In Your Best Interest, Page 9
A SERVICE OF CHERRYLAND ELECTRIC COOPERATIVE

October 2010

4 Give And Take

need to

- 5 Potato Chips Are Girrbach's Latest Creation
- **28 Fixing Energy Problems**



FOR A LIMITED TIME RECEIVE:



WE ARE OPEN 7 DAYS A WEEK 8 AM - MIDNIGHT EST • SUNDAY 9 AM - MIDNIGHT E OFFER ONLY GOOD TO NEW DISH SUBSCRIBERS • SE HABLA ESPAÑOL

Digital Home Advantage plan versions 24-tranth agreement and need qualification. If service is terminated before the end of agreement, a cancelladors fee of SUS2broom senaming upple, Programming credits apply, during first 22 months, fee ioD for like of current account requires Agreement, Aubrilian only. All senaments agreement and need qualification is a strained in the source optimum read theorem to reach agreement and need qualification. If service is there account requires Agreement, Aubrilian only. All sequences of the source optimum read theorem to reach agreement and need qualification on the strained interface only. All sequences of the source optimum read theorem to reach agreement and read agreement and read to reach agreement and read to reach agreement. Aubrilian of the source optimum read to reach agreement and read agreement a

October 2010 Vol. 30, No. 10

Executive Editor Gail Knudtson

Design Editor Cindy Zuker

Ad/Recipe Assistant Jennifer Hansen

> Publisher **Michael Peters** Editor Emeritus

Mike Buda

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

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

Postmaster: send address changes to Country Lines, 2859 W. Jolly Rd., Okemos, MI 48864.

Letters to the editor should be sent to the same address. Phone 517-351-6322. Email: knudtson@ countrylines.com.

Association officers are **Brian Burns**, PIE&G, chairman; **Ken Swope**, Midwest Energy, 1st vice chairman; **Tony Anderson**, Cherryland, 2nd vice chairman; **Eric Baker**, Wolverine Power, secretarytreasurer; and Louis Wenzlaff, Phumb, past chairman. **Michael Peters** is president and CEO.

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

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

Display ad representatives:

Michigan–Al Mateus 877-649-5620 National–The Weiss Group 480-860-5394 National Country Market

512-441-5200

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







Grid Lines

Utilities prepare to repave America's electric highway. *Megan MCkoy-Noe*

Trail of Quilts

Enjoy a fall driving tour to see colorful quilt block designs that help preserve our art heritage, barns, buildings and communities. *Gail Knudtson*

Geothermal's Promise

Energy from deep in the earth has huge potential for electricity generation and heat. *Magen Howard*

COLUMNS

9 **Comment** *Michael Peters* In Your Best Interest

16 Our Kids Linda Wacyk Green schools

Gardening *Neil Moran* Raising chickens

House & Home *Jame Dulley* Bathroom lighting

3 Outdoors Don Ingle Blue jays

30 Ramblings *Mike Buda* Viva La Branche!

*Not in all editions

Pages specific to your electric utility are: 1,4-5,8,25,28-29,32

COVER*

A quilt block design that graces the Centennial Farm barn of Melanie (pictured) and Doug Wirth is part of the Osceola County Quilt Trail. *Photo – Andree Magsig, drephotography.net*

DEPARTMENTS

5 Readers' Pages Co-ops & Members, Letters, Cheese Co-op

8 Home Cooking Stir-fry

4 **Wolverine Power*** Aerial patrols improve reliability

26 Country Lines Marketplace Classifieds from readers



Michigan's Electric Cooperatives countrylines.com





BOARD OF DIRECTORS

TOM VAN PELT President 386-5234 • tvanpelt@cecelec.com

TERRY LAUTNER Senior Vice President

Senior Vice President 946-4623 • tlautner@cecelec.com

MELINDA LAUTNER Secretary 947-2509 • mlautner@cecelec.com

RICK DENEWETH

Treasurer 929-4526 • rdeneweth@cecelec.com

BETTY MACIEJEWSKI

Director 947-0463 • bmaciejewski@cecelec.com

JOHN OLSON Director 938-1228 • jolson@cecelec.com

JON ZICKERT Director 631-1337 • jzickert@cecelec.com

GENERAL MANAGER Tony Anderson

CO-OP EDITOR Nick Edson

OFFICE HOURS Monday-Friday 7:30 a.m.– 4 p.m.

TELEPHONE NUMBERS 231-486-9200 or 1-800-442-8616 (MI)

ADDRESS P.O. Box 298, Grawn, MI 49637

WEBSITE cherrylandelectric.com

PAY STATION

Cherryland Electric office 5930 U.S. 31 South, Grawn **DRS** am proud to write that for the second

year in a row, Cherryland will be giving back capital credits belonging to our members. This year it will be a total of \$1.5 million—a 50 percent increase over last year's retirement.

Give and Take

In October, nationally designated as "Co-op Month," active members will receive a bill credit. Members who took service in 1988 and 2009 but have moved away will receive a check in the mail.

As you know, Cherryland is a member-owned co-op. Therefore, we technically do not earn profits. Instead, if revenues exceed the expense of doing business, the

co-op has earned "capital" that is "credited" to individual members based on their share of the co-op's total revenue.

These capital credits are used to build and maintain the facilities needed to serve the co-op's members and service long-term debt. Capital credits are refunded at the discretion of the board of directors whenever it is determined that the co-op's financial condition will not be impaired, and that is exactly what they have determined for this year.

Co-ops like Cherryland are the only type of utilities that return money directly back to their customers (we call them 'members'). Investor-owned utilities share any profits with shareholders that are scattered across the country, and sometimes the world.

Cherryland's "retirement" of capital credits goes to only those who currently take service from us in Michigan or who did so in the past.

A municipal electric utility that makes a profit simply puts it back in the bank or into its distribution system. There is no obligation to return any of the money back to its citizens.

It can be argued that a municipal with a large amount of cash in the bank may be an electric utility that is charging too much. At Cherryland, we keep the rates low enough to keep the mortgage holder happy, but not high enough to generate large bank deposits. It's what being a nonprofit co-op is all about. So, you have the "give" part of my column headline. What is the "take" part?

It is about wholesale power increases coming in 2011. I could've finished this column by noting all the wonderful things about

> a capital credit retirement and waited another month or two for this part. While contemplated for a very brief time, it never felt right. So, I decided to keep the celebration of the latest capital credit retirement short and move into the reality that is rapidly becoming the picture of 2011.

> Last month, I discussed our 10-year financial forecast and estimation that future rate increases would be about 2 per-

cent per year. Well, in the area of distribution costs, I still believe that will be the case. In the area of wholesale power costs, which is where 70 percent of our expenses are generated, we are seeing a clearer 2011 rate picture come into view.

Long-time wholesale power contracts with our supplier, Wolverine Power Cooperative, end on Dec. 31, 2011. Wolverine is doing a great job of replacing these contracts and there is no danger of running out of supply at any future time. However, the cost of replacing old contracts is significant. Simply put, newer, cleaner and renewable power supply is more expensive than traditional, older sources. There are also many details to finalize, so you can expect more specific announcements to come.

Our wholesale rates will increase as much as 10 percent in fall 2011. There is no way to sugarcoat it—it is a significant increase but I will say that whatever the final number comes to, rest assured we are committed to providing reliable, affordable power supply for all our members. We have always kept you informed as quickly and appropriately as possible, and that won't change.

Meanwhile, enjoy your October capital credit refund in whatever size and format it arrives. Through these ups-and-downs, Cherryland remains committed to providing you with the best service at the lowest possible price.







Tony Anderson

General Manager

CHERRYLAND ELECTRIC COOPERATIVE

Potato Chips Are Girrbach's Latest Creation

This Cherryland member views running a business as a hobby. **Nick Edson**

he playbook on retirement doesn't call for working 60 to 70 hours a week.

But 61-year-old Ed Girrbach doesn't consider running three businesses at one time simply "retirement."

"Actually, business is kind of a hobby of mine," explains Girrbach, whose latest business is Great Lakes Potato Chips, which is located on M-72 west and is served with electricity by Cherryland Electric Cooperative.

"My mind is always thinking about business," he adds. "I enjoy playing golf, but I'd rather be doing something business-related. I find it very enjoyable and rewarding."

Girrbach is also a business mentor through the local SCORE program. So when he's not working and thinking about his businesses, he's mentoring others by sharing the knowledge he's picked up.

So what's his secret to running successful businesses?

"Hard work," he says with a laugh. "Find something you like to do and go after it."

Great Lakes Potato Chips is already a smashing success.

"We're more than satisfied with how we're doing," he says. "We've been in business two months and we're already at our 18-month projections."

The plant produces 300 cases of chips a week—with 12 bags to a case—and with the way business is going, Girrbach says, "it won't be long before we're doing 1,000 cases a week."

All this makes it seem long ago that Girrbach tried retirement. He was a Merrill Lynch manager and moved to Traverse City from downstate. His first "hobby" was Bluewater Video, which created video business cards. That "re-energized" Girrbach.

Then he and his son Chris, with the help



Ed Girrbach produces three varieties of Great Lakes Potato Chips.

of wife Donna, started Pangea's Pizza in downtown Traverse City.

"I love pizza, so that just seemed like a natural," Ed says. "Chris and Phyllis run Pangea's and I do the accounting and marketing. We've been in business five years."

So with two businesses up and running, Girrbach was content to sit back and enjoy life, right?

"We actually got the idea for producing potato chips while exploring ways to expand what Pangea's had to offer," he says. "We looked at what existed in local food areas and found that most of Michigan is underserved locally by potato chips. And the irony is, our state is one of the top producing potato states in the country."

So, the Girrbach family hit the road.

"We did a few months of research and made trips to neighboring states to visit chip plants," he explains. "Eight months later we were up and running with our product on the shelves of several local markets and stores."

Great Lakes Potato Chips can be found in Traverse City at Oleson's, Oryana and many other stores, stretching north to Beaver Island and from Petoskey to Beulah, with many downstate stores also carrying the product.

But with all the competition in the potato chip market, what sets Great Lakes Potato Chips apart?

"Three things," Girrbach says. "Hardiness, freshness and the spirit of northern Michigan."

That means Girrbach leaves the skin on the potato before he processes it.

"We think that gives the chips a more robust potato flavor," he says. "In addition, we use only pure sunflower oil with no trans fats and no cholesterol. And, our chips are Kettle Made. We cook them in 10-pound batches and hand-season them."

The Girrbachs get their base product from Sackett Potatoes, a Mecosta County family business, and use spices from the Suttons Bay Trading Co.

"There's no secret recipe," Ed says. "But it's a great-tasting product."

The Girrbach's produce three chip varieties—standard, barbecue and salt & vinegar from their 12,000-square-foot production facility on M-72 west.

"The potato chip business is different from the pizza business," Ed notes. "With the pizza business, it's about service and the individual customer. The potato chip business is about having good distributors and keeping up with challenges in maintaining your machinery. But, in the end, it also comes down to people buying your product."

How has the Girrbach family succeeded in multiple businesses during this economy?

"We opened niche businesses and we provide great service," he says. "We stress local products, too. I think all of that adds up to what people want."

Co-ops Encouraged to Emphasize Communication with Members

Directors, managers and employees need to tighten their bond with co-op members in order to help them ride out the current firestorm of uncertainty about electricity costs and other challenges, NRECA CEO Glenn English told about 900 participants at the Regions 1 and 4 meeting, Sept. 8-9.

