Tree trimming programs help keep the power flowing safely

BY MEGAN MCKOY-NOE

Electric co-ops and their contractors prefer to trim trees in the early spring or late fall, when there are no leaves.

Trees may seem harmless on a calm, sunny day. But add a bit of wind or ice on a stormy night and those towering pillars may threaten your home's electric supply.

"The majority of our storm outages are related to trees contacting power lines," says Dennis Corcoran, director of safety and loss control for the Iowa Association of Electric Cooperatives. "Regular trimming of trees and brush along power lines helps cut down on the number of power interruptions."

Electricity outages can occur when branches break and fall across power lines or when trees tumble onto power lines. When strong winds blow, limbs growing too close to power lines may sway and touch wires. These momentary power disruptions or "blinks" aren't just mild annoyances – they can damage computers and other sensitive electronic equipment and leave digital clocks flashing. And then there's arcing – when electricity uses a nearby tree as a path to the ground – which poses a hazard to anyone in the vicinity and could spark a fire.

The co-ops wage a never-ending war

Line crews and contractors hired by the co-ops look for foliage and trees growing under or into the power lines, overhanging branches and problem trees that could pull down a power line if they fall. As a rule of thumb, 25 feet of ground-to-sky clearance should be available on each side of utility poles to give power lines plenty of space.

"Your local electric co-op is committed to providing safe, reliable and affordable power, and its vegetation management and tree-trimming programs are key to fulfilling that promise," says Corcoran. "This job never ends. By the time our crews finish clearing trees and brush from hundreds of miles of lines, it's often time to go back to the beginning to clear away new growth."

The North American Electric Reliability Corporation, which oversees reliability of the transmission system that blankets the United States, most of Canada and one Mexican state, tracks power-supply-related outages. The

Photo: Blue Grass Energy

group says vegetation management programs have met with widespread success; for the first time ever, no summertime transmission outages were reported last year.

Typically, a co-op will not remove trees

"The Tree Care Industry Association receives a lot of calls from homeowners complaining that their utility company 'drastically' cut trees near power lines," says Tchukki Andersen, staff arborist for the organization.

Your electric co-op respects your property and decides how to trim a tree based on the amount of clearance needed around wires, voltage coursing through the lines, the tree's growth rate and how frequently trimming along the line is performed. Most line workers and crews hired to perform tree trimming treat trees with care, often following Tree Care Industry Association guidelines.

For mature trees that have grown too close to overhead lines, several trimming options are employed. A **V-cut** prunes branches back toward the center of the tree's crown, basically carving a V-shape through the middle to provide proper line clearance.

If limbs grow too close to lines on one side of a tree, **side trimming** may be used to remove branches on the offending side. Finally, the **notch method** clips limbs on one side of a tree from the top to a safe area underneath, leaving a canopy that won't cause any problems.

You can contribute to electric reliability and safety too

Trees are a valued part of every yard's landscaping, and with proper planning your trees can grow to their full potential without causing power line woes. Several guides are available for prospective planters; to learn more visit the Arbor Day Foundation Web site at www.arborday.org.

In general, don't place tall-growing trees or varieties boasting wide canopies near utility poles. A local nursery can give you information outlining how tall and quickly a tree will grow.

Your utility's right-of-way trimming practices play a big role in safety too. Children climbing trees could come into contact with a live wire if trees are too close to power lines. Notice any dead, dying or severely leaning trees near power lines in your area? Be sure to alert your local electric cooperative. And if you want to remove a tree near a power line, your co-op will be happy to work with you. Please contact the office before tackling the project.

Megan McKoy-Noe writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association, the Arlington, Va.-based service arm of the nation's 900-plus consumer-owned, not-for-profit electric cooperatives.

Last month, a severe storm in central Iowa knocked down this tree, which in turn pulled down the power lines and snapped the nearest power pole.

Anything making contact between a wire and transformers or the ground becomes an electricity conduit. Animals, often squirrels, cause 10 percent of electric co-op power interruptions.

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Causes of co-op power interruptions

Weather	19%
Equipment	16%
Vegetation	15%
Lightning	13%
Animals	10%

Top co-op outage prevention plans

Tree trimming	89%
Lightning arrestors	83%
Line patrol	82%
Animal guards	81%

Source: NRECA Market Research Services, 2009