

## Why Trouble Trees Cause So Much Trouble



**This tree on the power line in Valdez caused an outage for much of the community in November 2011.**

Photo by Chris Botulinski

Trees can be a power line's worst enemy. Strong winds, storms, and heavy snow and ice can topple trees or shatter branches that can come into contact with and even damage power lines and cause outages. When this happens, a common question is, "why don't you cut down the trees that can cause an outage all at once rather than one at a time after they fall into the lines"? It's a valid question and here we attempt to explain why it is not always an option and more often than not out of our control.

What many may not know is that most, if not all, overhead distribution and transmission lines are built on public and private property. CVEA is given the right to construct, operate, and maintain the poles, structures, wires, and support hardware by way of an easement or permit. Most of the easements and permits have boundary limitations that restrict CVEA's ability to maintain anything outside of the granted right-of-way, and this includes clearing trees.

The transmission line, for the most

part, is maintained under state and federal permits that allow CVEA to maintain the right-of-way within 50 feet from the centerline. The distribution lines vary between 10 and 25 feet from centerline, depending on the type of system being maintained, type of permit, or specific language in an easement or permit.

Every year CVEA personnel and contractors maintain sections of the transmission and distribution lines in an effort to keep the sections we have control over as clear from vegetation and other potential hazards as possible. CVEA is currently working towards a right-of-way clearing cycle of six years to prevent each section of the transmission and distribution system from growing up and causing problems.

In all, CVEA has 106 miles of transmission line and approximately 350 miles of overhead distribution line. In order to maintain a six-year cycle, CVEA and its contractors must, on average, clear 18 miles of transmission line and 58 miles of distribution line each year. Along certain

stretches of the distribution line along the Richardson, Glenn, and Edgerton Highways, CVEA benefits from other entities, such as the Alaska Department of Transportation and Public Facilities (DOT), performing right-of-way clearing.

The transmission line is usually hugging the mountains, hard to access, and about one-third goes through permafrost tundra that limits our ability to access during the summer months.

While the transmission line is by far the most difficult to clear, the width of the right-of-way and the height of the structures and lines mitigate most tree-related interactions.

Distribution lines are typically easier to access but generally have a narrow right-of-way. A majority of what CVEA's members experience are distribution line related outages. One reason is that there is simply more exposure to falling trees since there is over three times the amount of distribution line as transmission line.



**Above, a tall tree from far outside CVEA's right-of-way in the Copper Basin, fell into the power line**

Photo by Adam Warwas

In addition, distribution lines are significantly lower than the transmission line so the trees on the edge of the right-of-way do not need to be very large to fall into the distribution line.

For example, at our widest granted distribution right-of-way of 25 feet from the centerline, it would only take a 40 foot tree at the edge of the right-of-way to fall into the line and potentially cause an outage. Even if the tree was 50 feet from the centerline, it would only take a 60 foot tree falling towards the line to make contact and potentially cause an outage.

There are many, many trees within CVEA's service territory that reach far higher than 40 or even 60 feet and although they could at some point cause a problem, the reality is CVEA doesn't have the authority to cut them down until they do.

So is there anything you can do to help? Quite simply, the answer is YES! If you see any trees that are in danger of falling into one of our lines, please contact CVEA at either office 822-3211 in the Copper Basin and 835-4301 in

Valdez, or after hours at 1-866-835-2832. Please let us know what mile marker the problem tree is near or any other description that may help us zero in on the problem. Please do not attempt to remove trees on or near a line as any contact with an energized line could cause serious injury or death.

If there are any trees on your property that are leaning towards CVEA's lines, please contact CVEA at the numbers above and we will be happy to assess the situation to determine if it is safe for you to fall the tree or if a CVEA lineman will need to do the work in order to ensure no one gets hurt. Depending on the severity of the situation and other factors, we may be able to fall the tree on the spot or we may need to return on a later date to do the work.

For additional information, please contact Sharon Crisp at 822-5506, 835-7005, or [crisp@cvea.org](mailto:crisp@cvea.org). ■



**Top, CVEA right-of-way before clearing maintenance  
Above, CVEA right-of-way after clearing maintenance**