

Vegetation Management Q&A

Why does ATC have the right to remove trees near transmission lines?

As the owner of the electric transmission lines, ATC is responsible for ensuring that the facilities operate safely and reliably. Transmission lines are typically located on an easement. This easement provides a corridor of safety for protecting people and structures from the high voltage current, and to allow access for periodic maintenance. Within the easement, ATC will carry out its responsibility to clear the right-of-way, which may include cutting down trees and overhanging branches. In some instances (property owner's permission, herbicide is used to reduce re-growth.

What is a power line easement?

When a power line is constructed, utilities typically acquire easements rather than purchase the property outright. An easement is a permanent, legal land right acquired by a utility to use the land or property of another for a special purpose. In this case, the easement grants ATC the right to build, operate and maintain a power line. Landowners retain ownership of their property, but its use is restricted. The right-of-way, or the land area described in the easement, must generally be clear of trees and structures that could interfere with the safe and reliable operation of the power line.

Why is it important to keep trees away from transmission lines?

Trees and transmission lines are generally not compatible, especially when tall, fast-growing trees are planted under power lines or adjacent to them. Trees are capable of conducting electricity from nearby lines and represent a serious hazard to people, pets or other objects that get near enough to an "electrified" tree.

Tall trees near a power line can be blown over in high winds, pulling the line down from supporting towers or poles, even while the line remains energized—thus creating a very dangerous, life-threatening situation for an unaware passerby.

In addition, because a single transmission line serves thousands of homes and businesses, a line outage as a result of a fallen tree or branch can cause wide-spread outages and threaten the stability of the electric system network across an entire region. For this reason, federal standards have been established that require utilities to remove trees and vegetation.

Why not trim tall trees to a height below the wires rather than remove them?

Continually trimming trees that are close to a high-voltage transmission line is not as safe as removing them. Trimming trees near high-voltage, energized power lines is dangerous work that can be deadly.

Several factors must be taken into account when clearing a right-of-way:

- **Safety Zone** – A significant amount of clearance is necessary to achieve a safe zone. A conservative interpretation of the Wisconsin State Electrical Code requires a minimum clearance of 10 – 15 feet between the line and anything else, based on line voltage.
- **Growth rate and trimming cycle** – We want to ensure the safety zone is maintained not only at the moment we trim, but after we trim, too, until we return for the next trimming cycle. This is typically five to seven years.
- **Transmission line sag** – As power lines carry more electric load during periods of high usage, they heat up which causes the wire to sag. The combination of growth, the trimming cycle and maximum sag, means that removal, rather than trimming, of tall trees is the prudent action for maintaining the adequate safety zone.

Who is American Transmission Company?

ATC plans, constructs, operates, and maintains transmission facilities to provide adequate and reliable transmission of power. ATC owns 9,100 miles of transmission lines with a total investment in facilities of \$1.8 billion in portions of Wisconsin, Michigan, Minnesota and Illinois. For more information, visit ATC's Web site at www.atcllc.com.

