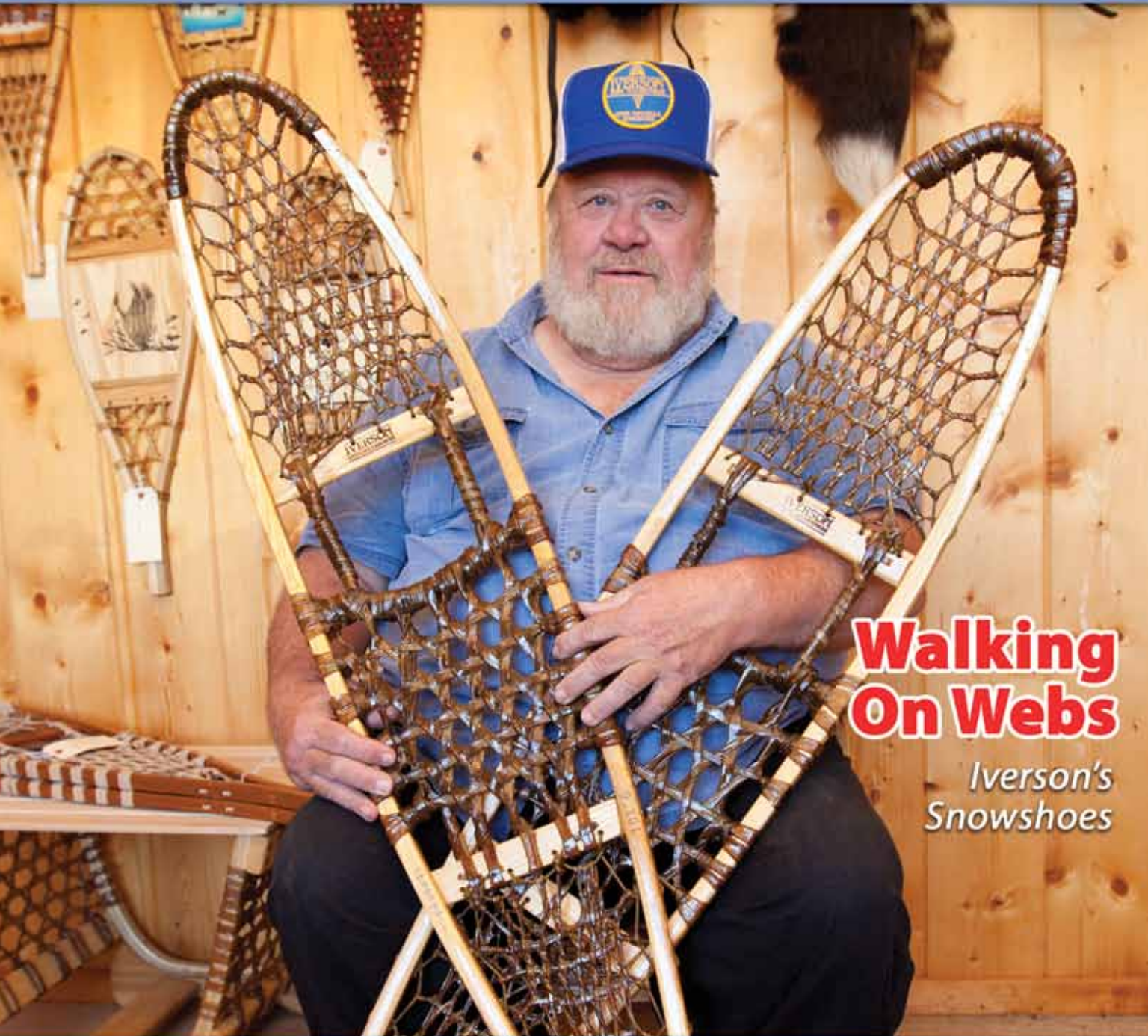


A Service of **Alger Delta Cooperative Electric Association**

November/December 2011

# Michigan

## COUNTRY LINES



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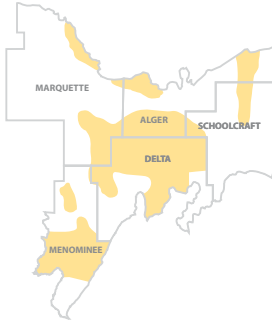
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Photo – Shawn Malone/lakesuperiorphoto.com





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**Tom Harrell**

General Manager  
[tharrell@algerdelta.com](mailto:tharrell@algerdelta.com)

**Office Headquarters:**

426 North 9th St.  
Gladstone, MI 49837

**Office Hours/Phone:**

M-F, 8 a.m. - 5 p.m.  
906-428-4141 • 1-800-562-0950  
FAX: (906) 428-3840

**algerdelta.com**

**MANAGER'S MESSAGE**

**Happy Birthday to...Your Co-op!**

Sept. 2, 1937, was a fateful day—that is the day Alger Delta Cooperative Electric Association was formed. That birth date means your co-op is now 74 years old, which is a long time to be in business. Not many companies that last that long, so we are among the fortunate few in the U.P. with that kind of staying power and history.



**Tom Harrell**  
General Manager

Many other electric cooperatives were formed that year. They took advantage of low-cost loans made available by the federal government to build electric lines to farms, villages and rural places where other electric companies would not serve. Alger Delta started by serving farms in the Trenary, Rock and Perkins area, and we still serve there today.

In the beginning (see story, p. 28), poles and reels of wire were taken out on horse-drawn wagons. And, while that mode of transportation has changed, the poles and

wires remain the same.

One of the big differences between then and now is the technology we use to deliver energy—it is vastly improved. Today, we can read the meter over the power line. Ten years ago, this was cutting edge technology. Today, the engineers and technicians yawn and say “what else can it do?” No one in 1937 could envision cell phones,

computers, the internet, or other things that are powered by electricity in most of our homes, even in rural communities.

We're happy about celebrating 74 years of service in the central Upper Peninsula. Sept. 2, 2012, will mark our 75<sup>th</sup> anniversary and the beginning of several exciting events to celebrate that important milestone with you, our members. Be sure to watch *Country Lines* magazine for all the news and announcements.

**Why Does the Power ‘Blink’?**

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

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

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

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

As this happens, a relay senses the “fault” and tells the breaker to open, which prevents power flow to the problem site. The breaker quickly closes again, but the brief delay allows the fault to clear and usually

lasts under 2 seconds. If the fault clears, every home or business receiving electricity off that line experiences a blink. This could include thousands of accounts if the breaker protects a transmission line or substation.

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

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

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

# Surviving an Outage

The cold temperatures, ice and snow associated with winter weather make staying warm and safe a challenge—especially if the power goes out. Create a winter survival kit for your home to help you and your family survive the cold winter.

## The Essentials:

Keep three to seven days worth of emergency supplies. These typically include:

**Food** – pick items that require no cooking or refrigeration such as bread, crackers, cereal, canned foods and dried fruits. Remember baby food and formula if needed.

**Water** – In case water pipes freeze or rupture, keep a supply of tap water or purchase bottled water. The recommended amount of water to keep on hand is 5 gallons per person.

**Medicines** – Roads may be inaccessible for several days due to a winter storm. Make sure you have an appropriate amount of

over-the-counter and prescription medicine that family members may need or regularly use. If you or someone in your family uses oxygen, make sure you have extra available.

**Identification** – Keep forms of identification with you such as a social security card, passport, photo ID and driver's license. In addition, make sure to have bank account and insurance policy information handy.

## Alternate Heat:

Alternate methods may include:

- Dry firewood for a fireplace or wood stove
- Kerosene for a kerosene heater
- Furnace fuel (coal, propane, or oil)
- Electric space heater with automatic shut-off switch and non-glowing elements

## Other Items:

Other items you should have on hand are:

- Blankets
- Multipurpose, dry-chemical fire extinguisher
- Flashlight and matches
- First Aid Kit and instruction manual
- Battery-powered radio

- Clock or watch
- Extra batteries
- Shovel
- Rock salt
- Nonelectric can opener



When creating a winter survival kit for your home, take into consideration factors that are specific to your home and family. For instance, if your home is isolated or on the outskirts of a residential area that may be difficult for emergency responders to locate, place something highly noticeable and unique at the end of your driveway or lane.

Listening to weather forecasts and keeping abreast of the latest developments can provide you with several days notice to check emergency materials and stock-up on essential supplies.

If you have a generator, keep an appropriate supply of fuel on hand. Make sure the fuel is accessible and stored safely. *Never run a generator in your basement or garage.* Unless you have a transfer switch—sometimes called a safety switch—it is best to plug individual appliances directly into the generator. *Do not try to connect the generator to your main panel.*

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## Road Trippin'

I read with interest your "Road Trippin'" article (Mike Buda, Ramblings/Sept.) in *Country Lines*. My husband Mike and I just got back from a motorcycle trip through the same territory. I am amazed you are going to do it in three weeks, it took us nearly seven.

One tip, there is a great bakery breakfast place on main street in Custer, SD, on the north side of the street. Big, huge sticky buns/cinnamon buns and good breakfast. If you and your wife are over 62 then at the first national park, get a senior pass for \$10 and then all national parks are forever free. But not parking at Mt. Rushmore!!

Have a great time and there will be plenty of smaller parks, etc., to catch you on the way.

— Ivy Richmond, Baldwin

You asked for road trip suggestions in your September

column, and I have one. Since you said you are going to Mt. Rushmore and Yellowstone, might I suggest Devil's Tower National Monument, WY, which is between those other two? You might recall that it was featured in the movie "Close Encounters of the Third Kind." It's an amazing thing to see, and it's right on your way. Not too crowded, as well. You can even climb it if you're so inclined. No pun intended.

May I also tell you how much I enjoy your columns in *Country Lines*? It's the first place I turn to when I get the magazine. May you never fully retire and keep those monthly columns coming. You have a gift.

I am very much looking forward to your "Great American Road Trip" column.

— Tim Stockdale, Harbor Springs

*Editor's Note: See page 30.*

Just finished your great article in *Michigan Country Lines*.

My wife and I were in Utah the latter part of April and we found that the Arches National Park just north of Moab, UT, is a "MUST SEE"—easy drive and beautiful scenery. Moab

is about a half-hour south of I-70. While in Moab there is a very nice place called "Peace Tree Juice Cafe" and is located at 20 S. Main St. Phone is (435) 259-0101. Good atmosphere and great wait-staff. Reminds me of some of the great eateries in Ann Arbor.

Either way, have a great trip and be safe!

— Bill & Mary Lampe, Morenci

Three years ago our family stayed with relatives in Santa Clara, CA. We rented a vehicle and drove to Yosemite. In brief, when you come out of the south end of Yosemite and plan to stay in Fresno, it is a way longer drive (due to the mountains—not flat, like Michigan!) than you ever anticipated—and there is no place for gas or food for a very long way! Let's just say mom, dad, and the three kids were all tired, hungry and crabby by the time we got to Fresno! Yosemite itself, AMAZING!

From Fresno, we made our way to Salinas—via King City—and we saw some amazing farming! You will have a new respect for every green pepper, celery stalk and bunch of broccoli in the future! You will see things in the distance that look like a bunch of squares and as it comes into view realize that it is large, square bales stacked longer than you can imagine. Not 40 calf huts like a dairy farmer in Michigan, but thousands! Or a feedlot that goes on for miles! You should really check out that area, as we found it very fascinating! (We are farmers in the E.U.P.!)  
— Joanne Galloway

Thanks for the offer to "ride along" on your CA sojourn!! It was in 1948 that I made the trip with my parents. Looking at all those gadgets you're taking is like comparing our trip to going by covered

wagon. What a difference 63 years makes. I spent my army time at Fort Ord which is no longer an operating military base. It was a short ride to Monterey and Carmel, and I suggest both for "must" stops as you head down the coast. The other "must" should be the Giant Redwoods in Sequoia National Park.

