

# HEARTBEAT

## QUARTERLY NEWSLETTER



Issue #72

Summer 2019

### Understand your electric bill

A guide to some of the terms on your electric bill, and a review of the convenient ways to make a payment on your account.

See page 3

### Key steps as you consider solar

Solar power is more affordable than ever. Here is what you need to know as you consider buying solar panels for your home.

See page 4

### Capital credits

A review of how capital credits work and a listing of people whose credits went unretired last year due to an old address on file.

See page 5

### Its the time of year to be extra safe

As summer winds down and schedules change, its time to make sure that everyone working on the farm and students of all ages know what they need to know in order to stay safe.

See page 7

## Storm work



Heartland's Lewis Merrell and Brian Combs work through the rain as they deal with a broken pole southwest of Pittsburg along Highway 400 after a storm earlier this summer.

## We want to know how to serve you

Fall is quickly becoming my favorite time of year. Harvest is in full swing, hunting season is right around the corner, and the local communities gather to cheer on their local high school sports teams.

October also marks the start of National Co-op Month, where we have the opportunity to celebrate who we are and more importantly, the members we serve. Your electric cooperative exists to provide safe, reliable, and affordable energy to you, the members of the cooperative. As a co-op, we are well suited to meet the needs of the community because we are locally governed.

Heartland's leadership team and employees live right here in the community. Heartland's board members, who help set long-term priorities for the co-op, live locally on co-op lines. These board members have been elected to the position by neighbors like you.

We know that our consumer-members have a valuable perspective, and that is why we

### KEEPING YOU INFORMED



**MARK SCHEIBE**  
**HEARTLAND CEO**

See INFORMED, page 2

# Trump administration offers rule to manage power plant carbon

The Trump administration recently issued a rule to reduce power plant carbon emissions. Known as the Affordable Clean Energy (ACE) rule, the new regulation will require power plants to work with state regulators to assess steps that can be taken to cut emissions through energy efficiency improvements.

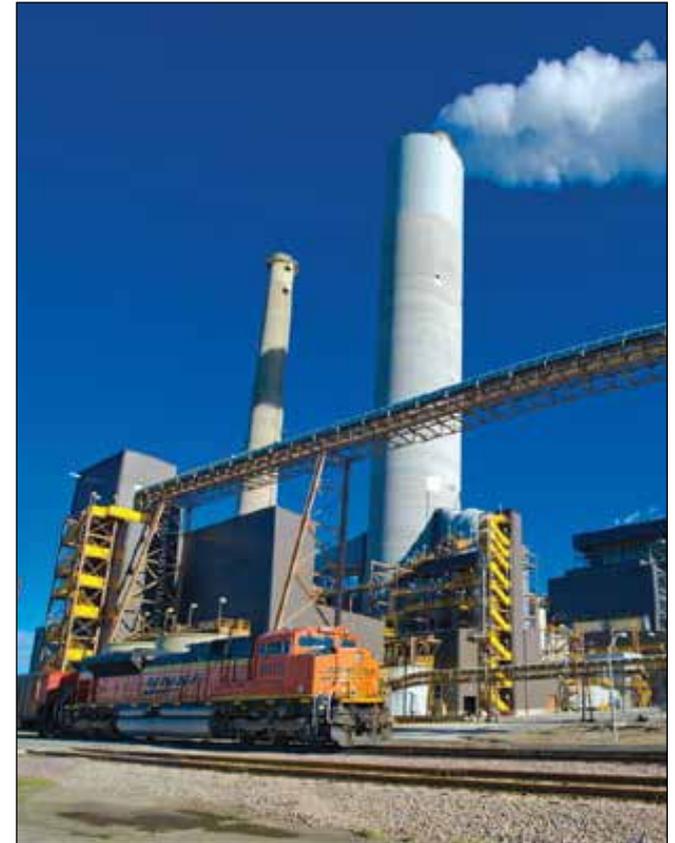
America's electric cooperatives welcomed the new rule, noting that it is far preferable to an earlier and far costlier attempt to regulate carbon emissions that ultimately was put on hold by the Supreme Court.

"The ACE rule represents a more flexible path forward that will minimize the cost to consumers and preserve the reliability of the electric grid as electric co-ops work to promote a healthy environment and vibrant rural communities," said Jim Matheson, CEO of the National Rural Electric Cooperative Association.

