



Youth to Washington trip may provide answers for your future



Kelly Hamm
Energy Services Manager

OK. So you aren't really into politics. As a junior in high school, you're thinking about college and where you're going to come up with more than \$100,000 to pay for higher education. You're also trying to decide what you want to work at the rest of your life to make that college experience pay off.

Oddly enough, the very people who may have answers to those questions are wearing the title of state legislator or seated in chambers of the U.S. Congress in Washington D.C.

Before you know it, you will be voting in your first election and the weight of the country's decisions will partially belong to you. Will you support a Congressman who wants to pass Cap & Trade? Will you be in favor of farm subsidies? As you approach what was once "draft-age," do you think we should send more troops to Iraq and Afghanistan or should the military be strengthening our borders? Oh, and when you get the opportunity to meet your Congressman, in addition to these questions will you ask: What has Congress done to make higher education more affordable and will I be able to find a job when I graduate?

Electric and telephone cooperatives in 44 states believe that young people deserve a first-class opportunity to educate themselves in the government process. Each year, the cooperatives across the nation sponsor more than 1,500 high school students to make the trek to Washington to get that personal initiation, and they have a lot of fun in the process. **531C1-900C**

It all begins in Springfield on April 6, 2011 during the Illinois Electric and Telephone Cooperative Youth Day where nearly 300 students will visit the State Capitol and spend much of the morning meeting with legislators. You will tour the Supreme Court and spend the afternoon



touring local sites.

To be considered for this trip, see your guidance counselor for details as participation rules vary from co-op to co-op.

This year marks the 52nd trip to the nation's capital and promises to be as exciting as ever. Students learn the principles required to keep cooperative members working together for the cooperative's success by establishing their own "chip and pop" cooperative while on the bus trip.

While in Washington during the week of June 10-17, in addition to meeting with Congressman from Illinois, students are treated to tours of historic sites, given the opportunity to make life-long friends and receive information to help determine career paths.

The future of the country depends on the youth of today getting involved.

To be eligible you must be a junior in High School.

To learn about this opportunity, contact your Guidance Counselor or Kelly Hamm at McDonough Power Cooperative by calling 309.833.2101. You may also check out the Youth Tour through the Association Of Illinois Electric Cooperatives (AIEC) at www.aiec.coop for additional details.



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Theft of co-op copper costs lives and more

In October, Ameren employees sent to repair an outage found the cause – a dead man, who while attempting to steal copper wire, cut into a hot wire. His two accomplices fled the scene.

In August a 23-year-old man broke into a North Carolina electric co-op's substation to steal copper wire. He was perched atop a high-voltage regulator when he apparently cut a wire. The jolt of electricity knocked him 10 feet away from the regulator and he was dead at the scene. **627A3-706B**

The members of Oklahoma Electric Cooperative are facing an estimated \$1 million repair bill because copper thieves wrecked a substation for just \$100 worth of copper. The thieves hit at 5 a.m. on Oct. 17 and the damage caused an outage and destroyed regulators and a large transformer valued at \$600,000. Given the fire and destruction, co-op officials are amazed they didn't find a burned body in the substation, too.

In West Virginia, two people are facing first-degree murder charges because of a botched copper theft attempt in an Appalachian Power substation. Three thieves broke in and were stealing copper wire when one was severely burned. The current left a large hole in his leg where it left his body. He was surrounded by copper wire.



Thieves across the country are damaging electrical equipment like these transformers for the copper they contain. Some thieves are paying for the theft with their lives.

He died a day later and his accomplices, who were engaged in the felony that resulted in the death, are facing murder charges.

Almost every co-op in Illinois has had some kind of copper theft. You can help prevent more damage and death.

- If you notice anything unusual with electric facilities, such as an open substation gate, open equipment, hanging wire, etc. contact your electric utility immediately.
- If you see anyone around electric substations or electric facilities other than utility personnel or contractors, call the police.



Tip of the Month

Feel around doors and windows for air flow. Adding weather stripping or caulk around a leaky door or window can lower energy bills by keeping your heating system from working too hard to compensate for air leaving your home.

Source: U.S. Department of Energy



We're Different.

We're Looking Out for You

Cooperatives are different from other business you deal with. To tell you the truth, we like being different. And the fact that you're reading this article shows you like that difference, too.

We're different because we're *Looking Out for You*. Now, more than ever, that's important because we need to work together to keep your electric bills affordable.

Congress did not pass a comprehensive climate bill last year. In January the U.S. Environmental Protection Agency began regulating greenhouse gasses — an action made possible by a 2007 Supreme Court decision, followed by rulings allowing the EPA to use the Clean Air Act to curb carbon emissions. Policies dealing with coal ash, even more stringent controls on other power plant emissions, and state renewable energy requirements could also lead to higher costs. It's hard to predict the future, but one thing seems certain: Government regulations are going to increase the cost of doing business. **527SG33-950A**

New regulations won't be the only culprit. Prices for fuel, materials, and equipment will continue to rise. Although the recent economic slump and corresponding drop in electricity use provided some much-needed breathing room, soon we will need to build new power plants, requiring a significant, long-term investment of time and money.

We're committed to keeping you informed about policy changes that will impact your electric bill through channels like the Illinois Country Living and our

website. We're going to do everything we can to keep your electric bills affordable.

