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General Manager/
CEO

WHAT DO COOPERATIVES MEAN TO YOU?

This past August, Jackson Electric changed its slogan from “Working Together, Working for You” to “Safe, Reliable Power for All Generations.”

The original slogan has been a mark of the cooperative since the early 1990s.

If you remember, that’s about the time when electric utilities were faced with deregulation. Good, bad, or otherwise, it was important for the members to know that Jackson Electric was working for them.

The original slogan is a good one, but it was time for a change. To start this process, the employees got involved. Employees submitted key words that, in their opinion, described a cooperative. Using the key words, the employees submitted slogan suggestions that were no longer than six words. Ten ideas were submitted. From there, the employees and directors narrowed the slogans down to three. The three slogans were presented to the membership at the annual picnic at which members in attendance voted for their favorite. Hence, the birth of the cooperative’s new slogan.

With these key words floating around the office, I started to think about what a cooperative means to the average person. During your day, you may not realize how often you use cooperative services. Let’s think about how your day may go: You fill up your vehicle with gas at the local cooperative. While you’re there, you stop in the cooperative’s store to get your daily dose of coffee and maybe some local conversation.

You’re short on cash or need a loan, so you stop by your local credit union. Don’t forget to pick up your animal feed or crop fertilizer from your local supply cooperative. And, of course, you don’t want to forget to drop off your energy efficiency rebate form at your local electric cooperative. What do cooperatives mean to you?

We are fortunate to live in an area where cooperatives help support the local economy by creating jobs and promoting economic development. Cooperatives give back to the community by offering scholarships to adults and youth, donations to organizations and charitable needs, and the promotion of goodwill in the communities cooperatives serve. Cooperatives are democratically controlled—the member has a voice. Cooperatives create programs and services that are in the best interests of their members, not stockholders.

Cooperatives are everywhere and they do play an important role in the growth of your community. October is National Cooperative Month—make a visit to your local cooperative.

Jackson Electric’s employees perception of a cooperative

adverse	efficient	immediate	power	safe
committed	energy	integrity	proactive	service
competitive	ethical	local	qualified	standards
cooperative	expectations	member	reliable	tradition
depend	focused	needs	renewable	trust
educate	friendly	new	respect	value

MY CO-OP

MEMBERS ENJOY AN AFTERNOON PICNIC



Jackson Electric Cooperative employees and directors served a meal of pulled pork sandwiches, beans, potato salad, cole slaw, cookies, and ice cream to slightly more than 700 people at the annual member picnic in the park. The member picnic was held on an absolutely beautiful Tuesday afternoon in August at the Lunda Park in Black River Falls. Good conversation, fellowship, and music followed the picnic and was enjoyed by all in attendance.

REMINDER... FROST CHARGES

If you plan to have Jackson Electric install electric service on your property after November 1, an additional charge will be applied if the conventional method of electric service installation is not feasible due to frost.

PLANNING AHEAD

If you’re planning to build a house in the spring and need electric service installed, please contact Jackson Electric Cooperative to schedule an appointment to discuss your electric service needs.



ENERGY AUDIT RECOMMENDS IMPROVEMENTS FOR ENERGY SAVINGS AND INCREASED COMFORT

Home energy audits determine how much energy your home consumes and assesses what measures you can take to make your home more efficient.

A professional home energy auditor can help you assess the energy efficiency of your home. The auditor typically does a room-by-room examination of your home, as well as look at your previous utility bills. In addition, the auditor performs a blower door test and a thermographic scan.

This past January, we followed Kevin Conroy of EnergyElements LLC as he conducted an energy audit on a member's home that was built in 1960. To help you visualize the layout of the home, imagine high cathedral ceilings, an operating wood fireplace, two non-operational fireplaces, a full basement under the original home, several windows, and an addition added to the home 15 years ago with no basement. The square

footage of the home is 3,606. Primary heat source is a natural gas boiler with electric duct heaters.

