

# Small changes add up to big savings



Sometimes the little things in life mean a lot. When done together, simple steps such as turning off lights when you leave a room, unplugging appliances when you're not using them and raising the temperature on your thermostat a bit as our weather warms up can help your family rack up big energy savings.

At Holston Electric Cooperative, we're always looking for ways to help you, our members. With energy costs rising due to a growing demand for electricity, higher power plant costs and federal regulations, energy efficiency remains

a key part of our efforts to keep rates affordable. Best of all, energy efficiency — simply making the electricity you use do more — saves you money.

Because we're part of the Touchstone Energy® Cooperatives network, you have access to a valuable resource that not only identifies simple energy-saving tasks but also illustrates the real-dollar savings they produce, specific to your home. TogetherWeSave.com uses real savings calculations — based on our co-op's rates and climate zone — to motivate and inspire small changes in behavior.

Intrigued? Check it out at [www.TogetherWeSave.com](http://www.TogetherWeSave.com). You'll be asked for your ZIP code; this helps us provide accurate electricity rates for your home.

The Virtual Home Tour provides a good starting point. As you move through each of the six rooms, clicking on areas highlighted in yellow prompts you to take various interactive energy-saving measures and shows

how these changes translate into savings on your electric bill.

A visit to the attic, for example, recommends adding insulation. Slide the arrow up the scale to add extra inches of insulation and watch the exciting end result. Adding 9 inches saves up to \$143 a year. Add 15 inches, and that figure jumps to \$241.



**Larry Elkins**  
General Manager  
Holston Electric Cooperative

Now head downstairs to the living room. Most folks enjoy watching television and playing Wii or Xbox games, but these gadgets don't need to be on 24 hours a day. By unplugging entertainment center devices when they're not in use, you

could save up to \$174 every year. Seems simple enough — and every small step adds up to big savings. In fact, just lowering your thermostat 1 degree in winter could save \$82.

The Web site uses calculations targeted for our co-op's kilowatt-hour electric rate and geographic location. In short, it gives you an accurate reflection of what your potential savings could be if you implement suggested steps.

Want more in-depth information on energy efficiency? TogetherWeSave.com also includes a library of

short videos on various topics.

Finding ways to help you save energy dollars during tough times is important to us. Valuable tools like TogetherWeSave.com are just one more way we at Holston EC are looking out for you. Want to learn about other ways to make your home more energy-efficient or schedule a home energy audit? Visit our Web site at [www.holstonelectric.com](http://www.holstonelectric.com) or call the In-Home Energy Evaluation hotline at 866-441-1430.

*"Because we're part of the Touchstone Energy Cooperatives network, you have access to a valuable resource ..."*

Serving more than 30,000 customers in Hawkins and Hamblen counties.



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To report an outage or electrical emergency, call 423-272-8821 or 423-235-6811 day or night.



**Representative John Litz, standing left, visits with cooperative board members and general managers to discuss issues that affect electric cooperatives, their rates and their members. Others, from left, are Holston Electric Cooperative directors Danny Cockerham, Lynn Parker and Phil Pierce and General Manager Larry Elkins and Appalachian Electric Cooperative General Manager Bill Underwood.**

## Co-ops take your voice to Capitol Hill

Each of Tennessee's 23 electric cooperatives has deep ties to the communities it serves. Locally owned and governed, co-ops exist for the sole purpose of bettering the lives of those who live in their service areas. Not only do member-owners receive reliable, affordable electric service from their local cooperative's lines, but the co-op works to foster growth and stability of the communities through programs to promote economic investment, member and youth education and environmental stewardship. Members elect a board of directors to oversee how the cooperative is run; these directors are your neighbors and themselves member-owners of the cooperative.

On March 2, these local directors, along with key co-op staff members, arrived in Nashville for the annual Tennessee Electric Cooperative Association (TECA) Legislative Conference to meet with their state legislators. Informing and educating elected officials is another vital role electric cooperatives must perform to protect the interests of Tennessee's co-ops and their member-owners.

Representing Holston EC at the meeting were board members Danny Cockerham, Lynn Parker and Phil Pierce and General Manager Larry Elkins.

