

## WHAT IS RIGHT TREE, RIGHT PLACE?

Right Tree Right Place (RTRP) is a concept developed by Dr. Richard Harris in his textbook, "Arboriculture." Dr. Harris describes what is considered an industry-accepted approach for making tree and landscaping selections to ensure that the vegetation planted is appropriate for a specific purpose or location. For example, one would not want to plant a redwood tree too close to a home or structure because of the damage it could cause as it grows to maturity. This same concept is applicable to overhead power lines and other infrastructure.

If one chooses plants that will have the appropriate size at maturity, it will minimize the need for pruning and other maintenance necessary for reducing shade and danger of wind-blown debris, maintaining panoramic views and safety-related visibility as well as limiting interference with utility wires and equipment. If a plant must be pruned more than once every five to seven years to control its size, it is the wrong plant for the particular location or use.

Note: The majority of trees currently being pruned by utility companies in California require pruning more frequently than once every five to seven years. In fact, many of these trees require pruning annually, which increases costs to electric utility customers and potential safety hazards for the public, tree maintenance personnel and utility crews.

## WHAT PROBLEMS OCCUR WHEN UNSUITABLE TREES ARE PLANTED UNDER OR NEAR OVERHEAD POWER LINES?

Currently, managing vegetation near power lines is one of, if not, the largest maintenance cost for utilities across North America. Ensuring RTRP is incorporated in future landscaping will reduce energy costs by billions of dollars annually.

In addition to adding significant and erroneous energy costs, tree and power line conflicts in North America:

1. Represent the single-largest cause of power outages
2. Present a public safety threat to people climbing trees near power lines



## ARE THERE SUITABLE TREE SPECIES TO PLANT UNDER OR NEAR OVERHEAD POWER LINES?

Yes. There are over 60,000 species of trees in the world and over 1,000 in North America. Trees come in all different mature sizes, shapes, colors and landscape purposes. An excellent source for tree species and tree selection tools specific to California can be found at the Urban Forests Ecosystem Institute at Cal Poly:

<https://selectree.calpoly.edu/right-tree-right-place/>



## WHICH CAME FIRST, THE TREES OR THE POWER LINES.

The answer is best addressed on a site specific basis. Notably, power lines have existed in California for over 100 years with new lines being added yearly as new customers, both business and residential, join the electric grid. SCE inspects approximately 900,000 trees annually and prunes nearly 700,000 of them per year, including 400,000 trees in high fire risk areas. The company also frequently monitors trees outside SCE's designated pruning zones that could potentially fall into lines to determine whether they are dead, dying, diseased or hazardous. On average, about 40,000 dead or dying trees affected by drier-than-normal conditions are removed each year and this number has increased in recent years. The overwhelming majority (approximately 99%) of those trees are planted, owned and controlled by individuals, local governments or agencies.

While wooden power poles, for example, have a useful period ranging from 30 to 80 years, trees that are planted near power lines do not. Based on various research studies, it appears that the trees we plant, as part of our landscaping, do not live very long. According to experts, the average life expectancy of a street tree can range from only nine to 28 years. While the actual age of a tree will vary considerably based on the species selection, siting, planting, and the care of the tree, it can be said that most trees that we plant do not live longer than 28 years.

This preceding presents an interesting historical fact. It appears that we, as a society, have had about three or four opportunities to require RTRP in the past and have not done much in order to prevent the resulting fires, outages, accidents and wasted maintenance costs that are born by California citizens.

There are other ways to figure out if the tree was there before the installation of power lines. If the tree is located as part of landscaping connected to a building, you first need to determine if the building was constructed with electricity. If it was, the power was likely first brought in to build the structure—afterward the landscaping was installed (and the trees planted). This is the cycle that is indicative of how new power lines are installed. Another method is to determine when the tree was planted (core sample and date the tree) and then compare that age to the date the electric facilities were installed. If you pursue these methods, you will find that the majority of trees that utilities currently prune came after the installation of the power lines, either through intentional planting or natural propagation.

## WHAT DO WE DO ABOUT TREES AND VEGETATION THAT GROW NATURALLY UNDER OR ADJACENT TO EXISTING POWER LINES?

Fortunately, California utilities patrol all of their overhead lines at least once a year. During those patrols, incompatible vegetation should be removed or managed to minimize incompatible volunteer vegetation.

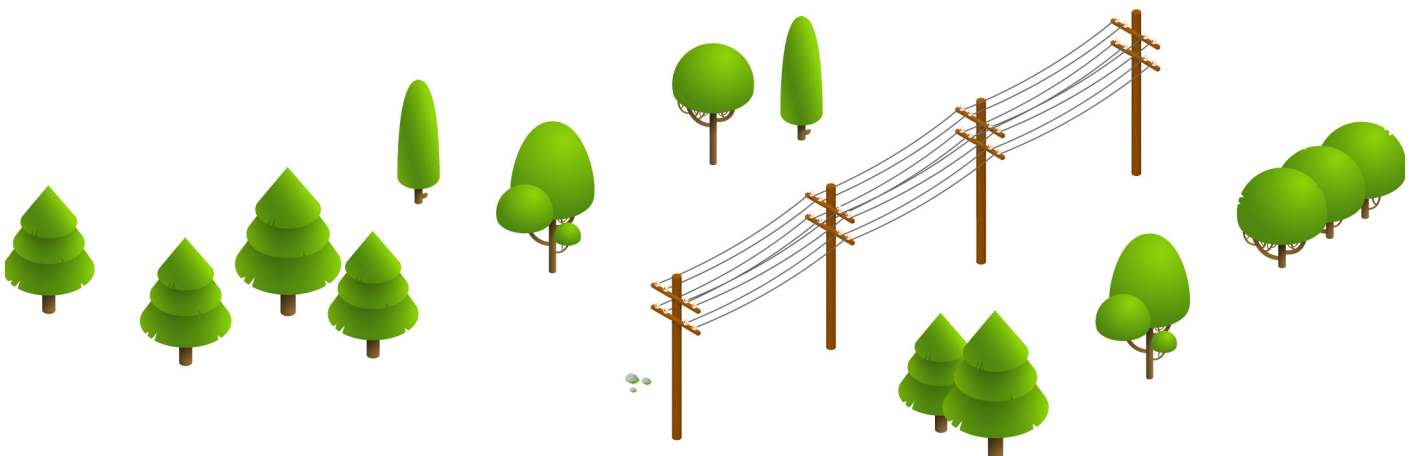
## HOW DO WE MOVE TOWARD COMPATIBLE VEGETATION NEAR POWER LINES?