To accomplish that, we're controlling costs through innovation. Our energy efficiency programs help you manage your energy use. The link on our website to TogetherWeSave.com shows how little changes like sealing your air ducts, replacing old appliances, or improving your home's insulation can add up to big savings on your electric bill. We also offer home energy audits to make sure you're getting the best value out of the energy you use every month.

Deploying state-of-the-art solutions like our automated meter infrastructure system helps us control operating costs and improve service reliability. Nationally, co-ops are meeting members' power needs with a diverse fuel mix, including renewable energy.

While we're affordable and innovative, above all else we're member focused. No matter what comes our way we'll continue to put you, our members, first. McDonough Power Cooperative is member controlled and locally operated. As a member, you have a voice in how your co-op operates. At our annual meeting each year you have the opportunity to elect fellow members to our board of directors to represent your best interests.

Member control means we are accountable to those we serve and are dedicated to assisting our communities — your money stays at work close to home. Costs are rising for all of us, but when it comes to your electric bill our



rates are set simply to cover the cost of doing business, not to generate profits for distant stockholders.

In fact, as a not-for-profit organization, we give money back to you when our revenues exceed costs. We're proud to report that in 2010 we returned more than \$238,000 dollars to our members in the form of capital credits

The bottom line? We exist only to serve you and meet your needs for safe, reliable, and affordable power.

As you can see, we're different. We're working together to keep your electric bills affordable. We're controlling costs through innovation. And we're continuing to put you, our members, first. No matter what the future brings, one thing is certain. We're *Looking Out for You*.

Home funding continues into the new year

The popular Home program being coordinated by McDonough Power Cooperative has received additional funds and will continue into 2011. Initially funding with \$1.5 million in federal stimulus program funds in May, Home is getting an additional \$1 million boost to promote energy efficiency in electric cooperative members' homes.

The funding is coordinated through the State of Illinois energy plan.

Home will continue to run, basically as it has, until the complete \$2.5 million has been utilized. The Home program consists of two parts — a residential energy audit, provided by the cooperative, followed by a series of rebates for efficiency upgrades. The re-

bates range from \$250 for a heat pump water heater, to \$1,500 for a geothermal heating/cooling system. A variety of heating/cooling upgrade rebates are available, as well as incentive rebates for adding insulation and weatherization products. The maximum rebate for any homeowner is \$1,500. For more details contact Kelly Hamm at 309.833.2101.



Why does the power blink?

By Scott Turner, P.E.

At one time or another, we've all returned home or woken up late for work to see a blinking "12:00" on our digital alarm clock. You then have to re-set every digital clock in your household that doesn't have a battery backup, from the microwave oven to the answering machine. Usually, this state of "eternal midnight" was caused by a "blink" in the electrical system.

While blinks can be annoying, they show that an electrical system is working exactly as designed. And while McDonough Power has taken steps to reduce the number of blinks across its power system, there are measures you can take as well. **527C9-956A**

Let's look at blinks. These momentary power interruptions can occur anywhere along a power system — from the time electrons are generated at a power plant to being shipped across transmission line to substations, or during distribution from a substation to your home.

Why blinks?

Blinks are created when a breaker, or switch, opens along any portion of the power system. The breaker usually opens because of a large, quick rise of electrical current. This large rise, called a fault condition, can occur when a tree branch touches a line, lightning strikes, or a wire breaks.

When this happens, a relay senses the fault and tells the breaker to open, preventing the flow of power to the problem site. After opening, the breaker



quickly closes. The brief delay, which allows the fault to clear, usually lasts less than two seconds.

If the fault clears, every home or business that receives electricity off that power line has just experienced a blink. This could include thousands of accounts if the breaker protects a transmission line or a substation.

Reducing the blink's effects

Your co-op employs methods to reduce blink frequency. Tree trimming is probably the easiest and most common way, and one area where you can help. Make sure your co-op knows of any trees or limbs located close to a power line.

Meanwhile, you can reduce the frustration of blinks by purchasing an alarm clock equipped with a battery backup. This type of digital clock offers "ride through" ability for momentary outages.

It will also keep the correct time and sound an alarm in case of a long-duration outage, provided a charged battery is in place. As an added benefit, these devices only use the battery in the event of a power interruption.

Blinks affect all electrical equipment, not just digital clocks. If there is a blink while you are operating a computer, your computer may crash and you will have to reboot, hoping all the while that there will be few corrupted files.

An uninterruptible power supply (UPS) on your computer can help prevent information loss. The UPS incorporates surge suppression technology with a battery backup and provides you some time to save whatever you were working on and exit your computer properly.

The future of blinks

McDonough Power operates an active system maintenance program and works hard to identify and fix sources of service interruptions. Even though blinks will never disappear from our electrical energy delivery system, by working together with we can minimize effects of the interruptions and the frequency with which they occur.

This article was written by Scott Turner, P.E., a former electric co-op employee, who is an electrical engineering consultant at his firm JD Engineering, PC, in Hamilton, Mont. (www.jdeng.org).

MAP LOCATION GAME

Every month we will have four map location numbers hidden throughout *The Wire*. If you find your map location number, call our office and identify your number and the page that it is on. If correct, you will win a \$10 credit on your next electric bill.

