PLANTING NEAR THE NATIONAL GRID

Tree planting under National Grid lines can become a problem if the trees grow tall enough to interfere with the lines or fall on them. It is important that the safe clearances within the Tree Regulations are met, as well as setbacks to cover tree fall hazard. Trees must remain a sufficient distance from the lines so that, if a tree falls in a storm, it will not make contact with the lines.

What are the issues?
Most issues relating to trees and vegetation were discussed in Section 2 of this guide. To recap, trees growing too close to power lines may cause:

- a fault that will affect the operation of the line
- injury or death to someone near the tree
- damage to land and property.

How can these issues be managed?

Ensure safe separation distances
First, check the Electricity (Hazards from Trees) Regulations 2003 for safe clearance distances for trees and overhead lines. It is important to note that the Tree Regulations do not cover setbacks to address tree fall hazard. Trees must remain a sufficient distance from the lines so that, if a tree falls in a storm, it will not make contact with the lines. Tree fall hazard can pose a serious risk to National Grid lines, security of supply and public safety. To address this, Transpower has its own Tree Fall Risk Management Policy.
Any proposed planting must be located to ensure that, at full maturity, the tree cannot fall within 4 metres of a National Grid line.

In practical terms, a good way to avoid any problems with tree planting is to develop a graduated zone of planting for areas under and around National Grid lines. Immediately under the lines, any planting must be kept low by using species that do not grow any higher than 2 metres at full maturity. This is also a cheaper and easier solution than relying on trimming and maintenance. In some cases, the topography of the land being traversed by a line span (like a valley) might allow higher species to be planted – check with Transpower on what is possible.

As the distance from the lines increases, the height of the planting can be gradually increased until tall trees can be safely planted. A useful rule of thumb is that a tree should be planted no closer to the National Grid lines than 1.5 times the mature height of the tree.

If establishing commercial forestry near lines, Transpower can help calculate practical planting distances from the line. Early planning will avoid trees having to be trimmed or removed prior to maturity later on. Where trees have been removed, you can stop regrowth or sprouting by applying environmentally friendly herbicides to the stumps.

In all cases, it is very important to check the mature growth height of trees and shrubs before planting and discuss your plans with Transpower.
**Choose the right species**

Instead of planting large tree species such as oak, elm, pine, poplar or eucalyptus, consider planting smaller, more compact species. Suitable species could include Japanese maple, acacia, *Robinia*, birch, kōwhai, *Pittosporum*, *Dodonaea*, *Prunus* or *Malus* (flowering cherry and apple).

Small orchard species can generally be grown without risk under National Grid lines. Hedges and shrub planting pose few problems, and ground covers are obviously suitable. However, you should discuss with Transpower the potential impact on the lines of spraying.

Contact us to discuss your proposal.

Screening using plants is an effective way to minimise the prominence of transmission towers.

Low trees and vegetation add foreground detail, drawing the eye away from transmission towers and lines.