"Electric cooperatives have invested billions of dollars in diverse energy sources and emission-reduction technology to meet the electricity needs of

their local communities while protecting the environment," Matheson said. "The ACE rule gives electric cooperatives the ability to adopt evolving technology and respond to market and consumer demands while continuing to serve as engines of economic development for one in eight Americans."

Matheson stressed that the ACE rule will allow electric co-ops to ensure that affordable and reliable power remains available. Power plant emissions have steadily declined due to market forces and evolving consumer expectations. Nearly 60 percent of the electricity supplied by electric co-ops comes from low- or no-emission energy sources. Electric cooperatives have reduced carbon emissions 9 percent since 2009, even while increasing electric generation by more than 12 million megawatt-hours. And co-ops are investing in research to develop proven carbon capture, storage and reuse technologies that can extend the operation of coal-fueled power plants.



## INFORMED: From page 1

continually seek your input. One of the ways Heartland will do that this fall is by conducting a member survey. Some of Heartland's members will be randomly selected to participate in it throughout the 12 counties we serve. The goal is to help provide your co-op with information to know how well we are doing at providing reliable electricity and superior customer service at reasonable rates.

The survey this year will be conducted by US mail or email only, which is a change from previous years when we relied only on phone calls. The surveys will be clearly marked so you know it is something that was sent on behalf of the co-op and that it is ok to fill

out and return. We hope this small change is well received as we continue to find ways to understand your unique needs.

Please know that every survey is important to us and we welcome your honest opinion. Heartland understands that the areas we serve have different

needs from North to South, and East to West. Special attention is being made to ensure that we have a representative group of consumer-members from all parts of Heartland's service area participating, not just a few.

Once the survey is completed, we will take the results

and determine ways to create programs or address issues that will help provide benefit to the larger Heartland community. We hope you will think of us as more than your energy provider, but instead as a local business that supports our communities and provides value to

the consumer-members.

We look forward to continuing to learn from our members about their priorities so that we can better serve you, because your electric co-op was built by the community, for the community.

## Convenient access to your Heartland account

smarthub

Manage your Heartland account from your computer or mobile device with SmartHub

By using our new online portal, you will be able to:

- Pay your bill
- Check your usage
- Report a power outage
- Receive news from the co-op
- Manage your account
- Subscribe to text & e-mail notifications

For more information visit [heartland-rec.com](http://heartland-rec.com) or download the free app today!

[www.smarthubapp.com](http://www.smarthubapp.com)



Download today and manage your account anywhere!



# Find the best way to pay your bill

Turning on the lights... enjoying the cool AC... watching television... Using electricity is the fun part.

Paying the bill, well, for most of us, that is not the fun part.

But Heartland has a variety of payment options and billing programs that can help take some of the pain out of utility bills. Here's a list of payment methods, with tips that can help you pick what's right for you.

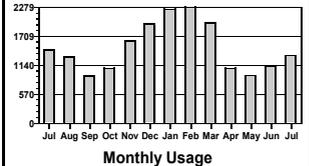
■ **Automatic Bank Draft** – This is the easiest method of payment! With the Advantage Payment Plan your payment is drafted from your bank account or paid with your credit card on the due date. It's all done automatically. You may continue to receive a monthly statement and your payment is always on time. Call 1(800) 835-9586 to sign up, or enroll through SmartHub on our website.

■ **Online through our SmartHub** – SmartHub is Heartland's online account portal. By using your home computer you can access all your account information. That not only lets you pay your bill quickly, but also lets you look at monthly, daily and even hourly usage data. This can help you see when you were using power, and find opportunities to save. Access SmartHub through our website at [www.heartland-rec.com](http://www.heartland-rec.com)

■ **On your smartphone or tablet** with our SmartHub app. It's online access but with your phone instead of a computer. This makes it easy to pay your bill while you're away from home. Using the app on your phone also lets you receive alerts when bills are due, and even report outages with your phone.

■ **By Phone 24/7** using our automated system at 1(888) 999-5517. Our automated phone system lets you quickly pay your amount due whenever you're ready. You can maintain control of your banking information, or save it with your account.