To begin the audit process, the auditor determines what concerns the homeowner has with the home. With this particular home, ice dams and high energy costs are the homeowner's main concerns. With that being said, it's time to find out where the air leaks are in the home.

A blower door test and thermographic scan are conducted. The blower door measures the relative air-tightness of the home and helps identify air-sealing opportunities, which can provide significant energy savings and increase comfort. Ice damming, a concern with this homeowner, can be caused from attic air leakage. The thermographic scan allows auditors to check the effectiveness of the insulation within the home. The results will determine if the home needs insulation and where the insulation should go.

Insulation does not stop air leakage.

A blower door is a powerful fan that mounts to the frame of an exterior door. The fan pulls the air out of the house, lowering the air pressure inside, causing the higher outside air pressure to flow in through unsealed cracks and openings. The blower door test concluded the house was "very leaky." With the use of that test and thermographic readings, the following individual areas of air infiltration and recommended improvements were suggested:

- **Non-operating fireplace chimneys**
Recommendation: Seal the chimney with a "chimney balloon." This is inserted into the chimney and inflated to seal and reduce air loss. This can be deflated and removed if the fireplace will ever be used.
- **Perimeter at the eaves of the timber frame components**
Recommendation: The perimeter of the timber rafters can be sealed with silicone sealant.

- **Window and door frames**
Recommendation: Use low expanding spray foam to seal the opening between the window/door frame and the rough opening. Weather-strip should be replaced when necessary.
- **Exterior of the roof.** The homeowner stated the shingles will be replaced. This will allow new insulation to be installed.
Recommendation: The auditor recommended six inches of isocyanurate insulation (often used to insulate between the roof and walls of a building) rigid foam board (R-6.5 per inch) be applied over the existing wood sheathing to achieve sufficient R-value to reduce any ice damming to the minimum possible and to reduce energy load.
- **Foundation walls**
Recommendation: A minimum of one inch of rigid foam board insulation be applied to all accessible foundation walls to R-7.5; R-10 would be better. If possible, insulation added to the exterior wall would be ideal.



A blower door test is conducted during an energy audit to help identify air-sealing opportunities.



ROOM FOR IMPROVEMENT

Kevin Conroy from EnergyElements LLC (right) conducts a thermographic scan with a thermal imaging camera. Pictured above center is a thermographic scan of the photo to left. This photo is taken inside the home, with emphasis on where the wall, ceiling, and rafters meet. The air leaks are highlighted in bright pink/purple and the recommendation is to seal those areas. Notice the temperature readings at Spots 1 and 2 are 49.1 and 50.7 degrees, respectively. Below: Icicles may form because of a poorly insulated attic or wall.



Replacing your windows with highly efficient units will reduce energy consumption, but it may not have a significant return on your investment.

Because this home has a natural gas boiler and water heater, a combustion safety analysis was conducted. According to the report, chimneys and metal flue pipes for heating systems and water heaters need to be correctly sized, configured, and maintained in good condition to vent combustion

gases properly. Also, a lack of system maintenance can cause carbon monoxide to be produced. In this home, both the boiler and water heater passed the test.

However, it was recommended that when the time comes to replace the boiler and water heater, the homeowner should consider choosing equipment with higher efficiency ratings. If this homeowner is going to replace equipment using the same energy source, it was recommended to purchase a 95 percent efficient boiler and a water heater with a .67 energy factor. These levels may reduce energy consumption considerably.

It is recommended that all homes have an operating carbon monoxide detector(s).

A post-inspection audit of this home was recently conducted. Major improvements were implemented, as recommended from the inspection report, including, but not limited to:

1. The roofing was replaced; therefore, it was an excellent opportunity to add three inches of polyisocyanurate (R-18 value) insulation to the exterior of the roof deck of the cathedral ceiling area.
2. Insulation in the flat ceiling areas was improved from R-40 to R-50.
3. One inch of rigid foam board was added to the exterior of the foundation wall.

It is anticipated these major improvements will decrease the homeowner's heating energy costs by 29 percent.

"I've already noticed improvements in the comfort of my home," says the homeowner.

