

TREE CUTTING & TRIMMING INFORMATION

As of 8-20-2009

Many people are unaware that Electric Utilities have the legal right and authority to maintain its electrical transmission and distribution facilities in a manner that promotes a high standard of safe and reliable service. Similarly, customers on whose land these facilities are located have a legal obligation to allow these Electric Utilities to perform reasonable maintenance and upkeep of its facilities and may not impede these Electric Utilities ability to do so.

The Utah Public Service Commission has adopted rules that require Electric Utility customers to allow them to sufficiently perform this maintenance as a condition of service. The customer shall permit access by the Electric Company's representatives at all hours to maintain electric distribution facilities on the customer's premises. The customer shall permit the Company to trim trees and other vegetation to the extent necessary to avoid interference with the Company's lines and to protect public safety.

The Utah Public Service Commission rules and regulations (Utah Admin. Code § R746-310-4 D (1999)) obligate all electric utilities to comply with the National Electric Safety Code ("NESC") standards for maintaining electric transmission and distribution lines free of trees and other vegetation that may interfere with such lines or that pose a safety hazard. Section 218-A-1 of the NESC states:

Trees that may interfere with ungrounded supply conductors should be trimmed or removed. *NOTE:* Factors to consider in determining the extent of vegetation management required include, but are not limited to: line voltage class, species' growth rates and failure characteristics, right-of-way limitations, the vegetations location in relation to the conductors, the potential combined movement of vegetation and conductors during routine winds, and sagging of conductors due to elevated temperatures or icing.

In limited situations where Electric Utilities have not acquired a written easement from the landowner, the right to maintain a certain transmission or distribution line may arise by operation of law. Known as a "prescriptive right," a line that has been in place for at least 20 years will be recognized under Utah law in much the same manner as an easement acquired by negotiation from the landowner. Once vested with this right, Electric Utilities have the legal duty and authority to reasonably maintain the line in a safe and reliable manner.

To determine what is reasonably safe we must follow guidelines set forth in the NESC for maintaining electric transmission and distribution lines free of trees and other vegetation that may interfere with such lines or that pose a safety hazard. Proper pruning practices should be followed as outlined by the International Society of Arboriculture (ISA) and American National Standards Institute (ANSI). The ANSI A300 standard section 5.9.2.1.4 and 5.9.2.1.5 state:

-Trees growing next to and into or toward the facility/utility space should be pruned by reducing to laterals (5.3.3) to direct growth away from the utility space or by removing entire branches. Branches that when cut, will produce water sprouts that will grow into facilities and/or utility space should be removed.

-Branches should be cut to laterals or the parent branch and not at a preestablished clearing limit. If clearance limits are established, pruning cuts should be made at laterals or parent branches outside the specified clearance zone.

The ANSI A300 standard section 5.9.2.1.3 states:

Trees directly under and growing into or toward facility/utility spaces should be removed or pruned. Such pruning should be done by removing entire branches or by removing branches that have laterals growing into (or once pruned, will grow into) the facility/utility space.

There are different clearance requirements depending on tree species, growth characteristics, and voltage of the line. Tall fast growing trees like cottonwoods require at least 12 feet of side clearance, at least 10 feet of overhanging clearance, and at least 14 feet of clearance underneath the distribution lines. Tall slow growing trees like pines require at least 8 feet of side clearance, at least 10 feet of overhanging clearance, and at least 10 feet of clearance underneath the distribution lines. Some pruning cuts are made at the trunk to reduce the crown and eliminate the main central lead; the rest are pruned to lateral branches large enough to support the remaining limbs. The lateral limbs that are able to be pruned must provide necessary clearances and direct future growth away from the power lines. Once clearances are obtained Electric Utilities can complete additional pruning at the property owners request to help the appearance of the trees. However, they will not top or round over tree's.

The Court Of Appeals of Utah in Taylor v PSC & PacifiCorp, *2005 UT App 121*, states in part:

The PSC's findings that PacifiCorp has the legal right to trim "to the extent necessary to avoid interference with the Company's lines and to protect public safety," and that the proposed trimming is reasonable under these circumstances, is supported by the National Electric Safety Code trimming guidelines, the Approved American National Standard A300 standards, and the testimony of PacifiCorp's Assistant Forester, Randy Miller..... We are persuaded that substantial evidence supports the PSC's determination that PacifiCorp's guidelines and proposed trimming plans are objectively reasonable under all the circumstances.