"We maintain a presence at the state Capitol to ensure that our legislators remember that they represent some 2 million rural electric member-owners," said Tom Purkey, general man-

ager of TECA, the statewide organization that formulates legislative, public relations and safety programs for its member systems. "These board members, general managers and staff members visit not only as spokespeople for their cooperatives but as constituents — folks from back home who helped elect these legislators. It's our job as representatives of rural electric cooperative member-owners to be sure your interests are protected in the General Assembly."

When the Co-op delegations arrived on Capitol Hill for this year's visit, they concentrated on one main concern: pole-attachment fees, an issue cooperatives have been battling for years. It's a topic that has a long history of debate in the legislature as cable television companies seek to lower what cooperatives can charge them to attach lines to their electric poles.

Tennessee's electric cooperatives support HB 1743 by Rep. Craig Fitzhugh of Ripley, which would create a working group to meet regularly to discuss pole-attachment rate issues and provide an appeals process, first with co-op boards and then local chancery courts. Besides opposing pole-attachment rates outlined by the Federal Communications Commission (which recognizes the difference between not-for-profit co-ops and for-profit utilities with a specific exemption for electric cooperatives), co-ops are also against regulation by the Tennessee Regulatory Authority, which would increase electric rates.

*(Continued on page 19)*

# Be careful when tackling home wiring projects

If spring sends you into remodeling mode, consider checking with professionals before you migrate to the nearest hardware store. While do-it-yourself (DIY) projects can be very satisfying to complete, they pose risks when it comes to electricity.

“Mistakes can be costly — or even deadly,” warns John Drengenberg, consumer affairs manager for Underwriters Laboratories Inc. (UL), a Chicago-based not-for-profit firm that tests and sets minimum standards for electric-consuming items. “The first and best safety tip is to call in an expert rather than be your own electrician.”

An ongoing study by the Quincy, Mass.-based Fire Protection Research Foundation has given UL engineers a better understanding of typical DIY wiring mistakes. The most common:

## 1. Working with a live wire

It may seem perfectly obvious, but thousands of DIY’ers receive electric shock injuries each year. To avoid becoming a statistic, always turn off the circuit breaker (or remove the fuse) before working on or replacing electrical equipment. If you have a pre-1940s home, be mindful that you probably have more than one breaker box — or panel board, as electricians call them.

## 2. Using the wrong lightbulb

Most lighting fixtures feature a sticker on the socket that tells you the proper type and maximum wattage of the light bulb to use. Installing a different type of bulb or one with higher wattage will not only make the room brighter but could also damage the lights and cause a fire. Heat is usually the catalyst in this case: The higher the wattage, the hotter the bulb and the hotter the wire that goes to the lighting fixture.

## 3. Not being grounded

For optimal safety, receptacles should be wired with the proper grounding and polarity. Generally, three-pronged outlets signify an effective ground path in the circuit. However, homes built before the mid-1960s probably don’t have a grounding path, and simply replacing the existing outlet with a three-pronged outlet won’t give you one.

“You see instances of this in homes with older wiring,” Drengenberg says. “It’s no worse than if you plug your two-pronged device into a two-pronged outlet. But it does give the homeowner a false sense of security.”

Wiring with a grounding path usually sports a copper grounding wire with the cable. If you are uncertain about whether your home’s wiring is grounded, inexpensive UL-listed outlet circuit testers are available to check for proper grounding and polarity. If your outlet is improperly grounded, call an electrician before moving forward with any project.

## 4. Splicing, splicing, splicing

Always make sure your wiring size and type match. Splicing wires by simply twisting them together and covering them with electrical tape is rarely a good idea. Instead, use wiring suitable to your home’s wiring and place wiring connections in metal or plastic boxes to decrease fire risk.

Also keep in mind that circuits protected by 15-amp fuses or breakers should be wired with No. 14 AWG copper wire minimum. For 20 amps, use No. 12 AWG minimum-size copper wire. Other guidelines apply, so if you expect to do any splicing, seek professional help before you begin.

