electronics—such as a cable box, which takes time to reboot after it's been unplugged—to continue using electricity while others can be completely shut down.

Once you calculate how much money you spend to run aging appliances, compare this to what it would cost to use more efficient models. There are other benefits, too. For example, not only have clothes washers become 64 percent more energy efficient since 2000, but the tub size has increased by 9 percent. With a new model, you can wash more clothes for less money every month.

If you don't want the hassle of adding up the potential savings, try visiting the Touchstone Energy® cooperatives' website, **TogetherWeSave.com**, which demonstrates how small changes such as replacing an appliance or unplugging electronics can lead to big energy savings. Under the "Add Up Your Savings" tab, you can walk through a typical home's kitchen, living room and other common areas, and make appliance upgrades and other energy-smart choices in each room. Each time you make a change, you're shown how much money you could save on your annual electric bill.

For more savings, find information about Michigan Energy Optimization programs and rebates offered by your electric co-op on page 18, or visit michigan-energy.org. And before making any energy efficiency upgrade, remember to check **energy.gov/savings** and **dsireusa.org** to find what rebates or incentives are available in Michigan.

Sources: U.S. Department of Energy, Association of Home Appliance Manufacturers, ENERGY STAR®



Examples of the wattage ranges for common household appliances:

Clothes washer: 350–500 Watts

Clothes dryer: 1,800–5,000 Watts

Dishwasher: 1,200–2,400 Watts
(heat drying feature increases energy use)

Hair dryer: 1,200–1,875 Watts

Microwave oven: 750–1,100 Watts

Refrigerator: 725 Watts
(frost-free, 16 cubic feet)

Photos – GE

The Power of Grassroots

Electric co-op consumer-members can help shape rules and laws that keep electricity reliable, affordable and environmentally responsible.

Electric co-ops often ask their consumer-members to get involved when it comes to laws and regulations that affect the affordability or reliability of electric service. But what does it really mean for you to be part of this "grassroots" movement?

This grassroots groundwork has already paid off for electric co-op members and Michiganders who want renewable energy, but in an affordable, responsible manner. Last year, co-op members and many other groups, such as the Michigan Farm Bureau, chambers of commerce, churches and labor unions campaigned against Proposal 3. The proposal would have amended the state's constitution to require that 25 percent of electricity be generated by in-state renewable sources by 2025. It was defeated by 63 percent of the voters because of its estimated $12 billion price tag, and the state already had renewable standards requiring electric utilities and suppliers to have 10 percent renewables in their generation mix by 2015. Another reason is they agreed the constitution is not the right place for enacting ever-changing energy policy.

"The defeat of Proposal 3 is just one recent example of the electric co-op network working with its members to ensure an affordable, reliable and environmentally responsible energy future and improved rural quality of life," explains Craig Borr, president/CEO of the Michigan Electric Cooperative Association (MECA).

"At MECA, we do our part to work with lawmakers on policies that are fair to electric co-op consumer-members," Borr says. "But our consumer-members provide the real legislative muscle, and we need them to flex it now more than ever."

Nationwide, electric co-ops boast one of the largest potential grassroots bases, with 42 million people spread across 75 percent of the U.S. receiving electric service.

Mobilizing Consumer-members

It's easy to see why electric co-op consumer-members should be involved, says Randy Dwyer, grassroots director at the National Rural Electric Cooperative Association (NRECA), the trade organization that represents over 900 nonprofit, member-owned electric co-ops.

"Electric co-ops should include their members in the political process because members provide the real voice," Dwyer stresses. "The co-op looks out for them, but if they're going to speak on behalf of their members, members must be engaged in the process."

To that end, MECA and other electric co-op statewide associations work with their member co-ops to create political action plans and help them engage legislatively. For example, the MECA team coordinates and participates in hundreds of outreach efforts with its member co-ops throughout the year. This includes everything from supporting local fundraising events to hosting elected officials at local co-op offices and organizing six to eight outreach visits to Washington, D.C., with its members. All of these efforts are possible because of the close working relationship MECA has built with elected officials over the years.

"We want consumer-members to get used to receiving political information from their local co-op, so they're familiar with the issues when it's time to take action," Borr adds.

As a result, co-op member-consumers will sometimes see policy-related articles in *t*his magazine, and through other media from their local co-op. When necessary, they'll see a call to action, as happened with Proposal 3.

"Our consumer-members can make a difference," Borr says. "They can help shape the laws and rules that affect their electric service and their wallets."

Why Co-ops Care

Since electric co-ops have members, not customers, and they are nonprofit—it means your electric co-op isn't creating excess revenue for far-away investors. All the money stays local, and when revenues exceed operating costs, members receive allocations called "capital credits." The co-op business model also requires them to enhance the quality of life in the communities they serve, and that naturally extends to statehouses and Washington, D.C.

Lobbying—aka "advocacy"—involves citizens talking directly with legislators. It's one of the five freedoms enshrined by the First

Left: Craig Borr, MECA President/CEO, greets U.S. Sen. Debbie Stabenow at an electric co-op meeting in Lansing. MECA and its electric co-op members work to build a close working relationship with elected officials on behalf of the co-ops' consumer members.

Michigan high school students talk with U.S. Rep. Bill Huizenga (R-Zeeland) on the Capitol steps in Washington, D.C. Every June, over 1,200 students nationwide are sponsored by their electric co-ops to attend the Rural Electric Youth Tour of Washington to learn about our nation's capital, tour historic sites, and meet with their Congressional representatives as electric co-op ambassadors and members.

Amendment: "Congress shall make no law abridging the right of the people to petition the government for a redress of grievances."

That's why MECA works with both the Michigan Legislature and Congress. The NRECA headquarters is in Arlington, VA—just across the river from the capital—and maintains a staff of lobbyists that spend most of their time on Capitol Hill and working with various agencies on the co-ops' behalf.

NRECA was formed in 1942 specifically to overcome World War II shortages of electric construction materials, obtain insurance coverage for the new electric co-ops, and rectify wholesale power supply problems. Since those early days, NRECA has advocated for consumer-owned co-ops on energy and operational issues as well as community and economic development.

Today, these lobbyists actively deal with two-thirds of U.S. House and Senate committees and subcommittees. Each year, hundreds of bills are introduced that could directly affect electric co-op members—issues ranging from energy and climate change policy to disaster relief, endangered species protection, and railroad reform.

The NRECA lobbyists get their "marching orders" from your electric co-op's board of directors, who are elected by you and your neighbors. Each year, electric co-op representatives also meet to vote on resolutions that direct NRECA's policy agenda.

To help MECA and their co-ops set legislative policies and determine which political candidates to support, members of the NRECA Government Relations staff meet weekly to discuss contributions to candidates, fundraising and political party events, grassroots electric co-op participation in Washington, D.C., and state political events. Then, NRECA's staff, statewide managers and state political action committees reach an agreement on which candidates should get contributions. NRECA and MECA work very closely to ensure all funds are invested wisely and support candidates based solely on their record and support for electric co-op issues, regardless of political party.

How To Get Involved

The national platform for electric co-op consumers to voice their concerns to Congress is the "Our Energy, Our Future®" campaign. To learn more about the issues facing your electric co-op and sign up to make your voice heard, visit:

Our Energy, Our Future
A Dialogue With America

OurEnergy.coop

Where You Come In

Dwyer echoes Borr in that co-ops can't go it alone. "CEOs and co-op boards are doing everything they can to keep electric costs affordable," Dwyer says. "And they do a great job of it. But there are things outside their control, like rules and regulations, that affect prices and service. By having a strong political action plan, a dedicated workforce, and engaged members, each co-op can help drive these concerns home. And when lawmakers hear from the folks—voters—back home, they listen."

Morrumbala, Mozambique

Making a Difference: From Leelanau to Africa

A Michigan logger makes life better in a small town a world away. **Kevin Cragg**

When Jim Kirt left the family farm in Leelanau County, he chose a path less travelled. Like his old home, his new one sat in close proximity to water. The similarities, however, abruptly ended there.

After logging across Michigan for 15 years, Jim yearned for something bigger than himself. He felt called to be a Christian missionary, and what better place to serve than Africa?

