



Harrison Rural Electrification Association, Inc.

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Your Touchstone Energy® Partner 
www.harrisonrea.com

Why keep power lines in harm's way?

High winds and icy conditions can cause tree limbs to fall on power lines, triggering outages. Although our linemen are on call around the clock and respond quickly to problems, some folks ask a simple 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. Although underground lines may seem attractive during storms since lines are not exposed to extreme weather, they are costlier than overhead lines. It costs us about \$25,000 to build one mile of overhead distribution line, and \$50,000-\$75,000 to build a mile of underground line.

Most underground lines are found in subdivisions where developers request and 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.

There are pros and cons for underground power distribution. For instance, 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. However, it costs more to repair underground lines, and it takes longer to fix problems. Faults in underground power lines are not easy to track and fix. Underground lines are tough to troubleshoot and more difficult and time-consuming to locate and repair. A line crew has to dig a hole to reach the spot before repairs can be made. A North Carolina study found that outage restoration times averaged 92 minutes for overhead lines versus 145 minutes for underground lines, because it takes longer to find the fault. If a

Manager's Corner

by
Gary Jackson,
CEO/General
Manager



tree falls on an overhead line, linemen can normally see the problem and get to work restoring the power. The same holds true for repairing broken insulators and cross-arms. If they can see it, they can fix it. In 2005, Hi-line Engineering compared the increased cost of underground lines against their benefits in Virginia. Their study concluded that underground savings did not outweigh the heavy initial cost of installation.

The bulk of the nation's energy continues to be delivered via overhead lines. Electric cooperatives are not-for-profit entities that select distribution methods with two goals in mind: keeping electricity affordable and reliable for consumers.

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Office Hours
7:30 a.m. to 4 p.m., Mon.-Fri.



Harrison Rural Electric will be closed on **Monday, Feb. 21, for Presidents Day**. We will reopen, Tuesday, Feb. 22, at 7:30 a.m. As always, in the event of an outage, call the office's number (304-624-6365), and our answering service will contact our on-call crew. For this particular holiday, Lineman Scott Wyckoff and his partner, Apprentice Lineman Jimmy Cain, will address any emergency situations that might arise.

HREA says farewell to retired employee

Lineman Paul Siders retired from Harrison Rural Electric in early January after 41 years of service to your cooperative.

Paul comes from a very large family and has lived in Harrison County his entire life. He began working at a gas station when he was 17 years old and started working for the cooperative in 1969 as a tree trimmer with the right-of-way crew. He moved to the line crew and worked as a groundman for two years before moving on to become a lineman, a position he held for more than 35 years.



Paul when he first came to work for HREA

Paul has probably seen and done it all when it comes to being a lineman. He has worked in extreme heat, as well as bitter cold. He waded through snow up to his waist to restore power to our members, forged swollen creeks in times of flood and always put our members' needs above his own, or even the needs of his own family. He climbed countless poles, strung miles and miles of line and hung hundreds of transformers. Not only did he do all this work for you, our members, but he also traveled many times to

other states to assist other cooperatives when a major storm would wreak havoc on their systems. Probably one of the most notable trips he made was

to Louisiana in 2005 after Hurricane Rita swept through there.

Paul and his wife, Linda, reside just about a mile from the Sun Valley office. They have one daughter together, Tiffany. Paul also has two other children, Lahoma and Stuart. He and Linda are raising two



Paul with his family

of their grandchildren, and Paul plans to do a lot of baby sitting now that he is retired. He likes to go camping, and he really enjoys fishing. He also likes to restore old cars in his spare time.

Paul is a hard worker and was a dedicated employee of the co-op. We, as well as you, our member-owners, were lucky to have him working here. We hope you enjoy your retirement, Paul, and we all wish you a long and happy life. We love you, and we'll miss you very much.

Harrison Rural Electric welcomes new employee



Apprentice Lineman James (Jimmy) Cain began working for your cooperative in late November. He replaces lineman Jon Paul McAllister, who left HREA at the end of September to begin working for Allegheny Energy. Jimmy is partnered with Scott Wyckoff. Although he won't work exclusively with Scott, he will be with him the majority of the time.

Jimmy is no stranger to HREA's territory. Previously employed by Electrotech out of Buckhannon, Jimmy worked on several major storm incidents, when we had to employ outside help in order to restore power to our members more quickly.

Jimmy is 32 years old, single and resides in Salem, W.Va. We are lucky to have a hard worker like him in our employ, and all of his fellow employees would like to welcome him to our co-op family.

The magic box that will save you money

We know that several of you have been invited to attend a free dinner and learn about ways to save on your electric bill; therefore, we thought it pertinent that our members review the following article published in Firelands Electric Cooperative's recent newsletter:

Can the KVAR or green energy saver box really reduce my electric bills?

Several members have called to ask about those "energy saver" boxes that are being promoted in the area — often by a sales pitch delivered at a free dinner meeting. Members want to know if these devices actually work, and if the cost (as high as \$1,200 to \$1,500) can ever be recovered.

The short answer is — no. Your best bet is to enjoy the free dinner, but leave the \$1,200 in your wallet.

The sales pitch for these devices is compelling because these boxes actually do perform as advertised. These devices are supposed to improve a low power factor (PF), which they can do, but the improvement in PF is supposed to reduce your home's electric bills — which won't happen.

Your electric bills won't be reduced because Firelands Electric and other electric utilities do not use electric meters that record PF for residential accounts. Your electric meter has no idea what your home's PF is. There also is a more technical reason — read on if you're brave.