## 5. Hooking new lights to old wires

Most light fixtures are marked with instructions for supply connections such as “Use wire rated for at least 90C,” which refers to the maximum temperature — 90 degrees Celsius or about 200 degrees Fahrenheit — under which a wire’s insulation can safely be used. Again, if you have an older home (pre-1984 in this case), wiring may have a lower temperature rating than a new luminaire.

“This isn’t something most DIY’ers even think to consider,” Drengenberg cautions. “It probably won’t burst into flame immediately, but it does increase the risk of a fire.”

To avoid that risk, check your wire rating first, and either upgrade it or buy fixtures within the supply connection range.



**Be careful not to install new lighting to old, inferior wires. To avoid this fire hazard, check your wire rating first and either upgrade it or buy fixtures within the supply connection range. Photograph courtesy of Electrical Safety Foundation International**

# Hamblen County couple joins other young leaders in Nashville

*Annual conference focuses on cooperatives, agricultural issues*

**M**atthew and Kristy Lacy of Hamblen County were selected by Holston Electric Cooperative to attend the 2010 Young Leaders Conference Feb. 12-14 at the Music City Sheraton in Nashville.

They joined more than 200 others from across the state for the annual conference, an educational and motivational event that brings young people together to develop leadership skills and learn about cooperatives and agricultural issues.

“If these young people can go home with one or two ideas that they can implement, then we have made a big difference in their lives,” said Charles Curtis, director of special programs for Tennessee Farm Bureau Federation (TFBF) and president of the Tennessee Council of Cooperatives (TCC). “This conference also gives them a chance to learn from each other and gain confidence to become more involved in their communities.”

TCC, which co-sponsors the conference with Farm Bureau’s Young Farmers and Ranchers (YF&R), is composed



**Hamblen County residents Matthew and Kristy Lacy represented Holston EC recently at the Young Leaders Conference in Nashville.**

of a variety of cooperatives, including farm credit banks, TF&R and dairy, farm-supply, telephone, electric and tobacco co-ops. YF&R is an organization for men and women ages 18 to 35 with an interest in agriculture.

With the theme “Communicating Leadership Cooperatively,” the program covered such timely topics as social media networking, value-added ventures and the Tennessee Biofuels Initiative. In addition, a trade show gave participants a chance to learn more about the sponsoring organizations.

Attendees also had the option of touring Tennessee Farmers Cooperative’s La Vergne facilities on the afternoon of Feb. 12. Bart Krisle, TFC’s chief executive officer, welcomed the nearly 50 participants for the tour and later spoke at that night’s banquet, which TFC sponsored.

“Thank you for investing your time to improve your skills as leaders and increase your knowledge of co-op advantages,” said Krisle. “You represent the future of rural America and the future of cooperatives.”

## Co-ops on Capitol Hill (Continued from page 17)

“Simply put, co-op members should not have to pay higher electric rates so that cable television companies can have more revenue,” said David Callis, TECA director of government relations. “Lower attachment rates mean greater profits for cable television companies from the pockets of rural Tennesseans, many of whom do not even have access to cable television.”

In a report released in January 2007, the Tennessee Advisory Commission on Intergovernmental Relations (TACIR) found that the rates charged by Tennessee’s electric cooperatives are “not necessarily out of line” with those charged in other states. Cooperatives have maintained that the rates they charge — a fraction of the cost of owning and maintaining

poles — are fair while cable TV has lobbied for government regulation to set the amount co-ops can charge.

During their visits with state House and Senate members, co-op representatives distributed information on the compromise attachment-rate bill and the TACIR report on its pole-attachment study. They also made sure their legislators understand what cooperatives are, thanked them for their support in the past and answered their questions, stressing that the co-op board members and staff are available at any time should they need more information.

“It may not be our most visible or well-known responsibility, but our legislative visits are very important to ensuring the stability of our electric cooperatives,” said Purkey. “We make sure that our elected officials remember rural Tennesseans when making laws that affect the outstanding electric service provided by co-ops across the state.”

# Do tankless water heaters live up to the hype?

*Courtesy of NRECA's Cooperative Research Network*

An unlimited supply of hot water definitely sounds like a sweet deal to many homeowners. So do reduced water heating costs, instantaneous hot water on demand and more space in the utility closet.