■ **Mail** - Please allow 5-7 days

000238801		 110 N. Enterprise Drive PO Box 40 Girard, KS 66743 620-724-8251 800-835-9586 <a href="http://www.heartland-rec.com">www.heartland-rec.com</a>		<b>Billing Summary</b> Balance From Last Billing 176.00 Payment Received 07/15/2019 -176.00 Balance Into Billing 0.00 Current Charges 198.00 <b>Amount Due By 08/15/2019 198.00</b>	
HEARTLAND MEMBER 110 N. ENTERPRISE DR. GIRARD KS 66743-2109				 <p>Page 1 of 1</p>	
<b>Service Details</b>		<b>Account Number: 012345</b>		<b>Statement Date: 08/01/2019</b>	
<b>Location G1-1-1</b>		<b>Service Description</b>		<b>RC 021</b>	
<b>Meter Reading Details</b>		<b>Meter 0123456</b>		<b>Detail of Charges</b>	
Current Reading	07/31/2019	6541		Energy Charge	145.32
Previous Reading	06/30/2019	5215		Service Availability Charge	34.00
Total Usage		1326		Power Cost Adjustment @ \$0.011909	15.79
Days Served	31			Operation Round Up	0.94
				Crawford County Tax	1.95
				<b>Total This Service</b>	<b>198.00</b>
<b>Messages</b> Auto Bank Draft - Your account will be debited this amount around the Due Date. Take the hassle out of paying your bill. Sign up to have your bill paid automatically each month. We even have options to level out the seasonal highs and lows to make it easier on your budget. Call our office today!					
		Please Return This Stub With Your Payment Please Do Not Staple, Paperclip, Or Tape Cycle: 01		<b>Account Number:</b> 012345 <b>Statement Date:</b> 08/01/2019 <b>Amount Due:</b> 198.00 <b>Due Date:</b> 08/15/2019 <b>Bank Draft - Do Not Pay</b>	
HEARTLAND MEMBER 110 ENTERPRISE DR. GIRARD KS 66743-2109 Home (620) 724-0000		Business ( ) - Cell (620) 724-0000		HEARTLAND REC PO Box 40 Girard KS 66743-0040	
Please make sure the phone numbers listed above are accurate. Mark any corrections directly on this stub or call (800)835-9586. This information simplifies the process to report an outage.					

**Heartland's monthly electric bill has a wide variety of information for consumer-members. Most people look first at the "Amount Due" which is of course most important. But the Detail of Charges includes information about taxes and other charges that can be important. Phone numbers at the bottom of the should be checked to see if they need to be updated.**

for payment to be received in the mail. Return envelopes are provided in each electric bill, but you need to buy your own stamps.

■ **After Hours Drop Boxes** - available at each of our three locations, which include our main office in Girard, and our offices in Mound City and Gas.

■ **In person** - Payments can be made in person at any of our offices during office hours. Heartland's offices open at 8 a.m. and close at 4:30 p.m. Monday through Friday. Our offices in Gas and Mound City have limited staff, so they are closed for lunch, and intermittently as needed.

# Understanding your Heartland bill

When you receive your electric bill in the mail and glance over it, there may be some terms there that you don't see every day. Here's a quick guide to those terms and what they mean to you as a consumer-member of Heartland.

■ **Energy Charge** - the electric rate times your electric usage for the month. The electric rate includes most of the cost of wholesale power used by each member along with the costs associated with providing that electricity to each member.

■ **Service Availability** - The fixed costs associated with making electric service available to each meter. It reflects all the costs of making electric service available to each location but does not include any of the costs associated with the usage of electricity.

■ **Power Cost Adjustment (PCA)** - The additional cost of power that is not included in the energy charge. The PCA varies monthly as it tracks the changes in the cost of wholesale power purchased by Heartland.

■ **Demand Charge** - A charge based on the highest power use during a peak period of time. Commonly used on commercial accounts and other special rates.

## PAST DUE ACCOUNTS

Bills are considered past due if payment is not received by the close of business on the due date shown on your bill. Past Due bills will incur a 5 percent penalty. Service will be subject for disconnection 10 days after the account becomes past due. Pay arrangements can be made by calling our office at 1(800) 835-9586.

## OPERATION ROUND-UP

Operation Round Up supports programs and organizations that promote the health and well-being of Southeast Kansas residents. Heartland members donate to the program by "rounding up" electric bills to the next dollar, with each member giving about \$6 each year. A panel of volunteer trustees from across Heartland's service area awards grants to non-profit charitable organizations that provide food, clothing, shelter, medical care, education, and otherwise serve those in need.

## Solar power continues to grow as an investment in affordable energy

Low prices on solar panels are making self-generation look very attractive to everyone, including members of Heartland Rural Electric.

Investing in a solar array requires good communication between you, your installer, and Heartland.