In early 1999, Jim relocated his sawmill business to central Mozambique on the banks of the mighty Zambezi River, which gathers water dropped by the magnificent Victoria Falls upstream in Zimbabwe.

On the outskirts of a small village called Morrumbala, Jim lived in a tent for five months with his wife Eileen, whom he had recently met and married in Africa. Together, they built a house, and with the aid of Jim's sawmill, they would bring the gospel and employment to the people of Morrumbala.

The area around the mission resembles a stereotypical snapshot of African bush country—subsistence farming, mud huts, few shoes, and fewer government services and schools.

The mill, known as Kalibu Timbers, changed all that. It was a catalyst for economic activity in the area, and provided employment for 25 men.

Soon, carpenter "shops"—one man with a handsaw and planer huddled under the shade of a mango tree—sprang up around the village, where wood from the mill was transformed into simple furniture, doors and window frames. Employment also brought income and trade. The mission provided training and educational opportunities in support of economic development.

For the first four years, operating the saw mill was a labor of love for the Kirts'. Diesel-powered generation made it possible to run a saw and keep saw blades sharp, plus provide about two hours of electricity to the house each night. The rest of the work was manual.

Electricity was available in the village on a limited basis, but had not yet extended to the mill site. All that changed in 2003 when government inspectors, noticing the positive economic impact the mill was having on the local economy, offered to extend electric service in the village and out to the saw mill for free.

Reliability has been surprisingly good since then, although frequent power surges required the installation of protective gear around new electric power tools at the mill. The utility also has a "maintenance day" every three months, when it cuts off all power for an entire day—usually a Sunday.

Just like the arrival of electricity to rural electric co-op members 75 years ago, electricity brought rapid changes to Morrumbala's economy and service infrastructure as gas pumps, a bank, cell phone towers and even internet service soon appeared.

The mission also benefited, with the building of a new fully-electric church, complete with a projector, copier and computer. The sawmill followed by adding new equipment. Sanders, table saws, joiners, and a new electric-powered mill helped boost productivity and capability. The Kirts' also acquired a few electric appliances in their home and started to feel like they had returned to at least the 20th century.

While the mill and mission don't have power outages resulting from heavy wet snowstorms like we see in northern Michigan, the business of electricity in rural Africa has its own unique challenges. For instance, industrious locals once drained oil from the primary transformer serving the area, and power was not restored for six weeks. On another occasion, the mill lost power and called in the outage to the utility. After getting no response, the Kirts' discovered that

Photos Courtesy – Rachel Stivani

Far left: Frank, a "wood-turner" in the village of Morrumbala, uses an electric lathe to make furniture in the sawmill started by Michigander Jim Kirt and his wife Eileen. Frank's original lathe was powered manually by his wife, who had to wrap the lathe belt around her back and literally twist back and forth. **Left**: A local "ladies conference" in the church the Kirts helped build in Morrumbala.

Above: Jim Kirt and Morrumbala residents he employed to work in the sawmill he built in their African village. **Top, right**: Rachel Stivani, a Cherryland Electric Co-op member from Traverse City, MI, with Elijah, who works at the sawmill. **Right**: Jim Kirts' sawmill helped jump-start the village's economy, including expanded electric service that brought more rapid change, including a church and bank.

a utility employee had removed a number of fuses to re-sell. After a lengthy discussion, the employee returned the fuses. Just this past Christmas, a transformer failure resulted in a week-long power outage that ran through the holidays.

Electricity brought another exciting change to mill operations. The new electric table saws enabled expansion into the harvesting and processing of exotic African blackwood, a highly desirable wood prized by artisans and woodworkers worldwide.

A relatively small, long-lived and slow-growing tree, this blackwood has an esteemed place in history that dates to antiquity. Egyptians were so fond of it they sealed blackwood artifacts in their tombs. Ancients called it the "musical tree" because the dense, oily heartwood produces a beautiful sound when used for wind instruments. It's a favorite for clarinets and bagpipes, and Luthiers treasure it for making stringed instruments, such as guitars. It's also the wood of choice for custom billiard cues, knife handles, and fine turnings such as extremely thin finials and executive ink pens. In Africa, hand-carved blackwood figurines are a tourist favorite to this day.

This brings our story full circle. In need of a distributor for their blackwood and other exotic woods harvested around Morrumbala, such as Panga Panga and African mahogany, the Kirts' turned to their niece, Cherryland Electric Co-op member Rachel Stivani.

Like her uncle, Rachel took a leap of faith. She knew little about wood and less about running a business, but given the niche market served and small order sizes, Rachel helped her aunt and uncle launch a web-based business named "Blackwood Source."

To keep overhead costs down, she keeps inventory in her garage and at a small storage shed south of Traverse City. Since launching the business, Rachel has filled orders from all but two states and shipped wood to every continent except Antarctica.

Though web-based, Rachel has developed many personal relationships with customers who are eager to share stories and samples of their woodworking projects. Popular uses for the wood she supplies include game calls, bagpipes and executive ink pens.

Given its natural beauty, it's almost impossible not to become mesmerized by the blackwood species—especially when carefully worked by a master craftsman, and Rachel has not been immune from catching the bug. She recently completed an introductory wood-turning class and joined a local club.

Back in Africa, strong worldwide demand coupled with agricultural expansion has raised concerns about the future sustainability of blackwood. Mill operators, like Kalibu Timbers, conservation groups, and governments across Africa are implementing practices that will allow the trees to flourish while maintaining an important source of revenue.

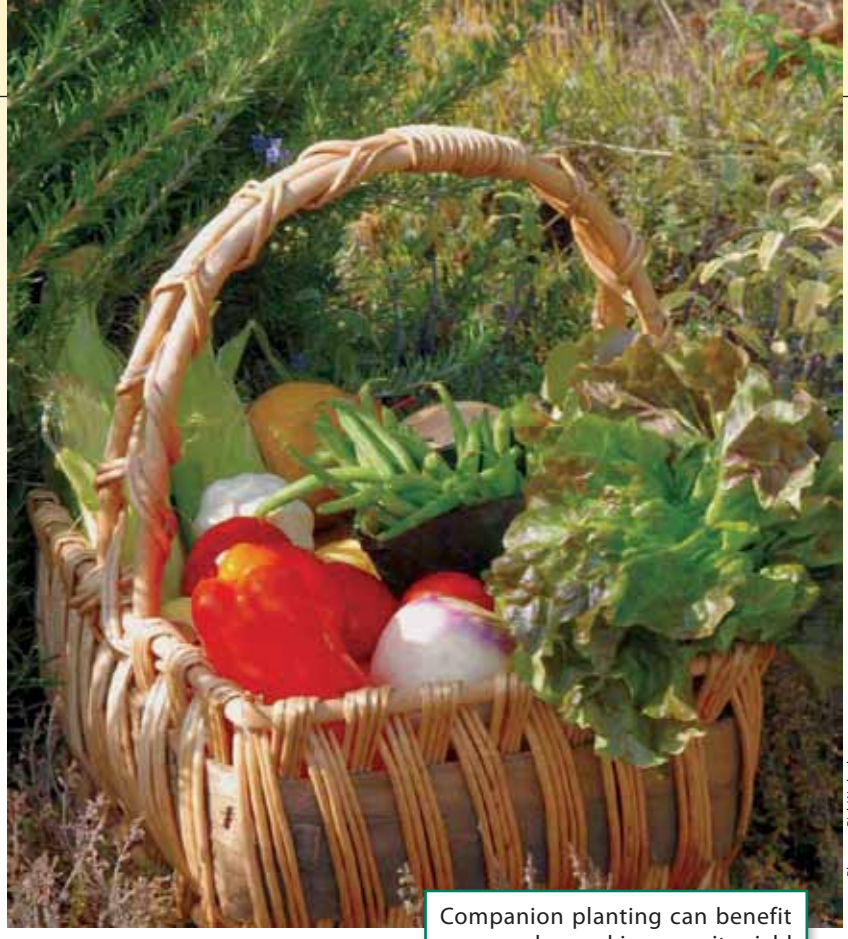
As for Jim and Eileen Kirt, they are ready to start a new chapter in their lives and plan to relocate stateside early this year. Their departure will mean the end of Kalibu Timbers, but not the mission, as a new couple has stepped in to continue the good work started by the Kirts. Eventually, when existing inventories have run out, Blackwood Source will shut down, too.