These are all promises made by companies selling tankless water heaters. But does the technology really deliver?

Unlike traditional electric resistance or gas-fired water heaters, tankless models do not store hot water — they heat water only as it's consumed. A series of heating elements within a tankless water heater are activated when a hot water faucet or valve is opened. The unit heats water until the faucet or valve gets closed.

## 'Unlimited' hot water?

An unlimited supply of hot water sounds great but generally doesn't make for responsible water use, particularly in areas of the country suffering from drought or chronic water shortages. Moreover, even the largest whole-house unit may not supply enough hot water for simultaneous, multiple uses.

For example, such a unit may be able to supply only two showers simultaneously or perhaps one shower, a dishwasher and a sink. If users demand too much water, temperatures will drop. As a result, a tankless system probably won't meet the needs of a large family.

In addition, water temperature depends on the volume coming out of a faucet. If you turn on the faucet only a trickle, water runs cold. If you open the faucet further, you will trigger hot water — the hottest possible. If you open the faucet to maximum, the temperature will drop back a bit. If you open more than one faucet, temperatures will drop even more.

## Hidden costs

Generally, tankless water heaters do not require a lot of space (a large unit can fit in an area no larger than 24 inches square and extend from the wall about 8 to 10 inches). But they do require an upgrade in electrical service — something most home improvement stores often don't mention and a chief reason electric co-ops generally don't recommend the appliances. This means consumers who want to replace an existing conventional water heater with a

tankless unit or add one as part of a home-remodeling project will incur additional costs.

For example, a traditional tank water heater with 4,500-watt elements operates on No. 10 wire and a 30-amp circuit breaker. One whole-house tankless model boasts four 7,000-watt elements for a total electrical load of 28,000 watts. This requires wire and a circuit breaker that will handle at least 120 amps.

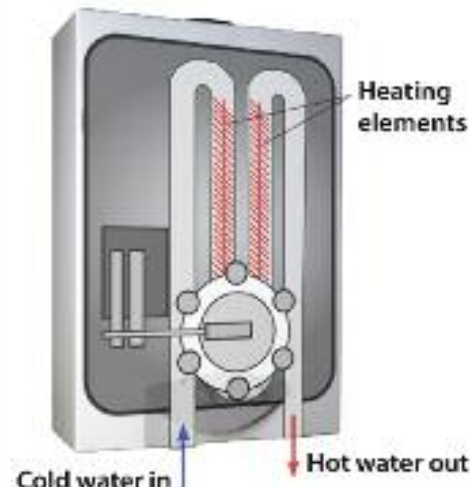
If a tankless water heater is installed in an existing home without upgrading the electrical service, low voltage or sudden voltage drops are likely. This will cause dimming lights, blinking lights and other problems.

The extra load also necessitates a larger and more expensive meter loop and main breaker panel for the house. In some cases, consumers also must pay for new wiring between the distribution transformer and electric meter. Check with a licensed electrician or Holston Electric Cooperative to determine if you must improve your electric service connections to support a tankless water heater.

While gas-fired tankless water heaters generally do not need basic service upgrades, the same considerations must be made when determining how many hot water faucets will be turned on at any given time and how far away the tankless heater remains from sinks and showers.

## A tankless water heater at work

Unlike a traditional water heater, a wall-mounted tankless model does not store hot water. It heats water only as it is used with heating elements inside the water heater that are activated when a hot water faucet or valve is opened. Consumers can generally save more on energy costs by using traditional water heaters (with a tank) efficiently.



*Source: U.S. Department of Energy*

## Other options

Consumers looking for an efficient water heater should consider a heavily insulated electric resistance unit. These appliances are often the most cost-effective option over the long term. And because of their hot water storage capabilities, many electric co-ops employ electric resistance water heaters as a key component of load management programs that shave power costs during times of peak demand — a proven way to help keep electric bills affordable.

To reduce home water heating costs, the Oak Ridge National Laboratory suggests simple and inexpensive measures such as tank insulation, temperature setback, timers, heat traps and low-flow showerheads. All of these are more practical and provide a greater return on investment than putting in a tankless water heater.