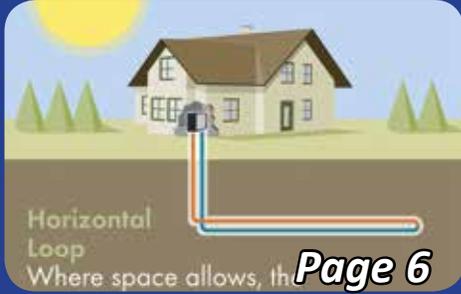


# PowerLines

A monthly publication for member/owners of Eastern Illini Electric Cooperative

September 2015

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### Geothermal Open House

#### PLUS:

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## Geothermal Open House on Sept. 19

Plan to attend our geothermal open house in Chebanse on Sept. 19.

We'll show you how and why geothermal heating and cooling is the most energy efficient system available today.

See page 6 of this publication for more information.



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A Touchstone Energy® Cooperative

## 'Clean Power Plan' unveiled

It is hard to believe that the busy summer season is almost over. Although the autumnal equinox is not until September 23rd this year, our children (and us) know that summer is effectively over when school starts, and most certainly after the Labor Day holiday. Before we know it, our farmers will begin harvesting crops. Let us all join in prayer for good harvest weather, and a safe and bountiful harvest.

It has been a busy summer at the national level for the electric utility industry also. I wanted to take this opportunity to briefly update you, on an item that you have likely read or heard about recently.

In early August, the Environmental Protection Agency (EPA) issued its final 1,560 page rule,

known as the *“ This rule is important to all of us because a majority of our electric energy is provided by the state-of-the-art Prairie State Generating Campus - a coal plant in southwestern Illinois. ”*

dioxide). This rule is important to all of us because a majority of our electric energy is provided by the state-of-the-art Prairie State Generating Campus - a coal plant in southwestern Illinois.

The EPA rule requires states to file an initial compliance plan by September, 2016 with final plans due two years later. Initial compliance is to begin in 2022. The Illinois Environmental Protection Agency will coordinate

drafting our state's compliance plan. Illinois, with a mix of existing generation resources, but mostly nuclear and coal, received a fairly significant reduction target.



### MESSAGE FROM THE PRESIDENT

In general, the Clean Power Plan reduces reliance on coal-fired generation while promoting increased renewable energy (such as wind and solar), along with promoting increased efficiency at all stages of electricity production and consumption. There

has already been a legal challenge to the rule filed by a coalition of 17 states, and there will likely be many more legal challenges.

Your staff at EIEC will work with our wholesale provider, the Illinois statewide cooperative association, and the national cooperative association on behalf of you, our member/owners, to ensure a reasonable compliance plan that balances an affordable and reliable electric energy supply.

Sincerely,

*Bob Hunzinger*

# Insulation, Insulation and Insulation

## Shield your home from energy loss with adequate insulation.

Walls. Floors. Ceilings. Attic. These are some of the prime areas of a home that need insulation in order for you to maximize energy efficiency. According to the Department of Energy (DOE), adding insulation to your home is a sound investment that is likely to quickly pay for itself in reduced utility bills.

In fact, the DOE estimates that you can reduce your heating and cooling needs up to 30 percent by properly insulating and weatherizing your home.

If your home is more than 20 years old and was not specifically constructed for energy efficiency, additional insulation can likely help even more. The actual amount of savings for each home depends upon several factors.

On average, older homes have less insulation than homes built today, but even adding insulation to a newer home can pay for itself within a few years.

## So, where do you start?

You first need to determine how much insulation you already have in your home and where it is located. If you need assistance, Eastern Illini conducts energy efficiency audits (see the story on page 3) for the home and will check insulation as a routine part of the assessment.