The Kirts' do plan to return to Mozambique for short visits in the coming years and stay connected to the mission they began so many years ago. For them, it's been a fascinating and rewarding journey that has touched many lives, which is what often happens when you choose a path less-travelled.

Visit cherrylandelectric.com to see more pictures of the mission, sawmill, and people of Morrumbala.

The Garden Buddy System

Some vegetables, herbs and flowers protect and feed each other when grown side-by-side.



Photos – Rick Wetherbee

Companion planting can benefit your garden and increase its yield by providing nutrients, protecting against disease, repelling pest insects while attracting beneficial ones, and attracting bug-eating birds.

Have you ever noticed how one vegetable plant can fail in one location yet thrive in another? Given the same soil, water and light, the two plants don't seem to grow the same. The difference may be a plant that's growing next door.

This plant compatibility is the foundation of a gardening technique called "companion planting." Basically, it's a partnership formed by growing plants next to each other that are different but also enhance each other's ability to grow and increase productivity in five ways.

Plants That Nourish

Certain plant allies improve the flavor of neighboring vegetables by providing nutrients. For example, comfrey (an important herb in organic gardening, used as a fertilizer and herbal medicine), buckwheat and other deep-root plants can mine nutrients by bringing them to the surface and making them more available to other plants. Various cover crops, such as alfalfa, clover and vetch (a scrambling, herbaceous plant of the pea family that is used as silage or fodder) also nourish neighboring plants with essential nutrients and trace minerals, including nitrogen, phosphorus, potassium, calcium, magnesium, and iron.

Other plants—such as peas, beans, lupines and clover—can transport nitrogen from the air we breathe down into their roots, where bacteria converts it into a friendly form for their neighbors. In this case, corn, peas and other nitrogen-hungry plants make great companions, as they will benefit from the "nitrogen-fixing ability" of these legume-type plants.

Plants That Protect

Other plants can improve their neighbors' health through a network of defensive chemicals that help ward off pests and disease. Marigolds are a classic example, as both the French and African varieties contain thiopene, which is toxic to certain soil-dwelling worms. As such, they are great companions for tomatoes, beans and other plants susceptible to nematode damage.

Plants that use similar chemicals for protection against disease include garlic, onions and chives—commonly-known compatibles that prevent black spot on roses and scab on apples. Likewise, brassica roots release chemicals that suppress some soil-borne diseases. Equally important are silica-rich plants such as comfrey and borage (herbaceous, used medicinally and as salad), which can neutralize rust, fungal attacks and other water-borne diseases. And, dandelions in a tomato patch are a good thing since their presence may deter fusarium wilt, a soil-borne fungus that reduces plant health and yields.

Other ways companion plants protect is by keeping things cool. Summer heat can take a toll on radishes, spinach, lettuce and turnips. Larger plants, such as pole beans and tomatoes, provide needed shade that conserves moisture and reduces heat that causes these vegetables to become woody or bolt.

Plants That Repel Pests

Most pests locate their next meal from their host plant's chemical odors or color. A diversified garden boasts a complexity of plant odors, colors and textures, thereby composing a natural barrier that makes it harder for pests to locate their target meal. How easy it would be for the cabbage moth to attack an area growing only broccoli and cabbage. By surrounding and interplanting that same area with carrots and onions, you confuse the moth by masking the scent of broccoli and cabbage.

Strong-scented plants also benefit their neighbors by masking their scent, especially for pests that rely on scent to locate good eats. Rosemary, sage, lavender, oregano and other aromatics often foil aphid attacks on susceptible neighbors. Another idea is to plant the garden perimeter with garlic and marigolds to repel aphids and beetles.

Other plants contain phytotoxins that lure,

then sicken or kill dining pests. Mustard oils found in cabbage and similar plants often poison unsuspecting spider mites, mosquitoes, and Mexican bean beetles. Therefore cabbage, broccoli and kale make good companion plants for beans.

Some plants repel bugs simply by creating a physical barrier between the critter and the plant it wants to eat. If raccoons are raiding your corn, try surrounding it with a scratchy barrier of squash vines. Or, consider the fact that flea beetles love to devour cabbage and cauliflower, but never seem to bother the sticky, hairy leaves of tomatoes. Catnip is another that repels flea beetles, but also Colorado potato beetles and green peach aphids. However, you don't necessarily have to plant catnip in your garden to benefit from its protection. Catnip easily self-seeds, and if you grow it outside the garden it can then be cut and used as a protecting mulch.

Additional repellent plants are leeks, onions, and rosemary against the carrot fly; parsley and tomatoes against the asparagus beetle; geraniums and petunias against leafhoppers; southernwood against cabbage moths; and nasturtiums against whiteflies.

Plants That Attract 'Good' Insects

There are some bugs you want to attract because they prey on pesty ones. These insatiable insects seek out and destroy pests such as aphids, slugs and snails, cucumber beetles, caterpillars, and other nasty bugs that wreak havoc in your garden.

Adult beneficials and their larvae feed on insects, however these hard-working adults also need pollen- and nectar-rich flowers to survive. Begin with spring-flowering plants such as sweet alyssum and sweet woodruff. Include long-blooming plants like marigolds, coreopsis and petunias, and extend the season with later-blooming asters, chrysanthemums and salvias.

Attract parasitic wasps, lacewings and syrphid flies with flowering members of the umbel family, including yarrow, parsley, dill and chamomile. This will greatly reduce pest populations of caterpillars, aphids, leafhoppers and thrips. Sunflowers, echinacea, cosmos, zinnias and others in the composite/daisy family are prime flowers for luring large predatory insects that dine on cucumber beetles, grasshopper eggs, slugs and caterpillar pests. And, when you get behind on harvesting the broccoli and lettuce, leave them be—their flowers provide food for beneficials.

Plants That Attract Bug-Eating Birds

Another way to keep bad bugs in check is to attract birds that feast on insects. Bugs from soil-dwelling grubs to codling moths provide a feast for chickadees, robins, wrens, swallows and other bug-eating birds.

Attract these beneficial birds by growing a mix of nectar, seed and fruit-bearing plants. For example, cosmos, asters, zinnias, sunflowers and other seed-bearing annuals or perennials attract a variety of songbirds that feast on insects. And tubular- or bell-shaped flowers rich in nectar—such as bee balm, pineapple sage, nicotiana, verbena and salvia—lure in hummingbirds, which also dine on caterpillars and small insects.

Companion planting is all about diversity, which is key to any healthy garden. So, go ahead and experiment with your own neighborly plantings. Grow flowers and herbs among your vegetables, and tuck a variety of vegetables in your flower bed. The result is bound to be a more beautiful, sustainable and bountiful garden.

Kris Wetherbee specializes in writing about gardening, food and outdoor living. Her publishing credits include over 60 regional, national and international magazines.

Marigolds, shown with parsley, contain thiopene, which is toxic to certain soil-dwelling nematodes (roundworms).

A Sampling of Beneficial Garden Companions

Basil – lettuce, peppers, tomatoes; enhances growth, repels flying insects

Beans – cabbage family, corn, eggplant, lettuce, marigolds, petunias, potatoes; deters potato beetles, fixes nitrogen

Calendula – cabbage family, corn, lettuce; attracts minute pirate bugs and lacewings

Carrots – lettuce, marigolds, onions, parsley, tomatoes; keep away from dill

Cabbage family – aromatic herbs, chamomile, marigolds, onions, nasturtiums, potatoes; keep away from strawberries and tomatoes

Cucumbers – lettuce, nasturtiums, onions, peas, petunias, radish; keep away from sunflowers and potatoes

Lettuce – compatible with most garden plants

Marigolds – all garden plants; repels aphids, potato and squash bugs, massings kill nematodes

Onions – most garden plants, except peas and beans; deters many pests, masks plant odors

Petunias – eggplant, grapes, greens, squash; plant with any vegetable bothered by leaf hoppers

Peas – carrots, corn, cucumbers, potatoes; keep away from onions; fixes nitrogen

Peppers – basil, carrots, onions, parsley; keep away from fennel

Radish – especially carrots, cucumbers, squash; repels cucumber beetles

Squash – nasturtiums, onions, petunias, radish; keep away from cucumbers and melons

Tomatoes – basil, carrots, chamomile, marigolds; keep away from fennel and potatoes

College, Connections, Career!