Knowing how Heartland's electric rates and net metering policy work is important. You also need to know how and when you use electricity. Heartland is glad to help guide you and provide that information, or even help access it through the online SmartHub member portal.

This will help with achieving everyone's common goal: reliable and affordable electricity, and a solar array that is properly sized to meet your needs.

As you consider the size of a residential solar array, it's important to look at monthly, daily and even hourly electric use. You want to know how much power you use in the middle of the day so that the output of your solar panels will closely match that.

Heartland's current net metering policy "banks" excess generation for later use, but has a monthly sweep, so any "banked" power is lost at the end of the billing cycle. When deciding how big a wind or solar system to install, it's important to compare the system's expected power generation to your home's power use.

In this part of Kansas, a 9 kilowatt solar array will generate about 13,000 kilowatt-hours each year, on average. That includes high months of June and July at more than 1,300 kilowatt-hours to low months of December and January when output will be about 800 kilowatt-hours.

Solar (and wind) systems will have high months and low months and predicting those will be important to a successful installation. The PVWatts Calculator at the National Renewable Energy Laboratory website can help you find out how much power a PV solar array will generate at your location.

The next step is to contact companies that install solar arrays and solicit bids. These installers can help you determine the optimum size solar array to install, and help you determine if it should be mounted on the roof or on the ground.

Once you have selected an installer and a recommended array size, you and your installer need to contact Heartland and complete paperwork that lays out the details of your planned installation. That paperwork is a simple application form and \$100 fee for systems 10 kilowatts or smaller. All wind and solar systems interconnected with the power grid must have safety measures in place to make sure power is not put back on the grid during a power outage. An accessible manual disconnect switch must also be included so that Heartland crews can disconnect the system when working in the area.

Systems larger than 10 kilowatts have a more complicated approval process due to concerns about the produced power on the cooperative's infrastructure. For very large systems, members will be required to cover the costs of an analysis conducted by an independent engineer.

Regardless of the size of your solar installation, it is crucial that Heartland review and approve your plan before you sign with your installer or begin work.

Once Heartland approves your application, your installer can begin assembling and putting up your solar array.

But there is one more step before you can let that green energy flow. Any wind or solar systems installed by Heartland members must be inspected by our staff before they can be interconnected to the power grid. One reason this is done to ensure that systems properly disconnect during a power outage. A common misconception is that a residential solar array will continue to power a home, even during a power outage. This is rarely true. In fact,



**Heartland's Jarrett Peters reviews and inspects solar arrays installed for Heartland members.**

conventionally installed solar arrays are designed to shut off during an outage. This ensures that power is not pushed back onto the electric system where it could injure or kill a lineworker.

Once Heartland's inspector gives final approval, your solar array is good to go!

Heartland has more than 40 members with solar arrays of varying sizes connected to our system.

## Heartland has paid members nearly \$20 million in capital credits

The difference between a cooperative such as Heartland REC and an investor-owned utility is that a cooperative is owned by the member-customers it serves. As a member-owner, you share in the profits of the co-op. Capital credits and the retirement of those credits are how Heartland returns those profits to the members.

Revenue collected from

members is called patronage. As a non-profit electric utility, Heartland needs only to cover the cost of yearly operations, and keep sufficient cash on hand for capital needs. After meeting the cooperative's financial obligations, margins are allocated to the members as capital credits.

As a co-op member, you share in the margins of Heart-

land. The longer you use the service and the more service you use, the more capital credits you accumulate. The actual cash amount (retirement) you receive is determined by the cooperative Board of Directors and is usually a percentage of your total usage amount.

If you receive service from Heartland, you are eligible to receive capital credits, as part

of your membership agreement.

Each year, the Board of Directors approves the portion of capital credits to be retired. Because all members and former members are eligible to receive capital credit retirements, it is necessary to properly budget for this expense. By retiring a portion at a time, the co-op is able to maintain financial stability while demonstrating

a key benefit of cooperative ownership to its members. Prior to retirement, the cash from the margin (profit) helps the co-op financially.