Speaking at the Amway Grand Plaza in Grand Rapids, English said co-op officials must improve communications with members and demonstrate that they are doing everything in their power to hold down monthly bills. Otherwise, higher bills and other contentious issues could trigger a backlash of member anger toward elected directors and co-op staffers at a time when unity is sorely needed.

"If you build trust before the firestorm, it's just like putting money in the bank," English explained. "You'll need as much as you can, because when the firestorm hits, you'll spend it." Because they'll be the main target, he advised the co-op leaders to "use this time to reduce your co-op as a firestorm target."

This storn, he said, will last longer and affect 70 to 80 percent of the fuel co-ops use, so "we need 100 percent participation from you ... and it's a good use of member dollars to communicate on this issue. The membership has to feel that each and every director, each and every manager, and each and every co-op employee

High-Definition Television Comparison Guide

The power used by an active television is determined by three factors: screen size; technology type, such as plasma or LCD; and picture brightness, which nearly always depends on user-selected picture settings.

Type of TV	Typical Size	Typical Price	Average Energy Used
Liquid Crystal Display (LCD)	13-65 inches	\$200 to \$8,000	111 watts (standard)
-			101 watts (LED)
LCDs are the most p and available in a tr		nly because they're flat f sizes and prices.	\mathbf{D}
	1 ANAL 11		

Plasma	42-65 inches	\$800 to \$7,000	301 watts
	_		
	ited range of sizes (mo in tests comparing ov		
Rear- projection	50-73 inches	\$1,000 to \$3,500	N/A
	Rear-projection	TVs are the most effic	ient but are aettin

Rear-projection TVs are the most efficient but are getting hard to find because flat-panel models are often cheaper. Source: CNET.com (April 2010)

Energy Efficiency quick tip

In general, TV energy consumption goes up as the picture quality gets better and the screen gets bigger.

is truly representing them and looking after their interests."

The government push to regulate coal, nuclear and natural gas generation sources means higher consumer bills, which are already showing up in some member mailboxes. Members will be angry at staff and directors for rate increases, and some co-ops have already lost managers, English said. "We need to retain experienced managers and directors to keep the trauma and cost down and make wise decisions." Co-ops can avoid these disasters by talking openly about issues to minimize the impact and by not ignoring problems.

Challenges facing co-ops will also look different in 2011, with new Congressional faces and maybe a different party, meaning that co-op leaders will have to get acquainted with new people and will gain and lose some friends, he said.

"The real issue is the electric bill and the intensity of members' concern about this—talk about it instead of ignoring it," English ended.

At the meeting, the following Michigan co-op directors also achieved recognition for completing advanced director education. Earning the Board Leadership Certificate were Melinda Lautner (Cherryland), Tamara Gady (Cloverland), Paul Byl and Susan Scott (Great Lakes Energy), and Carl Morton of HomeWorks. Ed Oplinger (HomeWorks) and Jon Zickert (Cherryland) earned the Credentialed Cooperative Director certificate.

The Michigan Electric Cooperative Association hosted the event that drew 76 people from nine Michigan co-ops. Other states in Region 4 include Indiana, Ohio and West Virginia. Region 1 members include Delaware, Maine, Maryland, New Jersey, New Hampshire, New York, North Carolina, Pennsylvania, Virginia and Vermont.



Wind Better

It seems the general tone of your article ["Wind and Basic Math," Sept. 2010] is negative. I'd like to counter a little.

Small, residential-sized (2- to 10-kilowatt as you suggest) wind systems, when properly sited, work very well and can easily produce 100 percent of a household's electric needs. The key is energy consciousness by the homeowners and efficiency. My wife and I have powered our all-electric home (except hot water) 100 percent-plus using a 2.5 kW wind turbine. We are not even in an ideal wind site—annual average wind speed at our hub height (126 feet) is 10.5 mph. The key is proper siting using best practices known by qualified site assessors and installers.

Sure, installing a quality wind system isn't cheap, but electric rates will likely only rise. And yes, regular maintenance is required that costs a small percentage of system cost, as well. But, saving money isn't the only reason to install a renewable energy system. Let's think about the long-term benefits of cleaner

Recycled Paper

Michigan Country Lines is now printed on recycled paper from FutureMark Paper, which taps the "urban forest" of waste paper thrown out in Chicago every day. Using recycled paper reduces the carbon emitted in paper production, the paper deposited in landfills, and water and air pollution. The energy to produce recycled paper is about onehalf the amount required to make paper from pulp. air and resulting reduced health issues, less destruction of landscape to mining fossil fuels, *not* having to transport fossil fuels to power plants. Distributed electric generation has many benefits, including not having to build more power plants. Isn't this actually good for the utilities?

Yes, wind is not for everyone, and as you suggest, potential buyers should "get the facts" first and not allow themselves to be talked into wind by an unreputable salesperson. Let's face it, solar PV is better for those in urban areas. Either way, we need to change our mindset and dependence on fossil fuels. Wind is surely not the only answer, but it can play a key role in a more healthy, environmentally responsible, sustainable future. We should be encouraging energy consciousness and efficiency first. Only then will renewable energy sources, wind or otherwise, work well for more people.

> Sam Simonetta, Deerton Alger Delta Co-op member

Mustang Memories

I would like to thank all the people at *Country Lines* for the article written about our "Mustangs." A special "thank you" to Linda Kotzian for her special handling and followup to make this article as great as it is.

I have gotten over 20 telephone calls and emails from friends, neighbors and past fellow employees I worked with at Ford. Besides talking about the article, just about all remarked on the uplifting spirit this article gave to them in a "poor" economy!

Thank you again, Good job Linda Kotzian. Great magazine, Michigan Country Lines; keep it up. Pat & Ellie Broderick

This article is so special to our family. To be able to have my father recognized in such a manner for what he has loved and enjoyed doing for so many years is awesome! It's been a Broderick family legacy (Mustangs) and reading it in *Country Lines* magazine... What can I say besides how proud I feel and how much I love my dad! Thank you for yet another great memory!

Jacqueline Broderick

More Blueberry Heroes

We have had a much warmer summer and in many areas rain has been ample, creating a good growing season for both cultivated and wild crops. Wild blueberry season is over in the U.P., and we have confirmed that the bears did not get all the berries. Recently, I saw my Wild Blueberry Hero, so I thought I should report in for 2010. [countrylines.com/2009/11/10/ my-blueberry-hero]

Mr. K is 88 this year and he does not move as well and can not stand as long as he used to. Despite this, he was able to pick 251 ½ quarts—48 percent more than last year! Mr. K attributes his greater production to the weather and his new, smaller, light weight chair.

This year's production was used for blueberry pies for Mr. K's 101st Airborne Lunch Bunch and for a pancake breakfast at Mr. K's Finnish Club to honor Mr. Koskimaki's grandson, Matthew, who recently was killed by an IED in Afghanistan.

Charles Day, Lambertville

COMING UP: Favorite recipes: **SAUSAGE** by Dec. 10 and **BUDGET-FRIENDLY** by Jan. 10.

Mail to: Recipe Editor, Country Lines, 2859 W. Jolly Road, Okemos, MI 48864, or email jhansen@countrylines.com

The Big Cheese Challenge

ove over Wisconsin, here comes Michigan cheese. The 11 members of the

new Michigan Cheese Makers Co-op hope to gain a foothold in the cheese market.

Co-op members will work together to market their products, leverage buying power, and help each other.

The Michigan State University Product Center for Agricultural and Natural Resources pulled the co-op together to "bring visibility to the fantastic cheeses made in the state by creameries using Michigan milk and artisanal techniques," says Matt Birbeck, supply chain specialist and counselor liaison for the Product Center.

Funded by a grant through the U.S. Department of Agriculture's (USDA) Rural Cooperative Development, the new co-op will help its members market their artisanal cheeses to food stores in the state.

"A co-op like this is very important in a state like Michigan that is not known, like Wisconsin, for its cheese. The possibilities are endless," explains Jim Turner, state USDA director.

Forming a co-op is in line with the Product Center's goals, says director Chris Peterson. "Each of the members has a unique product," he says. "And that's a wonderful thing. However, having your own unique product maximizes the workload when it comes to marketing, and it's difficult for one producer to develop a portfolio of products. By marketing these together, members now have a portfolio of products which make them much more attractive to a grocery supplier."

In fact, Meijer representatives have announced that the company plans to join. "We're interested in becoming an associate member of the co-op because half of our 190 stores are in Michigan," states Meijer CEO Mark Murray. "These are spectacular small businesses [and] great products."



John [*above*] and Anne Hoyt, of Leelanau Cheese Company in Suttons Bay, see other benefits to their newly-formed co-op. "It's hard to do things yourself, there's more power as a team," Anne says. "We can share new ideas, new cheeses and recipes." They are also Cherryland Electric Co-op members.

For a new cheesemaker like Barbara Jenniks, of Cowslip Creamery in Grand Rapids, building camaraderie and a helpful spirit is key. "It's important to small cheesemakers like me, because we're all in this together," she says. "If we all make good products, there's room for all of us."

Four co-op members have been recognized for their cheeses, including Cowslip, Leelanau Cheese Company, Zimmerman's Creamery of Ann Arbor and Greenbush Farms of St. Johns.

"The fact that we have this many award-winning cheeses in Michigan is good because it tells the consumer that this is a good product," Peterson says. Although the co-op is small, he says it has a good spread across Michigan, and has the Lower Peninsula covered.

"They better watch out, we're on the way," Jenniks warns Wisconsin cheesemakers.

See GreatLakesGreatCheese.com for a list of cheesemakers and productcenter.msu.edu to find out about MSU's Product Center.

Cherryland Bulletin Boar

Red Wings Enjoy TC Training Camp



held their training camp in Traverse City

Centre Ice, a Cherryland Electric Coopera-

tive member, hosted the Red Wings for five days, from Sept. 17-21. Prior to the Wings' camp, the NHL Prospects Camp was held at Centre Ice, and includes the top young minor league players in the NHL.

Eight NHL teams sent squads to the Prospects Camp, including the New York Rangers, St. Louis, Minnesota, Dallas, Columbus, Tampa Bay, Carolina and the host Red Wings.

Several hundred volunteers, including many Cherryland members, took part in the two training camps.

Beach Bums Qualify For Playoffs



For the first time in their five-year history, the Traverse City Beach Bums made the Frontier League playoffs in 2010.

A late season surge helped the Bums, owned by Cherryland members John and Leslye Wuerfel, qualify for post-season play.

During the final 12-game homestand to end the regular season, the Bums hosted a record crowd of more than 8,000 fans.

The Beach Bums made it to the championship series of the league playoffs before losing to the River City Rascals, three games to one.

Next Member Input Session Is December

The board of directors at Cherryland Electric Cooperative is offering another opportunity for members to provide direct input to the board on a quarterly basis. Members will be able to talk to the board without filing a formal request, per cooperative policy.

The next available date for such input will be Dec. 20, 2010, at 9 a.m. at the CEC office. Members are asked to come to the lobby and request to speak to the board. Cherryland personnel will then direct interested members into the board room. Time constraints on member input will be at the discretion of the board president, but members are asked to be prepared to keep comments to less than 5 minutes.

Member attendance at the board meeting will be allowed

for the public input portion of the meeting only.