Networking tips to help college grads land their first job.

College graduation season is coming, launching a new crop of young adults seeking their first "real" job. But, today's high unemployment rates make that search a daunting challenge.

There is both good and bad news for recent grads looking for work, says Maribeth Kuzmeski, author of "The Connectors: How the World's Most Successful Businesspeople Build Relationships and Win Clients for Life" (theconnectorsbook.com).

The good news: They're more adept than their older counterparts at using the internet and social media to find job opportunities. The bad news: They lack the networking and communication skills that older job seekers have honed over the years.

Kuzmeski helps clients develop communication and relationship skills and offers advice for how new grads can network their way to a great new job.

Rejuvenate your résumé. Consider including some eye-catching, informative headlines, and make the most of every college experience by including information on internships, relevant class assignments, and club leadership positions. "Make sure your résumé is something an employer would want to read," she says.

Use social media. According to a 2012 Social Job Seeker Survey by Jobvite.com, 88 percent of job seekers have at least one social networking profile, and 44 percent have them on all three: Facebook, LinkedIn, and Twitter.

Get face-to-face with potential employers! At a time when so much of the pre-hiring process is online, it is essential that you find a way to communicate with potential employers face-to-face. Drop off a follow-up note or a résumé in person, or stop by an interviewer's office the next day with an interesting article. "Establishing this face time is sure to set you apart from your competition," Kuzmeski says.

Make an impact by using video. Use a video to get an interview or as a follow-up. Carefully script and record a message (1 to 2 minutes) using a smart phone camera or webcam. Post it on YouTube and include the link when emailing a résumé or a post-interview thank-you note. Some extra tips:

1. Introduce yourself, and identify the job you want to be interviewed for.

2. Tell three things about your background that might tempt the employer to interview you.

3. Thank them for watching, and ask for the interview!

4. Focus on professionalism—not entertainment. Make sure both you and your background appear professional.

Focus on connectors. The goal of networking is to build mutually beneficial relationships with people who might never be able to give you a job, but may know someone who can. List the contacts who are the most important or closest to you. Don't rule out family members, friends and neighbors that may be the most willing to help. Of those contacts, highlight those who know the people you want to know. "By connecting with other great connectors, you are able to widen your reach," Kuzmeski says.

Let others do the talking. Don't indulge in nervous chatter. Be prepared to listen and arm yourself with a (mental) list of questions to help you get conversations going. For example, you might ask, "What's the best thing that happened to your business this year?" or "What's one thing you've done that has really changed your career?"

Pitch yourself in 15 seconds. No one (except your mom!) wants to hear a long list of your accomplishments. Instead, prepare a short pitch that hits your high points and top skills. Include what's unique about what you've done and what will help you stand out from other job seekers.

Get involved in professional groups. Attend trade shows and seminars and join organizations connected to the profession you want to enter. Take hard copies of your résumé to events. The more people within your profession that know you, the better.

Volunteer. If you want a marketing job, volunteer to work with the PR director at a nonprofit, or if accounting is your thing, volunteer your financial expertise. Volunteering allows you to learn from professionals and show potential employers that you're a motivated worker.

Be a mover and shaker. Force yourself outside your comfort zone. Don't just hang out with the people you already know; introduce yourself to new people and find out as much as you can about them. The more you move around, the more connections you will make.

Always network. Capitalize on all the connections you make in everyday life—network on airplanes, at social gatherings, and in the grocery store line.

Pick up the phone. While communicating by email may be your preferred method, a good rule is to match whatever method of communication your potential connection is using. Ask interviewers if it is okay to call with questions after the interview. You might also call after-hours to leave a thank-you voicemail—a nice way to let employers hear your enthusiasm without taking up too much time.

"By focusing on networking, you open yourself up to many more opportunities than just the ones you see on job boards or at job fairs," says Kuzmeski. Every time you make a new connection, you get that much closer to getting your dream job."

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

Jewelry With a Past

Creative keepsakes made from broken dishes.

Lois Miller

In a thick binder filled with photos of Lois Miller's work, every pitcher tells a story. As does every dinner plate, serving platter, cup and saucer that she transforms from a piece of china with sentimental value into wearable art.

"I could sit and tell you stories for an hour," Lois says about the Vintage Keepsake Jewelry she and her husband Keith create in a pole barn studio at their southwest Michigan home in Edwardsburg.

One grandmother delivered to Lois the remains of a Belleek bowl and asked her to turn bits of the Irish serving dish into jewelry as gifts for all her grandchildren—including the youngster who accidentally shattered it. An especially moving custom order was from a Hurricane Katrina victim who found some of her wedding china in the rubble. Lois preserved it as jewelry that would help the woman recover from her tremendous loss.

Using a diamond grinder and diamond-blade bandsaw, Lois cuts sections of porcelain, pottery, bone china and other tableware into hearts, ovals and rectangular or free-form shapes. Then, with a soldering iron she frames each piece in a fine thread of silver and adds the findings to create pendants, earrings, bracelets, brooches, cuff links and key rings.

Fiesta Ware bracelets

Austrian handpainted violet china

Lois has been making jewelry for 16 years and a decade ago Keith, who worked for Whirlpool, joined her with his own line of antique silverware bracelets. He sometimes includes charms that Lois has made, and also turns silver knife handles into handsome writing utensils.

Besides making custom jewelry from family treasures, Lois scours the internet for interesting patterns and tableware, including English Flow Blue China. The cobalt blue-on-white pieces were popular in the 1800s and the dreamy designs make strikingly beautiful jewelry. For collectors who recognize the design, there's a "Wow!" factor, Lois says. "It really stands out." And, while using Flow Blue is one of her trademarks, the china pieces are increasingly difficult to find and, "Now they are out-of-this world expensive."

Lois hunts for other unusual patterns on eBay, including horse images, which make in-demand pieces at an art show she participates in just prior to the Kentucky Derby in Louisville. She is also known for making jewelry from calendar plates, and her stock of that specialty china currently spans about 20 years. A specific month framed in silver as a pendant or charm is a commemorative piece, she says, "Perfect for a wedding anniversary, birthday or other special date."

Lois says she's always been creative. "I have the kind of mind that is always thinking of things to do," including quilting, sewing, decoupage, refinishing furniture, and making one-of-a-kind gifts for her grandchildren. But many years ago, when she first saw jewelry that incorporated china, "I was spellbound," she says. "I thought it was the most beautiful thing."

Soon she learned to craft the jewelry herself. In designing each piece she studies the china pattern, sketches possible interpretations, and decides on the look of the silver frame: A sleek silver outline is compatible with a modern design, but for more old-fashioned or flowery designs she adds a beaded, decorative trim.

Grandmother's wedding teacup

Blue Rose wedding plate set

Blue ashtray

Although Lois participates in occasional art fairs and shows, the main outlet for the couples' work is their website at VintageKeepsakeJewelry.com. Pendants are the most popular items, and her jewelry ranges in price from $20 to $70. Special orders (269-663-3061) vary, and usually take about two weeks.

It is the custom pieces and the stories behind them that Lois really treasures. As she transforms broken dishes into attractive accessories, she is also preserving history and memories "for all those people that ate off their china and everybody in the family that sat at the table."

Keepsake Jewelry made for Alison Jones from pieces of her china broken during the Katrina hurricane, September 2005.

Brunch

If you can't decide between breakfast and lunch, have both! With these sweet and savory recipes, there's a little something for everyone, giving you the perfect combination of breakfast and lunch ingredients.