The co-op uses the money for the following:

- To maintain adequate cash flow to meet current expenses

**See CAP CREDITS, P. 5**

# Returned capital credit retirement checks available at HREC

**During the month of December, 2018, Heartland retired more than \$1,071,000 in capital credits. Capital credit checks that were returned to the co-op as “undeliverable” are listed below. If you have information on any of the following recipients, please call Heartland REC at 1-800-835-9586.**

Ian Abbott  
John Albertson  
Brad Alexander  
David Allen  
Robert Arnold  
Janet M. Bailey  
Wayne R. Baker  
Cindy Baldwin  
Curt Bales  
Cecil D. Barker  
Helen L. Barnes  
Ellen T. Batesel  
Mike Batley  
John C. Bayliss  
Chris E. Beachner  
Doloris A. Benjamin  
Pamela A. Berryman  
Alvin Boyett  
Buddy R. Bradley  
Crystal D. Bradley  
Paula Bradshaw  
Kevin P. Branin  
Leroy Breiner  
Amanda Briggs  
Carl Brillhart  
John Brimm  
James L. Brisbin  
Renee Brown  
Mike Bruner  
Tom Bryant  
Laura D. Brynds  
Sandra Burd  
Kathy D. Burgess

Harry L. Cage  
Misti Catron  
Virginia Chambers  
John R. Chesney  
W C Christian Jr  
Tracy Clayton  
Myra M. Cobbs  
Paula L. Coble  
Donald Collins  
Robert Collins  
Carl L. Cox  
Rex Crawford  
Leslie M. Cromwell  
J. C. Dame  
Michelle Deen  
George R. Defenbaugh  
Glenda R. Delzell  
Carl L. Dempsey  
Donna Dornbrack  
Harley E. Dunsworth  
Jack G. English  
Billy L. Eshelbrenner  
Jared Ewan  
Arthur D. Foote  
Wayne E. Francis  
Richard Freeman  
Walter H. Freeman  
Philip D. Friederich  
Sandy Gehlbach  
Norman Geier  
Harold F Gibbon  
Janice K.. Giger  
Jere W. Gist

Michael E. Gochenour  
Celia Good  
Tommy L. Gowing  
James D. Grayson  
Guenter Grell  
Louis W. Gresham  
Jerome E. Haen  
Alva Hagemann  
Jason Hague  
James G. Hansen  
John R. Harnett  
Annetta Harris  
Joe E. Harris  
Shanna M. Harris  
John R. Harrison  
John C. Hart  
Rebecca J. Hart  
Gary Hartman  
Larry W. Hartman  
Edna B. Hartzell  
Seri Harvey  
C. W. Hayes  
Daniel D. Hiebert  
Danny Higginbotham  
Philip J. Holtgraves  
James C Hoover  
Jennifer Horton  
Frank Hoskin  
Michael D. Huff  
Lisa Hutchens  
Jean Isaac  
Gary R. Jasinski  
John B. Jemison

Mandy Johnson  
Rodrick L Jury  
Merle Kavanaugh  
John Kearns  
Douglas A. Kennedy  
Matthew Kirkwood  
Charles Kitchell Jr  
Kathy K. Krum  
Scott M. Leatherwood  
Travis McCall  
Enve McDaniel Jr  
Lara McKenzie  
Raymond Macoubrie  
John T. Manning  
Donna S. Marsh  
Michael L. Martin  
Steven R. Mason  
J. D. Maynard  
Richard Mercer  
Russell M. Miller  
Patricia Monahan  
Gordon Moore  
Patsy Morris  
James T. Murray  
Tom Murrill  
Rob Murry  
Bill Murrow  
Debby Myers  
Jerry Natzger II  
Bernard Nagle  
Darren Newberry  
Mary O'Malley  
Barbara M. Oshel

Douglas M. Osborn  
Evelyn M. Patterson  
Randy Patton  
Michael C. Paulie  
Joean J. Payne  
Shana E. Pedrow  
Zachariah J. Pierce  
Mike Ploeger  
Billy J. Poe  
Carl Polley  
Jerry W. Prettyman  
Shannon Prickett  
Ronda K. Purdy  
Elvalena Rash  
Lanny Roedel  
Harold R. Rogers  
Judy Rosenstiel  
James R. Rourk  
Naomi R. Ruff  
Steve A. Satchell  
Darren Savage  
John S. Scott  
Daniel Shelton  
Harold E. Shue  
Nancy C. Sigg  
Jennifer Smith-Beal  
Carla R. Snow  
Ronald Simpson  
Victor E. Smith  
Vicky L. Snyder  
Edwin L. Sproul  
Lesa Stapleton  
Thelma J. Stark