Spent a lot of time on the beach at Carmel and remember a house to the south that looked like the bow of a boat jutting from the shore. Folks said it was a Frank Lloyd Wright design.

As with those gadgets you're taking.....lots of change!

— Tom Hanna  
(former manager of Top O'Michigan, before it became Great Lakes Energy)

Your plans are mighty ambitious—and you left out the Grand Canyon! Unless you are a wine aficionado, I'd leave out the wine country and plan on the Grand Canyon. I've done versions of this trip about a dozen times in recent years, in a motorhome. I did, in fact, visit the Grand Canyon—for about the 12th time—five years ago, and hiked to Phantom Ranch on a three-day camping trip (at age 78). Southern Utah is the most beautiful part of the lower 48, and a "must see." But you have six national parks there to visit.

Oh, and I've done the bike thing—Seattle to Bar Harbor, ME—at age 60! Enjoy!

— Herbert Mayer, Rapid City

## Hunting the Timberdoodle (woodcock)

Regarding your article about woodcocks (Don Ingle, Sept.), "The 'Quirky' Timberdoodle," the author (a hunter) states that hunting these inoffensive animals is not the main reason for the decline in their numbers. Even if that is true, why

## MYSTERY PHOTO

Every co-op member who identifies the correct location of the photo below by **Dec. 10** will be entered in a drawing for a \$50 credit for electricity from your electric cooperative.

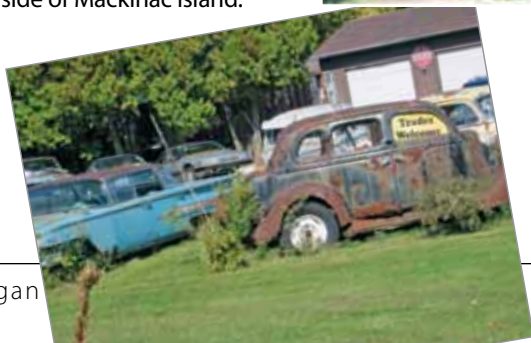
**Please note that we do not accept Mystery Photo guesses by phone!**

Email [mysteryphoto@countrylines.com](mailto:mysteryphoto@countrylines.com), or send by mail to *Country Lines*, 2859 W. Jolly Road, Okemos, 48864. Include your name, address, phone number and name of your co-op. Only those sending complete information will be entered in the drawing. The winner will be announced in the January 2012 issue.

The September contest winner is Marlene Purdy of Caledonia, who correctly identified "Devil's Kitchen" rock formation on the west side of Mackinac Island.



Do you know where this is? ►



does he advocate the continuation of hunting them when he admits that their numbers are falling? Wouldn't it be wise scientific management to refrain from hunting them at all rather than just reducing the number killed? Does the author really care about protecting them or just keeping enough alive to keep hunting them the following year? Just asking.

P.S. How about publishing articles about the great outdoors written by an unbiased person?

— Susan DeGross

*Don Ingle responds: Studies by the U.S. Fish & Wildlife Service, as well as state DNR studies using scientific sampling show that hunting has no overall effect on woodcock populations—they would be basically the same whether they were hunted or not.*

*The major reason for the decline remains loss of habitat in the northern breeding range. Human land use practices, developmental removal of habitat, or failing to interrupt natural forest succession that overtakes the younger (shade) intolerant forest stages remain the major reasons for the woodcock's decline. Yet, when a clear-cut to maintain suitable habitat is performed, there are often more letters of complaint written than this writer's on woodcock hunting.*

*Managing suitable habitat is costly, and most monies available to agencies who perform this work is derived from hunters though license sales and taxes on their hunting gear. Without these funds, more than woodcock would be endangered since good woodcock habitat also serves many other species, including non-game that use the same stages of early forest succession.*

*Hunters pay to help preserve the habitats for many species of wildlife.*

### Eating Cheap

Nice job (Lisa Marie Metzler, "Eating on the Cheap"/Oct.) and thanks! I got some good ideas, especially the whole grains and bananas frozen together, and dicing fresh and freezing. I CRAVE fruit in the winter and it is so much more expensive and not always fresh.

— Sharon, Traverse City

Thank you so much for these quick, short and simple realistic tips. I feel nourished just reading about it! Looking forward to healthier shopping and more balanced, nutritional eating habits with my family this week, and more. Please keep the tips coming. I'll be looking for more articles from you!

— Tina Schaub, Traverse City

Great ideas... healthy eating has always been more expensive. I like the idea of shopping the outer aisle of the store. I take a lap around the store before I shop—its exercise and you can check out the sales.

— Laura, Traverse City

**Correction** (Sept. issue) — Cole Smith is the only soldier mentioned in the "Where Soldiers Come From" story not affected by TBI (traumatic brain injury), and film director Heather Courtney is not an NPR reporter, as noted from an online film review. Visit [wheresoldierscomefrom.com](http://wheresoldierscomefrom.com) to see updated viewing dates.

## Could Fuel Cells Be The Future?

Most homes, vehicles and businesses are powered using electricity or a fossil fuel such as natural gas, gasoline, diesel, propane or fuel oil. Now, a new option is beginning to emerge: fuel cells.

Electric cooperatives have a long history of exploring the potential of fuel cell technology. Through the Arlington, VA-based Cooperative Research Network (CRN), co-ops have been investigating different types of fuel cells for more than a decade. While the technology is evolving, the cost is still hefty. Studies recently conducted by CRN at seven co-ops sites and military bases around the country found that while fuel cells (using polymer electrolyte membrane technology) designed for residential use do work, they carry a huge price tag—producing electricity for a whopping 85 cents per kilowatt-hour (kWh). Comparatively, the average price of electricity in the U.S. is 11.5 cents per kWh.

A fuel cell works like a battery that is constantly charged by putting a fuel into its negative terminal. It creates a chemical reaction, most often involving hydrogen forming with oxygen, but another common fuel is natural gas. One of the main byproducts of the chemical reaction is water, making the process generally pollution-free. Normally, fuel cells generate only a small amount of electricity and must be combined into larger stacks to produce enough power for homes, cars and workplaces.

Currently, five main types of fuel cells exist: polymer electrolyte membrane (PEM), alkaline, phosphoric acid, molten carbonate, and solid oxide. Each uses a different electrolyte and comes with advantages and disadvantages.

One solid oxide-based fuel cell, called the "Bloom Box," received a significant amount of media attention early in 2010. The device burst onto the scene with endorsements by luminaries like as Gen. Colin Powell, then-California Gov. Arnold Schwarzenegger, and New York City Mayor Michael Bloomberg. The product was even featured on "60 Minutes" and has been installed at major internet-based firms such as Google and eBay.

Analysis of the Bloom Box shows that those costs can be lowered—the unit can generate electricity for 8 cents to 10 cents per kWh, but only with hefty federal and state renewable energy subsidies tossed in. And, the Bloom Box can't maintain consistent output day-in and day-out for years like a typical baseload power plant. In fact, a 100-kilowatt solid oxide fuel cell like the Bloom Box, running on natural gas at a 48 percent efficiency rate, carries a unit price of about \$7,000 to \$8,000 per kilowatt—about the same as a nuclear power plant.

To be successful over the long term, fuel cell efficiency will need to increase from the 40 percent to 60 percent typically found. And given pressures on federal and state budgets, fuel cells will need to operate economically without relying on government incentives to stay competitive with more traditional generation sources.

Electric cooperatives continue to explore new and innovative options to reduce costs and provide reliable energy choices. If fuel cells come of age, co-ops will be at the forefront of educating members on the advantages and disadvantages of the technology.

— Brian Sloboda, Cooperative Research Network

Tell us about your favorite, or a unique, Michigan-made product. Email [czuker@meca.coop](mailto:czuker@meca.coop) or send to: Country Lines, 2859 W. Jolly Rd., Okemos, MI 48864. Be sure to share why you like it, or a unique story to go with it.



# Women Hunters Unite

Northern Michigan is chock full of hunters, and there is no problem finding all the hunting gear, accessories, tools or publications to learn about the sport...unless you're a woman," says Mary Dugas, a member of Presque Isle Electric & Gas Co-op (Onaway).

Herself a woman who likes to hunt, Dugas sent in *Woman Hunter* magazine, "the first and only hunting magazine for and by women," as her favorite Michigan-made product.

"It was started by my friend, Lisa [Snelling], who had never hunted before and just couldn't kill anything," Mary explains. "Well, she wanted her husband, an avid hunter, to take ballroom dancing lessons with her so they could have an activity they could share." What really happened, she adds, is that he convinced Lisa to go hunting with him, and she fell in love with the sport.

"Like most good women, she felt the need to accessorize for her hunting trips," Dugas adds, "but alas, there was not much available for women."

While admitting that *Field and Stream* and *American Hunter* are very good magazines, there was no publication about women and



Lisa Snelling

their hunting experiences. That's why Snelling, of Flint, decided to start one herself, with the first issue going online in September 2007, and into print two years later.

Today, Snelling says it's both a hunting magazine and a networking website that offers women a number of ways to participate and communicate with each other. Included is a free forum for veteran and novice hunters to submit written articles and chat about hunting experiences ("good, bad, ugly and glorious"), exchange wild game recipes, contribute to product reviews, and find information about outdoor events.

Snelling operates the small business with only four freelance employees, while working full-time herself as an IT consultant. But she has high hopes for expanding the magazine's current circulation of 1,500, and plans to have a toll-free number in place soon (for now, write to *Woman Hunter* Magazine, 4225 Miller Rd., #255, Bldg. 9, Flint, MI 48507 or visit [thewomanhunter.com](http://thewomanhunter.com)). She also sells



*Woman Hunter* logowear and says they haven't been able to find another women's hunting magazine like it in the world. "We'd like to see the magazine right next to *People* and *Time* magazine," she says.

Whether you're after small game, big game, waterfowl, dangerous game, or are just a curious onlooker, "Veteran women hunters can provide invaluable tips to newer women hunters," Snelling explains.

"And by the way," Dugas adds playfully, "her husband never took those [dance] lessons."

# Hang 'Em High

A couple hunting seasons ago, Ron McGhan had an unfortunate surprise. Four wrist operations had robbed the Muskegon resident of the strength he needed to pull back his recurve bow. Frustrated, but not to be deterred, he bought a crossbow instead.

"I found out while sitting in my treestand the crossbow and rifle were hard to hold onto and that is when I came up with the idea of a crossbow and rifle hanger," explains McGhan, a member of Great Lakes Energy Cooperative (Boyer City). Again taking matters into his own hands, he invented a unit he calls "Hang It High." "It enables a hunter to sit hands-free with either a rifle, crossbow or compound bow," McGhan says.

The hanger is designed to extend up to 32 inches straight out from a tree, can be adjusted to the forward or backward lean of the trunk, and is secured with two ratchet straps. McGhan's product has been on the



Ron McGhan

market since 2009 and he's added options such as an adapter for an umbrella and video camera.

Found in a number of local sporting goods stores in Hesperia, Montague, Muskegon, Cadillac and Allendale, it's also available now at Jay's Sporting Goods and Schupbachs Sporting Goods in Jackson. Visit [crossbowhanger.com](http://crossbowhanger.com) or call 231-557-7185 for more information.

McGhan is proud that his product is "made entirely in the USA."