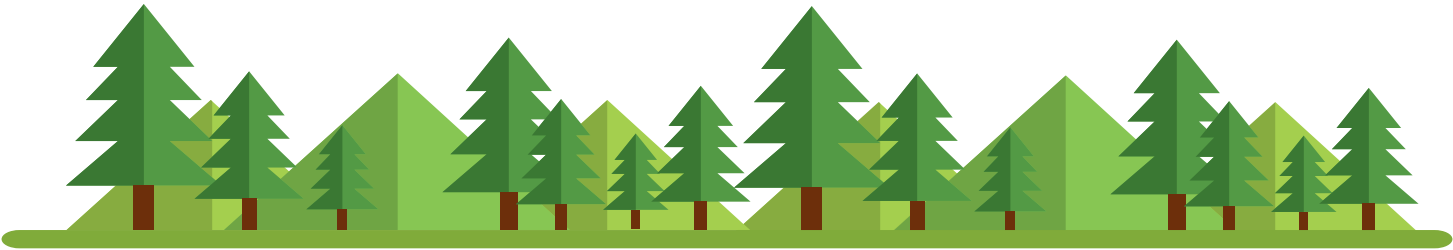
Given the relatively short lifespan of existing trees, attrition can be used along with increasing targeted utility/agency-driven tree removal and replacement projects. Street Tree Ordinances or state law should require RTRP concepts for all new tree plantings and landscaping associated with new building developments. Utility companies should be encouraged to expand RTRP public education efforts along with promoting more plantings for energy conservation and carbon sequestration. In order to address the environmental benefits of trees, particularly in the urban forest, the objective of this effort should be to significantly expand the California canopy while ensuring that new trees do not grow into or fall into electric power lines and equipment.

## CAN UTILITY COMPANIES OR ARBORISTS PREDICT WHICH TREES WILL FALL OVER OR BREAK APART?

No. While the industry has made progress in hazard tree identification processes, there is currently no way to accurately predict which trees adjacent to power lines will fall over or break apart, particularly during high-wind events.

Based on the Beaufort Scale ([https://en.wikipedia.org/wiki/Beaufort\\_scale](https://en.wikipedia.org/wiki/Beaufort_scale)), unpredictable tree failures may occur near power lines any time winds begin to exceed 39 mph.



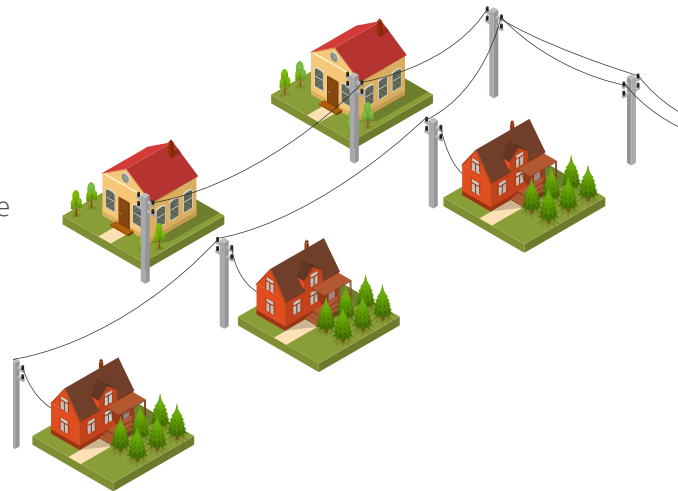


## WHO ENDORSES RTRP?

Every major tree care group, including the Arbor Day Foundation and the International Society of Arboriculture. Given the damage caused to trees through repeated utility pruning and the public safety threats posed by incompatible vegetation near power lines, there are no valid arboricultural or practical reasons to plant big trees under or adjacent to existing power lines.

## WHAT IS THE UTILITIES' AUTHORITY TO ACCESS PROPERTY?

Under new laws passed in the state of California, utilities now have the authority to access private property and have the discretion to prune or remove vegetation as needed in order to ensure public safety and maintain reliable electrical service.



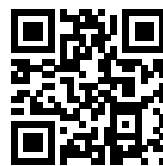
## ADDITIONAL INFORMATION ON RTRP:



<http://arbordayblog.org/treeplanting/right-tree-right-place/>



<https://selecttree.calpoly.edu/right-tree-right-place/utility-precautions/frequently-asked-questions>



[https://www.pge.com/en\\_US/safety/yard-safety/powerlines-and-trees/right-tree-right-place/right-tree-right-place.page?WT.mc\\_id=Vanity\\_righttreerightplace](https://www.pge.com/en_US/safety/yard-safety/powerlines-and-trees/right-tree-right-place/right-tree-right-place.page?WT.mc_id=Vanity_righttreerightplace)



[http://www.treesaregood.com/portals/0/docs/treecare/avoiding\\_conflicts.pdf](http://www.treesaregood.com/portals/0/docs/treecare/avoiding_conflicts.pdf)