Reba Stewart  
Brian L. Sutherland  
Calvin E. Swickard  
William L. Taylor  
Ronald Taylor  
Kathleen Terflinger  
Robert Terry  
Richard Thomas  
Scott Tilley  
Michelle L. Tucker  
Linda Turner  
Ocie F. Tyler  
Ira A. Uden  
Roy Vallez  
Karen J. Vanleeuwen  
George R. Wagahoff  
Krystle Walker  
Ann Walters  
Bryan Walters  
June Warstler  
Brock Wescott  
Lisa A. Westerman  
Rick Whisenhunt  
Paul Willard  
Myndi Willey  
Robert C. Williams  
David Wilson  
Richard Woodson  
Justin Wools  
Michael Young  
Teresa Varin

## CAP CREDITS: From page 4

■ To preserve enough equity in the company to meet banks' debt to equity requirements and lower the co-op cost of borrowing money

■ To reinvest millions of dollars in system improvements, new services and the capital budget

Members of the Heartland Board of

Directors want the capital credit retirement to be timely for all members.

Capital credit retirement is divided between current members and members from previous years (some of whom may no longer be on the Heartland system.) As a result, both new and long-time members are eligible to share in the benefits of capital credit retirements.

Each year since co-ops consolidated to create Heartland in 1997, the co-op has sent hundreds of thousands of dollars in capital credit retirements to its members. So far, Heartland has retired

nearly \$20 million to its members.

Each year, Heartland issues the members a statement outlining the total amount of capital credits their account has accumulated during the prior years of service. This is called an allocation statement and is sent as a courtesy so that you may be kept informed of your vested interest in the co-op.

If you are currently a member and have plans to move out of the Heartland service area, you need to make sure our office has your forwarding address. This will allow us to keep you informed,

and send you capital credit retirement checks.

Unfortunately, many members leave our service area without leaving us their forwarding address. As a result, we are unable to contact them when their retirement checks have been processed.

If you suspect you may have unclaimed capital credits with Heartland or you are making a claim on behalf of a deceased individual, you need to call our office and speak with a member service representative.

# Make time for safety this harvest season

As summer comes to an end, farmers begin to look toward harvest season and long hours, which can make it difficult to stay alert and on the lookout for potential hazards. It's crucial that you take the time to stay safe, especially when working near powerlines.

Be prepared for potential emergencies before the rush of harvest season begins. Be sure that you can see well in work areas. Consider adding extra lighting around grain bins and augers.

Take the time to look up and look out for electrical lines. Always be aware of where they are in relation to your equipment. Keep a minimum of 10 feet away from all electrical equipment, and lower extensions before moving equipment. If you see a power line that is sagging or low, contact your utility. Also keep an eye out for guy wires. While these wires are not energized, they can bring down live lines.

In equipment with auto-guidance systems, less focus is needed on steering, which may lead some drivers to think that they do not need to be as aware of navigation issues. Yet, even while using a GPS with auto-steering, farm workers need to keep safety in mind and stay focused on their surroundings. Recognize when you need to

take breaks so that you can be active and engaged in the farm work.

Additional electrical safety tips include:

Use a spotter when operating large machinery near lines.

Inspect the height of farm equipment to determine clearance.

Look up and use care when moving any equipment such as extending augers or raising the bed of grain trucks around power lines.

Always set extensions to the lowest setting when moving loads to prevent contact with overhead lines. Grain augers should always be positioned horizontally before being moved.

Never attempt to move a power line out of the way or raise it for clearance.

If the machinery you are operating does make contact with a power line, stay on the equipment. Immediately call 911, warn others to stay away, and wait for the utility crew to cut the power.

Only on the rare occasion that the machinery catches fire should you leave the vehicle after contact is made. If this is the case, jump off the equipment with your feet together and without touching the ground and machinery at the same time.

## Educate students about safety

August and September bring changes in the weather, but also changes in our lives as school resumes.

With students traveling to and from school, and students once again on the playground, it's the perfect time to reflect on a few electrical safety lessons.

### Elementary students

Don't play near or around power lines or poles while at school. Stay clear of pad-mount transformers (those big green boxes) or other electrical equipment.

Don't place objects, such as pens or pencils, in electrical outlets.

### High school students

If you drive to and from school, obey all traffic laws and practice safety when driving in areas where utility crews are working.

If you're in an accident involving a downed power line, assume the line is energized. Remain in the vehicle and call 911.

If you must exit the vehicle, jump out of the vehicle with both feet together and avoid contact with the vehicle and ground at the same time. Then, shuffle away with small steps, keeping your feet together and on the ground at all times, to reduce the risk for electrical

shock or electrocution.