**Right:** The crossbow and compound utility hanger invented by Ron McGhan holds different types of guns or a crossbow, and has interchangeable hangers. See a video demonstration at [crossbowhanger.com](http://crossbowhanger.com)



Photos courtesy Ron McGhan



# Is a Job With an Electric Co-op in Your Future?

It may be a biased opinion, but electric co-ops are great places to work for and with. And at a time when retirements are rising, it's a good time to talk about the advantages of working for them.

Co-ops exist to serve their members not only with safe, affordable and reliable electric power, but with community support and programs that help you save energy and money, and therefore make a difference in people's lives.

Even as nonprofit, consumer-owned businesses, co-ops generally offer competitive salaries and benefits in a time when many companies are scaling back. And, they offer a stable work environment by hiring within their communities and promoting within. Many employees start at a co-op and stay there throughout their careers.

While you may hear more about lineworkers, it takes many more employees and departments to run a co-op (see related story, "Careers on the LINE," p. 12). Staff members include everyone from accountants, technicians and engineers to public relations professionals who cultivate relationships with local, state and national opinion leaders and keep them updated on issues important to co-ops and the communities they serve.

And, if you've ever wondered how electric co-ops compare to other businesses in terms of employment, the latest statistics from the National Rural Electric Cooperative Association (NRECA) provide some insights.

The average electric co-op has 48 employees, with 17 serving as lineworkers, nine as administrative and clerical, six handling engineering and operations, and five employed as meter readers and/or equipment operators. A typical co-op also has two each of finance and accounting, member services and marketing, purchasing and inventory, and administration/

office services professionals—including human resources and district branch managers; and usually retain one communicator and one IT person.

Michigan has nine co-ops that distribute electricity to homes and businesses, one that generates and transmits electricity, and one power supply marketing cooperative. Additionally, the Michigan Electric Cooperative Association (MECA), is a service organization that provides safety training, research, assistance and support on legislative issues affecting co-op members, and publishes *Country Lines* for the co-ops. Together, we employ a total of about 782 people, but provide electricity to the homes and businesses of more than 600,000 people in rural areas covering one-half of the state.

Nationally, over 55,000 individuals work at electric distribution co-ops, and that number swells to over 70,000 when you factor in the workforce at generation and transmission cooperatives, statewide associations like MECA, and service affiliates. There are over 900 consumer-owned, not-for-profit electric co-ops nationwide.

So, electric co-ops continue to shine as some of the best places to work in a community, and I strongly encourage young people to scout career opportunities within the co-op family. Working for electric co-ops is a pleasure, and they are looking out for you by recruiting the best and brightest employees to serve you.



## Michigan's Electric Co-ops

- 1 Alger Delta Cooperative Electric Association
- 2 Cherryland Electric Cooperative
- 3 Cloverland Electric Cooperative
- 4 Great Lakes Energy Cooperative
- 5 HomeWorks Tri-County Electric Cooperative
- 6 Midwest Energy Cooperative
- 7 Ontonagon Co. Rural Electrification Assn.
- 8 Presque Isle Electric & Gas Co-op
- 9 Thumb Electric Cooperative
- ★ Wolverine Power Cooperative
- ★ Wolverine Power Marketing Cooperative
- ★ Michigan Electric Cooperative Association

*Gail Knudtson is editor of Country Lines for the Michigan Electric Cooperative Association. Her email is [gknudtson@meca.coop](mailto:gknudtson@meca.coop)*





When you see people on snowshoes this winter, their “webbies” may have been made by Iverson’s.

Photo - Pictured Rocks National Lakeshore/National Park Service

## A Web-footed Walk Through Winter

**U**p North, where winters are long and snows get deep, some people develop “webbed feet.” “Webbed” as in webbing, the rawhide lacing on a pair of snowshoes.

This invention of woodland Indians made it possible to travel atop winter’s deep snow instead of floundering through it.

When early French fur traders, missionaries and couriers saw snowshoes, they realized their value in opening up northern forests for trapping, trading and establishing alliances with the tribes.

The British, snug in their coastal towns, tended to view snowshoes as amusing toys and hence, were late in establishing their own native alliances. Because of that, the French and their tribal allies almost won the French and Indian War. Had it not been for a final British victory near Quebec City, we might be speaking French today. A look at Michigan’s many French place names shows how close it came.

A snowshoe’s value is especially appreciated by those who work in winter woods—foresters, loggers, biologists, surveyors and others who must venture away from roads.

Others discovered the recreational use of snowshoes, from hunting to hiking. Upper Peninsula-made Iverson snowshoes have become the standard.

Bob Graves, owner of Iversons Furniture and Snowshoes, Inc., acquired the company in 2008. The office is located on the site of his family’s sawmill in Shingleton (near Munising and Alger Delta Electric Co-op’s service area). With a staff of six to seven local workers, the company creates snowshoes from Michigan white ash, a hardwood that is bent by using steam and made into a variety of styles.

“We make nine styles of snowshoes, from the small bear paw style up to the long Alaskan (56-inches) and Tundra (72-inches),” Graves said. “The ‘Michigan’ snowshoe is the most popular.”

Once the snowshoe is shaped, it is laced with rawhide or materials such as neoprene or nylon (rawhide is the most preferred) and this webbing is the base support for staying on top of the snow. They also leave their telltale webbed tracks.

Iversons’ snowshoes are made to last. “That’s the trouble,” Graves laughs, “They just don’t wear out!” Still, the company turns out 2,000 new pairs annually.



Originally, the company was started by the late Clarence Iverson about 1954, when he began building snowshoes for state workers. Besides quality snowshoes, they also create fish nets and furniture from the same ash hardwood and rawhide lacing. Their cabin- or lodge-style furniture and wall hangings are very popular with those who enjoy the “Up North” theme for a vacation home or getaway cabin.

“Our snowshoes and cabin furniture are available by mail order—or direct sales at our Shingleton factory,” Graves adds. “Additionally, we have our products available at many sports shops, including PCS Sports. L.L. Bean will have Iverson snowshoes in their product offerings in their 2012 Centennial catalog.” Find more about the Iverson line and how they’re made at [iversonsnowshoes.com](http://iversonsnowshoes.com) (or 906-452-6370).

After acquiring snowshoes, you’ll have one French word to learn: “Mal d’raquette,” (“the ills of the racquet”), since a webbed snowshoe resembles a tennis racket. The “ills” are some inner thigh muscles that will let you know that, like any new exercise, there will be some soreness and twinges to overcome—best done by doing more snowshoeing.

Once you have snowshoes, where do you go to use them? Most anywhere there’s snow, but for beginners, it’s a good idea to use a developed path, and near to Iverson’s factory, at Pictured Rocks National Lakeshore, National Park Service officer Gregg Bruff recommends several places to leave web-footed tracks.

“Right near the Munising office is Winterfest Trail, offering a half-mile walk,” Bruff suggests. “The visitor needs only follow the blue triangular markers to make the trek.”

“Experienced snowshoers wanting to add winter backpack camping to their snowshoe adventure will find trails to backcountry camping sites in the Chappel area, and Beaver Lake.”

Statewide, there are many state forest pathways that are suited to snowshoes. Other places to use them may be a local park, golf course, and any area with snow and no restrictions on access.

When you see people on snowshoes this winter, many of their “webbies” may bear the imprint of the Iverson Snowshoe Company. Iverson’s figured out early-on that if you are going to get a lot of snow, you might as well use it to have some fun. Little wonder folks have been making tracks to Iverson’s for over 50 years.



**Top:** Bob Graves, owner of Iversons Furniture and Snowshoes, says Michigan white ash, full grain rawhides, and pure copper hardware are behind the longevity of their products, which can get passed between generations. They handcraft 11 snowshoe models in different sizes, all of which are available in kits for do-it-yourselfers, and they will custom-build for any specialized use.

**Below, from left:** Iverson's employee Russ Smith works at making snowshoe bindings by hand. Julie Holmes laces a snowshoe with rawhide webbing, which is the base support for staying on top of the snow. Rocking chairs, swings, love seats and tables are some of the furniture crafted by the company, and they also offer some home decorations, such as clocks, wall hangings, magazine racks, and ornaments.



Photos - Shawn Malone/Lake Superior Photo

# Careers on the LINE

Cooperatives offer exciting and stable job opportunities.

In a bright spot for the nation's economy, electric co-ops are recruiting and retaining talented people for jobs of all kinds.

Some of the hiring is in response to retirements—estimates show nearly 10 percent of lineworkers and 18 percent of engineers and operations staff will retire over the next five years, says Russell Turner, principal, human capital issues, for the National Rural Electric Cooperative Association (NRECA).

The Center for Energy Workforce Development (CEWD), a nonprofit Washington, D.C., group that studies labor shortages in the power industry, predicts that 46 percent of existing skilled technicians and 51 percent of engineers in the electric and natural gas utilities may need to be replaced by 2015 because of retirement or attrition.

Other electric co-op workforce sectors are also impacted by turnover. Indiana co-ops have discovered that 61 percent of their CEOs and nearly one-half of all those in administration, marketing and member relations leadership roles are eligible to retire over the next five to eight years.

The scenario is different in Michigan, which has great demographics and a younger-than-normal workforce, Turner says. Only 14.3 percent of Michigan electric co-op CEOs are eligible for retirement in the next five years, and of the overall 784 employees for which data is available, only 75 (9.6 percent) are eligible in five years. The largest categories eligible over the same period are equipment operators (17.2 percent) and engineering (14.8 percent) employees.

## It Takes a Village

While lineworkers are generally the most visible employees, it takes many more to effectively run a co-op. Distribution co-ops—those that directly serve you—employ over 55,000 people. If you include power supply co-ops and various support groups, like the Michigan Electric Cooperative Association (MECA), electric co-ops have over 70,000 folks on their payrolls.

Electric co-ops employ a median of 48 workers, NRECA notes, with lineworkers as the largest single group (17, on average), followed by administrative and clerical, and engineering and operations. The typical co-op also has one IT professional and one communicator.

Co-ops also need accountants, clerks, communications and marketing professionals, member and energy services employees to handle co-op member needs and concerns, and staking technicians and engineers to plot where new lines will be built. Purchasing workers track equipment inventory to keep the lights on, and negotiate contracts, and information technology (IT) professionals keep telecommunications and computer networks running smoothly.



Missy Robson (R) advises a HomeWorks Tri-County Electric Co-op member on how to save energy and money.

## Women in a Male Workforce

Before becoming a customer service supervisor at HomeWorks Tri-County Electric Cooperative in Portland, Missy Robson served 10 years as a key accounts manager and was one of a handful of Michigan women trained to do energy audits. In this male-dominated field, she felt the need to be more prepared than most coming into the job.

"At the time, my first order of business was cultivating relationships," Robson recalls. "When I pulled up to the home to do the job, and they saw me—a little 5-foot-2 blond—getting out of the car, I knew some guys were gonna go, 'What the heck?!' But I took pride that I could alleviate their concerns right away."

Nationally, about 10 percent of electric co-op CEOs and energy auditors are female, but less than 1 percent of lineworkers are. "I wish I would see more women in this type of position," she adds. "I encourage them to think about it because it's a challenging job, but it's also very rewarding when you have succeeded in helping members with energy-saving techniques."

Great Lakes Energy is another Michigan co-op with females in traditionally male jobs, including two member field reps (perform meter exchanges and service disconnects), one field design tech, an AMI (automated metering infrastructure) manager, an engineering analyst, and one electrical technician.

## The Future of Electric Co-ops

According to CEWD, electric co-ops fare better than other types of electric utilities when it comes to an aging workforce. Roughly 36 percent of nonprofit, consumer-owned electric co-op lineworkers are under age 37, versus just 30 percent for profit-driven investor-owned utilities (IOUs).