If a member wishes to discuss an issue with the full board outside of the months of December, March, June and September, they will be asked to follow the cooperative's regular policy by filing a formal request. A copy of the policy will be supplied upon request.

Pay Your Cherryland Bill Online

Want to save money and pay your Cherryland Electric Cooperative bill online?

It's easy to do. You can now set up your account to get only an e-mail bill, no more paper bills.



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

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

Cherryland Cares Seeks Grant Applications

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

Cherryland Cares is a five-member board, made up of Cherryland Electric Cooperative members, who distribute money from Operation Round Up to area nonprofits. The next quarterly meeting is scheduled for Dec. 20. The deadline for getting applications turned in is Dec. 10.

Operation Round Up money comes from Cherryland members who elect to round up their bills to the nearest dollar every month. (This only amounts to an average of *\$6 a year!*) During their last two quarterly meetings, the Cherryland Cares board has given out more than \$30,000.

For a 5013C nonprofit agency to receive an application, contact Nick Edson at Cherryland. His direct line is 486-9222, or email is nicke@cecelec.com.

Check Out Cherryland On Facebook



For the latest Cherryland news and events, members can now follow us on Facebook. Go to cherrylandelectric.com and click "follow us on facebook" at the bottom left corner of the home page.

Visit cherrylandelectric.com for more information about co-op services.

In Your Best Interest

bserving National Co-op Month in October gives us yet another reason to tell our members that you are part of something special. More than 40,000 cooperative businesses serve more than 120 million people nationwide. From agriculture cooperatives in the Midwest, housing cooperatives in New York City, credit unions, and telephone and electric cooperatives throughout the country, service to the membership is the mission of each and every one. Just like these other cooperative organizations, your electric cooperative was formed to deliver a service, in this case electric service, on a not-for-profit basis, with local ownership and direct accountability.

Every day, electric cooperatives demonstrate their service and the benefits of cooperative ownership. At the top of the list is providing reliable electric power at the lowest possible cost. Year-in and yearout, your cooperative meets or exceeds the service reliability standards established by the Michigan Public Service Commission. Service also means helping consumers manage their electric bills through Energy Optimization programs, being good stewards of the environment, and looking for workable solutions to address climate change.

Your cooperative has been in the energy efficiency business from day one. When cooperatives strung the first lines to serve rural America, they immediately started educating their new members on the wise and safe use of elec-

tricity. Many cooperatives also sold electric appliances in communities where no other options to buy existed. Today your cooperative is heavily involved in promoting energy efficiency (Energy Optimization) programs as required by Michigan law.

At a time of increasing national concern about the economy, especially rising energy costs, we also must communicate the cooperative difference to decision makers, whose actions affect our members and the communities in which they live and work. We have been to Washington, D.C., over the last year meeting with our

members of Congress to discuss legislation affecting our ability to maintain reliable, affordable electric energy. We have discussed proposed legislation addressing climate change issues, Environmental Protection Agency (EPA) regu-

lation, a national renewable energy mandate, Clean Air Act regulation, the Rural Utility Service loan program, a national energy efficiency mandate, and a host of other proposals. Oftentimes, we find our mission is to simply educate our members of Congress on the impact of various proposals on your electric rates. We are faced with an issue right now of



Michael Peters is president and CEO of the Michigan Electric Cooperative Association. His email address is mpeters@ countrylines.com.

having the EPA begin regulating the emissions of greenhouse gases (GHGs), such as carbon dioxide from power plants, under the Clean Air Act, due to Congress' failure to pass legislation addressing the issue. As it stands now, Congress still has time to consider a bill proposed by Sen. Rockefeller (D-WV) that would put a moratorium on the EPA's regulation of GHGs for two years, thereby giving Congress time to act. We support this proposal and will be telling our members of Congress to, as well. We believe

this is good public policy.

The cooperative difference defines who we are and what we can achieve as we look out for our members' best interests.

Our Energy, Our Future A Dialogue With America OurEnergy.coop

Utilities prepare to repave America's electric highway. Megan McKoy-Noe

magine a major highway with vehicles all going one way. It's rush hour—rows of impatient cars try to merge, pushing to reach a final destination. Exits for cities appear, and a steady stream of cars spreads into the countryside.

GRID

Electricity today travels across the nation in much the same way—moving from power plants along major transmission arteries until off-ramps deliver it to a local electric cooperative and, finally, your home.

There's a national push to improve this setup—repave the electric highway, so to speak—to allow for two-way traffic of information. This would be accomplished by two steps: upgrading the physical network of poles and wires to bolster reliability and security, and deploying digital "smart grid" technologies that allow utility staff and equipment on power lines and substations to talk to each other. The ultimate goal: allow electric systems to operate at top efficiency and help consumers make better energy choices to keep bills affordable.

"Modernizing America's electric system is a substantial undertaking," stated the U.S. Department of Energy (DOE) in its report, Grid 2030. "The nation's aging electromechanical electric grid cannot keep pace with innovations in the digital information and telecommunications network. America needs an electric superhighway to support our information superhighway."

Earth's Largest Interconnected Machine

A challenge lies before utilities: how to transform a largely mechanical power network into a digital smart grid.

North America's electric grid may be the largest interconnected machine on earth, consisting of power plants, high-voltage transmission lines, smaller transmission lines, substations, and distribution facilities. But it wasn't built with a master plan in mind. It was created as needed, one section at a time. As the nation's electric needs grew, so did the grid. Today, the electric grid is split into three parts: the Western Interconnection, which reaches from the Pacific to the Rockies; the Eastern Interconnection, which continues to the Atlantic; and the Texas Interconnection, which covers most of the Lone Star State. Plans are under way in Clovis, NM, to connect all three segments, but today they remain fairly isolated.

The grid includes about 3,000 utilities and other entities operating 10,000 power plants, according to DOE. Over 1 million megawatts of energy courses over 300,000 miles of transmission lines nationally. Most of this vast network was designed at least 50 years ago—thus the need for a major upgrade.

Grid of the Future

What will tomorrow's grid look like? Paving a new, smarter grid calls for unprecedented cooperation and communication, since everyone has a different idea of what our future power network should be. Electric cooperatives believe there should be three main goals behind grid improvements: affordability, efficiency and reliability.

To keep electric bills affordable, a smarter grid will provide tools to help members manage their electric use, while automation devices and tools help reduce operational costs. And since electric co-ops are nonprofit, any money saved on daily operations will ultimately be returned to members.

Technology focused on boosting efficiency could shrink a community's carbon footprint by letting members reduce their electric use during demand peaks and lowering line losses. Finally, a smarter grid should be more secure and can help electric co-ops restore service following an outage much faster and safer than before. While it will still take the same amount of time to remove a tree that's fallen onto distribution lines, a utility would be able to pinpoint that location remotely rather than walking a line to find the problem.

As with all construction projects, these

300,000 Miles of Transmission Lines

The Grid:

3,000 Utilities

10,000 Power Plants

Illustration by Funnel, Inc., NRECA

improvements will require study to make sure consumer benefits outweigh costs.

Electric cooperatives, as consumer-owned and governed utilities, take a sensible approach to technology investments. This means the co-op business model, combined with DOE research funds, makes cooperatives an excellent test bed for exploring the smart grid's value for their members and how these new technologies might be able to help keep bills affordable.

To learn more, visit smartgrid.gov. For updates on how electric co-ops are leading the way with smart grid innovations, visit ECT.Coop.

Megan McKoy-Noe, CCC writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association, the Arlington, Va.-based service arm of the nation's 900-plus consumer-owned, not-for-profit electric cooperatives.



The Cooperative Difference

Every October since 1930, not-forprofit cooperatives of all stripes have celebrated Cooperative Month. During this time, it makes sense to highlight the qualities that make electric cooperatives different from other types of utilities and businesses.

For starters, electric co-ops are owned by those they serve. That's why those who receive electric service from us are called members, not customers. Without members, there would be no local electric co-op.

Members maintain democratic control of our co-op, which means every annual meeting they elect fellow members to represent them on the board of directors. As a bonus, co-op members receive special benefits through programs, such as Energy Optimization, the Co-op Connections[®] Card, and *Michigan Country Lines* magazine. We also return margins ("profits") to our members in the form of capital credits.

One principle that sets us apart from other businesses is our concern for community. As a cooperative, we

have a special responsibility to support the areas in which our members live and work. From sponsoring a local school's baseball team to supporting new jobs and i

new jobs and industry through our economic development efforts,

we stand as a driving force in our community.

Of course, co-ops span all industries, including credit unions, dairy operations, health care, housing, and much more. There are more than 29,000 co-ops across the nation. And not all are small or rural. Just look at nationally

known co-ops like Sunkist[®], Ace Hardware[®], and Land O'Lakes[®].

Overall, co-ops are more accessible than other types of businesses. We give our members a voice, and we are local—living and

working alongside those we serve. That's the cooperative difference.





■ OCT. 9 – "Quilt Trail Color Tour" – 1-2:30 p.m.; Osceola League for Arts & Humanities;
 231-734-9900 ■ NOV. 1 thru DEC. 22 – "Christmas Gift Shop" – 207 N. Main, Evart
 ■ ANYTIME – Find an Osceola Quilt Trail map at osceolaarts.com or call 231-825-2572

graceful trail of quilt block designs can be found in the small-town fabric of Alcona, Grand Traverse and Osceola counties. Painted on barns and buildings, they are part of a National Quilt Trail project aimed at preserving the buildings, as well as the art, heritage and well-being of their communities.

Osceola's Quilt Trail was started by professional quilt maker Elsie Vredenburg, of Tustin, after she met the National Quilt Trail organizer, Donna Sue Groves, at a quilt show. Groves started the Trail in Ohio in 2001 by keeping a promise to her mother, a master quilter, to paint a quilt block on her barn.

Today, the National Trail meanders through 27 states, including Iowa, Wisconsin, Illinois, Kentucky and North Carolina, which has the highest number of sites.

Oceana's Trail has nearly 31 blocks installed on 28 sites, and Elsie says more are planned for 2011. The "Osceola Star" that she designed and is mounted on her garage, was the county's first.

Most of the work gets done through volunteers and donations, Elsie explains, which in Osceola is a committee of seven people, with two that do most of the quilt block painting at the Osceola League of Arts &



Opposite page: Great Lakes Energy Co-op members Doug and Melanie Wirth own this barn (also on cover) near Evart, and their 8x8-foot quilt block is based on a quilt made by Doug's mother, Esther. It's the largest on the Osceola Quilt Trail, and is called "54-40 or Fight!" It refers to the Oregon Territory's northern latitude during the border dispute between the U.S. and Canada, and was James Polks' 1844 presidential campaign slogan. Polk's plan was to wage war to win the entire Territory for the U.S.

The Great Lakes Energy volunteer People Fund granted money for 13 quilt blocks.

Humanities (OLAH) studio. The OLAH group also helped Elsie grow her idea for a local quilt block trail.

Alcona County's Quilt Trail, Michigan's first, began as a possible way to bring tourism to that area and showcase its unique history. It has about 23 blocks, and more details are available by calling 989-724-7788, or visiting alconaquilttrail.com.

In Grand Traverse County, Google "Grand Traverse Quilt Trail" or visit the website barnsofoldmission.com to bring up several information choices.

"Each quilt block shows the personality of each homestead by the design they pick out—whether it's a quilt made by great-great grandma, or someone else—they're all different," says Trail participant Melanie Wirth (cover photo).