Overnight Caramel Apple French Toast

Overnight Caramel Apple French Toast

1 c. brown sugar
1/2 c. butter
3 T. corn syrup
8 apples, peeled and chopped
1/2 t. cinnamon
10-12 slices French bread
2 c. milk
2 t. vanilla
1/3 c. sugar
5 eggs, beaten

Bring brown sugar, butter and corn syrup to a boil, stirring constantly; add apples and cinnamon. Cook until it begins to thicken. Pour into a greased 9x13-inch pan. Place bread slices in another pan. Combine milk, vanilla, sugar and eggs, and pour over bread. Refrigerate both pans overnight. Remove from refrigerator 30 minutes before baking. Place bread slices over caramel apple mixture. Bake at 375° for 35-40 minutes, or until a knife inserted in center comes out clean.

Ellen Yoder, Scottville

Sweet Sausage Rolls

1 8-oz. tube crescent rolls
24 miniature smoked sausages
1/2 c. melted butter
1/2 c. chopped pecans
3 T. honey
3 T. brown sugar

Cut each roll into three triangles. Roll a sausage tightly into each triangle. Combine remaining ingredients and pour into a 11x7x2-inch baking dish. Put sausage rolls seam-side down in butter mixture. Bake at 400° for 15-20 minutes, uncovered, until golden brown.

Bonnie Bourn, Constantine

Fancy Brunch Sprouts

1½ lbs. brussel sprouts, trimmed and halved
1½ T. margarine or butter
1 shallot, finely chopped
1 clove garlic, crushed
1/4 t. pepper
1 t. sugar
2 T. white vinegar
1/2 c. low sodium broth
1 lb. bacon, fried and crumbled
1/2 c. slivered almonds

Cover sprouts with water in large pan. Boil 5 minutes; remove and drain. In same pan, combine butter, shallot, garlic, pepper, sugar, vinegar and broth. Add bacon and sprouts to pan and boil until almost dry. Top with almonds; serve hot. Goes well with scrambled eggs. Serves 8.

Fred Black, Sandusky

Broccoli Quiche

2 10-oz. pkgs. frozen, chopped broccoli
4 beaten eggs
1/4 c. half-and-half
3 T. melted butter
1/4 t. minced onion
3/4 c. grated parmesan cheese, divided
1 9-in. deep dish unbaked pie shell

Cook broccoli for 4 minutes in water; drain. Combine with eggs, half-and-half, butter, minced onion and 1/2 cup cheese; mix well and pour into pie shell. Sprinkle top with remaining cheese. Place on cookie sheet and bake at 350° for 30 minutes, or until knife inserted in middle comes out clean. Cool at least 5 minutes before cutting.

Cora Kuiper, Grand Rapids

Photography by: 831 Creative

My Favorite Scones

1¼ c. whole wheat flour
2 c. all purpose flour
3/4 c. sugar
1 t. baking soda
2½ t. baking powder
2½ c. rolled oats (old fashioned, not instant)
1 c. chopped dried cherries
1 c. roasted pecans (optional)
2½ sticks chilled butter, cut into 1½-inch squares
2/3 c. buttermilk
heavy cream or half-and-half
sugar

Mix the first five ingredients together. Add oats, cherries and pecans; cut in butter, then add buttermilk. On counter or waxed paper, form heavy dough into rectangle (16 x 3½ x 1½ inches). Wrap in plastic wrap and chill in freezer for two hours. Cut into smaller rectangles, then in half to make triangles; place on parchment lined baking sheet. Brush with heavy cream or half-and-half and sprinkle with sugar. Bake at 350° for 30 minutes, until beginning to brown on top and bottom.

Lois Barnum Phelps, Stanwood

Cheesy Amish Breakfast Brunch

3 c. frozen hash browns, thawed
1 c. cottage cheese
1 small sweet onion, chopped
9 eggs, lightly beaten
1 lb. bacon, cooked and chopped
2½ c. cheddar cheese, shredded
1 c. Swiss cheese, shredded

Mix all ingredients together and pour into greased 9x13-inch glass baking dish. Bake at 350° for 45 minutes. Serves 8 to 10.

Carole Buskirk, Dowagiac

Spinach Pie

1 lb. feta cheese, crumbled
1 lb. cottage cheese, small curd
4 pkgs. frozen chopped spinach, defrosted and drained very well
1/2 t. nutmeg
8 eggs, beaten
1 box phyllo dough
1 stick butter, melted

Mix feta cheese, cottage cheese, spinach, and nutmeg; add eggs and mix well. Keep damp cloth over phyllo while making pie. Brush bottom of a 14x10-inch pan with butter. Place seven layers of phyllo into pan, brushing each layer with butter. Spread filling over bottom layers. Place seven more layers of phyllo on top, again brushing each layer with butter. Bake at 350° for 40-45 minutes. Cut into squares. Serve warm or at room temp.

Leigh Gaskin, Grawn

Brunch Enchiladas

2 c. ham, cubed
1/2 c. chopped green onions
10 8-in. flour tortillas
2 c. cheddar cheese, shredded, divided
1 T. all purpose flour
2 c. half-and-half
6 eggs, beaten
1/4 t. salt

Combine ham and onions; place 1/3 cup down the center of each tortilla and top each with 2 tablespoons cheese. Roll up and place seam-side down in a greased 13x9-inch baking dish. In a bowl, combine flour, cream, eggs and salt until smooth; pour over tortillas. Cover and refrigerate for 8 hours or overnight. Remove from fridge 30 minutes before baking. Cover and bake at 350° for 25 minutes; uncover and bake for 10 minutes. Sprinkle with remaining cheese; bake for 3 more minutes, or until cheese melts. Let stand 10 minutes before serving. Makes 10 enchiladas.

Janice L. Thompson, Martin

Sausage Bread

1 loaf frozen bread dough
2 eggs, whipped
1 lb. sausage in tube, cooked, drained and crumbled
1/2 c. parmesan cheese

Thaw bread according to package. Allow it to double rise. Roll out to about 1/2-inch thick circle on a floured surface. Mix cooled sausage, eggs and cheese together and spread on bread dough, making sure sausage mixture is all the way to the edge of the circle. Roll-up and place on greased cookie sheet. Cover lightly with foil. Bake at 350° for about 30 minutes. Remove foil and bake for an additional 10 minutes, or until golden brown. Remove from oven and spread top and sides with butter or margarine, if desired. Slice and enjoy!

Mary Ann Schultz, Scottville

Asparagus Fritters

2 lbs. asparagus, blanched and cut into 1-inch pieces
1½ c. flour
4 T. parmesan cheese
1 c. milk
pinch of salt
4 eggs

Blend all ingredients together, adding asparagus last. Fry in butter or oil, like pancakes. Serve with applesauce or sour cream.

Marcia Scully, Atlanta

Baked French Toast with Maple Praline Topping

1 loaf day-old French bread
8 large eggs
2 c. half-and-half
1 c. milk
2 T. granulated sugar
1 t. pure vanilla extract
1/4 t. ground cinnamon
1/4 t. nutmeg
dash salt
Maple Praline Topping:
1 c. butter, room temperature
1 c. light brown sugar
1 c. chopped pecans
3 T. pure maple syrup
1/2 t. ground cinnamon
1/2 t. ground nutmeg

Cut bread into 16 1-inch thick slices, ends discarded. Lay slices in a 13x9-inch baking dish in two rows lengthwise, overlapping as necessary. In a large bowl, whisk eggs until blended but not frothy; add half-and-half, milk, sugar, vanilla extract, cinnamon, nutmeg, and salt; whisk to blend well. Pour egg mixture over bread; cover and refrigerate overnight. For topping, cream butter and brown sugar together; add pecans, maple syrup, cinnamon, and nutmeg; stir until ingredients are well combined. Cover and refrigerate overnight. To bake, place topping in a microwave-safe bowl and microcook on high (100 percent power) for 20 seconds. Stir mixture and spoon over French bread and egg mixture. Bake at 350°, uncovered, for 40 minutes or until golden. Serve with additional warmed maple syrup.