Still, co-ops are investing in their future workforce. Many partner with community colleges to create special lineworker training programs. Alpena Community College, for one, offers several scholarships for their lineworker training program sponsored by co-ops including Great Lakes Energy, Homeworks Tri-County Electric, Thumb Electric, and MECA. Local co-ops also assist by donating supplies and materials to ACC for use in training students.

Alpena began offering lineworker training in 1990 at the request of local utility companies and co-ops. Students get climbing training, learn electrical theory, safety, construction techniques and rigging, and can get their Michigan commercial driver's license in a one-year program. Another option is a two-year associate's degree, including general education and advanced electrical classes such as poly-phase metering and fiber optics.

## Why Work at a Co-op?

"Electric co-ops continue to be some of the best places to work," Turner stresses. "Salaries and benefits remain competitive in a time when other firms are scaling back. We're very good corporate citizens."

To learn about job openings, visit your local co-op's website, or search TouchstoneEnergy.jobs for national opportunities.

Photo - Jayne Graham/HomeWorks

# Love Those Trains!

This long-time American hobby is still enjoyed by many. **Nick Edson**

**R**ay Graham walks the walk. Actually, he rides the ride. The 72-year-old retired Elk Rapids teacher and coach is one of thousands of Michigan residents whose hobby is model railroads.

Graham, who also has a builder's background, has a locomotive for a mailbox. He and his wife Peggy take vacations across the country on Amtrak trains.

"I just enjoy trains immensely," he explains. "I have since I grew up in Saginaw in the early 1950s. I had a couple of friends who had model train layouts on 4-foot by 8-foot sheets of plywood. I was fascinated by them."

But raising a family, teaching and coaching during the school year, and building houses in the summer used up all of Graham's time. When he retired in 1993, he had time to step back and reflect on what hobbies he would pursue.

The choice was easy.

"I was watching QVC one day and they had an inexpensive model railroad set for about \$100," he adds. "The cars were made of plastic and the engine of metal."

Once they arrived at his house, the torch was lit. The first track he built was a 5x9 sheet of plywood in a downstairs room.

"Since then, I've knocked out the wall to the adjoining room downstairs and expanded into two rooms," he says. "The layout features all four seasons of the year, with over 1,000 feet of track, 40 locomotives and eight sets of controls. I have diesel locomotives and steam locomotives. It's quite a setup."

And a labor of love for Graham, who enjoys the full scope of his model railroad hobby—planning the layout, working on the track, doing the wiring, painting the scenery, and building the life-like details, such as trees, buildings and even hot air balloons.



Photos-Tom Vranich

**Above:** Model train buff Ray Graham has been "workin' on the railroad" since buying his first set in 1999. He and his wife regularly host school kids to see the three-season display, which fans the whole lower level of their home. The trains go through mountain tunnels, up into Canada's snow-covered terrain, to the Soo Locks (with an awesome freighter replica), and city stations nationwide. Chicago has a lighted underground passenger station. **Left:** A beautiful Hiawatha locomotive with orange trim pulls several passenger cars through a wooded area.

Then there's the choice of trains—from longtime favorite Lionel® to the first line of model trains—Märklin™, which was launched in 1891 in Germany. Märklin introduced locomotives, tracks and accessories to match. Once the model train industry took off, it went worldwide. By the early 1900s, kids in the U.S. were waking up to new train sets on Christmas morning.

And when those kids grew into adulthood, they didn't forget their early trains. Soon, those adults helped turn model railroading into a lifelong hobby.

A turning point in the model railroad hobby was World War II. Of the leading toy train players, only the U.S. avoided major physical damage in the war and its economy was in good shape, too. So, not surprisingly, the U.S. went forward with model train production much sooner than Europe.

Model railroading blossomed in the U.S. Toy trains were a major item during the 1950s, when Graham was growing up in Saginaw. In the 1960s, their popularity declined and manufacturers struggled to survive.

The survivors adopted various strategies, but agreed on two main themes: 1) that a key

part of the market was adults, and 2) that the cost of production had to be addressed.

Manufacturers responded with larger-scale trains of different gauges. They marketed the enjoyment of home-based model railroading which sped across the U.S. and Europe. Today in Michigan, there are dozens of model railroad clubs that meet regularly.

"Model railroading can be enjoyed by everyone—from 4-year-olds to 84-year-olds," Graham says. "My biggest enjoyment is having school groups over to my house. I enjoy watching the faces of the kids light up when they watch the model railroad in action."

Graham estimates he spends eight to 10 hours a week on his hobby in the winter, and less during the summer.

"We've taken some great vacations all across the country by Amtrak train," he adds. "It's a beautiful way to see our country."

And when they return home from vacation, he gets back to his model railroading hobby.

"I don't know how much extra electricity I use," he says. "But I know it doesn't cost very much. I just enjoy this so much as a hobby because the model trains are so realistic. It's unbelievable."



# Make Your Own Holiday Centerpiece

**W**ith the rutabagas and onions safely stored under the house, and several jars of tomatoes in the pantry, my thoughts naturally turn to doing something related to plants. The best activity I can think of after the gardening season is over is to start working on holiday centerpieces. My heated greenhouse works well for this because the mess is contained, and I can still feel close to my gardening.

Holiday centerpieces are easy to make, provide a fresh aroma of cedar and pine around a holiday table, and they also make great gifts. Every centerpiece I've ever given away garnered some "oohs" and "aahs" and appreciation from the recipient. Below is a list of what you'll need to get started.

The evergreen pieces can be obtained by selectively pruning cedar and pine trees in your yard, or you can sometimes catch a neighbor doing hedge work and get the greenery you need that way.

Cedar is the best choice for centerpieces, but of course this is also

a personal choice. Cedar works well because there are no messy needles and they stay fresh longer indoors. Balsam is a good second choice, as it's easy to work with and will fill in a centerpiece rather quickly. A mix of green foliage (white pine, balsam and cedar) also makes an attractive centerpiece and is probably best for a special occasion where it won't be staying inside for an extended period of time.

The foliage will stay fresh indefinitely in a cold garage or outdoors. Decorative shrubs, such as arborvitae, don't take too kindly to a late fall pruning, so you may wish to get your greenery from a cedar tree or other plant from the wild, if you have access.

Cones, of course, can be collected from the trees or purchased with the other supplies at a craft store.

A nice selection of bowls and containers (often with the foam inside) can also be purchased at a large department store or florist shop.

Enjoy your centerpiece!

## What you need to make your centerpiece:

- Fresh cedar, pine, spruce or balsam fir
- A florist bowl
- Floral foam oasis
- Sharp scissors
- Glue gun and glue sticks
- A candle of your choice (a taper or candle no more than 2 inches in diameter works best)
- 12 red pine cones (white spruce also works)
- Artificial red berries (or sprigs of holly and berries)
- "Snow in a can" craft spray



## Steps to making a centerpiece:

- Clip pieces of greenery to about 6 or 7 inches in length.
- Take the foam oasis (dry at this point) and insert it into the bowl. You will probably have to cut the foam to fit into the bowl (giving you one extra piece for your next centerpiece).
- Carefully work a taper or other thin candle about 2.5 inches into the center of the dry oasis. Pull the candle back out and insert a little glob of the hot glue into the hole and push the candle immediately back into the warm glue. (Be careful not to let your skin touch the hot tip of the glue gun.)
- Begin inserting the short branches of greenery into the oasis, starting carefully from the bottom to avoid splitting the foam.
- Insert the branches all around the oasis until it looks pretty full.
- Begin your next row of greenery, pretty much covering the lower branches.
- Continue with the previous step until you've got a full-looking centerpiece.
- Take short pieces of greenery and insert into the top until the foam is completely covered.
- With the hot glue gun in one hand and a cone in the other, put a dab of glue on each cone, then simply press it into the foliage. Use as many cones as you want, but four groups of three pine cones works well.
- Put a dab of glue on the tips of the berry stems and insert them in between the cones.
- Use the craft snow any way you want to mimic snow on the cones or foliage.





# Losing Your Cool?

Families can learn positive ways to deal with anger.

One of the surprises we parents and grandparents face is a child's startling capacity to irritate us. Who would expect someone so precious and beloved to evoke feelings of frustration, anger, and—in some cases—rage?

Even the most patient parents confess to sometimes losing their tempers and yelling at their children. One study published in *The Journal of Marriage and Family* found that 88 percent of nearly 1,000 families interviewed admitted to shouting, yelling or screaming at their children in the previous year. This is bad news, considering another study showed that constant yelling and other forms of emotional abuse was a more significant predictor of mental illness than sexual or physical abuse.

On the flip side, from the very start children also seem prone to frustration and anger. That's not so surprising when you consider that anger, by at least one definition, is distress brought about by feelings of helplessness or powerlessness.

Anger doesn't have to be destructive. It's an emotion we all have, and for good reason. Anger helps us defend ourselves and our loved ones, and it can motivate positive change. Anger becomes a negative force only when we use it to hurt ourselves or another person. And unresolved anger can lead to resentment and bitterness that damages relationships, health and future success and happiness.

Parents play a key role in helping children

learn to manage powerful emotions, such as anger. Instead of placating, ignoring, or punishing angry outbursts, experts at EffectiveParenting.org encourage families to have a plan to deal with anger.

## Family Plan for Managing Anger

*Understand the purpose of anger.* Teach children that anger is good for identifying problems, but not good for solving them. It's a natural emotion that reveals that something is wrong. It might be something inside us, such as an unrealistic expectation or demand. Or it might be something outside of us, but we need help addressing it in a positive way.

*Identify early warning signs of anger.* Children (and even some adults) act out before they realize they are angry. Identifying early warning signs helps children become more aware of their feelings and helps them gain control over their responses. Learn to recognize the cues that signal frustration and anger: Body tension, clenched teeth, unkind words or tone of voice, pouting, eye rolling, and more. Once you know signs, help your child notice them also. They can't learn to manage anger if they can't recognize or name it.

*Step back.* Teach your child to take a break from a difficult situation, and get alone to rethink, calm down, and figure out what to do next. The size of the break depends on the intensity of the emotion. Frustration might take only a deep breath. A child who is enraged probably needs to leave the room to settle down.

*Choose a better response.* Too many adults make the mistake of pointing out what's wrong about our children's anger without suggesting healthy alternatives. There are three positive choices: talk about it, ask for help, or slow down and persevere. Take time to teach your children these skills and practice them.

*Never try to reason with a child who is enraged.* When children can no longer think rationally, their anger is now controlling them. The child who is enraged has lost control. Whether it's a two-year-old temper tantrum or a 14-year-old ranting and raving, don't get sucked into dialog. It only escalates the problem. Talking



Photo - © iStockphoto.com/Mark Bowden

about it is important, but wait until after the child has settled down.

*Be proactive.* Model, discuss, read and teach your children about anger. Children learn by watching the adults around them, so it is important for parents to learn to control their own anger. Plus, according to the experts at Act Against Violence, children need to hear some basic messages as they grow up:

- It's okay to be angry.
- There are "okay" ways and "not okay" ways to show your anger.
- It's not okay to hurt people or pets or to break things when you are angry.
- It's okay to tell someone that you are angry.
- There are ways to calm yourself when you are angry.

*Get help when anger seems to be out of control.* Sometimes a third party can suggest ways your family can deal with anger in a more helpful way. Plus, children can begin to develop bitterness and resentment in their lives and may need professional help to deal with it. Children do not grow out of bitterness, they grow into it.