It was contact between trees and power lines that contributed to the 2003 blackouts across the Northeast and the West which cut electricity to over 50 million customers which also included Ontario.

A federal oversight agency now mandates standards that took effect in February 2006. The new rules apply to high-voltage transmission lines, which feed electricity from substations and service towers to the lower-voltage distribution lines that run along most streets. A branch or tree that downs a distribution line can cut power to a street or neighborhood, but a similar problem on a transmission line can affect all of the connecting distribution lines and many more customers.

The North American Electric Reliability Corporation (NERC) developed the rules with oversight by the [Federal Energy Regulatory Commission \(FERC\)](#).

"They tell all electric utilities that "They should never have an outage from a grow-in," and utilities must take heed because violators can face multimillion-dollar fines, says Randy Miller, president-elect of the Utility Arborists Association and director of vegetation management for PacifiCorp, which provides power in six Western states.

Most utilities follow industry standards outlined by the International Society of Arboriculture but the best pruning and cutting practices aren't always aesthetically pleasing.

"It's not just the convenience of the circuit, but people's lives, people's livelihoods depend on that power," said Geoff Kempter, manager of technical services for Asplundh Tree Expert Co., a utility contractor based near Philadelphia.

Industry experts say today's pruning debates -- sometimes in suburbia, sometimes in more rural areas -- stem from people being accustomed to the flexible and less controversial trimming practices in the past.

Cutting down potential hazards is often the most responsible and cost-efficient long-term step for utilities and customers who could see rates increase to cover maintenance, said Randy Miller of PacifiCorp. "If utilities are trying to save money, it's their rate-payers they're trying to save," he said.



FERC VEGETATION MANAGEMENT FREQUENTLY ASKED QUESTIONS

Q. Does FERC set regulations for vegetation management?

A. The regulatory oversight of vegetation management is managed by both FERC and state regulatory agencies. FERC's responsibility is to oversee and approve reliability standards for the bulk transmission system. The states and local authorities have authority over the physical location (siting)

of transmission lines. State agencies also oversee all aspects of the distribution system, including vegetation management.

Q. Please explain the different roles for setting reliability standards for vegetation management?

A. The electric system is divided into two different domains for regulatory purposes, largely based on the voltage of the facilities.

The Energy Policy Act of 2005 granted FERC the authority to review and approve mandatory reliability standards for the nation's bulk power system, which is generally defined as *large-scale transmission* lines (generally those at or above 100,000 volts, or 100 kV). As part of those reliability standards, FERC sets vegetation management standards for large interstate transmission facilities, in addition to certain other facilities determined to be critical to the reliability of the wholesale bulk-power system.

Lower voltage *distribution* lines, (generally those lines below 100,000 volts, or 100 kV) are regulated by the utility regulatory commissions within each state. Individual state regulatory commissions have the authority to set vegetation management standards for distribution lines.

Q. How can I tell whether the tree trimming around my lines is for the transmission or distribution system?

A. The lines running in front of your house on wooden or metal poles are usually distribution lines. High towers with multiple lines are most often transmission lines. For comparison, the electric lines going into your house are usually between 4,000 and 21,000 volts. Transmission lines carry significantly higher voltages. To be certain you can call your local utility or state regulatory commission. Most tree pruning that affects homeowners involves local distribution, not transmission.

Q. What is the FERC standard for transmission line vegetation management and what is covered by that standard?

A. The reliability standard, FAC-003-1, can be found on the following web site: (ftp://www.nerc.com/pub/sys/all_updl/standards/rs/FAC-003-1.pdf). The standard does not specify the method by which a transmission company must conduct its vegetation management (e.g., pruning, herbicides or tree removal). Rather, it specifies that the company must manage its vegetation plan so that clearances between power lines and trees will ensure reliable operation of the Bulk-Power System, which refers to

the large, interstate lines. The reliability standard requires the transmission line owner to establish, implement and document its vegetation management program.

Q. What is the purpose of the FERC reliability standard?

A. Tree contact with transmission lines is a leading cause of power outages and a common cause of past regional blackouts, including the August 2003 blackout that affected 50 million people in the Northeast United States and Canada. The standard is designed to minimize transmission line outages due to vegetation contacts, and thereby maintain or improve the reliability of the Bulk-Power System.