Marilyn Partington Frame, Traverse City

Hash Brown Quiche

4 c. frozen hash browns, thawed
5 T. butter, melted
2 large eggs, beaten
1/2 c. half-and-half
1 t. seasoned salt
1/2 t. black pepper
1 c. mozzarella cheese, shredded
1 c. Swiss, colby or cheddar cheese, shredded
1 c. diced ham

Preheat oven to 425°. Press hash browns into a 9-inch quiche or pie pan. Blot with paper towel to remove all moisture. Brush with melted butter. Bake for 25 minutes, or until crust just begins to brown; remove from oven. Reduce heat to 350°. Combine eggs, half-and-half, salt and pepper in a bowl and whisk well. Place cheese and ham into the potato crust and pour egg mixture over top. Bake another 40 minutes, or until eggs have set; remove from oven. Cool and cut into wedges to serve.

Marcia Leroue, Conway

Fancy Brunch Sprouts

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

Thanks to all who sent in recipes! Upcoming: Please send **BERRY** recipes by April 10 and **UNDER THE SEA** recipes by May 10. Mail to: *Country Lines Recipes*, 2859 W. Jolly Rd., Okemos, MI 48864; or email recipes@countrylines.com.

Energy Efficiency 101: All-American Edition

Why saving energy makes sense for anyone.

You plug things in and they work. You flip the switch and the lights come on. We all tend to take electricity for granted. As a result, saving energy may be the last thing on your list of priorities. Well, stay tuned. You're about to see energy efficiency in a new light.

First, let's define energy efficiency—it means using less energy to do the same job without losing features or functionality. In other words, energy efficiency doesn't mean sacrifice.

More Control

Mindful energy use gives you more control over your electric bill. For example, according to the "Energy Pulse" report, reprogramming your thermostat can reduce the energy your furnace uses by 10 percent. (**Tip:** In winter and spring, set your thermostat to automatically dip 8 degrees below your normal temperature preference when you're gone or sleeping. This is not applicable to air source or ground source heat pumps).

Bottom line: Brainstorm ways you can roll back your energy use. Common energy hogs include inefficient furnaces, lighting and leaving appliances/computers plugged in.

What does it mean to be energy efficient?

Saving energy is easier than you may think. Here are a few low-cost, low-commitment ways to curb your energy use—and get Energy Optimization rebates, too!:

- **Buy ENERGY STAR® products:** When your water heater dies or your furnace goes out, replace it with an energy-saving model. **Bonus:** Rebate available.

- **Get a smart power strip:** Plug your TV and all related equipment (DVD player, VCR, speakers, etc.) into a smart power strip. It knows when your TV is off and turns everything else off, too. **Bonus:** Rebate available.

- **Change a light:** Switch to a light-emitting diode (LED) bulb in your favorite light fixture—these lights contain zero mercury and may last decades. **Bonus:** In-store discount.

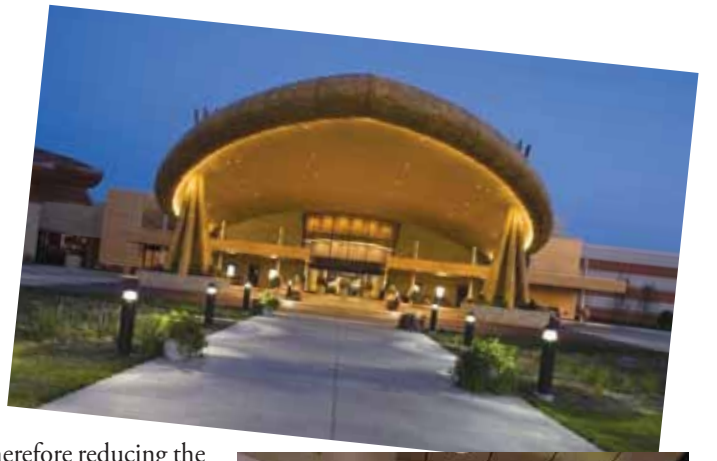
- **Try a smarter Electronically Commutated Motor (ECM) furnace:** Using a fan motor that doesn't run all the time cuts down on energy use and noise. **Bonus:** Rebate available.

Resources & More Energy-saving Ideas

Midwest Energy Cooperative is proud to offer Energy Optimization rebates for homeowners, businesses and farms. Save energy, get rewarded. Visit michigan-energy.org or call 877-296-4319 to learn more about rebates that will work best for you.

Energy Efficiency & Business

Odawa Casino Resort Plays It Smart



If a casino finds energy waste risky, should other businesses take note? Over the last three years, Odawa Casino Resort in Petoskey, MI, implemented nine energy efficiency projects—all of them through Great Lakes Energy and its Energy Optimization program. As a result, this business saves 3 million kilowatt hours (kWh) per year—equivalent to removing 406 cars from the road.

"I think, as with any company, energy cost savings would be the biggest reason to implement energy efficiency, but the Odawa Casino Resort also believes it is very important to reduce our carbon footprint," says Dave Heinz, Odawa Casino's lead electrician.

Knowledge is Power

In 2009, Great Lakes Energy's key account manager told Heinz about Energy Optimization (EO) rebates for businesses. It was a game changer. The EO program offers rebates on simple projects (i.e., equipment replacement) as well as complex energy efficiency projects unique to a business. The program maximizes energy savings and return-on-investment for businesses.

"I'm impressed by how eager to help and knowledgeable everyone that I have dealt with in the EO program is," Heinz says. "We have not completed a project that we didn't get more out of it than we thought we would."

Project Details

The Odawa Casino Resort started its energy efficiency efforts with lighting retrofits—a practical choice for any business. They replaced thousands of old incandescent lightbulbs with new compact fluorescent lightbulbs (CFLs). This alone saves almost $32,000 per year in energy costs.

Last year, they installed variable frequency drives (VFD) on eight belt-driven motors. The VFDs prevent motors from running at full speed all the time, therefore reducing the need for costly belt replacements. Instead, VFDs adjust the motor's electrical supply to efficiently meet varying process requirements, which saves energy and extends equipment life. Odawa also added coolant valves to its 20 cylinder natural gas-fired generators. This reduced run-time for the 2k to 12k coolant heaters by 60 percent.

In 2012, several 50-inch plasma TVs were replaced by equivalent ENERGY STAR® models that save over $1,400 annually. More significantly, hundreds of slot machines were converted from mini-fluorescent lights to new LED lights, and over 10,000 mini-incandescent bulbs used for mood lighting were replaced with LEDs. These lighting projects on the gaming floor not only resulted in less electrical use, but now the air conditioning system doesn't have to work as hard to remove waste heat from the lights. This LED project is expected to save over $38,500 annually in electricity costs. The Casino already has other projects in the works for next year.

Saving at Home, Too

Energy Optimization programs are available for residents, too. "I know that our team members take a lot of the information and knowledge gained on the job and use it to save energy at home too," Heinz explains.

Rebates on new ENERGY STAR® or energy efficiency appliances are among the most popular incentives. You can also take advantage of a free online home energy audit, energy-saving kit, and refrigerator recycling.

What's Next?

The Odawa Casino Resort has had repeated success with the Energy Optimization program. You can, too. Call 877-296-4319 or visit michigan-energy.org to learn about energy-saving options that are ideal for your business, farm or home.

Member Spotlight

Company: Odawa Casino Resort

Energy Saving Actions:

- Compact fluorescent lightbulbs (CFLs)
- Variable frequency drives (VFDs on motors
- Custom process improvements
- Reduced Wattage T8 fluorescent lights
- Cooling system improvements
- ENERGY STAR plasma TVs
- LED lighting in slot machines
- LED lights for mood lighting
- Rebate Amount: $61,687

Results:

- Saved 3.1 million kWh per year
- Improved indoor air quality
- Enhanced existing equipment
- Saved $217,000 per year

Improving Transmission Reliability a Priority for Wolverine

Wolverine rebuilt its transmission substation in Portland in 2012.

Wolverine Power Cooperative continues to work closely with its member cooperatives to ensure reliable and safe delivery of electricity across its 1,600-mile transmission system.

During the fall months each year, Wolverine staff meets with engineers from Cherryland Electric Cooperative, Great Lakes Energy, HomeWorks Tri-County Electric Cooperative, and Presque Isle Electric & Gas Co-op, to discuss projects requiring immediate attention, as well as long-term transmission planning.