## RETHINK

when you're angry:

- R**ecognize what makes you angry.
- E**mpathize with the other person's feelings.
- T**hink of positive things about the situation.
- H**ear what the other person is saying to you.
- I**nclude "I" messages to tell how you feel.
- N**otice what happens to your body.
- K**eep your attention on the present situation.

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





## Teachers Find Recycling Fun

**T**hree Mackinac Island teachers are making recycling fun, profitable and fashionable by making mittens from wool sweaters.

Their Mackinac Mittens business started by accident in 2009, when Karen Allen, Laura Eiseler and Liz Burt saw a lady wearing a pair of mismatched mittens and loved them so much they all wanted a pair.

Liz, being the crafty one, said, “We can make those!” Luckily, Karen had all her daughter’s old clothes in the attic, Laura had fleece pajamas destined for Goodwill, and Liz inherited her grandmother’s button box.

After “felting” the sweaters (shrinking to bind the wool more tightly) they borrowed a pattern book and held a mitten-making party.

“There were eight of us that evening, and we all went home with a new pair of mittens,” Liz recalls. “They looked awful—like great big oven mitts, and the three of us agreed we could do better.” So, Liz altered the pattern over and over until they had their own.

After a second attempt, they were thrilled. “We all went home sporting our new ‘Mackinac Mittens,’ she says.

That’s when the “orders” also started coming in...every few days one of the women was

asked at the Post Office or bank, “Do you think you could make a pair for my grandmother?”

Next, an Island shop-owner offered to sell them in his store. “We were really surprised and flattered—we just wanted cute mittens, and here a store owner wanted to sell them!” Liz says. The owner asked for 60 pairs, but soon needed more, and another shop was interested, so it was hard for the women to keep up. They have since sold over 1,500 pairs and added hats, scarves and pins.

They also get wool from thrift shops, eBay, and friends in other cities, and labored last winter to build a supply of their creations.

“Mackinac Mittens is exactly what our logo says,” Liz adds: “3 Island teachers + 1 long, cold winter = Mackinac Mittens.”

They would love to make purses too, but time is scarce, as each mitten is made on the Island by Karen, Laura or Liz. “Making a pair of mittens is like solving a giant puzzle,” Liz



Photo—Diana Dupre

Karen Allen, Laura Eiseler and Liz Burt show their one-of-a-kind mittens. Mackinac Island is serviced by Cloverland Electric Co-op, and you can find the mittens at The Jaunting Cart and Little Luxuries of Mackinac; The Mole Hole in Sault Ste. Marie (800-709-1679); Grosse Ile Historical Society Holiday Gift Boutique (info@gihistory.org or 734-675-1250); or at mackinacmittens.com. Island shops are open mid-May through October, but some have other weekend and holiday dates.

says. “It’s all about finding sweaters that ‘go’ together.” Plus, each mitten takes between 1½ and 2½ hours to make, is machine-sewn to a fleece lining, and then hand-finished.

The result is a nice, thick fabric that is warm enough to get through even a Mackinac Island winter.

## Rockhounds Make ‘Michigan Gemstone’ Jewelry

**D**on Reed is a lifelong rockhound who gladly admits his collection is becoming “out of hand.” With his wife Bonnie, he acquires stones worldwide by digging, bartering, buying old collections, and going to rock shows.

Using his collected pieces and skills honed by studying gem-cutting, silversmithing and wire wrapping, he creates jewelry from non-traditional gemstones. Many are from Michigan, like the Lake Superior agate, Michigan greenstone (state gem), and Petoskey stones (state stone) found on the Keweenaw Peninsula. “We find most of our Petoskey stones in private gravel pits, dirt roads (in washouts), road cuts, or old rock piles,” Bonnie shares.

From a rough rock, Don cuts and forms a slab into an appealing shape with diamond saws, grinders and polishers. “It is an exciting and time-consuming process to go from finding the stone to cutting it, then wire-wrapping and/or beading it,” she says.

“...I can look at a stone, sometimes when



Photo—Baldt Photography

it is still a rock, and visualize how it should be cut and what it will look like when it is done,” Don adds. He matches and wraps the stone with fine wire, and may add precious gemstones. He also makes custom jewelry for people who find their own stones.

The Reeds, Great Lakes Energy Co-op members from South Boardman, also enjoy combining their work—she makes beaded



**Top:** A Lake Superior tube agate crafted into a pendant. **Bottom:** A set made from turquoise and Petoskey stones.



necklaces, earrings to match his pieces, and manages their business, Snob Appeal Jewelry.

For folks interested in rockhounding, Don says, “First, look down once in a while!” since many are found in unexpected places; “pick up what you think is pretty”; and “join a rock club.” He also hosts a rockhound blog.

Find a blog link and more of their artistry at snobappealjewelry.com (231-369-2294), art shows, Copper World in Calumet, and Nature Connection in Elk Rapids.

See page 6 to tell us about your favorite, or a unique, Michigan-made product.





# Lamb & Veal Recipes

If you've never cooked lamb before, chops may be the place to start. Properly grilled, they will melt in your mouth. And, you'll find veal is compatible with a variety of seasonings. Or try any of these wonderful recipes from our readers, just in time for the holidays. Always find hundreds of recipes at [countrylines.com](http://countrylines.com).

## Veal With Wine & Herbs

1½ lbs. veal cutlets  
2 T. flour  
¾ t. garlic salt or powder  
¼ t. basil  
3 T. oil

¾ c. rosé wine  
⅓ c. sour cream

⅓ c. grated parmesan cheese

Bone cutlets and cut into serving-size pieces. Coat them with a mixture of flour, garlic salt and basil. Brown on both sides in oil; add wine. Cover and cook on low 40 minutes, or until tender. Mix sour cream and cheese; spoon onto meat. Cook 5 to 10 minutes more. Remove meat to platter. Stir pan juices to blend, pour over meat. Makes 4 to 6 servings.

*Emmajean Bowerman, Lake Isabella*

## Lamb Shanks

2 lbs. lamb shanks  
1 c. orange juice  
2 medium onions, sliced  
2 large Anaheim peppers, sliced  
1 clove garlic, minced  
½ t. nutmeg  
salt and pepper to taste

Brown lamb shanks in olive oil over medium-high heat. Add onions, garlic, nutmeg, salt

and pepper, if desired; cover and simmer for about 2 hours. Add peppers and cook an additional 15 minutes. Green beans or snow peas may be substituted for peppers.

*Edith Warling Heezen, Fowler*

## Butterflied Leg of Lamb

1 6-7-lb. leg of lamb, butterflied  
1 c. dry red wine  
¾ c. beef broth  
3 T. orange marmalade  
2 T. red wine vinegar  
1 T. minced dried onion  
1 T. dried marjoram  
1 T. dried rosemary  
1 large bay leaf, crumbled  
1 t. seasoned salt  
¼ t. powdered ginger  
1 clove garlic, crushed

Place lamb in a shallow roasting pan, fat-side down. Combine remaining ingredients in a 2-quart saucepan and simmer uncovered 20 minutes. Pour the hot mixture over the lamb and marinate at room temperature for 6 to 8 hours, turning frequently.

*Barbeque method:* Place meat over medium-hot coals fat-side up for 30 to 45 minutes, turning several times and being careful not to pierce meat. Periodically brush with marinade while cooking.

*Oven method:* Preheat oven to 425°. Place meat, fat-side up, under broiler approximately 4 inches from heat. Broil 10 minutes per side. Transfer meat to preheated oven for 15 minutes.

Carve meat on a slight diagonal in fairly thin slices. Serve with wild rice mix.

*Cleo Elve, Montague*

## Lamb Pizza

1 pkg. crescent rolls  
1 lb. ground lamb  
¼ t. garlic powder  
1 8-oz. pkg. cream cheese  
½ c. mayonnaise  
¼ c. margarine  
⅓ pkg. dry Hidden Valley Ranch® dressing mix  
4 ozs. shredded cheese, your choice  
assorted fresh vegetables, chopped or sliced,  
(i.e., carrots, green onions, broccoli, cauliflower)

Lightly grease a pizza or jelly roll pan. Unroll crescent rolls and press to cover pan, forming a slight ridge around edges. Prick with a fork (to prevent bubbling up). Bake as directed, until slightly browned. Meanwhile, brown the ground lamb with garlic powder until done. Drain and cool. Cream the cream cheese and mayonnaise until smooth; add dry dressing mix. Mix well. Add cooled ground lamb and mix well. Spread over crust; top with vegetables and then shredded cheese. Cover and refrigerate until set. Cut into squares or slices and serve.

*Debbie Vineyard, Morley, GLE*

## Lamb & Eggplant Casserole

1 large eggplant, about 1½ lbs.  
¼ c. olive oil  
½ c. coarsely chopped onion  
1 t. finely minced garlic  
1½ lbs. ground lamb  
½-1 t. cinnamon  
1 bay leaf  
1 dried hot red pepper, crumbled  
4 c. canned tomatoes with tomato paste  
(28-oz. can)  
salt and pepper  
1 c. fine, soft bread crumbs  
½ c. grated Parmesan or Gruyere cheese

➤ **Send in your recipes!** If published, you'll receive a kitchen gadget. Send in: **UNDER \$10 MEALS recipes by Nov. 10** and **SLOW COOKER recipes by Dec. 10**. Mail to: *Country Lines Recipes*, 2859 W. Jolly Rd., Okemos, MI 48864; or email [recipes@countrylines.com](mailto:recipes@countrylines.com).

If eggplant is not young and tender, peel it; otherwise, leave skin intact and just trim ends. Cut eggplant lengthwise into 1-inch thick slices. Cut slices into strips 1-inch wide. Cut strips into 1-inch cubes. You should have about 6 cups. Heat oil in a flame-proof casserole; add onion and garlic. Cook, stirring constantly until onion is wilted. Add lamb, breaking up any lumps. Stir in eggplant; cook, stirring often for about 5 minutes. Stir in cinnamon, bay leaf, hot pepper, tomatoes, salt and pepper; cook, stirring occasionally about 5 minutes. Transfer mixture to a casserole or baking dish. Combine bread crumbs and cheese; sprinkle over casserole. Bake at 425° for 15 minutes.

*Douglas Cameron, Spruce*

### Chop Suey

1 lb. veal, cubed  
 1½ lbs. pork, cubed  
 2-3 T. oil  
 3 medium onions, sliced  
 4 stalks celery, chunked  
 1 15-oz. can bean sprouts, drained  
 1 8-oz. can sliced mushrooms, or use fresh  
 1/4-1/2 jar brown gravy sauce or bead molasses  
 1/2 c. water or beef broth  
 Brown meat in oil; gradually add brown

sauce/molasses and simmer 20 minutes. Add water or broth and bring back to a simmer; add onions and celery and cook 15 minutes; add bean sprouts and mushrooms. Cook until vegetables are tender. Serve over cooked rice or noodles.

*Carole Sutton, Stockbridge*

### Drunken Lamb Shanks

8 lamb shanks  
 1 c. strong coffee  
 1 c. bourbon  
 1 envelope dry onion soup mix  
 1 large cooking bag  
 Place all ingredients in the cooking bag in a shallow baking dish. Punch holes on top of bag. Cook at 225° for 4 hours. Remove and enjoy.