Q. How is the vegetation management reliability standard developed and implemented?

A. FERC designated the North American Electric Reliability Corporation (NERC) as the Electric Reliability Organization (ERO), with the responsibility to develop standards to ensure the reliability of the Bulk-Power System, including the vegetation management standard. NERC creates these standards with cooperation and input from industry and other stakeholders. NERC, in turn, designated eight Regional Entities, which also operate under FERC authority, to address and implement standards at a regional level.

Q. Can companies exceed the transmission vegetation management standard?

A. The standard establishes a “minimum” clearance of space between trees and transmission lines in the right-of way, which must be maintained at all times. This also includes accounting for future tree growth, movement of trees or conductor due to wind, conductor sag due to heat and loading, and other factors. To maintain minimum clearances at all times, transmission owners typically prune or remove vegetation to a much greater distance than the minimum defined in the standard.

Q. Can FERC order companies only to meet the minimum clearance under the reliability standard and go no further?

A. No. FERC has no authority to do so. As stated above, to maintain minimum clearances at all times, transmission owners must often prune or remove vegetation to greater distances than the minimum. There may also

be reasons other than the standard that affect a company's vegetation management practices, such as policies established by states, a desire to improve reliability above the minimum requirements (and thereby reduce the possibility of penalties for non-compliance), reducing the cost of frequent tree-trimming, and the terms of any individual agreements with property owners. All of these potential issues lie outside FERC's jurisdiction.

Q. Couldn't FERC use its enforcement ability to resolve complaints over how transmission utilities do their vegetation management?

A. FERC can only enforce compliance with the requirements outlined in FAC-003. This standard does not dictate, nor can FERC enforce, how a transmission company chooses to comply, or whether they go beyond the minimum clearances required for compliance.

Q. How does FERC weigh landowner rights in setting the reliability standard?

A. FERC does not have authority over landowner rights. FERC's reliability standard approval authority is focused on reliability alone. Landowner rights are usually determined by the right-of-way agreements that the landowner (or a previous owner) has executed with the utility company. These agreements are subject to the review of local regulatory authorities, and/or the courts. However, the vegetation management reliability standard recognizes landowner rights by stating that the transmission owner must develop mitigation measures for locations on its right-of-way where it is restricted (for justifiable reasons) from attaining the clearances required by the standard.

Q. Who is responsible for determining what rights landowners have when a Transmission or distribution line is built?

A. The answer to that question varies across states or other jurisdictions. In the majority of cases, states have the authority to approve the location or siting of transmission and distribution lines. The landowner's rights may be established through a right-of-way agreement entered into between the local distribution utility and the landowner, during the approval process.

Q. How would I determine the rights that I have?

A. Your rights are usually formalized in a utility right-of-way to the property, which may be attached to your property deed, describing the rights of the

parties for building and maintaining electric lines. You may also contact the utility company that owns the transmission line to determine if it has the specific available records.

Q. Where can landowners go to get more information on how to address concerns they may have?

- A. The electric utility company that operates in your service territory is the first place to go. The customer service phone number can usually be found on your electric bill.

Questions about the *transmission* reliability standard for vegetation management can be answered by FERC, NERC or the Regional Entity overseeing reliability locally. (See <http://www.nerc.com/regional/> and click on your part of the country to find the contact information for the relevant Regional Entity.)

Questions about how a transmission company actually conducts transmission vegetation management, including its vegetation management plan and whether it exceeds the standard set by FERC, may be answered by the local state regulatory commission or other local governmental authority.

Questions about vegetation management for *distribution* lines should not be addressed to FERC or NERC. If you're local electric company cannot answer your question, another good source of information is the state regulatory commission, which usually has a customer complaint service. If its staff cannot help, they may have other suggestions. For links to state commissions see <http://www.naruc.org/commissions.cfm>.

Q. Where can a landowner go to get more information about proper vegetation management techniques on rights-of-way?

- A. Proper techniques for utility vegetation management work are outlined in ANSI A-300 and the accompanying best management practice booklets. These, and related publications can be ordered at: <http://secure.isa-arbor.com/webstore/Standards-and-Practices-C21.aspx>.

Consumer tree care information (including information on utility pruning) can be found at <http://www.treesaregood.com/treecare/treecareinfo.aspx>.

General questions related to proper vegetation management can also be directed to the Utility Arborist Association: www.utilityarborist.org.