Like any community, locals in these counties are hoping the Quilt Trail will bring tourists to help their economies. For example, the OLAH group is sponsoring a "Quilt Trail Color Tour." They also hold a "Christmas Gift Shop," which is a community art sale and fundraiser that last year brought 660 shoppers and 35 artists (see box, page 12).

The nice thing is, you can travel the Quilt Trail any time of year.



Above, left: This "Sunflower Wreath" block rests at Christie's Potting Shed and Florist in Marion. The building used to be a garage, and is now used for Christie's "Antiques and Old Stuff". Pictured (L-R) are Fred Prielipp, Carl Patterson and Christie Patterson Prielipp. **Above:** Sometimes hanging the quilt blocks is a challenge. The former owner of the Steve and Melody Yarhouse farm near Evart was known for her wonderful flower gardens. Melody has kept the gardens blooming and chose this "Amaryllis" quilt block to symbolize that legacy.



In August 2010, this variation of the "Dresden Plate" design came to rest on the hip-roof barn of Jim & Bonnie Neuman, of Marion. The barn was rebuilt with neighborly help after a fire in 1960. And, word has it that the Neumans, their children, grandchildren, great-grands, and international exchange "children" have all, in turn, found comfort under this family quilt that can always be found at the end of the couch.



This "Tree of Life" quilt block was chosen by the Donley family because it symbolizes life itself, with its branches reaching heavenward.





Left: Founded in 1871, the seven-generation Hall farm is one of the earliest homesteads near Marion, MI. Homesteader Sarah McElroy Hall created the "Rolling Star" quilt which inspired this block. The family cherishes the quilt, which includes scraps from Sarah's hand-stitched dress, also pictured here.

Below, left: This "Old Glory" quilt block stands proudly on the Osceola Township Hall in Evart. The Osceola League of Arts & Humanities plans to put a quilt block on all 16 of the county's township halls.

Below: This "Star of the Orient" design is at the Centennial Farm of Jerry and Lynn Mitchell of Hersey. Lynn chose this design because it reminds her of the old windmill spinning in the breeze.



Geothermal's Promise

Energy from deep in the earth has huge potential for electricity generation and heat. Magen Howard

eothermal energy-created from Earth's natural heat—has been used by many cultures for thousands of years to cook and bathe. But modern technology has unlocked new ways to harness geothermal potential: producing electricity using hot water and steam locked below the surface; and heating and cooling buildings.

America leads the world in geothermal power production, with about 3,080 megawatts of capacity from more than 70 power plants, according to the Geothermal Energy Association, the national trade association for geothermal development companies. Western states boast the most geothermal energy, because it's easier to reach.

How it Works

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

Geothermal power stations essentially cut out the middle man, piping naturally heated water (which is changed into steam) or naturally occurring steam into a plant to spin turbines. Three different types of geothermal generation exist; the choice depends on the state of the hydrothermal fluid (whether steam or water) and its temperature.

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

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

Binary cycle: Uses moderate- to low-temperature groundwater or steam. In a binary cycle system, hot water is pumped from a well and passes through a heat exchanger, where it warms a secondary fluid boasting a lower boiling point than water. This causes the secondary fluid to flash to vapor, which in turn drives a turbine. The secondary fluid then condenses and returns to the loop system; the water gets pumped back into the well.

Other Uses

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

Geothermal heat pumps rely on the energy of the ground-the top 10 feet of the earth remains a fairly constant 50 to 60 degrees F year-round-to move heat into and out of a building, providing winter heating and summer cooling. Also called ground-source heat pumps, these appliances come in two types: an open-loop system uses well water; a closed-loop model moves a water and antifreeze solution through underground

While geothermal heat pumps generally operate more efficiently than their air-source cousins, they are more expensive up-front. A federal tax credit equal to 30 percent of the cost for materials and installation, with no limit on total project expenses, applies to geothermal heat pumps through Dec. 31, 2016.

A full list of geothermal heat pump requirements, along with a product list, can be found at energystar.gov/tax credits. To see if other rebates are available in your state, check the "Database of State Incentives for Renewables and Efficiency" at dsireusa.org.

A geothermal heat pump might not always be the best option in every situation. Contact your co-op to determine whether a geothermal heat pump is the right choice for you. Go to earthcomfort.com to find a local Michigan contractor.

Magen Howard writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association. Scott Gates contributed to this article.



Geothermal power stations go down to 6 miles deep to pipe naturally heated water (which is changed into steam), or naturally occurring steam, to a plant to spin turbines. Inset: One type of closed loop for a geothermal heating and cooling system.

Schools are Finding It *Is* Easy To Be'Green'

ermit the Frog might sing a happier tune after visiting our kids' schools, where "being green" is a growing trend. Green Schools across the nation are making a commitment to providing healthy, comfortable and productive learning environments while saving energy, resources and money.

In Michigan alone, more than 500 schools in 65 counties are now part of a growing Michigan Green Schools network, dedicated to protecting the air, land, water and animals of our state. They also aim to leave their mark on the world through good ecological practices and teaching environmental stewardship to our kids.

What is a Green School? Green school leaders actively take steps to improve the health and energy-efficiency of buildings, ensure science-based environmental education in the classroom, implement healthy food choices into the cafeteria, promote alternative means of transportation, and more.

"Green schools seem to make decisions differently," said Tom Abramson, Green Schools Coordinator at Delta-Schoolcraft ISD. "They are more apt to think of long-term consequences of their everyday actions."

Abramson points to Rapid River schools as an example, where among other actions staff and students have evaluated the lunch program for ways that waste can be reduced. Another school found that through recycling they could reduce their waste disposal costs while recycling valuable resources.

Going green on a larger scale by committing to green design, construction and operations for new and existing buildings can bring even greater benefits. Abramson says green school leaders in the Delta-Schoolcraft area that continuously evaluate the schools' infrastructure (heating systems, doors, windows, lights, and more) to find ways to save energy.

Some schools raise the standard even higher. Whitmore Lake, a rural community north of Ann Arbor, made a bold move to construct a green, LEED[®]-certified high school by following rigorous practices endorsed by the U.S. Green Building Council. Leaders there say that extra effort improves health and efficiency and—an added benefit—attracts new families to the district.

Who gets involved? Everyone, from students to community groups, can pitch in to make schools environmentally safe and responsible.

Student "Green Club" members at Gladstone Area Public Schools, along the northern shores of Lake Michigan, have accomplished a number of environmentally friendly projects earning them recognition as Michigan Green Schools.

Back in Rapid River, students recycle and collect paper and bring it to the library. Office staff have replaced all CRT computer monitors with more energy efficient LCD monitors, and custodians are using environmentally-friendly cleaners.

"Families participate in our Girls Scouts' waste-free lunch, they recycle in their homes, our American Legion recycles paper, local church groups recycle boxes, and we even have a local metal artist that recycles all of our cans from the kitchen," said Rapid River fifth-grade teacher Beth Larson.

Some of the best green initiatives are those that involve teachers and classroom activities. Science classes find a natural connection, but other classes can put learning into environmental action as well.

Gladstone High School recently received a grant that will allow them to study and use solar energy. By partnering with Energy Works Michigan, the school will have access to lesson plans and professional development for English, math, and social studies teachers who are interested in integrating this content into their instructional planning.

What are the rewards? Schools that earn Michigan Green School designation receive tangible rewards like a signed certificate, a web banner, and a flag designating the school as an "Official Michigan Green School." Many counties hold ceremonies each spring to recognize participating schools.

Abramson says the intangible rewards are even greater.

"It is important for schools to do this so that they can model conservation and savings to the adults of the future," said Abramson. "Lessons learned at school may carry over to homes to expand the benefits of making wise decisions."

Best of all, studies show that schools that have adopted green practices improve student test scores, reduce sick days, and raise teacher and student retention. And as the commitment to "green" principles grows, so do the benefits, which can include impressive energy cost savings.

How much savings? Experts say a green school typically uses 33 percent less energy and 32 percent less water—enough savings to hire two additional full-time teachers.

Marysville Public Schools, a suburban district northeast of Detroit, is putting those claims to the test. The district opened a new high school in 2009 that is almost 100,000 square feet larger then the old school. Yet they expect only a slight increase in energy bills because of sustainable building practices they adopted.

"If we're saving at least one teacher's job a year through our energy savings, we've made some great decisions along the way," former Marysville Superintendent John Silveri told The School Administrator.

Ultimately greening America's schools presents an extraordinary cost-effective opportunity to improve the health and educational settings for all students.

"Going green helps our schools learn to do more with less," said Larson. "It helps the kids understand what can be done to make our school and the world a better place, and that we need to practice what we preach."

michigangreenschools.us energyworksmichigan.org usgbc.org/k12toolkit

WATERFURNACE UNITS QUALIFY FOR THE 30% FEDERAL TAX CREDIT



WATERFURNACE HAS A SMARTER WAY TO HEAT YOUR HOUR HOURS

Wouldn't it be nice to set the temperature of your house based more on comfort and less on your bank account? As the temperatures drop and the price of fossil fuels skyrocket, homeowners around the world are finding that a WaterFurnace geothermal system is a smart way to reduce your carbon footprint and utility bills at the same time. WaterFurnace units use the clean, renewable energy found in your own backyard to provide savings up to 70% on heating, cooling and hot water. It's good for the environment, great for your budget and thanks to a 30% federal tax credit, now's the best time to act. Visit us at waterfurnace.com to learn more and to find a local dealer.

YOUR LOCAL WATERFURNACE DEALERS

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

Berrien Springs WaterFurnace Michiana (269) 473-5667

Big Rapids Stratz Heating & Cooling (231) 796-3717

Caro All-Temp Heating (989) 673-5557

Charlevoix Ballard's and Great Lakes Plumbing & Heating (231) 547-1035

Cheboygan Jim's Handyman (231) 627-7533 Carsonville Certified Temperature Innovations (810) 300-7748

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

Gaylord Family Htg & Clg (989) 732-8099

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

Hart Adams Htg & Clg (231) 873-2665

Harbor Springs Ballard's and Great Lakes Plumbing & Heating (231) 526-6859 Ionia Home Experts (800) 457-4554

Lapeer Porter & Heckman (810) 664-8576

Michigan Center Comfort 1 Heating / Lenawee Heating (517) 764-1500

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

Muskegon Geofurnace Htg & Clg (800) 922-3045 **Petoskey** Ballard's and Great Lakes Plumbing & Heating (231) 347-3900

Palms Lakeshore Improvements (989) 864-3833

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

D&W Mechanical (231) 941-1215

Webberville Applegate Home Comfort (800) 377-2272

Zeeland Mast Heating (616) 772-2252



Visit us at waterfurnace.com | (800) GEO-SAVE ©2010 WaterFurnace is a registered trademark of WaterFurnace International, Inc.



Stir-frying is a quick sauté over high heat. While you can stir-fry in any type of skillet, the sloping sides of a wok allow you to move ingredients away from the hot bottom while cooking. Peanut or canola oil are good choices for stir-frying. They both have a high smoke-point—the point where oil breaks down and begins to smoke. Find more recipes sent in by readers at **countrylines.com**.