*Beverly Crosthwaite, Southfield*

### Veal Marsala

1 lb. veal, sliced thin for scallopini  
 1/4 c. all-purpose flour  
 1/2 t. seasoned salt  
 1/2 c. butter  
 2 T. olive oil  
 3/4-1 lb. fresh mushrooms, quartered or sliced  
 1/3 c. marsala wine  
 In a shallow dish, combine the flour and

seasoned salt. Dredge veal slices in mixture and let rest 15 minutes on a wire rack. In a large skillet over medium-high heat, melt butter with olive oil. Cook veal on both sides until light, golden brown. Add mushrooms; cover and reduce heat to low and cook 10 minutes. Pour in wine and simmer 5 minutes more until veal is tender and sauce is hot. Serve immediately.

*Sheila Ashcroft, Millersburg*

### Three-Meat Meatloaf

1 lb. ground beef  
 1/2 lb. ground veal  
 1/2 lb. sausage  
 1 c. cracker crumbs  
 1 onion, chopped  
 2 eggs, beaten  
 1 t. salt  
 1/2 t. pepper  
**Topping:**  
 1/2 c. ketchup  
 1 t. dry mustard  
 2/3 c. brown sugar  
 1/2 t. nutmeg  
 Combine all meatloaf ingredients and shape into loaf; place in shallow baking pan. Combine topping ingredients and spread over top of loaf. Bake at 350° for 1 hour.  
*Janice Harvey, Charlevoix*

# Healthy Holiday Eating

By Jennifer Nelson, M.S., R.D. and Katherine Zeratsky, R.D.

**A**re dreams of sugarplums dancing in your head? What about other decadent holiday favorites? You know the ones that are loaded with sugar, salt and fat—cheese platters, bacon-wrapped appetizers, creamy eggnogs, spiked punches, cookies and rich desserts.

It can be a challenging time of year to make healthy choices. But healthy holiday eating is possible. Here are some tips for making favorite recipes healthier:

▶ **Cut the sweetness.** When making pumpkin pie or eggnog, reduce the amount of sugar by half and enhance “sweetness” by adding a bit more vanilla, nutmeg or cinnamon. If recipes call for sugary toppings like frosting, jams and syrup, use fresh fruit instead.

▶ **Shake the salt out.** You can reduce salt by half in most recipes, too. Also go easy on salty condiments, such as pickles, catsup, mustard and soy sauce. Instead offer cucumber slices and fresh tomato or fruit salsas. Or, try lower-sodium versions of mustard and soy sauce. In recipes, substitute fresh herbs and flavored vinegars for salt.

▶ **Trim the fat.** In baked goods you can cut the fat by about half and replace it with unsweetened applesauce, prune puree or mashed banana. Instead of full-fat condensed milk, use condensed skim in pumpkin pie and eggnog. For gravy, heat fat-free, low-sodium broth (or drippings with the fat removed); mix flour into cold skim milk and pour slowly into broth, stir until thickened and season to your liking.

Do you have suggestions for healthy hors d'oeuvres, sides and entrees? Share your ideas with friends and family.

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# Home Heating Assistance Programs • 2011–2012 Season

## Be Winter Wise

The Michigan Public Service Commission and the state's regulated gas and electric companies, including rural electric co-ops, are encouraging senior citizens, low income, and unemployed utility customers to **"Be Winter Wise"** if faced with high bills they cannot pay this winter. "Winter Wise" customers will be protected against loss of their utility service. Following are the provisions of home weatherization and house heating assistance programs, and special provisions for customers with medical emergencies.

### Program: Winter Protection Plan

Contact: Your Local Utility Company

#### Income Guidelines 2011–2012

# in Household	150% Poverty Guide Maximum Income
1	\$16,335
2	22,065
3	27,795
4	33,525
5	39,255
6	44,985
7	50,715
8	56,445

Add \$5,730 for each additional member.

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

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

- pay at least 7% of your estimated annual bill each month, **and**
- make equal monthly payments of 1/12 of any past due bills.

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

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

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

### Program: Home Heating Credit

Contact: Mich. Dept. of Treasury

# Exemp.	Max. Income	# Exemp.	Max. Income
1	\$11,986	4	24,587
2	16,186	5	28,815
3	20,387	6	33,014

Add \$4,200 for each additional member.

You can apply for a **Home Heating Credit** for the 2011 tax year if you:

- meet the income guidelines listed at left,
- you own or rent the home in Michigan where you maintain a permanent residence, or
- you qualify based on alternate guidelines including household income, exemptions, and heating costs.

If you qualify, you may receive assistance to help pay for your winter heating bills. Forms are available mid- to late-January wherever tax forms are provided, or from the Michigan Dept. of Treasury (800-367-6263, or [michigan.gov/treasury](http://michigan.gov/treasury)). The Home Heating Credit claim form must be filed with the Michigan Dept. of Treasury **before Sept. 30, 2012**.

### Program: Earned Income Credit

Contact: U.S. Treasury Dept.,  
Internal Revenue Service  
Michigan Dept. of Treasury

The **Earned Income Credit (EIC)** is a refundable federal income tax credit for low-income working individuals and families who meet certain requirements and file a tax return. Those who qualify will owe less in taxes and may get a refund. Even a person who does not generally owe income tax may qualify for the EIC, but must file a tax return to do so. If married, you must file jointly to qualify. File Form 1040 or 1040A and attach the EIC.

You may claim a **Michigan earned income tax credit** for tax year 2011 equal to a percentage of the federal earned income tax credit for which you are eligible. See the 2011 MI tax booklet for additional information.

### Program: Crisis Assistance Program

Contact: Local Michigan Department of  
Human Services (DHS)

**State Emergency Relief Program (SER):** You do not have to be a client of the DHS to apply. This program is available year-round, subject to the availability of funds, to assist low-income households that have a heat or electric shut-off notice or a need for deliverable fuel. However, if you receive a DHS cash grant, you may vendor part of that grant towards heat and electric bills. Contact your local DHS or call the Home Heating Hotline, 800-292-5650.

### Program: Low-Income Home Weatherization

Contact: Local Community Action Agency

You may be able to receive help with weatherizing your home to reduce energy use if you meet low-income eligibility guidelines (see income guidelines above) and funding is available. **Weatherization** may include caulking, weatherstripping, and insulating. Contact your local Community Action Agency for more information.

### Program: Medical Emergency Protection

Contact: Local Utility Company

You are protected from service shut-off for nonpayment of your natural gas and/or electric bill for up to 21 days, possibly extended to 63 days, if you have a proven **medical emergency**. You must provide written proof from a doctor, public health or social services official that a medical emergency exists. Contact your gas or electric utility for more information.

### Program: Shut-off Protection for Military Active Duty

Contact: Local Utility Company

If you or your spouse has been called into **active military duty** you may apply for shut-off protection from your electric or natural gas service for up to 90 days. You may request extensions. You will still be required to pay, but your utility company will help you set up a payment plan. Contact your utility service provider.

# U.S. GOV'T GOLD

U.S. GOLD COINS AUTHORIZED FOR IMMEDIATE RELEASE

The U.S. Money Reserve Vault Facility today announces the final release of U.S. Gov't Issued Gold Coins previously held in The West Point Depository/U.S. Mint. For a limited time, U.S. citizens will have the opportunity to purchase these \$5 Gov't Issued Gold Coins for the incredible "at-cost" price of only \$201.19 per coin. An amazing price because these U.S. Gov't Issued Gold Coins are completely free of dealer markup. That's correct, our cost. This may be your final opportunity to buy U.S. Gov't Issued Gold Coins "at-cost." The Gold market, which recently skyrocketed past \$1,900/oz., is predicted by experts to have the explosive upside potential of reaching up to \$5,000/oz. in the future. Please be advised: our U.S. Gov't Gold inventory will be priced at \$201.19 per coin for 30 days only. These coins may sell-out. Call Today! The U.S. Money Reserve will release these U.S. Gov't Issued Gold Coins "at-cost" on a first-come, first-serve basis. Orders that are not immediately received or reserved with the order center could be subject to cancellation and your checks returned uncashed. Good luck. We hope that everyone will have a chance to purchase this special U.S. Gov't Issued Gold "at-cost." Order immediately before our vault sells out completely! Special arrangements can be made for Gold purchases over \$50,000.



U.S. Gov't Issued American Eagle Gold Coins

Coins enlarged to show detail.

## AUTHORIZED BY CONGRESS: PUBLIC LAW 99-185



By Executive Order of Congress Public Law 99-185, Americans can now buy new Government Issued Gold. Congressionally authorized United States Gold Coins provide American citizens with a way to add physical Gold to their portfolios. Gold American Eagles are made from solid Gold mined here in America, minted at the U.S. Mint at West Point, and produced with a U.S. Dollar denomination... making them Legal Tender United States Gold Coins. They are highly liquid, easily transportable, and, unlike paper assets, American Gold Eagles have a tangible

value you can feel each time you hold your own Gold. Though no one, including the U.S. Money Reserve, can guarantee a Gold Coin's future value will go up or down, numerous experts are predicting Gold to reach \$5,000/oz. Now is the time to consider converting part of your paper assets into Gold. The U.S. Money Reserve has a limited supply and urges you to make your vault reservations immediately. Call a Sr. Gold Specialist at 1-877-730-0321 to start your Gold collection and begin protecting your wealth today. If you've been waiting to move your money into Gold, the time is now.



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# How Low Can You Go?

Setting your thermostat back in the winter can save energy and money, but the key is finding the temperature at which you and your family are comfortable. And, selecting the proper temperatures throughout the day and night can be a bit confusing. You want to balance comfort with energy—and dollar—savings. It is surprising how comfortable you can be at a lower indoor temperature once you become accustomed to it. Thereafter, you find yourself uncomfortable at higher indoor temperatures that used to seem normal.

It actually does save energy overall if you lower the temperature setting on your central furnace or heat pump thermostat. The actual amount of dollar savings depend primarily upon how low you set the thermostat, how long you have it set back, and, to a lesser degree, your climate.

There are also other advantages to lowering the thermostat setting during winter. If your house temperature is lower, it requires less moisture indoors to keep the air at a given relative humidity level. The fact that your furnace or heat pump runs less at a lower indoor temperature means the equipment will last longer and need fewer repairs.

If you look at setback savings charts, don't be confused by the fact that the percentage savings are actually higher in milder climates than in colder climates. This is because the total amount of energy used to keep a house comfortably warm in a cold climate is much greater than in warm climates. This makes the base number larger in cold climates, so the percentage savings are less even though

the dollar savings are greater.

It is a common myth that it takes as much energy to reheat a house, in the morning for example, as was saved during the temperature setback period overnight. The amount of heat a house loses through its walls, ceilings and floors is directly proportional to the difference between the indoor and the outdoor temperatures. Air leakage into and out of your house also increases with larger temperature differences.

When the indoor temperature is set lower, the indoor-to-outdoor temperature difference is smaller, so less heat is lost from your house. During the summer, the same is true in reverse. If less heat is lost from your house, your furnace has to use less gas, oil or electricity to create the heat to replace it. The amount of heat used to reheat the house, therefore, is less than the amount saved over the temperature setback period.

The only time a temperature setback may not be wise is if you have a heat pump with backup electric resistance heat and an old thermostat. When it is time to reheat the house and you set the thermostat higher again, the expensive backup electric resistance heater may come on. For a long eight-hour setback, you will probably still save overall, but not for just a short setback of a couple of hours.

If you have a heat pump, install a special setback thermostat, designed for heat pumps. These thermostats have electronic circuitry to keep the backup resistance heating elements off after the setback period. My own heat pump thermostat works this way, and

it also allows me to block out the resistance heating when the outdoor temperature is above a certain temperature. I have mine set at 20 degrees.