For those with the DIY spirit, you can conduct an insulation audit yourself. Here is what you should look for:

- Where your home is (or isn't) currently insulated
- The type of insulation in your home
- The R-value and the thickness or depth (inches) of the insulation

A prime area that is chronically under-insulated is the attic. Attic insulation is essential to help keep warm air inside during the winter and prevent hot attic air from heating your living spaces during the summer. We recommend that you properly air-seal your attic, then make sure you insulate it to at least R-49.

## How does insulation work?

Heat flows naturally from a warmer space to a cooler space. During winter months, this means heat moves directly from heated living spaces to adjacent unheated attics, garages, basements and even outdoors. It can also travel indirectly through interior ceilings, walls and floors—wherever there is a difference in temperature.

During summer months, the opposite happens—heat flows from the exterior to the interior of a home. Proper installation of insulation creates resistance to heat flow.

Heat flow resistance is measured or rated in terms of its R-value—the higher the R-value, the greater the insulation's effectiveness. The more heat flow resistance your insulation provides, the lower your heating and cooling costs will be.

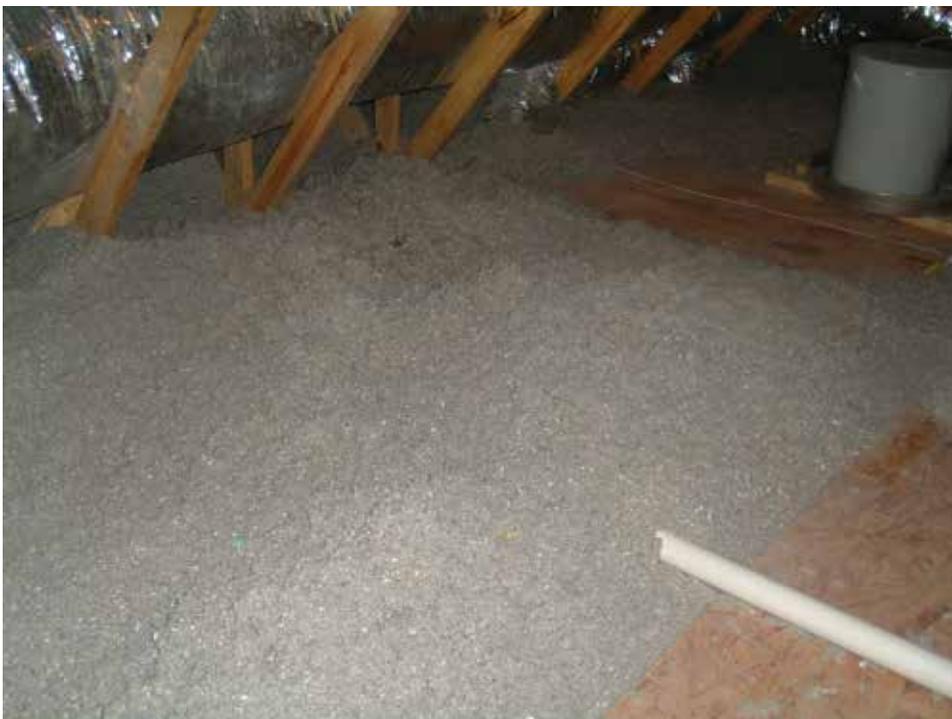
## What kind of insulation should I use?

While fiberglass insulation is probably the most common type, we recommend utilizing either cellulose insulation or foam insulation. Both of those options will offer greater R-value than the pink stuff and each offer other benefits like sound dampening and moisture protection.

## Get started and get saving

While an older home will never be as efficient as a new home, an insulation upgrade will make a noticeable difference in your energy use and wallet. A well-insulated home is one of the most cost-effective means of saving energy and decreasing heating and cooling bills.

For more information, and a list of insulation contractors, contact the energy experts at Eastern Illini at 800-824-5102.



*Cellulose insulation (shown above) offers a great deal of insulating value that many people can install themselves. It is available in large packages at most larger hardware stores.*

# The best kind of audit

## Energy audits are the key to increasing energy efficiency.

If you read this PowerLines on a regular basis, then you have probably seen our tips for saving energy. Educating you is one of our seven cooperative principles, and at Eastern Illini, we believe in arming you with information that can help you save on all of your utility bills.