The simplified explanation:

Power factor can be thought of as a sort of efficiency measure for electric loads that include electric motors, electronic and other electric-powered equipment. For simplicity, let's use a motor:

PF is rated on a scale from 0.0 (bad) to 1.0 (good). The PF is the portion of the electricity flow in a circuit that does work, compared to the total flow in the circuit. In the case of an electric motor, a simple explanation is that a portion of the electricity flow creates necessary magnetism to run the motor, but doesn't actually do any work. An inefficient motor might have a PF of 0.70 and a more efficient motor might have a PF of 0.90.

Selling a PF energy saver box involves a demonstration showing that when the PF box is turned on, the amps measured in a circuit powering an electric motor drop, and the PF in the circuit increases. The salesman then claims that the increased PF and the reduced amps prove that the PF box will save you

money and pay for itself.

He will explain that your electric meter measures kilowatt-hours (kWh), and — here comes the math — since Watts = Amps x Volts, and since the PF box reduces the amps, then it also must reduce the watts and lower your bill! This simplified explanation is NOT true.

Q. If a PF of 0.60 can be increased to 0.80 and draw fewer amps in the circuit, why would this not decrease your kilowatt-hours?

A. Because the simple formula of Watts = Amps x Volts is NOT the correct formula to use. The correct formula is Watts = Amps x Volts x Power Factor. Example:

| | |
|--------------|-----------------------------|
| House Volts | 120 |
| Power Factor | 0.60 (increased to 0.80) |
| Amps | 4.0 (reduced to 3.0) |
| Watts | 288 (stays constant at 288) |

So even though you can raise your PF using one of these boxes, you will not reduce your watts (or your kWh). It's a balancing act — as PF goes up, amps go down and watts stay the same.

Utilities do charge industrial accounts with large electric motor loads higher rates for a low PF because of the extra costs involved for larger equipment to provide power to them. But as mentioned previously, PF is not measured for residential accounts: and buying a KVAR or green energy saver box to improve your home's PF will NOT reduce your residential electric bills.

We hope this article prevented some of you from spending all that money on something that was not going to help reduce your utility bills. One of our members called in and was asking about the dinner he'd been invited to and commented that we probably wouldn't want him attending if he was going to learn how to use less electricity. We are non-profit. Our objectives are to sell our electricity to our members as cheaply as we can, to cover our costs and to provide a margin at the end of each year to distribute back to our members in the form of capital credits. Whatever electricity you don't use, that is electricity we don't have to purchase to sell you. As you know, we add energy saving tips to our newsletter each month. We want to help you reduce your energy use so that you can save money and live better. We just want to provide you with our service and to do that as cheaply as we can.

HREA Prepares for Annual Audit

Beginning Feb. 7, independent auditors will be reviewing the financial records of your cooperative. The accounting firm of Tetrick and Bartlett based in Clarksburg will be conducting the audit.

Many of you probably received a letter from them asking if you agreed with the amount of a recent bill you received as compared with information they were given by us. They also come in at year end and spot check our inventory of supplies we keep on hand and compare their count with what is on our books. They will review bills we pay and will audit our payroll records, just to name a fraction of the work they will do the week they are here.

All these checks and balances are done to ensure

that we are conducting our business in a proper fashion that agrees with generally accepted accounting principles and that our financial statements accurately reflect the condition of the cooperative.

Under the leadership of our chief financial officer, Terry Stout, our bookkeeping gets better and better each year. Twenty years ago, there may have been up to 50 adjusting entries that needed to be made at the end of the audit. Now, we have only between 5 and 10 entries each year, which is phenomenal since we do tens of thousands of transactions. That says a lot about Terry's dedication to ensure that we all do the very best job we can do.

Sealing your home from the elements

When a home feels too cold or too warm, folks often purchase air conditioners or space heaters to improve comfort. But in many cases these appliances only address the symptoms, not the actual problem. However, there's often a simple and relatively inexpensive solution — seal air leaks and add insulation.

To find leaks, walk around your house on a cold day and feel for drafts around exterior doors and windows, electric outlets and entrance points for TV and telephone cables. In basements, target dryer vents, gas lines or any place with an opening in the wall.

To fix leaks, apply caulk, spray foam or weather stripping to these areas. Spray foam should be used on large openings. But be careful: the foam expands and could damage weak wood or lose brick. When purchasing caulk, pay careful attention to whether it is rated for interior or exterior use and if you can paint over it.

An insulation kit provides a temporary solution for

older windows during winter. Apply a clear plastic sheet to the interior of the window, then use a hair dryer to remove wrinkles and make the sheet almost as clear as the glass.

If you have a forced air heating or cooling system, consider sealing the ductwork. According to ENERGY STAR, a standard for rating energy-efficient consumer products, about 20 percent of the air moving through ductwork is lost to leaks and holes. For exposed ductwork in basements or attics, apply a duct sealant — either tape, aerosol or mastic, depending on your skill level.

Once leaks are sealed, focus on adding insulation. Insulation is your home's first line of defense in keeping out heat and cold and comes in fiberglass (batt or blown), cellulose, rigid foam board, spray foam or reflective (also called radiant barrier) forms. Your local hardware store can help you choose the one that best fits your area and particular needs.

When buying insulation, consider its R-value. Typical insulation levels for an attic range from R-30 to R-60, while floor requirements vary from R-13 to R-30.

The most difficult area to add insulation to will be your walls. Ideally, you would add wall insulation when replacing the siding on your home. In most areas of the country you will need either R-5 or R-6 insulative wall sheathing, and then fill the wall cavity with blown-in insulation. If you do not have siding or won't be replacing it anytime soon, you can cut holes in the wall and blow the insulation in. But this is generally a tricky undertaking and can cause significant damage if not done properly.



Energy Efficiency

Tip of the Month

Ninety percent of the energy it takes to wash clothes is used to heat water. If you wash in cold water, you could save \$40 per year if you have an electric water heater and \$30 annually if you have one powered by natural gas.

Source: U.S. Department of Energy