There is not a “best” thermostat setting for all homes and climates. The lower you set it, the greater the overall savings will be. The amount of savings per degree for each nighttime eight-hour setback period ranges from 1 percent to 3 percent. Because many people are also gone during the daytime, the temperature can be set lower for about 16 hours per day. Unless there are some health problems in your family, 62 degrees is comfortable if you are wearing long sleeves or a sweater.

In moderate climates, let your comfort dictate how low you initially set the furnace or heat pump thermostat. As you get used to the lower temperatures and wear a sweater, you will be able to gradually lower it more. In colder climates, excessive window condensation often limits how low the indoor temperature can be set. In order to set the temperature lower, you will have to reduce the indoor humidity level.

Send inquiries to James Dulley, Michigan Country Lines, 6906 Royalgreen Dr., Cincinnati, OH 45244 or visit [dulley.com](http://dulley.com).

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



# Giving Efficiency

By Kelly Trapnell

**W**ith the holiday rush starting earlier and earlier every year, get a jump-start on your shopping wish list with some great “green” gifts. Using the tips below, you can have everything wrapped up before the ho, ho, ho turns into go, go, go!

## Why give efficiency?

Green giving is thoughtful on many levels. The person receiving the gift has a new gadget to use that keeps long-term electric costs low year-round.

“Choosing a green gift can be easy,” says Brian Sloboda, senior program manager for the Cooperative Research Network (CRN). “Be aware of energy use. Look for any mention of energy ratings on large appliances and TVs, or select “unplugged” gifts—think solar, reusable and recyclable. Even something as small as the packaging and wrapping can make a difference.”

Look for items with lightweight packaging. And, think about wrapping your gift in something like a fabric bag that can be reused, or even accessories such as a scarf, fabric belt or hair ribbons to tie things up.

## Green Gift Ideas

**For Decorators:** *LED Christmas lights* (\$15–\$35) These energy-efficient lights are becoming easier to find and afford. They save on high holiday electric bills and stay cool to the touch. For a festive, complete package, wrap them in a decorative stocking.

**For Gardeners:** *Solar garden lights* (\$15–\$50) Available in endless colors, styles and sizes, solar garden lights can be a lovely addition to your favorite green thumb’s garden. To up the green quotient, wrap in a burlap bag.

**For Cooks:** *Toaster oven* (\$60–\$140)

Especially great for the empty nester or those only cooking for one or two, toaster ovens are a good choice to save energy as an alternative to heating a large standard oven.

**For Movie Buffs or Sports Fans:**

*ENERGY STAR-rated TV* (price based on size) Televisions are getting bigger and better. But before you give something that uses as much electricity as a refrigerator, look for the ENERGY STAR® label. It will offer the smallest impact on your electric bills possible.

**For Techies:** *Smart strip* (\$20–\$40)

This new cutting-edge technology is great for plugging in electronic gadgets. Not your average power strip, smart strips sport designated outlets that make it easy to power down certain devices to save energy while not affecting others plugged into the same strip.

*Solar cell phone charger* (\$55–\$100+) Help unplug energy-sucking chargers from the wall; solar chargers can be placed in a window to charge a cell phone or other devices such as a GPS unit or even MP3 players anywhere the sun shines, even in a car on-the-go!

There are many options when you start looking for green gifts. Get creative (see “Make Your Own Holiday Centerpiece,” p. 14), and remember that what you give impacts future electric bills, so give the green light for energy-smart gifts this year!

---

*Kelly Trapnell writes on safety and energy efficiency issues for the National Rural Electric Cooperative Association.*



Give an energy-smart gift like LED Christmas lights this year.



Another energy-smart gift is a toaster oven (set inside an oven for comparison), since it requires less energy to heat than a standard oven.



Think “green” by wrapping gifts with reusable or recyclable wrap, such as a newspaper sports page and twine.

# Use LED Lights to Save Energy On Holiday Lighting

For many of us, Christmas light displays are as much a part of the holiday “tradition” as exchanging gifts and singing “Silent Night.” We go to great lengths to adorn our trees, mantels and rooflines with colorful lights that help define the spirit of the season. However, in lighting our way through the season, we are also using extra energy that can make for a surprise “gift” on that January electric bill.

One of the best ways to save energy without dimming holiday cheer is switching to light-emitting diode (LED) holiday lights. LEDs emit a bright, vibrant light and use significantly less energy than conventional lights. They are also longer-lasting and stay cooler than traditional bulbs because they don't have a filament. The brilliance of their color makes LED lights suitable for both indoor and outdoor use.

The primary disadvantage of LED lights is the up-front cost. Decorative LEDs still cost

significantly more than traditional lighting, depending on the vendor. But over time, the higher investment pays off through the longer life of the bulbs and the reduced energy usage.

Using our Kill-A-Watt® meter energy monitoring device, we evaluated a 50-bulb strand of traditional mini lights (20.4 watts) and a 50-bulb strand of LED mini lights (2.4 watts). Operating one strand of traditional lights for 180 hours over the holiday season (six hours a day for 30 days) would add about 40 cents to your bill, while operating the LED strand for the same amount of time would add less than 9 cents to your bill.

For outdoor decorating, many of us use C7 size strands of bulbs. One strand of 25 traditional C7 lights (125 watts) costs about \$2.48 for 180 hours, while a strand of LED C7 lights (2.4 watts) costs less than 5 cents



for the same amount of time.

Keep in mind that these numbers represent just one strand of lights. While most of us don't go to the extent of the Griswold family in the popular “Christmas Vacation” movie, it is very common to use numerous strands of lights in decorating schemes. Not to mention the popular inflatables and other electronic displays.

Everything you plug in will add to your usage and impact your bill, but you can manage that by paying attention to the wattage and making more energy efficient choices.



## Stay Clear!

*A downed power line may not be a dead line. It could cause serious injury or death.*

**Follow these tips from your electric cooperative to stay safe:**

- ▶ **Assume all power lines are energized and dangerous.** Even lines that are de-energized could become energized at any time.
- ▶ **Never touch a downed power line!** And never touch a person or object that is touching a power line.
- ▶ **If someone is injured as a result of contact with electric current, do not try to assist him or her.** You could be injured or killed. Call 911.
- ▶ **If a power line falls across your vehicle while you are in it, stay inside until help arrives.**
- ▶ **Call 9-1-1 immediately to report a downed power line.** Then call your electric cooperative.



# The Proof is in the Pudding

Refrigerator standards have saved consumers billions.

What's your favorite late night snack—that go-to treat that melts away the day's troubles as you curl up in front of the TV? Maybe it's a creamy bowl of Rocky Road or delicious, spicy Szechuan chicken left from a take-out feast. Refrigerator finds like these may make you feel guilty, but at least you don't have to feel bad about how high your energy bill will be to cure your cravings. That's because of new technologies and meaningful energy conservation standards put in place by the Building Technologies Program of the U.S. Department of Energy (DOE).

In recent decades, the DOE has led technological innovation that vastly improved the energy efficiency of refrigerators, freezers and thousands of other household appliances. As a result, it's a lot easier on your pocket and the environment to keep ice cream at frosty perfection. In fact, today's refrigerators use only about 25 percent of the energy required to power models built in 1975. Even while continually improving to meet efficiency standards, refrigerator size has increased by about 20 percent, added energy-using features such as through-the-door ice, and

provide more benefits than ever.

The dramatic rise in efficiency began in response to the 1970s oil and energy crises, when refrigerators cost about \$1,300—a hefty price for an energy waster. Refrigeration labels and standards have improved efficiency by 2 percent every year since 1975. Due to research, useful tools, partnerships with utilities and other organizations, and market initiatives that helped enable appliance standards, the DOE helped avoid construction of up to 31 power plants (1 gigawatt size) with the energy saved since the first federal standards in 1987. That's the same amount of electricity used annually in Spain.

Manufacturers have responded with new innovations and products to meet, and often exceed, the new requirements. Refrigerators performing above and beyond the minimum standards qualified for the Energy Star® label, motivated consumers to save energy, and primed the market for continued efficiency improvements.

These progressive energy-efficiency standards translate into big savings for consumers. Today's refrigerators save the nation about \$20 billion per year in energy costs, or \$150



Photo - iStockphoto.com

per year for the average American family.

The next proposed increase in refrigerator and freezer efficiency (2014) will save almost 4.5 quadrillion Btus over 30 years. That's three times more than the total energy currently used by all refrigeration products in U.S. homes annually. It also equals energy savings that could be used to power one-third of Africa for an entire year.

The DOE continues to invest in future innovations for energy efficient products. So, go ahead and indulge with those late night treats. Your fridge has you covered.

*Roland Risser directs the DOE Building Technologies Program. For more on how appliance standards save you money, see [eere.energy.gov/buildings](http://eere.energy.gov/buildings).*

# Leave the Pole Alone

Placing a sign on a utility pole could endanger a life.

What do yard sale signs, basketball hoops, deer stands, satellite dishes and birdhouses have in common? They're often found illegally attached to utility poles. But this isn't only a crime of inconvenience. Safety issues caused by unapproved pole attachments place the lives of lineworkers and the public in peril.

It may seem innocent, but a small nail partially driven into a pole can have deadly results around high-voltage electricity.

Your local electric co-op line crews climb utility poles at all hours of the day and night, in the worst of conditions. Anything attached to utility poles can create serious hazards for our line personnel. Sharp objects like nails, tacks, staples or barbed wire can puncture rubber gloves and other safety equipment,

making lineworkers vulnerable to electrocution.

Lineworkers with electric co-ops have reported poles used as community bulletin boards, satellite mounts, and even support legs for deer stands, lights and carports. Not only do these attachments put line crews at risk, anyone illegally placing these items on poles comes dangerously close to energized power lines with thousands of volts of energy pulsing overhead. It's always wise to keep any structure at least 10 feet away from utility poles.

Unauthorized pole attachments violate the *National Electrical Safety Code*, the accepted manual containing guidelines for safe electrical engineering standards. Utilities strictly



Photo - iStockphoto.com

follow this code, which includes a section that reads, "Signs, posters, notices, and other attachments shall not

be placed on supporting structures without concurrence of the owner (the utility is the owner of the pole). Supporting structures should be kept free from other climbing hazards such as tacks, nails, vines, and through bolts not properly trimmed."

Please help us keep our lineworkers—and our community—safe. Don't attach any of these unauthorized and dangerous items to utility poles. Fixtures not belonging to the co-op or another utility will be removed by co-op line personnel, and the co-op is not responsible for any losses if an item is damaged or destroyed during removal.

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Send your printed or typed ad and check or money order 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 [classifieds@countrylines.com](mailto:classifieds@countrylines.com).

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Call 517-351-6322, ext. 208, for more information. **No classifieds accepted by telephone.** Ads will be posted on [countrylines.com](http://countrylines.com) for no extra charge until the next issue of the magazine is published.

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## Energy Tip

When buying a new appliance, check the black and yellow EnergyGuide label.



This label provides an estimate of the product's energy consumption and efficiency. It also shows the highest and lowest energy efficiency estimates of similar models. Most major appliances—such as refrigerators, dishwashers, and clothes dryers—are required to have these labels.

Source: U.S. Department of Energy

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# Silent Sentinels



Electric co-op poles remain the key to safe, reliable, affordable power.

**T**he path of power to your home is guarded by silent sentinels—utility poles—that are under constant attack by Mother Nature and, sometimes, by people.

“About 38,832 miles of line, supported by utility poles, keeps power flowing across Michigan,” explains Joe McElroy, loss control specialist and safety consultant for the Michigan Electric Cooperative Association.