Along with supplying you energy efficiency information on a regular basis, we've found that actually showing you how to make your home more efficient is a crucial step in saving money. That's part of the reason why we have two employees dedicated to working with you to improve your home's efficiency. And, of course, that leads to lower bills.

We believe energy audits are key to increasing efficiency. To reduce energy consumption, you first need to know how much energy you're using, and why. In this case, knowledge is – literally – power.

There are two main components of our free energy services.

### Basic walkthrough

This is usually the first step in your energy audit. After scheduling a time that's convenient for your schedule, one of our certified energy advisors



*Mike Carroll, one of Eastern Illini's energy advisors, performs an infrared scan of a members home during an energy audit. Technology has led to quicker and more accurate audit results.*

will meet with you at your home. At that time, or maybe even on the phone before the visit, they will get some basic background information about your home and your family.

The next step will be to walk through your home to identify the many pieces that make up your home's building envelope. They will go through your basement, crawl space and/or attic as needed to get the information they

need to offer basic energy efficiency tips and ideas based on your specific situation and home.

They will also go over costly "energy habits" and how you can move past them to save money.

### Advanced diagnostic testing

For more serious issues, or when there are specific questions or mysteries surrounding your electric use, an advanced diagnostic test may be required. That could include infrared scanning, blower door testing, or even using a duct blaster. This comprehensive testing takes much more time and usually requires at least a half day worth of measuring.

Energy audits are effective because they lead to specific, detailed recommendations suitable to your circumstances. While the recommendations vary, every audit shares the same goal: finding cost-effective ways to help you save money.

To schedule your energy walkthrough or full diagnostic audit, please contact our office at 800-824-5102.

## Energy Efficiency Tip of the Month



Looking for an easy efficiency upgrade? Additional insulation can make a difference! The Department of Energy estimates you can reduce heating and cooling needs up to 30 percent by properly insulating and weatherizing your home.

*Source: energy.gov*

# Smart Grid Savvy

## You've heard the term Smart Grid, but what does it mean?

All over the world, countries are pursuing grid modernization for the benefits provided to end-users, the economy, the environment, and energy security. So, what's the big deal, and what exactly does smart grid mean?

### The smart grid

A quick Google search of "the definition of smart grid" pulls more than 1.5 million results and includes a variety of opinions. One simple explanation reads: "The Smart Grid describes the next-generation electrical power system typified by the increased use of communication and information technology."

Basically it consists of an integrated system of poles, wires, transformers, switches, fuses, and many other components that utilize technology to communicate data to the companies and end-users that utilize the system.

In a smart grid, equipment has the ability to communicate with the systems back at the electric co-op. These communications flow over the power lines or other communications channels and allow operators to pinpoint outages, check on the health of equipment to avoid outages and



*This automated meter simply takes regular kWh readings at your location. Then, using SmartHub, you can easily track and manage your electric use. SmartHub is available online or as an app.*

control the flow of electricity to route it around an outage. All of this helps the smart grid improve reliability and reduce outage length.

The second piece in this puzzle is getting information to the end-user. That is where automated meter reading (AMR) equipment comes in.

### Your meter

Here at Eastern Illini, we were on the front lines of smart grid implementation, as we began installing AMR meters many years ago. It was

a huge, much needed, jump for us, because at that time, you were still manually reading your meter each month. We're well past that now.

The AMR meters simply record and report power use, usually

in 15-minute intervals. They also record power quality information as electricity is delivered to your home.

We can also attempt to contact the meter remotely which is a very helpful tool in pinpointing outages and other distribution system issues.

### Taking control of your energy use

The last piece, for now anyway, is called SmartHub. SmartHub is our online and mobile application that lets you track your electric use on a monthly, daily, and even hourly basis. We even add weather and temperature data so you can see just how much that affects energy use.