Jackson Electric Cooperative offers a home energy audit incentive to members who have an audit completed by a certified energy consultant and successfully implement the recommended energy efficient measures. For more information, please contact our office or go to www.jackelec.com.



THE GHOST IN YOUR HOME

By Ron Blado,
Member Services Manager

There are a variety of names given to the smaller unseen, but constant electrical loads in our homes. You may have heard of ghost loads, phantom loads, vampire loads, or more technically correct, standby power.

The definition of standby power, according to Wikipedia, is “The electrical power used by appliances and equipment while switched off or not performing their primary function, often waiting to be activated by a remote controller.”

Devices that are always energized and visible are the easy electrical loads to recognize. Such devices include the clock on the kitchen range, microwave oven, and coffee maker; the digital bedroom clock; the clock on a VCR or DVD player, answering machines, or any item with an indicator light. There are also those devices we don’t readily acknowledge, like cell phone chargers, computers and printers, programmable devices and thermostats, the electronics in the furnace, power strips, and others I’m sure I’m forgetting.

A joint study between the U.S. Environmental Protection Agency and several other environmental agencies around the globe put the price of these standby power loads at 10 percent of the average monthly electric bill. I’ve seen other statistics that claim up to 20 percent for households in the United States.

The best course of action to eliminate these standby power loads is to unplug the device when not in use. Another option is to plug the device into a power strip that can be conveniently switched on and off. For example, you may have multiple televisions in your home. On average, my best guess is that one television is actively watched. The remaining televisions are in bedrooms or family rooms and when plugged in, are consuming electricity. When those devices are not in use, switch off the power strip to conserve electric energy and switch it back on when needed. Some exceptions to this include satellite television dishes. Some providers may require

their equipment to be operational at all times to receive programming updates.

The chart below was developed by the American Council for an Energy-Efficient Economy (ACEEE). It indicates typical watts used by common household products. The chart reflects the watts of energy used by the device when in the off position, the “standby load.” When the device is on, it consumes more energy.

Member Household Phantom Load Example ¹					
Product Type	Total Phantom Loads ²	Monthly Phantom Load – Energy Use (kWh) and Cost		Annual Phantom Load – Energy Use (kWh) and Cost	
Plasma TV (<40")	3 watts	2.19	\$0.20	26.28	\$2.37
DVR	37 watts	27.01	\$2.43	324.12	\$29.17
DVD player	1 watt	0.73	\$0.07	8.76	\$0.79
Audio system	8 watts	5.84	\$0.53	70.08	\$6.31
Cordless phone	2 watts	1.46	\$0.13	17.52	\$1.58
Desktop computer, monitor & speakers	8 watts	5.84	\$0.53	70.08	\$6.31
Computer modem	5 watts	3.65	\$0.33	43.80	\$3.94
Multi-function printer	6 watts	4.38	\$0.39	52.56	\$4.73
Power tool charger	4 watts	2.94	\$0.26	35.04	\$3.15
Totals	74 watts	54.04 kWh	\$4.87	648 kWh	\$58.35

Totals shown only reflect the device’s use when turned off. Many electronic devices use significantly more energy when on, and on but not operating. The above scenario is just an example; your actual phantom loads and total electronics use may be more or less depending on the amount of electronics in your home and how often they are used. If you have more than one of any device, multiply the monthly or yearly totals by the amount of your devices to get your totals.
Costs based on an average rate of \$0.09 per kilowatt-hour.
¹For informational purposes only. Check with your product’s manual for specifications, as some devices need to stay in standby mode to work properly. Convenience and lifestyle will dictate how you use this information.
²Source: American Council for an Energy-Efficient Economy; www.aceee.org/consumerguide/electronics and Lawrence Berkeley Nation Laboratory; www.standby.lbl.gov/summary-table.
Table reprinted from Associated Electric Cooperative Inc.

When purchasing new electronic equipment or appliances look for the Energy Star logo. This logo indicates the device has passed the federal standard for energy efficiency and should save money when compared to a regular device.



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