### College students

Don't overload electrical outlets. Most dorms or campus housing are not equipped to handle today's use of electronic appliances and gadgets.

Keep all electrical appliances and cords away from bedding, curtains and other flammable materials.

Extension cords are only for temporary use and can become overloaded.

Consider using power strips with an over-current protector that shuts off power automatically if too much current is being drawn.

## Safety demonstration



**Congressman Steve Watkins and his wife, Fong Liu, watch a high-voltage safety demonstration during a tour of Heartland REC in Girard.**

# A home checklist for easy heating and cooling

*Dear Jim: My fairly new house has blown-in attic insulation and good windows. I still want to cut my utility bills more. What inefficient spots should I check and what simple things can I do? - Cindi M.*

Dear Cindi: Proper insulation and good-quality windows/doors are the most important efficiency factors. There also are many other areas where there are small insulation voids and air leakage which contributes to high utility bills. The total of all these areas is often equivalent to leaving a 2-ft. by 3-ft. window wide open year-round.

Before checking these other areas, make sure your ceiling is actually adequately insulated. Since your house is new, you can be fairly certain the wall insulation is adequate. It most likely is faced insulation batts which are sized to fit tightly between the wall studs.

Since you mentioned you have blown-in attic insulation, check its depth. Depending on how it was blown in, it may have settled and no longer be the required depth and R-value for your climate. Go up into your attic and measure its depth. Wind coming in the attic vents can blow it around creating high and low spots. Use a rake to level it.

Anywhere there is a break in the insulation envelope of your house is a possible location for energy loss. One common leakage spot is electrical wall outlets and switches on outside walls. Often, they are completely uninsulated and the vapor/air barrier is not taped

tightly to them. Just a one-percent insulation void can lose 10 times more energy than complete insulation.

To check them, first switch off the circuit breaker to the outlet or switch. Remove the faceplate and probe around the conduit box with a non-conducting piece of wood or plastic. Look for gaps and insulation voids around it. Insert the tube from a can of expanding foam insulation in the gaps and fill them. Do not fill the inside of the conduit box or large cavities inside the wall.

If you need to make the gap bigger with a screwdriver see better or to get the foam insulation tube in there, first switch off the main circuit breaker to the ENTIRE house. Even if the breaker to that outlet is switched off, there may be other hot wires nearby inside the wall.

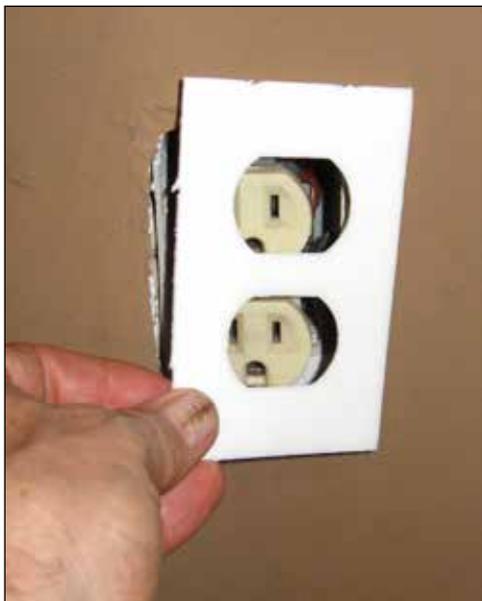
Even if you were able to shoot in insulation, and definitely if you could not, install foam draft sealers behind faceplates

on outside walls. Choose sealers which are at least one-eighth-inch thick so they get compressed. They will add only a slight amount of insulation, but will improve the overall seal to reduce air infiltration.

Ceiling paddle fans are another place to check. If you installed them yourself after the house was built and added support blocking, the insulation level will be less there. There may also be air leakage where you cut the hole to run the conduit box and wiring. Push the insulation away and caulk the attic floor hole and then cover it with additional insulation.



**ABOVE: Use expanding insulating foam to seal wiring holes and gaps where the sill plate rests on the foundation. BELOW LEFT: Place a foam draft sealer over the switch or outlet before replacing the faceplate.**



Next time you are painting the trim about doors and windows, pry off the decorative molding. You may find quite a large uninsulated gap between the rough opening and the door or window frame. Squirt in low-expansion foam in the gap. Use it sparingly because it can deform the frame as it expands. Recaulk the trim to the window and wall.