Nationwide, electric co-ops own and maintain 2.5 million miles of line stretching across three-quarters of the U.S. landmass. Some lines are buried, but over 2 million miles of line are above ground. Since there are generally 18 wood poles for every mile of distribution line, electric co-ops rely on more than 37 million poles to safely and reliably deliver affordable power to your home.

## Pole Patterns

Utility poles take several forms: concrete, steel, ductile iron, composite fiberglass, and—overwhelmingly—wood. Why do utilities prefer treated timber?

Tried-and-true wood poles are more affordable—steel and composite fiberglass poles often cost at least twice as much, although these alternatives claim a longer lifespan (most have not been in service long enough to verify the claims). Combined with a proven service life that can span several decades, treated wood poles provide the most affordable choice for most electric co-ops.

“Generally, utilities turn to alternative poles when nothing else will work,” explains McElroy. “If you’ve got a woodpecker problem, wood simply won’t cut it. Utilities in storm-saturated parts of the country may

turn to underground lines, but more often than not these utilities opt to ‘harden’ their lines by installing larger wood poles and shortening the span between poles to help the system weather storms more successfully.”

For utilities battling copper crime, ductile iron poles offer an interesting option—they eliminate the need for copper grounding wires running up the side of a pole. But these poles aren’t as easy to climb in a pinch, and could pose a problem if not easily accessible by bucket truck.

“Co-ops expect poles are going to last at least 40 years in the field, barring unpreventable storm damage and other accidents,” stresses Jim Carter, executive vice president of Wood Quality Control, Inc. (WQC), a subsidiary of the National Rural Electric Cooperative Association. Carter estimates

that co-ops are responsible for between one-quarter and one-third of the nation’s annual wood pole production.

Each year, electric co-ops spend roughly \$300 million to purchase close to 1 million wood poles and 2 million crossarms—amounting to a whopping 20 percent to 33 percent of a co-op’s annual materials budget. Created in 1982, WQC works closely with manufacturers and co-ops to monitor pole construction conditions and make sure co-ops invest in high-quality poles that meet strict federal Rural Utilities Service (RUS) standards.

## Double Duty

Not only do poles support the nation’s power system; telecommunication companies often rent space on poles to attach



Photo Courtesy - National Archives



Photo - Wendy Malaska

**Left:** Raising utility poles before 1935 was a primitive task, but soon the Rural Electrification Administration developed assembly line methods and standardized electrical hardware that lowered costs and made rural electrification more feasible. **Right:** A co-op line crew shows how power equipment is used today to help set utility poles.

telephone and cable wires.

Each pole, averaging a height of 40 feet, breaks down into three zones. The supply space, which shuttles electricity from generation plants and substations to homes and businesses, can be found at the top of every pole. In most cases, a crossarm—a beam fixed horizontally across the top—divides the supply space from the middle ‘neutral’ space, called a safe zone. The safe zone forms a barrier between lines carrying high-voltage electricity and the area rented to other utilities, known as the communications space.

### Hazardous Mission

Affordable wood poles stand the test of time—each pole’s lifespan ranges from 30 to 50 years, and in the right conditions can last much longer. To lengthen a pole’s life, wood is pressure-treated with preservatives. But no matter how strong a pole may be, both nature and people threaten a pole’s ability to serve.

Wood poles battle a wide array of adversaries: acidic soil in the Midwest, heavy moisture in the South, and woodpeckers in the Mid-Atlantic. Utilities generally inspect poles on a 10- to 12-year cycle to identify potential problems.

Poles age differently depending on region, so RUS divided the nation into five decay zones. Poles in Zone 1—Idaho, Montana, Wyoming, Utah, Nevada, Colorado, Arizona, New Mexico, and portions of Alaska, Nebraska, South Dakota, Kansas, Oklahoma, and Texas—face the lowest risk of decay, while Zone 5 poles in Louisiana, Florida, Hawaii, and the coastal regions of Alabama, Mississippi, Georgia, South Carolina and Virginia sustain the highest risk. Utilities generally replace 2 to 3 percent of aging and decaying poles every year.

Natural decay, storm damage, and bird and bug attacks aren’t the only concerns. People shorten a pole’s lifespan, too.

The National American Wood Council estimates 5 percent of poles replaced annually were broken by car accidents. Attaching signs, basketball hoops, clothes lines, birdhouses, satellite dishes, or other items to wood poles with staples or nails can also shorten a pole’s lifespan. Not only do these items create safety hazards when lineworkers need to climb a pole; even small holes speed a pole’s decay.

Strong poles deliver reliable power.

Sources: NRECA, Wood Quality Control, Inc., American Wood Protection Association, Western Wood Preservers Institute

## Why Keep Power Lines In Harm’s Way?

High winds and ice can cause tree limbs to fall on power lines and trigger outages. And while your electric co-op’s lineworkers are on-call 24/7 and respond quickly to problems, some folks ask the question: “Why keep power lines in harm’s way?”

There are two ways electricity can be delivered to a home: through overhead or underground power lines. Underground lines may seem preferable since the lines are not exposed to extreme weather, but the technology doesn’t always make sense for electric co-ops focused on affordability.

In Michigan, the cost of installing power lines underground is 50 to 60 percent higher than overhead lines, says Terry Rubenthaler, vice-president of engineering for Midwest Energy Cooperative in Cassopolis. Overhead installation costs can range from \$40,000-\$90,000 per mile of line, and from \$70,000 to \$150,000 per mile for underground lines, he says.

By comparison, in Iowa, underground lines average \$85,000 to \$100,000 per mile, while overhead line construction runs about \$60,000 per mile. In Georgia, in mountainous or rocky areas, where lineworkers sometimes use dynamite to install utility poles, the price tag may be even higher.



Photos - iStockphoto.com

Most underground lines nationally are found in subdivisions where developers pay for the option for aesthetic reasons or to comply with local statutes. A high concentration of homes in these areas helps spread out the expense. According to Hi-Line Engineering, a Georgia-based utility consulting firm, nine out of 10 new subdivisions are served by underground cable.

But the bulk of co-op energy (including that provided to subdivisions) continues to be delivered through overhead lines—only 16 percent of the 2.5 million miles of distribution lines owned by electric co-ops nationwide are found underground (although the amount grows by about 1 percent annually). Co-ops are nonprofit, selecting methods that keep electricity affordable and reliable for consumers.

There are pros and cons to both forms of power distribution. Underground facilities are more reliable during storms and generally require less right-of-way maintenance because there are no trees, brush and other vegetation to clear away.

However, faults in underground power lines are not easy to track and fix. A North Carolina study found that outage restoration times averaged 92 minutes for overhead versus 145 minutes for underground lines. In 2005, Hi-Line Engineering compared the larger cost of underground lines against their benefits in Virginia, and found that underground savings did not outweigh the heavy installation cost. In Michigan, Rubenthaler says underground outage restoration can take significantly longer—four to five times, but there are not as many outages, either.

“If a tree falls on a line, you can normally drive down the line, see the problem, and get to work restoring power,” adds Rubenthaler. The same holds for fixing broken insulators and crossarms—if you see it, you can fix it, but experts agree that underground lines are tough to troubleshoot. If you can’t find the problem with your eyes, you have to search harder—tracking it down based on where the power flow stops. Then, a line crew has to dig a hole to reach the spot before repairs can be made.

For most co-op consumers, affordable overhead lines will remain the norm, at least for now.

# Things We Wouldn't Know If We Hadn't Taken This Trip

**O**ur trip 'out West' was a relaxing adventure, even if that sounds like an oxymoron. We saw a grand spread of country, and got a sense of the spectacular beauty we had only witnessed secondhand in movies, TV, books and other people's slide shows. We were tourists in our own country.

Of course, we couldn't see everything, but we saw much that we wanted to see in what I'd call a 'drive-by' vacation. We covered 6,478 miles over 20 states in 22 days. It was the longest trip we've ever taken together. We also learned a few things about our country and ourselves.

It's easier to sleep on a long trip if you stay in the same room every night. You can do that if you bring your room with you (think RV) or camp. Or, you can plan to stay in one of several hotel chains that blanket the country. All the hotels and motels in a given chain are not identical, but they are similar, and we found that similarity breeds contentment. Still, we're puzzled by the half-size pillows at a Holiday Inn in Little Rock. Why?

All the trees and mountains in South Dakota are on the western end, which makes you wonder why the state doesn't tip up on the eastern side.

Beautiful Custer State Park, near Mt. Rushmore, is a mini Yellowstone, minus the geysers.

It's not necessary to eat your way across America. We thought we'd gain weight on this trip because we'd constantly snack

during all the sitting, but each of us lost a few pounds. Of course, food poisoning helps you lose weight, as it did in Cody, WY, where we dined on spaghetti and meatballs apparently left out too long or undercooked.

The grandest pleasure was Yosemite National Park, our goal. It is breathtaking. Watching the Tigers beat the Yankees on TV in a lounge in Yosemite, with the granite cliffs looming outside the window wall, was a special moment.

The eastern pass to Yosemite was closed because of snow when we intended to drive it; we found that out at the California Agricultural Border Station, where personnel confiscated our grown-in-California-but-sold-in Michigan blueberries. We had to backtrack and then take an open road around the Park to the western entrance, an extra 200 miles. But it was a beautiful drive, with the mountains covered in fresh snow.

There is another valley like Yosemite buried under water just a few miles away. It supplies water to 4.2 million people in and around San Francisco. It makes me sad to think about it. No wonder John Muir, the champion of Yosemite and the national park system, is said to have died of a broken heart after he lost the fight to save the Hetch Hetchy Valley.

You can't find baseball on the radio like you used to. Trying to pick up the Tigers' pennant-chase games in the middle of New Mexico was impossible. Even satellite

radio didn't carry all the games. We had to call our sons for updates. Ernie Harwell would be sad.

It is true that electric cooperatives serve the prettiest country in America, and some of the loneliest.

There are gas traps on our highways. High-priced gas stations prey on travelers who don't know there is a normal gas station, where gas costs almost a dollar less, a few miles down the road.

There's another Michigan scattered around the country. If you gathered all the people who have left, you could duplicate the state. You can spot them by their Michigan sports team logo clothing.

If you find yourself without the clothes you need when the temperature changes, you can find cheap, suitable clothes at a Goodwill store. We were reminded by a couple from California who found themselves freezing when the temperatures in Yosemite National Park dove into the 30s.

Except for a few patches, the roads get a '10' from us. It's amazing how fast you can travel around this vast country, even if trucks seem to outnumber cars in some places.

Truckers decorate their big rigs and have secret competitions in the middle of nowhere to determine who has the prettiest trucks. You see them going down the highway at night, lit up like a county fair.

Yellowstone is big and grand, but it doesn't have anything over Michigan, which could be a national park all by itself.

iPhone apps are invaluable for traveling, especially for finding good food, cheap gas, and a place to sleep.

Cell phones and Facebook make it easier to stay in touch, but tougher to get away.

The most unexpected pleasure was the simple ham sandwich, homemade lentil soup and coffee at the tiny Say When Casino/Cafe in McDermitt on otherwise empty U.S. 95 on the Nevada/Oregon border. We were starving, which made the food even better.

Was the trip worthwhile? Yes, especially so because of the many tips we got from readers who had done it before. I would do it again tomorrow. But there are other places to visit first, and places we saw on this trip that deserve a longer look.



Barb and Mike Buda.  
"I took a picture that looks like one of Ansel Adams', but honestly, Yosemite's beauty can come out of anyone's camera."

*Mike Buda is editor emeritus of Country Lines. Email him at [mbuda@countrylines.com](mailto:mbuda@countrylines.com) or comment on his columns at [countrylines.com/column/ramblings](http://countrylines.com/column/ramblings).*



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