Beef and Vegetable Stir-Fry

1 lb. beef top round steak
 1 ¹/₂ c. broccoli, cut in 1-inch pieces
 3 med. carrots
 1 t. salt
 1 t. cornstarch
 1/2 t. sugar
 2 T. soy sauce
 2 T. dry cooking sherry
 2 T. cooking oil
 1 med. onion, cut in thin wedges
 1 c. frozen peas, thawed
 1/2 c. water chestnuts, drained, sliced thin
 1/2 c. bamboo shoots, halved lengthwise hot cooked rice

Partially freeze beef; slice very thinly across the grain into bite-sized strips. Cook broccoli and carrots in boiling salt water for 2 minutes, covered; drain. Combine cornstarch, salt and sugar. Blend in soy sauce and cooking sherry; set aside. Preheat wok over high heat; add cooking oil. Stir-fry broccoli, carrots and onion in hot oil for 2 minutes or until crisptender; remove from wok. Add more oil, if necessary. Add half of the beef to wok; stirfry 2-3 minutes until browned; remove beef. Stir-fry remaining beef 2-3 minutes. Return all meat to wok. Add peas, water chestnuts and bamboo shoots. Stir soy mixture; add to wok. Cook and stir until thickened and bubbly. Return broccoli, carrots and onion to wok. Cover and cook 1 minute more. Serve with rice.

Kathryn Ross, Bad Axe

Virginia Yee's Dry Fried Sichuan String Beans

1/4 c. chicken broth
1 T. sugar (Pictured, above left)
1 t. salt
2 T. vegetable oil
1 lb. string beans
2 T. minced fresh ginger
1/4 c. ground pork
1 T. balsamic vinegar
1 t. sesame oil
1 T. chopped scallions
In a bowl, combine chicken broth, sugar

in vegetable oil until beans look wrinkled with brown spots; remove beans to another dish. Add ginger and pork to wok and stirfry until pork is no longer pink. Add broth mixture to wok; bring to a boil. Add cooked beans, tossing to combine and cook 2 minutes until most of the liquid evaporates. Add vinegar, sesame oil and scallions; toss to combine, remove from heat and serve at room temperature.

Jennifer Van Wingen, Lake Ann

Chicken Cherryaki Stir-Fry

1 ½ c. fresh cherries, pitted (Pictured above)
2-3 boneless, skinless chicken breasts
2 T. teriyaki sauce
2 T. dry sherry
1 T. lemon juice
3 ¼-inch-thick slices fresh ginger
1 T. cornstarch

Send in your recipes! If published, you'll receive a free kitchen gadget. Send in: your ALL-TIME FAVORITE previously published Country Lines recipe by Oct. 10 (no gadgets this category), SAUSAGE recipes by Dec. 10, and BUDGET-FRIENDLY recipes by Jan. 10. Mail to: Country Lines Recipes, 2859 W. Jolly Rd., Okemos, MI 48864; or email jhansen@countrylines.com. 3 T. vegetable oil

6 green onions, sliced diagonally in 1-inch pieces

2-3 sm. carrots, thinly sliced

2 c. snow peas

4 oz. sliced water chestnuts, drained

2 oz. Chinese rice stick noodles, cooked, or

2 c. hot cooked rice 1/4 c. slivered almonds

Thaw cherries if frozen; drain reserving juice and set aside. Cut chicken into bitesized cubes. Combine teriyaki sauce, sherry, lemon juice and ginger in a small bowl; stir in chicken. Cover and marinate in refrigerator, one hour; stirring once or twice. Drain chicken, reserving marinade. Discard ginger. Blend reserved cherry juice into cornstarch; stir in marinade; set aside. Heat oil in wok or large skillet, over high heat. Add sliced green onion, carrots and snow peas; stirfry 2-3 minutes until tender but still crisp. Remove vegetables from wok. Adding more oil if needed, add chicken and stir fry 3-4 minutes. Push chicken away from center of wok; add cornstarch mixture. Cook and stir until thickened and bubbly. Stir in chicken, cherries, vegetables and water chestnuts; heat through. Serve over noodles or rice and garnish with slivered almonds. Serves 4.

Pam Assenmacher, White Lake

Stir-Fry Shrimp and Vegetables

1 lb. med. raw shrimp with shell on 1 t. cornstarch 1/2 t. salt 1/2 t. roasted sesame oil 1/8 t. white pepper 7 lg. bok choy stalks 6 oz. fresh pea pods 4 oz. fresh mushrooms 2 green onions with tops 2 T. oyster sauce 1 T. cornstarch 1 T. cold water 2 T. olive oil 1 t. finely chopped ginger root, optional 1 t. finely chopped garlic 1 T. olive oil

1/2 t. salt

1/2 c. chicken broth

Peel shrimp; pat dry and toss with 1 teaspoon cornstarch, salt, sesame oil and white pepper. Cover and refrigerate for 20 minutes. Remove leaves from bok choy and cut in 2-inch pieces. Cut stalks into diagonal 1/4-inch pieces. Remove strings from pea pods and place in boiling water; cover and cook 1 minute. Drain and rinse in cold water: drain and set aside. Cut mushrooms into 1/2-inch slices. Cut onions into 2-inch

pieces; shred lengthwise into fine shreds. Cover with ice water for 10 minutes or until pieces curl; drain. Combine oyster sauce, 1 tablespoon cornstarch and water in a small bowl; set aside. Heat wok until very hot. Add 2 tablespoons olive oil; tilt wok to coat sides. Add shrimp, ginger and garlic. Stir-fry until shrimp are pink; remove and set aside. Heat wok until hot; add 1 tablespoon olive oil. Add bok choy stalks, mushrooms and salt; stir-fry 1 minute. Add bok choy leaves and broth; heat to boiling. Stir in cornstarch mixture and cook until thickened. Add shrimp and pea pods; cook and stir for 1 minute or until the shrimp is hot. Garnish with green onions.

Joyce Runberg, Beaver Island

Stir-Fried Beef and Peppers

5 T. cooking oil, divided 1 lg. green pepper, sliced 1 lg. red pepper, sliced 1 onion, sliced 3/4 lb. beef flank steak 3 T. soy sauce 3 T. cold water 2 t. cornstarch 1/8 t. hot pepper sauce 1 t. ginger

hot cooked rice

Slice beef across the grain into very thin strips; set aside. Heat a large skillet or Dutch oven over high heat for 3 minutes. Add 3 tablespoons oil, green and red peppers, and onion. Cook, stirring constantly until vegetables are coated with oil. Stir-fry 5 minutes or until vegetables are tender-crisp; remove from pan and set aside. Add remaining 2 tablespoons oil to skillet and heat. Add meat and stir-fry 3 minutes or until lightly browned. Combine soy sauce, 3 tablespoons water, cornstarch, ginger and hot pepper sauce. Pour over meat; cook until sauce thickens and boils. Return vegetables to skillet; stir to coat. Serve over hot rice. Serves 6.

Mrs. John Clairmont, Bark River

Ginger Chicken

1 lb. chicken breasts, cut in 2-inch cubes

- 1/2 c. whole kernel corn
- 1/2 c. chopped broccoli
- 1/2 c. frozen carrots
- 1 c. sugar snap peas
- 5 T. butter
- 3 T. ginger teriyaki sauce
- *4 c. cooked white rice*

In a large skillet, melt 3 tablespoons butter over medium heat. Add chicken; cook thoroughly. When chicken is cooked, add all vegetables and remaining 2 tablespoons

countrylines.com

butter; mix well, cover and cook 5-8 minutes until vegetables are crisp-tender. Add ginger teriyaki sauce; stir well. Reduce heat to low and cook for an additional 3-5 minutes. Serve on top of rice.

Danielle Cochran, Grayling

Stir-Fry Venison

2 T. vegetable oil 1 lb. venison cut cross-grain in 1/2 x 2-inch strips 3 med. potatoes, thinly sliced 1 med. onion, thinly sliced thinly sliced green, yellow and red pepper 1 clove garlic, finely chopped 1 lb. mushrooms, thinly sliced 1/3 c. soy sauce 2 T. brown sugar 1 T. corn starch 1 T. water cooked noodles or rice

Heat oil in a large skillet or wok over high heat. Cook and stir venison and garlic about 2 minutes or until browned. Add potatoes, onion, pepper and mushrooms; cook, stirring frequently until tender. Whisk together soy sauce and brown sugar in a small bowl. Add to skillet. Stir together cornstarch and water until smooth; add to skillet. Cook until heated through and sauce thickens. Serve over noodles or rice.

Paula Brousseau, Bellaire

Indonesian Style Beef & Pasta

1 1/4 lb. boneless beef steak, sirloin or top round

5 T. Teriyaki sauce, divided

2 T. creamy peanut butter

1 T. water

1/8 -1/4 t. crushed red pepper

1/8 -1/4 t. ground ginger

6 oz. dry vermicelli or thin spaghetti

2 T. vegetable oil

1/2 c. seeded and chopped cucumber

Cut steak into 1/8-inch thick strips and place in a shallow baking dish. Add 2 tablespoons teriyaki sauce; toss to coat evenly and set aside. In a bowl, combine remaining 3 tablespoons teriyaki sauce, peanut butter, water, red pepper and ginger; set aside. Cook vermicelli according to package directions; drain and rinse. In a medium bowl, toss vermicelli with peanut butter mixture to coat well. In a large non-stick skillet or wok, over medium-high heat, heat oil until hot. Add beef, half at a time; stir-fry 1-2 minutes until no longer pink. Add cooked beef to pasta; toss lightly to combine. To serve, sprinkle with chopped cucumber. Serves 4.

Duane Alvord, Port Sanilac



GARDENING Neil Moran

Raising Chickens Is Easy

It seems like a perfect match for the gardener or small farmer.

ore and more people seem to be looking for ways to "grow it fresh" in their backyard. This includes the growing of vegetables, of course, but also the raising of livestock. One animal that seems like a perfect match for the gardener or small farmer is chickens. Chickens will provide you and your family with hormone-free meat and eggs in addition to manure for the garden.

Chickens seem to be the rave right now. There are as many new websites on the subject as there are different breeds of the bird. Even city folks are getting into the act as they approach municipal boards to approve ordinances for raising a few hens in the city limits.

This spring, at the pleading of my grandson, I hesitantly gave the okay to purchase some of those fuzzy chicks sold at the feed store. Buying a variety of types is the best way to get started. We bought10 laying hens, a rooster, and one meat chicken (they all looked



the same to me as chicks!).

Raising chickens is really pretty easy. Their main requirements are space, food and protection from predators, including fox, skunks and the occasional neighborhood dog. They also need a protected area, such as a chicken coop, where they can be sheltered from the elements.

Chicks are sold in the spring and can be purchased from local feed stores or mailorder catalogs. The main thing with chicks is to keep them warm. They need temps at 90-100 degrees for the first week you bring

them home, and then drop the temperature 5 degrees each week until you get them in a coop. A heat lamp will be needed to keep them warm, but be careful not to create a fire hazard. One way to reduce the risk of fire is to hang the cord (which is clamped onto the side of a plastic box) above the container so that if the lamp comes loose, it won't fall into the sawdust bedding material. Also, be careful to keep children away from the lamp's heat, which can be pretty intense.

Chicks require a specially formulated feed and a constant supply of water. Feed chickens a starter feed until they are old enough to start laying eggs, which is about five months, according to Kristen Taylor, of Pickford Feed Service, in Pickford. At this time you should start feeding them a laying mash, which consists of about 17 percent protein, plus oyster shells, grit and vitamins, Taylor says.

