Wake ElectriConnection

Published monthly for the members of Wake Electric Membership Corporation April 2007 www.wemc.com

The importance of vegetation management

Vegetation management, commonly referred to as right-of-way maintenance, is essential in providing safe and reliable electric service. Electric cooperatives work hard to ensure that rights of way are regularly cleared of trees and brush to help reduce potential outages and hazards. Trees and branches growing in or near power lines can cause interruptions in service. Uncontrolled brush can impede access to utility structures.

Keeping safety first

Trees and branches pose significant safety concerns when they are too close to power lines. Children climbing trees in this situation could be severely injured or even killed if they contact an energized line. Adults are also at risk. Pruning trees near power lines should be left to qualified vegetation management professionals.

Additionally, trees can fall into power lines due to strong wind and inclement weather. Not only can power lines be knocked over, but power poles and towers can break and fall as well. Although all weather-related outages can not be prevented, vegetation management definitely minimizes damage, injury and outages.

Reducing the likelihood for power outages

In August 2003, approximately 40 million people lost power for roughly two days in the northeastern United States. The root cause for this massive blackout – overgrown trees that contacted high-voltage power lines. The importance of vegetation management can not be stressed enough. In fact, the North American Electric Reliability Council (NERC) has established mandatory requirements for transmission vegetation management.

The new standards apply to transmission lines operating at 200 kilovolts and above. Transmission lines are used to carry bulk electricity from a generating plant to a substation. Currently voluntary, these new requirements will likely become mandatory by June 2007 and will establish formal transmission vegetation management programs that define the following:

- regular schedules for clearing
- clearances between vegetation and transmission lines
- quarterly reporting systems for transmission outages caused by vegetation

Vegetation management for distribution lines is addressed through the National Electric Safety Code (NESC). Distribution lines deliver electric energy to cooperative members. Although there are no specific requirements, NESC states, “vegetation that may damage ungrounded supply lines should be pruned or removed.” Some electric cooperatives are also regulated by state commissions to address right-of-way cycles.

In addition to safety concerns and outage prevention, vegetation management is necessary to reduce unexpected costs to electric cooperatives. By keeping rights of way clear, co-op crews are able to restore power more quickly, improve reliability and prevent expensive repairs to systems damaged by fallen trees or neglected vegetation.

In general, vegetation management is performed at electric cooperatives every two and a half to five years, depending on the service territory and terrain. Should you notice any trees or brush that need attention, please contact Wake Electric.

From Your Manager...

Jim Mangum

How railroads affect the cost of your electricity

This year, electric co-ops across the country will engage in a classic David-versus-Goliath legislative battle, fighting for fairness in how we are treated by the nation's railroads. Even as electric co-ops work hard to meet the growing demand for electricity, we find ourselves increasingly dependent on railroad monopolies, which are exempt from federal antitrust laws, to deliver coal to generate power.

The cost of shipping coal by rail today can exceed the cost of the coal itself, increasing rates for electric co-ops and their consumers. Without federal action, this situation will hinder the need to meet the nation's growing appetite for affordable and dependable electricity. Electric co-ops, along with the rest of the electric utility industry, are not the only businesses affected by railroad monopolies. Grain farmers, steel manufacturers, wood and paper products industries, and chemical and fertilizer producers have had to deal with unfair pricing and unreliable service from the railroads for far too long.

How railroad monopolies were formed

A series of mergers in the railroad industry, following deregulation in 1980, cut competition from 40 major railroads to four. That consolidation left some shippers, like electric co-ops, captive to a single carrier with no alternative way to move coal and other supplies. Today, at least one-fifth of all rail customers are held captive by a monopoly freight railroad. What started as just a regional captive shipper issue has now grown into a national economic concern that affects all Americans. When competition exists, railroads average a 6 percent profit. But without competition, shippers are held hostage by the railroads whose profits soar to an average of 400 percent or more.

What is being done, and what you can do

Over the years, the National Rural Electric Cooperative Association (NRECA), on behalf of member co-ops, has worked with other businesses and consumer groups to bring the anticompetitive rail practices to the attention of regulators and legislators. Working together, the coalition, Consumers United for Rail Equity (CURE), was formed to focus on congressional policies affecting railroad competition. As a result, electric co-ops have their best opportunity in decades to push for congressional action aimed at forcing big railroads to offer better service and fair rates. Specifically, CURE is calling for a common rail carrier "obligation to serve" standard when it comes to delivering products, like coal, that are critical to the U.S. economy.

To succeed, all of our grassroots resources need to concentrate on this fight. As member-owners of your electric co-op, each of you can play an important role. I encourage you and your neighbors to get involved by contacting your U.S. legislators and asking them to reject the monopoly practices of America's freight railroads. It is time for our leaders on Capitol Hill to do something to fix this problem.

Just a phone call away...