Another area in most houses which wastes a lot of energy is the sill plate and rim joist. The sill plate is the piece of lumber which rests on top of the foundation. The rim joist rests on top of the sill plate and your house walls rest on the rim joist. The rim joist, often 2x10 or larger lumber, often is not insulated.

You might think wood is a good insulator, but it is not relative to fiberglass batts. Buy some kraft paper faced

fiberglass batt insulation and cut it into short lengths to fit against the rim joist between the floor joists. Standard wall insulation batts are effective. With their short length and the floor joists, they should stay in place without stapling.

While you are looking at the rim joist and sill plate, you may see a gap between the top of the foundation and the sill plate in spots. The top of a concrete foundation wall is seldom perfectly level and smooth. Squirt some urethane foam insulation from a can all along the sill plate/foundation wall interface. This blocks outdoor air leakage and adds some insulation value to that area.

\*\*\*

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

Heartland's *Heartbeat* is published and distributed quarterly to all HREC members by Heartland Rural Electric Cooperative.

Subscriptions to *Heartbeat* are available by contacting Member Services at 1-800-835-9586. Subscription rates are \$3.95 per year.

For more information contact *Heartbeat* Editor Ron Graber at our Girard office or call 1-800-835-9586. He can also be reached at [rong@heartland-rec.com](mailto:rong@heartland-rec.com)



110 N. Enterprise Dr. PO Box 40  
Girard, KS 66743

PRSRT STD  
U.S. POSTAGE  
PAID  
PRAdMar Corp

# Be safe when using propane in your home

## What is propane?

Propane is a portable, clean and efficient energy source which supplies about four percent of total U.S. energy needs. It is a byproduct of natural gas processing and petroleum refining, and exists as both a liquid and a gas.

Propane is sometimes referred to as liquified petroleum gas, LP gas, or LPG. About 90 percent of our propane is produced in America, making it a stable, domestic energy source. It is nontoxic, colorless and virtually odorless - but, for your protection, odor is added so it can be easily detected when necessary. The chemical odorant that is added is called ethyl mercaptan, which has a strong smell similar to rotten eggs.

1910, Dr. Walter O. Snelling, a chemist and explosives expert with the U.S. Bureau of Mines, was asked to investigate vapors coming from the gasoline tank vent of a newly purchased Ford Model T. Snelling filled a glass jug with the gasoline from the car and discovered on his way back to the lab that volatile vapors were forming in the jug, causing its cork to repeatedly pop out. He began experimenting with these vaporous gases to find methods to control and hold them. After dividing the gas into its liquid and gaseous

components, he learned that propane was one component of the liquefied gas mixture. He soon learned that this propane component could be used for lighting, metal cutting, and cooking. That discovery marked the birth of the propane industry.

## Is propane clean?

Yes, propane is one of the cleanest burning fossil fuels. It creates less pollution than many other fossil fuels, providing all of us with cleaner, more breathable air.

Propane is a valuable alternative to electricity and significantly reduces emission of greenhouse gases.

## Propane use - safe handling tips & information

Many homes and businesses use propane gas for heat, hot water, cooking and electricity generation. It's important that you use caution when handling tanks, fuel lines, appliances and generators to ensure safety.

Here are some important propane safety tips:

- Don't use or store propane tanks in basements or living spaces
- Properly secure portable propane tanks when transporting
- Do not leave portable propane tanks in cars or closed vehicles
- Secure temporary tanks when used for building heat, hot water, or cooking
- Contact a qualified propane service retailer to connect tanks to appliances
- Do not use propane gas BBQ grills inside

■ Refrain from using stoves or ovens for space heating

■ Do not use portable electric generators indoors – keep them outside of buildings

■ Have a qualified propane service technician connect appliances and perform a leak test

## If you smell gas

■ Immediately extinguish all smoking materials and open flames

■ Get everyone out of the area where you suspect the gas is leaking

■ Turn off the gas supply valve of your propane tank if it is safe to do so

■ Once away from the leak, contact your propane supplier. If you can't reach them, call 911

■ Do not return to the area until your propane retailer, emergency responder, or qualified service technician determines it is safe to do so

## Don't run out of gas

Serious safety hazards, including fire or explosion, can result. If an appliance valve or a gas line is left open when the propane supply runs out, a leak could occur when the system is recharged with propane.

Air and moisture could get into an empty or depleted storage tank, which can cause rust build-up inside the tank. Rust can decrease the concentration of the odor of propane, making it harder to smell. If your propane tank runs out of gas, any pilot lights on your appliances will go out. This can be extremely dangerous.