Chicks also need room to grow. Last spring, after about four weeks of having a dozen chicks in our bathroom, we moved them to a corner of my heated greenhouse. I surrounded the fledgling chickens with makeshift walls that could be moved out wider as they grew, and eventually I got them into their own coop.

Chickens need about 2 to 3 square feet per bird inside the hen house and 3 to 4 feet per bird outside. Chicken wire appears

Source for unusual chickens: mcmurrayhatchery.com For more information on raising chickens: backyardchickens.com to be the best fencing to keep the chickens in and predators out.

Chickens are a productive lot for the small-scale farmer. A healthy hen averages 255 eggs a year, and a good meat chicken can be ready to butcher in less than three months. They require minimal space and can even be free-ranged around the barnyard, providing they are safe from nearby dogs. However, they can be a problem if they enter the garden, which many gardeners can attest to. Keep them out of the garden at least until the end of the season, when they can go in and feast on the bugs. While eating bugs, they'll also be fertilizing your garden!

Meat chickens should be raised separate from laying hens since they require a different feeding regimen, Taylor says. These beefy birds, which are obviously bred to grow fast, need a regimen of 12 hours of feed, followed by 12 hours without feed. The reason for this, she says, is so the birds don't gorge themselves and also to develop strong bones and body structure. In just eight to 10 weeks they'll be ready to butcher.



Winter can be problematic for chickens, though it doesn't have to be. Make sure they are sheltered from drafts and have a constant supply of water. Keep the coop dry by providing some type of bedding material, preferably pine shavings. Predators become even more of a problem in the winter as they search for limited food reserves. Plug any holes in your coop and check often to make sure no new ones are being made by burrowing animals. Also, make sure your chicken feed is kept in a tightly sealed container. Hens need about 14 hours of light to keep egg production going; artificial light, perhaps on a timer, will need to be provided.

It's been awhile since I've raised chickens, and I must admit to missing their barnyard strutting and scratching. As long as I can keep them out of my vegetable garden and flower beds, and they don't chase my grandson, we'll keep on raising them!

Experience the unprecedented performance of the **Cyclone Rake Z-10**. The exclusive 10-inch diameter *JetPath*[™] Vacuum System gives 3-times the debris flow-area of six-inch systems to vacuum and mulch the toughest debris, even if it's wet. With 415 gallons of debris capacity, you can clear large areas without stopping. When you're done, the Cyclone Rake folds flat for storage.



call toll-free to request a FREE catalog & dvd. 1-866-816-1905 or visit www.GycloneRake.com

Mention the Discount Code MC1010 when you call, or enter it on our web site for a special discount on any Cyclone Rake model. Woodland Power Products, Inc., 72 Acton St., West Haven, CT 06516 Folds Up Flat!

HOUSE & HOME James Dulley

Bathroom Lighting

Remodeling a bathroom? Make smart lighting decisions to get the most energy savings from your efforts.

eople don't often think about lighting and energy efficiency when it comes to bathroom remodeling, but it's as important as installing the proper vanity or plumbing fixtures. Today's modern master bathrooms and dressing areas are often as large as some second bedrooms and are more than just a place to shower, shave, etc.

If the lighting in both of your bathrooms is like most older bathrooms, it consists of an overhead light, perhaps built into a vent fan if there is no window. If there is a window in the bathroom, very few builders went to the expense of installing a vent fan. Today, vent fans are almost always installed to address indoor air quality concerns in modern, more airtight houses. While remodeling, definitely install a vent fan.

The lighting for your children's bathroom will be simpler, so tackle it first. A basic overhead light should be adequate until they get old enough to shave or wear makeup. There's likely already an incandescent overhead light-only or fan/light fixture. In either case, replace it with a new Energy Star[®] qualified fan with a compact fluorescent lightbulb (CFL). It will use 75 percent less electricity for lighting than a comparable incandescent bulb and the fan will be much quieter than the old builder-quality vent fan.

Since children often forget to turn lights or vent fans off when they leave the bathroom, select a vent fan with a motion or humidity sensor to automatically shut it off at the right time. This can save a significant amount of electricity. If you have only a light fixture, use a motion-sensing switch, such as the Lutron MeadowLark[™] model. This allows you to program the length of time the light stays on after no motion is detected, along with several other energy-saving functions.

Planning efficient and effective lighting for your master bathroom and dressing area is a bit more complicated. Use a basic lighting design technique called layering to provide proper lighting for various activities. This is the same design technique professionals use for every other room of a house.

The three basic lighting layers are task, ambient, and accent or decorative. Bathrooms are task oriented (showering, shaving, applying makeup, general grooming), so adequate task lighting is most important.

Ideally, place lighting on both sides of the mirror and also on top for three-direction

lighting. This eliminates shadows that can be problematic when shaving or applying makeup. If the mirror is not too wide, wallmounted vertical fluorescent tube lighting on each side of the mirror is best and efficient.

Several companies offer efficient decorative T2 or T5 fluorescent fixtures. Some

A recessed light with a built-in vent fan provides task lighting in the shower and exhausts humidity. The fan has an automatic humidity sensor switch. can be attached to wide mirrors, and decorative sconces with CFLs are effective around narrow mirrors. Daylight-type CFLs provide the

best color rendition for makeup. Halogen bulbs may also be used, as they offer a longer life, are somewhat more efficient than standard incandescent bulbs, and provide a whiter light.

For over-the-mirror task lighting, Kichler[®] offers a new decorative rail design (this design also works well for accent lighting). It is similar to track lighting with three or four directional fixtures, but they are mounted on a rail that hangs down a few inches from the ceiling. It mounts to the ceiling over a standard ceiling electrical box. Several of the rail fixtures use super-efficient, long-lasting white light-emitting diode (LED) bulbs.

For the bath/shower area, recessed overhead task lighting works well. If you are remodeling on your own, consider installing low-voltage fixtures for safety and easy installation. Broan-NuTone[®] offers recessed light fixtures with built-in exhaust fans. These are efficient because excess moisture is drawn from the shower stall before it ever enters the room.

For ambient and accent lighting, lowerwattage incandescent fixtures—either overhead or sconces—are effective. These can be controlled by dimmer switches to save energy. The new Lutron Eco-Minder[™] dimmer is a good choice. As the lights dim, an LED on the faceplate changes from red to green to remind you to dim the lights to save energy. On some models, the switch also functions as an efficient night light. It is wise to install separate dimmer switches for the various layers of light. Another daytime ambient light option is an ODL[®] tubular skylight with a solar-powered remote dimmer.

Have a question for Jim? Send inquiries to: James Dulley, Michigan Country Lines, 6906 Royalgreen Dr., Cincinnati, OH 45244 or visit dulley.com.



Avian bullies at backyard feeders.

hey're blue, boisterous and bold bullies.

As if that isn't enough, they are nest-robbers, thieves and loudmouthed mischief-makers. (And also fun to watch when they turn up at your feeders to begin their avian pranks.)

Blue jays, with the Latin tongue-twister name of *Cyanocitta cristatta*, are members of a larger family of birds called *Corvidae*. Cousins of the blue jay include crows, ravens, gray jays and magpies, but it's the blue jay that's the most familiar at bird feeders. Jays are very territorial. They are greedy, pushy and pugnacious towards other birds, often pushing or scaring off smaller or less bellicose birds in their eagerness to claim the larger share of seeds.

Did I mention they can also be loud, with a portfolio of shrill cries, metallic clicks and sounds effects? Good mimics, they sometimes imitate the calls of other birds, including hawks. To anyone listening, the variety of blue jay jabber seems endless.

In our part of the world, the blue jay is common. Other parts of the country have related, but differently marked and colored jays. Western states have Pinyon and Steller's jays. While their dress uniforms differ from our blue jay, their attitude and manners are much the same—that is, pushy, greedy and sometimes obnoxious with bullying ways.

Our common blue jay is a fairly large passerine (perching) bird. Physically, it is described as 9 to 12 inches long; bright blue on top and white-to-gray on its throat,



chest and belly. It's markings are a gray-blue crest on its head and black-and-white bars on the wings and tail. The bill, legs and feet are black, and it sports a black "necklace" on its lower throat.

The blue jay is omnivorous—that is, eating fruit, acorns, seeds, nuts, insects, mice and frogs. Sometimes a blue jay will raid a nest for eggs and young birds, though its nest-robber reputation is bigger than it should be since studies show that such food is a very minor part of its diet.

Many trees and plants around the state are the result of blue jays burying food for later consumption, making them "accidental foresters." Like squirrels, they often bury food to eat later and some seeds and nuts are never recovered. The result is that some of the buried mast grows into plants or trees.

When mating time arrives each year, the mated female blue jay will lay four to six eggs in a nest made of sticks and twigs, and lined with grass. Nests are made in trees and shrubs, in secretive sites that are often very difficult to find.

The female incubates the eggs with some

male help. The eggs incubate for about 17 days, and once hatched, both parents will feed the chicks.

To call blue jays "bullies" is accurate. Groups of blue jays will often attack intruders and predators. This writer can attest to their aggressiveness in protecting a nest site. Before we remodeled the façade of our home there was a wide ledge running across the front. A female jay chose that as her nest site, and after the chicks arrived we had to duck when leaving the house—the female would buzz us, even getting a jab or two delivered to show her displeasure.

Blue jays are also one of the more intelligent birds. They will wait and watch for a camper to put food down on a picnic table. As the person walks away, they will dive down and grab it. Along with crows, jays will also watch someone planting seed crops and dig up and eat the seeds when the gardener walks away. Forever opportunists, they are cunning in their thieving ways.

While jays do migrate, enough stick around to keep winter feeder antics lively as those "bullies in blue" swoop in again.

Aerial Patrols Improve Transmission System Reliability

olverine Power Cooperative owns and operates 1,600 miles of transmission line to serve its membercooperatives. One way that we monitor our transmission system to ensure its efficient operation is from the air.

Twice each year, in summer and winter, a Wolverine lineworker boards a helicopter to look for trouble spots. The helicopter generally flies low, just above the lines, for a visual inspection. Structural flaws

Twice each year, our transmission lines are inspected by helicopter.

on poles, insulators, cross arms and conductors

are documented for repair. From the air, the lineworker also checks sections that are difficult to reach by land, such as poles placed in swamp areas.

For the past several years, including this past August, Ed Boyer, a senior Wolverine lineworker based in Boyne City, has conducted the aerial patrols.

"Ed and the pilot found one area near Ludington with serious damage," explains Klint Weaver, Wolverine's transmission services supervisor. "The porcelain insulators on four of our poles appeared to be damaged by gunfire, placing thousands of area co-op customers at risk for a power outage."

Wolverine discovered and repaired damage most likely caused by gunfire to this same section of its transmission system last fall. The area consists of farm land and hunting property. Deer hunting blinds have been placed on or near the cooperative's right-of-way, creating safety hazards.

"We've conducted aerial patrols of our transmission system for several years now," Weaver adds. "Our multi-year construction plan for maintaining and improving the system is paying off, as we're finding fewer problems during aerial inspections."



Damage to porcelain insulators on Wolverine's 138 kilovolt (kV) transmission line near Ludington was discovered during the August aerial patrol of the cooperative's transmission system. The damage appeared to be caused by gunfire.