SmartHub offers much more than data, though. You can pay your bill, report an outage, and even update your basic account information. All with your computer, phone or tablet.

To learn more or to get started with SmartHub, visit our website at [www.eiec.org](http://www.eiec.org) or call us at 800-824-5102.



**Providing value  
for your  
electric dollar**

**Did you know that we invested in Automatic Meter Reading (AMR) technology to improve our service to you, to make things more convenient for you, and to allow you to have more control over your energy use?**

**This is one more simple way that we are looking out for you - and your wallet!**

# Look up for hazards during harvest

**Working safely around electricity is always important, but it can be even more important during harvest season.**

After working in a field on a neighbor's farm, Jim Flach parked his equipment and stepped out of the vehicle. Sadly, Jim did not realize his equipment was touching an overhead power line, and he became a path for the electrical current as he placed his foot onto the ground. Jim received a severe electric shock that ultimately resulted in his death a few months later. Safe Electricity urges farmers to take the proper precautions when working around power lines.

“The rush to harvest can lead to farmers working long days with little sleep,” cautions Kyla Kruse, communications director of the Energy Education Council and its Safe Electricity program. “It is important to take time for safety. Before starting

work, make sure to note the location of overhead power lines.”

To stay safe around overhead power lines, Safe Electricity urges farm operators and workers to:

- Use a spotter when operating large machinery near power lines.
- Use care when raising augers or the bed of grain trucks around power lines.
- Keep equipment at least 10 feet from power lines — at all times, in all directions.
- Inspect the height of farm equipment to determine clearance.
- Always remember to lower extensions when moving loads.
- Never attempt to move a power line out of the way or raise it for clearance.
- If a power line is sagging or low, call us at 800-824-5102.

If contact is made with a power line, stay in the equipment. Make sure to warn others to stay away, and call 911.

Do not leave the equipment until the utility crew says it is safe to do so. The only reason to exit is if the equipment is on fire. If this is the case, jump off the equipment with your feet together, without touching the ground and vehicle at the same time. Then, keeping your feet together, hop to safety as you leave the area.

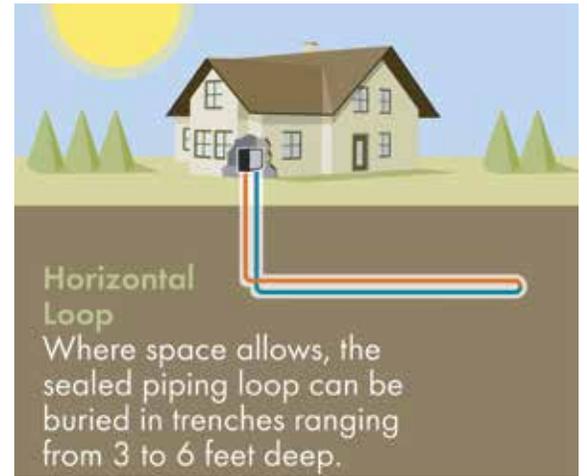
Some additional safety tips from Safe Electricity include:

- Do not use metal poles when breaking up bridged grain inside and around grain bins.
- Always hire qualified electricians for any electrical issues.
- Do not use equipment with frayed cables.

“You need to double check, even triple check, to see what is above you,” says Marilyn Flach, Jim’s widow. His son Brett adds, “Be conscious of your surroundings. You need to keep your eyes open and beware of overhead lines.”



# Geothermal Open House



Attend Eastern Illini's geothermal open house on Saturday, September 19, in rural Chebanse to learn more about the most energy efficient heating and cooling system available.

Free food and drinks will be served, and Eastern Illini staff will be on hand to answer all of your energy questions.



**Saturday, Sept. 19  
9 a.m. to 2 p.m.  
Elliot residence  
3233 N 800 E Rd.  
Chebanse, Illinois**

The home is located about 4 miles west and 1.5 miles south of Chebanse.