Call Wake Electric anytime to report power outages at the following numbers:

(919) 863-6499 or (800) 743-3155

- **Regular Office Hours are 8 a.m. to 5 p.m., Monday through Friday**
- **Telephone Hours: 7 a.m. to 9 p.m., Monday through Friday at (919) 863-6300 or (800) 474-6300**
- **Underground locating service, call N.C. One-Call Center at (800) 632-4949**
- **Interactive customer service line for inquiries on accounts or to report outages from a touch-tone phone: (919) 863-6499 or (800) 743-3155**

Practice electrical safety in your neighborhood

When thinking about your home or neighborhood, chances are you will not be thinking about the power lines. It is easy to overlook their presence, as power lines reside high above your roof, can run alongside property lines or near trees. Nevertheless, power lines can pose serious electrical hazards if completely forgotten.

Trees can be a power lines worst enemy. Strong winds and storms can blow trees over or break branches pulling power lines down from poles or supporting towers. It is possible for the line to remain energized and potentially electrify the tree and nearby objects.

Arcing or flashovers between power lines and trees can also cause potential damage or danger. Additional weight from snow and ice can bend or break tree branches bringing them close enough to power lines to cause an arc or flashover. A voltage surge on a power line from a nearby lightening strike can cause a tree to become "electrified" as well.

During warm weather or when power lines are carrying heavy electrical loads, they can heat up and stretch, making the lines longer. Thus, power lines can sag as much as 15 or 20 feet bringing them even closer to trees. The electric current caused by arcing or flashovers between power lines and trees can easily injure or even kill an individual caught nearby. It is important to pay attention to power lines in your neighborhood.

Below are some tips to consider for power line safety in your neighborhood:

- Make sure to always look for nearby power lines before you begin to cut down any tree or trim branches. If a tree falls into a power line, contact Wake Electric.
- Treat all power lines as energized. Never climb or attempt to handle a tree that has a limb caught in a power line. You may not see any visible evidence that the tree is "electrified" or dangerous.
- Make sure to maintain required clearances between equipment and power lines.
- If a fire starts from a fallen power line, notify the fire department and Wake Electric. Stay away from the site of the electrical hazard. Make sure others stay clear of the line and treat it as energized.
- Do not use water on or near the fallen power line.

In addition to taking the necessary steps to respond to an electrical emergency, you can help stop potential power line problems before they start by practicing these safety measures:

- If you notice anything such as trees or branches that might interfere with power lines or pose a serious threat, inform Wake Electric.
- If you are planning to plant trees on your property, make sure not to plant them directly under or near power lines.
- Shrubs, hedges and other plants should be kept clear of electric towers and poles.

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The ElectriConnection is published monthly by Wake Electric, PO Box 1229, 414 East Wait Avenue, Wake Forest, NC 27588

www.wemc.com

Hiring a home performance contractor

Many of us have plans for home improvement projects that will improve the energy-efficiency of our homes. If we are lucky, we will find time to bring a few of these ideas to completion each year. The simplest energy-saving measures, such as installing a few compact fluorescent lamps or wrapping a water heater, make good weekend projects. But the bigger tasks, such as adding attic insulation or installing a high-efficiency furnace, require professional training and tools. A home performance specialist can help turn these larger tasks into reality.

Home performance contractors specialize in analyzing and improving existing homes, with a focus on comfort, efficiency, and durability. In performing home assessments, they use specialized tools and procedures to identify energy waste and prioritize remodel tasks. Most follow established national standards to assure that the procedures they offer follow accepted best practices. If you plan to hire a home performance contractor, be sure to ask if the following procedures will be included:

- A blower-door test to measure air leakage through the building shell
- A duct-blower test to measure duct leakage
- A combustion safety test to assess the function of heating equipment and chimneys
- An efficiency assessment of heating and cooling equipment to determine if an upgrade would be cost-effective
- An inspection of attic and wall insulation to determine if more insulation is needed
- An assessment of ventilation levels to assure that excess moisture does not encourage the growth of mold or mildew

The Home Performance with Energy Star program, sponsored by the U.S. Department of Energy and the Environmental Protection Agency, provides important national standards for home performance contracting. You can learn more about the program and locate qualified contractors at their Web site: www.energystar.gov/homeperformance

Saving energy by testing and sealing your home's ductwork

If your home has a central heating or cooling system, it probably relies on ductwork to carry conditioned air to each room. If this ductwork is not properly sealed, up to 30 percent of the energy you purchase to operate your heating or cooling system could be wasted by duct leaks. Duct sealing will reduce this loss.

The best way to measure the air-tightness of your home's duct system is by performing a duct-blower test. A duct blower is a portable fan that is used to pressurize the ductwork in your home. It is calibrated to determine the size and location of air leaks, giving guidance to air sealing technicians on where to concentrate their duct sealing efforts. A duct-blower test and subsequent air sealing can be performed by either a building performance contractor or by a heating, ventilation, and air conditioning (HVAC) contractor.

To learn more about how duct sealing can improve the comfort and efficiency of your home, visit the Home Performance with Energy Star Web site: www.energystar.gov/ducts