"We identify transmission improvements across a five-year span of time," explains Danny Janway, Wolverine's vice president of engineering and operations. "Our list of potential projects is prioritized, but subject to change from year-to-year to reflect shifting or new electric load or reliability concerns."

The five-year work plan for the years 2013 through 2017 identifies upgrades or new construction of 185 miles of line on Wolverine's transmission system, seven transmission substations, and nine distribution substations.

"Once transmission projects are selected for the five-year work plan, we discuss solutions collectively to determine whether an upgrade will address work identified or a complete rebuild is needed," Janway says.

Line rebuilds for the next five years are concentrated in the southwestern portion of the Lower Peninsula. The seven transmission and nine distribution substations in the 2013–2017 work plan are located in the service areas of Cherryland, Great Lakes, HomeWorks and Presque Isle. Wolverine's newest member-cooperative, Midwest Energy Cooperative, currently owns and maintains its own distribution system, which is separate from Wolverine's transmission facilities.

Extension Granted for WCEV Air Quality Permit

The Michigan Department of Environmental Quality (MDEQ) approved an 18-month extension for the Wolverine Clean Energy Venture (WCEV) air quality permit in late 2012. This extension gives Wolverine until June 29, 2014, to commence construction of the proposed 600-megawatt power plant at a site near Rogers City.

Wolverine is continuing development of the WCEV in 2013, although work on the project will be limited. The co-op will focus on legal defense of the air quality permit and monitor regulatory and political developments.

Get the Facts Before Installing Solar Water Heater

Harnessing sunshine may reduce your water heating bill, but visit the options first to find the best system.

Q: *With two teenage daughters who take long showers, our water heating costs are high. Does using solar water heating make sense? What are my solar options, and is there a system I can make myself?*

A: For a typical family of four, water heating can account for about 20 percent of annual utility bills. With family members taking long showers, yours may be a bit higher, but don't expect a solar system to cut your costs to zero. A target savings of 50 percent often provides a good economic payback.

Before considering solar or any other efficient water heating, install low-flow shower heads with shut-off tickle (lathering) valves, and talk with your family about taking shorter showers.

The two basic systems are "active" and "passive." Active systems need a storage tank and electric pumps and controls to function. Sometimes 12-volt pumps can be powered by a photovoltaic solar panel located near solar water heating collectors on the roof.

In cold climates, the system must have some type of antifreeze fluid and a heat exchanger so it doesn't freeze in winter. Other systems that circulate actual potable water through the collector need a draining system to empty the collectors at night during winter.

Passive systems rely on the natural upward flow of less-dense warm water to move the water through the solar collector. With these systems, the warm water storage tank is located above the collector—usually on the roof or in the attic, so there are structural considerations. These cost less than more sophisticated active systems, but they tend to be less efficient, especially in cold weather.

There are many types of solar collectors. The best one for your house depends on your climate, hot water needs, and budget. They can be as simple as black copper tubes in an insulated box with a glass top, to those with vacuum tubes, concentrating reflectors and heat pipe technology. Discuss the various types with a solar contractor.

Unless you are an accomplished craftsman, I suggest building a passive system. Trying to build an active system—with collectors on the roof, plumbing and control systems, and storage tanks—is beyond the skill level of most homeowners. I am a design mechanical engineer, and I doubt I could build a system myself from scratch.

If you do choose the active system, get one with an OG-300 rating from the Solar Rating and Certification Corporation (solar-rating.org). A knowledgeable, qualified installer is important, too—look for contractors certified by the North American Board of Certified Energy Practitioners (nabcep.org). Also check the Database of State Incentives for Renewables and Efficiency (dsireusa.org) for local solar installation incentives, in addition to the federal tax credit. Be sure to review the requirements on system types, size, certifications, installers, and other details to make sure yours qualifies.

Otherwise, try building a passive "batch" system, which is a pre-heater for your existing water heater, with the simplest design called a "breadbox." It uses a horizontal metal water tank inside a box with a clear top. The sun shines through to heat the water. A slightly more efficient option uses a tall box angled toward the sun. This allows the warmer water to be drawn first from the top of the tank.

You can buy a stainless steel water tank that's designed for this application with inlet and outlet water fittings. If you can find an older water heater that's not leaky, strip off the metal skin and insulation to use the inner tank. Paint it flat black to absorb more of the sun's heat.

It also helps to insulate the solid sides and bottom of the box, especially if you plan to use it most of the year. Very heavy insulation is not needed, as the tank will not get extremely warm, especially if you use hot water throughout the day. One-inch-thick foil-faced rigid foam sheets should be fine. Attach them inside the box to reflect the sun's heat to the tank.

Install water valves and plumbing so the tank can be drained and bypassed during cold weather. Install heavy insulation around any exposed pipes and bury as much as possible underground.

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

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

Photo – James Dulley

This do-it-yourself solar water heating kit uses a batch design to preheat incoming cold water.

For more details:

▲ **find-solar.org** for an installer directory and calculator to estimate solar and PV system performance.

▲ **energy.gov/energysaver/articles/solar-water-heaters** has graphics showing various designs.

▲ **energy.gov/energysaver/articles/siting-your-solar-water-heating-system** has other resource links.

These companies offer solar kits and components:

▼ **Alternative Energy Store** 877-211-8192, altestore.com

▼ **Build It Solar**, builditsolar.com

▼ **Solar Components**, 603-668-8186, solar-components.com

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

STAY CLEAR OF DOWNED POWER LINES

Photo – iStockphoto.com

FOLLOW THESE SAFETY TIPS FROM YOUR ELECTRIC CO-OP:

- **Assume all power lines are energized and dangerous.** Even downed lines that seem "dead" can be re-energized at any time during power restoration efforts or improper use of generators. Lines do not have to be sparking to be live!
- **Any utility wire, including sagging or downed telephone or cable lines could be in contact with an energized power line, making them very dangerous, too.**
- **Never touch a downed line – or a person or object that is touching it!** A downed line can cause things around it to become energized, traveling through the ground to chain link fences or other objects.
- **If someone is injured from electrical contact, do not try to assist. You could be injured or killed, too. Call 911.**
- **If lines fall on your vehicle, do not drive away or get out.** Stay inside until utility workers say it's okay. Warn others to stay away. If you must leave the vehicle—only in the case of fire—jump free without touching the ground and auto at the same time, keeping both feet together, and hop to safety. A live wire touching the ground causes electricity to fan out, and walking or running allows one foot to move from one voltage zone to another. Your body then becomes the electricity's path, and electrocution results.
- **Never drive over a downed line**, it could cause poles or other equipment to come crashing down.
- **Call 911 immediately to report a downed power line.** Then call your electric co-op or the local utility.

Visit SafeElectricity.org for other electrical safety tips.

Growing Up!

Increase garden space by using the third dimension to grow vegetables and other edibles.

When garden space is limited, you can still grow space-hungry vegetables such as squash, melons and prolific tomatoes. Growing vegetables and vining fruits on an arbor or vertical trellis is the most efficient way to add space in a smaller garden. Not only will you grow more in less space, but the added sun and air can bring a superior quality to your produce.

Growing vertically improves air circulation, which helps minimize mildew and other plant diseases. Trellising also eliminates soil contact so produce stays cleaner and is less likely to rot. Fruits ripen quicker and are often more flavorful due to the additional sunlight. And, since the fruit and veggies are more visible and not hidden under lush growth, they can be harvested at their peak.

Trellising also saves strain on your back, with minimal stooping or bending needed to harvest. And, imagine the extra watering, weeding and feeding to grow enough bush beans or peas to equal the yield that pole varieties produce on vertical supports.

Getting Started

Before setting up a trellis system and planting, amend the soil with lots of rich compost or well-rotted manure. This is key to producing optimum yields in a smaller space. By enriching the soil, you improve its condition, fertility and help the plants get a good start.

Where and how you situate your trellis is equally important. Remember that vertically-grown plants will cast a shadow. Running the trellis in an east-to-west direction on the north side of your garden will create optimal light exposure while casting the least amount of shadow. Shadows cast over neighboring sun-loving crops can be minimized by running the trellis in a north-to-south direction, though vertical plants on the northern end will get less light than those on the southern end.