The day after the broken insulators were discovered, Ed Straathof, a senior lineworker for Wolverine at Hersey, directed field work requiring a bucket truck to repair the damage. The hunting blind in the foreground poses safety concerns due to its location within the center 30 feet of the right-of-way.



Aerial inspections of Wolverine's transmission system provide a different perspective of the cooperative's facilities. Pictured is Wolverine's new substation near Charlotte, which was energized in June.



Our Name Says It All

Sign up today for Operation Roundup!

What is Operation Roundup? It's where we round your Cherryland Electric Cooperative bill up to the nearest dollar and donate the difference to our Cherryland Cares program. The volunteer Cherryland Cares board then distributes 100 percent of the money in the Cherryland coverage area to those in need.

Your donations have helped many, including Children's Bereavement Network, Pregnancy Care Center, Michael's Place, Child & Family Services, Big Brothers & Big Sisters, Grand Traverse Bay YMCA, and dozens of others.

Yes!

¹ I want to help by joining Operation Roundup. Please "round-up" my bill to the next highest dollar each month.

Name (please print) _____

Address

City/State/Zip ____

To join, return this coupon to:

Nick Edson Cherryland Electric Cooperative P.O. Box 298 Grawn, MI 49637

Or email Nick at nicke@cecelec.com, or call him at 231-486-9222 or 800-442-8616, Ext. 222.



MISCELLANEOUS

BECOME AN ORDAINED MINISTER – Correspondence study. Founded in 1988. Free information. Ministers for Christ Outreach, 7549 West Cactus Rd. #104-207, Peoria, AZ 85381. ordination.org

FREE BOOKS/DVDs – Soon the "Mark of the Beast" will be enforced as church and state unite. Let the bible reveal. The Bible Says, POB 99, Lenoir City, TN 37771.888-211-1715 thebiblesaystruth@yahoo.com

FARM WINDMILL – 30 feet high with direct stroke. 231-652-6363.

??WORK CLOTHES, GOOD, CLEAN – Rental type, 6 pants and 6 shirts, \$44.95; lined work jackets, \$10.95; denim jeans, \$6. Call 800-233-1853. 100% satisfaction guaranteed. usedworkclothing.com

OUTDOORS

GARY'S STUMP GRINDING – Cheaper by the dozen. 800-870-3871 or 231-587-9296.

OUTDOOR WOOD BOILER – Kits and welded, from \$1,295.231-288-0066.

SAWMILL FOR SALE – \$4,995, new portable band saw, saws 36-inch x 16-foot log. 231-288-0066.

NEW AND USED WOOD BOILERS – 888-825-0808. comfortableheating.com

REAL ESTATE

ATLANTA, ELK CAPITAL OF MICHIGAN – 3-bedroom home, 4-car garage and workshop attached. Approximately 275 x 125 foot lot, \$21,000. Call 989-785-4110.

ATLANTA, ELK CAPITAL OF MICHIGAN – 3-bedroom, sunroom and balcony–top floor. 2-bedroom, 1½ bath, walk-in guest quarters, 20 x 40 foot pole barn, 300-foot stream frontage, bridge crossing, inland lake within 30 feet with fishing dock, boat included. Call 989-785-4110.

49 ORGANIC ACRES – 3 miles west of Traverse City, MI.M-72 frontage, 2-roads, house, farm buildings, appraised 2005, \$730,000, asking \$600,000.517-663-5013.

10 ACRES, HOUGHTON COUNTY – Well, septic, fixer-upper, trailer optional. \$30,000 or best offer, 906-523-4716.

Reach over 250,000+ households!

Country Lines

Classified ad rates:

- ▲ \$3 per word (\$30 min.), including ALL business, agent and broker ads
- \$1.50 per word (\$15 min.) for co-op members running nonbusiness ads

Each initial, group of figures, phone number, abbreviation, email address and website address counts as one word. Hyphenated and slashed words count as two or more words. Ads are subject to editor's approval and editing. For member rate, attach your mailing label. To pay by credit card, include card number, exp. date, address related to the card and signature with ad. M/C or VISA only, please indicate which. Send your printed or typed ad and check made payable to MECA (advance payment required) by 15th of month prior to publication to: *Country Lines*, 2859 W. Jolly Rd., Okemos, MI 48864, or email jhansen@countrylines.com. Call 517-351-6322, ext. 201, for more information. **No classifieds accepted by telephone.**

Also, place order online at **countrylines.com**, and ads will be posted **FOR NO EXTRA CHARGE**

(Until the next issue of the magazine is published.)

200 FEET WATER FRONTAGE – Morley Pond fishing, Morley, MI. 313-386-0924.

ALCONA COUNTY 90 ACRES – Joins state land. Will sell all or 2 forties and 1 ten. Great deer and partridge hunting. 2 small hunting cabins, willing to lease. Please call 517-423-8316 or 517-263-5409, ask for Pete.

VACATIONS

KIAWAH ISLAND CONDO – Near Charleston, 170 yards to beach, 2 bikes, miles of bike paths, beautiful area. Winter rate \$550/week \$975/month. Call 989-725-7794 or email fredherring57@yahoo.com

WANTED

BUYING OLD WOODEN DUCK – Goose, fish, decoys. 248-877-0210.

BUYING GUN RELOADING EQUIPMENT -

Bullets, ammo, gun parts, back stock and more. 517-623-0416.

#1 Value. Escorted Tours Since 1952. Calaba Canal, Canal, Common New from \$995! Panama Canal, Common New from \$995! Panama Canal, Common Call 1.800.CARAVAN for free 28 page info guide. Or, visit us online at Caravan.com.





Electrical Safety During Storms

arly fall can bring stormy weather. As a result, take precautions with your home's electrical system.

Keep in mind that storm debris can easily ignite if it comes into contact with downed power lines, especially when electrical wires are severed. Also, standing water and even appliances can become electrically charged.

Use these tips to keep safe after storms:

General Electrical Safety

▲ Never touch a downed power line. Call your electric co-op to report it immediately. Avoid contact with overhead lines during cleanup and other activities. Assume all wires on the ground are electrically charged.

▲ Be sure all electric and gas services are turned off before entering buildings for the first time.

▲ If water rises above the electrical outlets in your home, contact a licensed electrician before turning on your main circuit breaker. Outlets and wiring that contact with water could present a fire and shock hazard.

▲ Allow all electrical appliances and equipment, once submerged, to dry thoroughly. Have them checked by a qualified repair person before turning them on.

▲ Replace damaged extension and appliance cords, loose prongs or plugs.

Generator Safety

Portable electric generators are often put into use for temporary power. Be sure to follow the manufacturer's directions for installation and operation.

Use generators or other fuel-powered machines outside the home. Carbon monoxide fumes are odorless and can quickly poison you indoors.

Take special care not to overload the generator. Use appropriately-sized extension cords to carry the electric load. Make sure the cords have a grounded, three-pronged plug and are in good condition, and never run cords under rugs or carpets.

Never connect generators to another power source, such as power lines. The reverse flow of electricity can electrocute an unsuspecting utility worker.

Sources: U.S. Fire Administration, usfa.fema. gov; Consumer Product Safety Commission, cpsc.gov.

Visit new & improved earthcomfort.com



FOR THE

2-for-1 Book Sale! Also order on countrylines.com/store



VIEW FROM THE TOP A collection of Jim Hough's columns from the past 10 years in *Michigan Country Lines*.

ON THEIR OWN POWER The only book to tell the Michigan electric co-op story, from their birth in the 1930s. Filled with first-hand testimonials and experiences of the people who blazed the trail for electric co-ops. Written by Ray Kuhl, former general manager of the Michigan Electric Cooperative Association.

Both books only \$6

Includes tax and shipping. **No substitutions.**

Book Order Form

x \$6 =
ard

Make checks payable and mail to: MECA 2859 W. Jolly Rd., Okemos, MI 48864

27



Fixing Energy Problems In Your Home

To save on heating and cooling costs, start by assessing the area where your house is not performing properly. **Larry Zarker**

id you know your house is a "system"? It's similar to other things, such as your computer, that are made up of many interacting components.

When your computer's hard drive fails, it affects the performance. The same thing goes for your house.

High energy bills, hot and cold rooms, drafts, mold, poor indoor air quality, ice dams, pest infestations, and even deterioration of building materials can all be the result of a breakdown in the relationship between the systems in your house.

And, what often seems like the obvious culprit is not actually the root cause. An obvious fix can actually make problems worse. To get it right, you need to consider the whole home, using the "house-as-a-system" concept.

The Science Behind How Homes Work

There are three main systems that impact energy, comfort, health and safety:

1. The building envelope (the shell).

2. The heating, ventilation and air conditioning (HVAC) equipment;

3. The occupants (that's you!).

The envelope consists of the roof, exterior walls and foundation of the house. Its role is to separate the indoor living environment from the outdoor elements.

The HVAC provides comfort conditioning to make the living space enjoyable, circulates fresh air, and regulates the humidity.

The occupants can affect performance by their behavior, although some habits have more effect than others, such as leaving a window open all the time or making adjustments to the thermostat. One of the most common problems is "uncontrolled" air leakage. Indoor air you pay to heat and cool escapes through gaps, cracks and holes in the envelope. Energy Star[®] estimates that leakage can waste 30 percent of the energy used for HVAC operation. In a typical house, about another 20 percent of the air that moves through the HVAC system is lost due to leaks and poorly connected ducts.

Finding the Problems

A comprehensive whole-home assessment will trace problems to their root cause. It's best performed by a trained and qualified technician for two reasons:

1. Properly diagnosing performance problems and prescribing solutions requires a background in building science that most homeowners and remodelers do not have.

2. The job requires special diagnostic tools, such as a pressurization blower door and infrared camera. The comprehensive assessment will start with an interview, followed by a thorough walkthrough—both indoors and out. An infrared camera may be used to get a visual on temperature differences in different areas.

A blower door test will assess air leakage levels. Duct leakage will be examined, and carbon monoxide levels should be checked.

At the end of the assessment, your specialist contractor should provide you with a scientific, objective view of the situation and help you prioritize repairs so you can solve the biggest problems without making smaller problems worse. They can also help you forecast energy savings.

Show Me the Money

Upgrading your home's performance can increase its value and provide great rewards in terms of comfort and energy savings. Under the Federal Tax Credits for Consumer Energy Efficiency, you can receive 30 percent of the cost or up to \$1,500 for installing energy efficient insulation, windows and doors, water heaters or HVAC equipment until the end of 2010.

Visit the Database of State Incentives for Renewables & Efficiency (DSIRE) at dsireusa.org to learn about incentive programs. You can also find an index of home performance with Energy Star programs at energystar.gov or contact Cherryland to find out what's happening locally.

Many incentive programs require you to register before your initial whole-home assessment is done and have another performed after the work is completed to ensure it meets program requirements.

Some also require contractors to hold specific qualifications, such as Building Performance Institute (BPI) Certified Technician or Accredited Contractor. Find one near you at bpi.org.

Understanding how your house works as a system can help you identify the root cause of problems and find solutions to improve the performance of your home.

Larry Zarker is a Cherryland member and CEO of the Building Performance Institute, Inc. (BPI). Prior to joining BPI, Larry worked for nearly 20 years with the National Association of Home Builders Research Center.

A Home Energy Monitor Can Help Save Money

eeping track of electricity use may seem like an overwhelming task to many people.

The truth is, it really isn't.