A few shadows are inevitable but can become an asset if you plant shade-tolerant crops such as lettuce, spinach and other heat-sensitive vegetables, flowers and herbs near a plant-laden trellis.

Photos – Rick Wetherbee

Standing Tall

A variety of trellis systems can be used to grow vegetables vertically, from cages and hog panels to poles, stakes and strings, and store-bought trellises and arbors. Plants are typically grown up plastic or string mesh, chicken wire, hog panels, or hand-strung twine or wire attached to trellis supports made of metal, wood, bamboo, plastic or PVC pipe.

The hog and cattle panels used for trellising are basically sections of fencing made of heavy, galvanized wire. Cattle panels are usually about 5 feet tall with square openings about 6x6 inches across. Hog panels are about 3 feet tall, with top square openings about 6x6 inches across that get progressively smaller lower to the ground. Available at farm supply stores, they are an inexpensive way to create a long-lasting, rust-resistant trellis.

You can position panels to form an A-frame secured at the top, or upright and secured to metal posts spaced about 5 feet apart in a row. Sink the posts about 12- to 24-inches deep. Attach a panel to each post with heavy-duty wire or zip ties. To raise the trellis height to 6 feet, simply attach the panel 2 feet off the ground.

Whether your trellis is horizontal or vertical, growing certain crops off the ground will expand your gardening options for space-hungry fruits and vegetables. Either way, your garden bounty will soar to new heights of satisfaction.

Top: This wall of beans is supported by a vertical trellis that is anchored by wood on either end and rows of hand-strung twine offering an easy path to sunlight. **Below:** Trellising eliminates soil contact so vegetables and fruits stay cleaner and are less likely to rot. Fruits ripen quicker and are often more flavorful due to the additional sun exposure.

Blood and Rumors

Most of us can afford to give up a pint of blood a few times a year. It's good for others and the donor.

I give blood when I can. I'm not going to set any records for donations, but the drops and pints are adding up, and I feel good about doing something good.

For men, there is a lifesaving benefit to this modern bloodletting. We are at higher risk for "iron overload," a potentially deadly problem where too much iron builds up in the blood. It can lead to heart disease and other major health problems. Donating blood regularly—the Red Cross lets you donate whole blood every 56 days—reduces that iron buildup, which women experience naturally through their periods. That could partly explain why women tend to live longer than men.

Donating blood is safe and healthy. You'll drop about a pound, and get a free mini physical, including blood pressure check, heart rate, temperature and iron levels.

Ironically, I once found out I was anemic through a pre-bloodgiving physical.

I admire the Red Cross, so I was upset when someone told me it sells my blood for $500 or more to keep its staff highly paid. That didn't seem right to me. Why should the Red Cross make money off the blood I donated? I meant it to be given to people who need it—at no charge. If they sell it, they might as well pay me for it, right?

It turns out that the Red Cross doesn't charge for my blood, nor do they pay people to donate. The misinformation, which continues to circulate like an old joke, is dispelled on their website, redcrossblood.org, where it clearly states:

Since 1960, the Red Cross has been reimbursed by hospitals for the costs associated with providing blood to hospital patients. The Red Cross does not charge for the blood itself that you have so generously donated. The Red Cross only recovers the costs associated with the recruitment and screening of potential donors, the collection of blood by trained staff, the processing and testing of each unit of blood in state-of-the-art laboratories, and the labeling, storage and distribution of blood components. Hospitals may have their own additional charges."

Now that we have the internet and can find the news and information we want to believe, rather than facts that are uncomfortably true, this kind of misinformation is rampant. We're often too ready to believe any goofy report that somehow validates our preconceived notions of how the world works.

As another example, a friend recently forwarded an email from another friend about an article supposedly printed in the Marquette Mining Journal a few years ago. The article, with all of the weird punctuation and grammar intact, went as follows:

"Up here in the Northern part of Michigan we just recovered from a Historic event --- may I even say a "Weather Event" of "Biblical Proportions" --- with a historic blizzard of up to 44" inches of snow and winds to 90 MPH that broke trees in half, knocked down utility poles, stranded hundreds of motorists in lethal snow banks, closed ALL roads, isolated scores of communities and cut power to 10's of thousands. And guess what; no one howled for the government. FEMA was not called on to send assistance. Our Mayor's did not blame the President or anyone else. Our Governor did not blame anyone either. CNN, ABC, CBS, FOX, or NBC did not visit – or even report on this category 5 snow storm.

"No one looted. Nobody – I mean Nobody demanded the government do something. Nope, we just melted the snow for water. Sent out caravans of SUV's to pluck people out of snow engulfed cars. The truck drivers pulled people out of snow banks and didn't ask for a penny."

If that tortured text didn't convince you, the email had amazing photos of snow drifts that towered over road crews.

A little research showed that versions of the story have been circulating on the internet for several years.

The "facts" are that the weather report did not come from northern Michigan, nor was it reported in the *Mining Journal.* It can be traced back to an October 2005 snowstorm that hit the Dakotas, Montana and Wyoming. A national weather service report stated the storm was the earliest to hit the area on record. A request did in fact go to FEMA seeking assistance. As for hearty citizens plucking stranded motorists from their cars, that probably did happen, but the bulk of the digging out fell to police, emergency workers and the National Guard, which were mobilized to help, as often happens following serious weather events. As for the pictures, it turns out they were from the opening of the Trans Labrador Highway in northeastern Canada and were circulating the internet in 2004.

As with many of these shared emails, the combination of distorted fact, exaggeration and government put-down took on a life of its own. It bothers me that we seem eager to embrace this pseudo-journalism and put down the mainstream media, which at least has the virtue of checking facts before reporting them—even if the public doesn't like them.

Here's a fact for you to chew on: 60 percent of the population will need blood at some time in their lives, yet less than 5 percent of the population donates. If discredited rumors about Red Cross mischief is the reason you don't donate blood, please ignore them. One donation can help four people live. I'd say that's a good investment.

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

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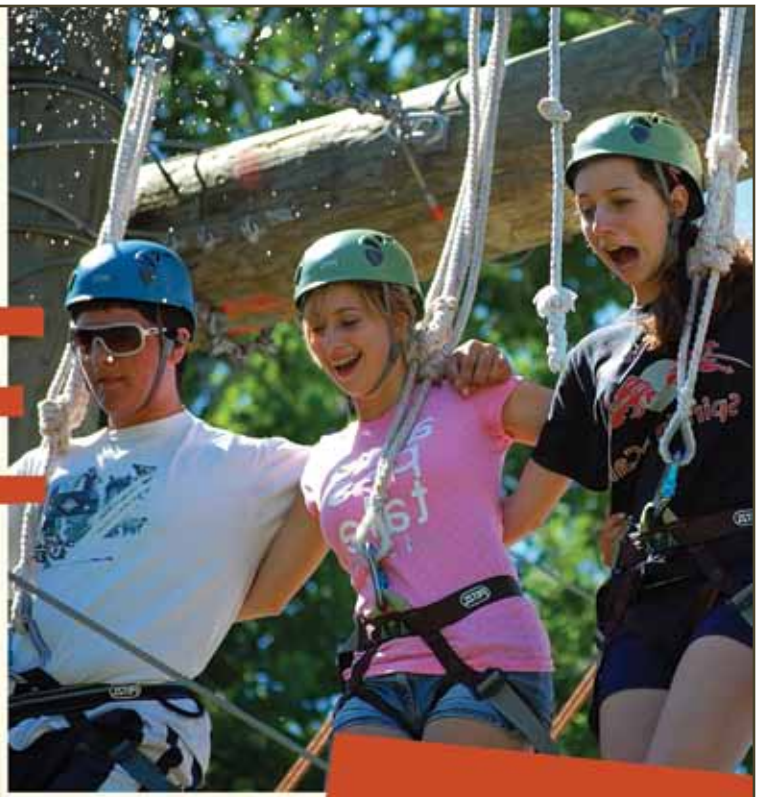

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