Thanks to technology advancements, there are now products available to help with this task. One such product is a home energy monitor, which is designed to be easily installed and the data can be transferred to your computer.

A small display unit can sit on your counter or table for easy viewing, although it will need to be programmed with the appropriate rateper-kilowatt hour to allow you to understand the cost when using an appliance.

These monitors can help you see how your living patterns affect your electric usage, and to learn how much wattage each appliance uses and the cost associated with it.

Viewing the display monitor before bedtime can assist you in determining if lights



or an appliance were left on in another room or outer building. You won't have to walk through your home to verify everything is turned off, which saves time and money by not leaving lights on or increasing kilowatt consumption.

When an appliance is turned on, such as a clothes dryer, the display will show this extra load in less than 30 seconds. Knowing how much wattage an appliance uses and the cost to operate it for the time needed will help you use it more efficiently.

A monitor can also assist you in maintenance of an appliance to ensure that it operates efficiently, and help determine when it is time to replace an older appliance with a new Energy Star-rated model. Using a monitor can also help you make cost-saving comfort-level decisions, such as whether to turn on the air conditioning on a warm summer night.

I recently visited a Cherryland member who has used a Blue Line PowerCostTM Monitor for the past 18 months. With this model, he was able to detect that his dryer vent was blocked and save money by fixing the problem.

A home energy monitor also displays indoor and outdoor temperatures. This was very useful information during the summer, so this member could choose when to open the windows at night and use window fans to circulate the colder air through the house instead of turning on the air conditioning.

Since the cost to operate the air conditioning unit was already known, the choice was easy to make when trying to save money. The monitor will allow you to see usage and cost when only the essential appliances are running, and within seconds of turning on an appliance you can see the increase in wattage and associated cost.

Each month he records this data into a spreadsheet before clearing the display to begin the next monthly monitoring. Keeping this data in a spreadsheet has enabled him to compare his family's usage to his Cherryland electric bill and confirm that the usage is accurate on the bill.

Cherryland Electric Cooperative's automated meter reading (AMR) units were installed five years ago and have a great track record of accuracy and reliability.

Our members enjoy the AMR service because they don't have to step outside in the winter to read their meters. Our members also enjoy saving money, which is what a home energy monitor can do for you.



Tammy Squires is Cherryland Electric Cooperative's energy use advisor.



Home Safety for Older Adults

ast year, over 1 million people 65 years and older were treated in hospital emergency rooms for injuries related to accidents at home. Since most of these episodes resulted from a lack of maintenance, walk through your home and use this checklist to spot possible safety hazards. If you notice a problem, arrange for it to be fixed immediately to prevent injury.

• *Kitchen:* Make sure all appliances carry an Underwriters Laboratories, Inc. (UL®) seal, which means it was tested and found safe to use. Check electrical cords for fraying or cracking; step stools for splitting or cracking; and throw rugs for tripping hazards like bumps and turned-up corners.

• *Living room:* Check rugs, runners, electrical cords, lamps and other lighting. Inspect the fireplace and chimney for fire hazards, and make sure all passageways are clear.

• *Bathroom:* Make sure small appliances are marked with a UL seal. Check the tub, shower, rugs and mats for slipping hazards and check cabinets for safe storage of medications.

• *Bedrooms:* Examine rugs, runners, electrical and phone cords, and make sure the area around the bed is clear of items that could cause you to trip.

• *Basement/garage/workshop:* Make sure all power tools bear the UL mark. Check fuse and breaker boxes for possible malfunction and shock/fire hazards. Check extension cords and cords on tools and lawn/garden supplies. Check for proper ventilation and store flammable liquids properly.

• *Stairs:* Make sure there's proper lighting on and around stairways. Check handrails and steps for weaknesses, and test stair coverings for tripping hazards.

Viva La Branche!

he new GM releases its new electric Chevrolet Volt this fall. If it catches on like many predict and hope, it will be a boost to our state's economy and a welcome move forward in the quest for a cleaner environment.

Will the Volt become the latest darling of our car culture? Will it generate the passion that followed the Corvette, Mustang, Camaro, or even the Prius? Will *you* buy one?

At a cost of \$41,000 and up, less a \$7,500 federal tax credit, the Volt won't be the 'people's car.' The prospect of being able to drive 40 miles on battery power alone is enticing, but if your daily drive requires you to travel longer distances, when the gas motor will have to kick in to recharge the batteries, you might not see the value.

The Volt is a cool-looking car. It has nice lines, enough space for average families, and all the latest gadgets.

But I'm sure it doesn't have backseat rear armrests that can each hold a six-pack like my parent's first car—a 1950 two-door Studebaker. (Don't ask.) Nor will it have the cavernous interior room of my first car, a 1948 Plymouth four-door sedan. When I bought it from my future father-in-law for \$100, it was already 15 years old and needed an engine overhaul. You'd think Larry would have sold me a more road worthy car since I was dating his daughter. A friend showed me how to take the engine apart and put it back together. I've found working on cars, especially old ones, to be a relaxing and satisfying pastime ever since.

The Volt certainly won't match my favorite car, a banged-up, baby blue 1963 Saab 96 we bought in 1973 to replace a wrecked Volvo 122S. The Volvo was my first new car, solid, dependable and a great road car. The Saab, well, it probably was solid when it was new, too. After all, it was made by the company that made Sweden's military jets. With a two-stroke, threecylinder engine, it certainly was unique. Pouring a can of oil in the gas tank with every fill-up was a sure way to cause a lot of weird looks from other motorists. With it's streamlined body and a gizmo that let you freewheel down hills, the car was a miser on gas. Getting 42 miles to the gallon during the mid-70s oil crisis was great. Plus, I was back in school, and later couldn't get a job during a recession much like this one. We depended on Barbara's new teaching job for food.

ob for food.

My job was to keep that car on the road. We lived in married housing on the Michigan State campus. The car

didn't like to start on cold mornings, so I would have to push the car from the open driver's side door down a slight incline, jump in and pop the clutch to start it. The car was warmed up for Barbara when she was ready to leave—what a treat. Of course, sometimes she got there first, tried to start the car, and then ran up to the apartment yelling for me to get the blasted thing running.

I still wonder how we got through that first teaching year.

On a trip back from Ironwood in the summer of '73, on the M-69 'shortcut' between Crystal Falls and Escanaba, the Saab blew its head gasket. That's pretty much like a heart attack. The coolant that keeps the engine operating at the appropriate temperature leaks into the cylinders, and since water and anti-freeze don't help the combustion process, the engine dies.

There we were, on a quiet road in the middle of empty countryside, stranded. My sister's boyfriend was riding with us back to East Lansing, so, while Barbara drove, he helped me push the relatively light car a mile down the road to La Branche, which largely consisted of the La Branche Tavern.

We went into the bar to see about using their phone to call a wrecker, although finding anyone able to actually fix that Saab seemed remote. Then the boyfriend said, "sorry," but he needed to get back today, and he left to hitchhike a ride.

So, Barbara and I sat at the bar and explained our predicament to the owner. A few seats away was a thin, long-haired, bearded guy in a plaid shirt and jeans, a Viet Nam veteran. He heard our sad story and said he might be able to help.

He was a motorcycle mechanic and had tools in his truck. Maybe he could seal

the head gasket tight enough for us to get back to



East Lansing. Better yet, I said, this is basically a motorcycle engine, and I have a head ? gasket in the trunk. (Appar-

Can a Chevy Volt be as lovable as a 1963 Saab 96?

ently, blown head gaskets were a common problem in these cars and the previous owner kept a spare!)

In the middle of a hot Sunday afternoon in August, the motorcycle mechanic vet got his tools out and helped this Air Force vet remove the head, clean off the old gasket, put in the spare, torque the bolts, and refill the radiator. We were done in two hours. The engine spit and sputtered for a few moments and then took off with its regular popcorn popper sound.

After grabbing a sandwich in the bar and buying our savior a beer and a meal he wouldn't take anything else—we were on our way. I learned only a few years ago, when I mentioned this event at an annual meeting of Alger Delta Cooperative Electric Association, that our hero's name is Jack Fisk. I've always hoped to see him again and buy him another beer, although the La Branche Tavern is gone.

Now GM has dumped Saab, which it bought a few years ago, to concentrate on its core business, which now includes the Volt. I'm sure it will be dependable, but it could never be as lovable as that quirky Saab.



Mike Buda, editor emeritus of Country Lines, has a 1951 Chevy pickup that needs a lot of attention.

Email Mike at mbuda@ countrylines.com or comment on his columns at countrylines.com/column/ ramblings/

DIGHERE, SAVETHOUSANDS.

30% TAX CREDIT CUT ENERGY BILL IN HALF FINANCING AVAILABLE



An underground loop system and the constant temperature of the Earth combine to create a comfortable climate in your home. For deep savings on your energy bills, look no further than your own backyard. With a ClimateMaster Heating and Cooling System, you get a 30% tax credit and can save more than half on your energy bill. ClimateMaster uses geothermal energy to tap the constant temperature of the Earth, keeping your home comfortable year-round. Best of all, a new system usually pays or itself in about five years and is a cleaner choice for the environment. If you're ready to uncover extra cash each month, visit climatemaster.com.



climatemaster.com

Ann Arbor Jetstream Mechanical 734-668-8010

Cadillac Cornwell Mechanical 231-429-2996

Charlevoix MacGregor Plumbing and Heating 231-526-9633 Eaton Rapids Stahl & Sons, Inc. 517-663-4102

Evart Geo Connection, LLC 231-734-0227

Harbor Springs MacGregor Plumbing and Heating 231-526-9633 Lansing Doty Mechanical 517-327-7777

Lowell Canfield Plumbing & Heating, Inc. 616-897-0887

Mt. Pleasant Custom Heating & Plumbing 989-772-5568 Muskegon Assured Comfort Heating & Cooling Inc 231-744-7571

Sault Ste Marie Albert Heating & Cooling, Inc. 906-632-6900 Sunfield Mark Woodman Plumbing & Heating 517-566-8388

Traverse City Team Bob's Heating, Cooling & Plumbing 231-941-4064

THERE'S A LOT OF MONEY IN YOUR HOUSE. YOU JUST HAVE TO KNOW WHERE TO LOOK.

New sealing and insulation can save total heating and cooling costs by up to 20%." New doors can save up to 15% annually.*

> **Energy efficient windows** can save up to 15% annually.*

\$1.76 retrieved from sofa cushions. Replacing old heating and cooling equipment can save nearly \$200 annually.*

> 37¢ found in washing machine.

change jar.

\$10.37 in kitchen

Sign up now and save!







Sales and Service "B.L.I.S.S."



Right now, through Michigan Saves, Cherryland Electric customers can realize significant savings by having an energy audit done on their homes, and installing energy-efficient doors, windows, and more. Here's how it works:

Step 1: Sign up for Michigan Saves Cherryland Pilot program.

Step 2: Have a certified home energy audit conducted on your home. For a \$100 investment (a \$500 value)** a licensed auditor will audit your home's energy use. You'll receive a detailed report of how and where your home is wasting energy.

Step 3: Choose your energy-saving options and purchase through a low-interest loan.

Step 4: Save big!

*Savings estimates from energystar.gov based on Energy Star®-qualified products. Actual savings may vary. "Must participate in Michigan Saves loan program to receive audit.

www.michigansaves.org/cherrylandpilot 231.995.5700