

TREES AND POWER LINES

Information on the Electricity (Hazards from Trees) Regulations 2003

Orion New Zealand Ltd owns and operates the electricity distribution network in central Canterbury between the Waimakariri and Rakaia rivers and from the Canterbury coast to Arthur's Pass.

Orion operates a tree management programme where we regularly monitor, prune and remove trees that threaten to come into contact with overhead power lines. We work with tree owners to minimise the risk of trees touching power lines, and we carry out this work in accordance with the Electricity (Hazards from Trees) Regulations 2003.

The regulations:

- define safe separation distances between trees and overhead lines
- specify who is responsible for ensuring clearances are maintained
- place potential liability on the tree owner if any damage or accident occurs when trees touch power lines.

Note: the word 'trees' includes all types of vegetation including shrubs, and the words 'power lines' include conductors.

What are the dangers?

Trees need to be kept a safe distance away from power lines (see Tree A in the below diagram) for the following reasons:

- children who climb trees close to power lines are at risk of serious injury or death
- in severe weather conditions, vegetation can become electrically 'live' and may electrocute anyone coming into contact with it

- a tree may not touch a power line in fine weather but this can change in bad weather, particularly storms – branches can sag or break away in strong winds, causing serious damage to power lines; and snow and ice may build up, creating additional weight on the tree or power line
- in dry conditions, electrical sparking may cause fires.

Minimum distances required between trees and power lines

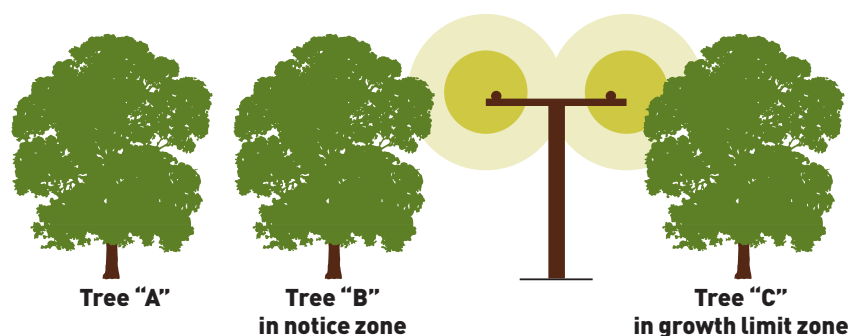
The distances that must be maintained between trees and power lines are outlined in the below diagram, and are prescribed by the Electricity (Hazards from Trees) Regulations 2003.

When Orion becomes aware that a tree(s) is getting dangerously close to a power line, we will in the first instance discuss the situation with the tree owner and seek to get the tree trimmed or removed.

However, if the tree is within the 'notice zone' (see Tree B in the diagram) we are required to issue the tree owner with a hazard warning notice.

This notice lets the tree owner know that the tree encroaches the notice zone, and that if it encroaches the 'growth limit zone' (see Tree C in the diagram) a cut or trim notice will be immediately given to the tree owner.

The growth limit zone is the space around a power line where trees must not encroach, even in windy or snowy conditions. The notice zone means a distance one metre beyond the growth limit zone.



Overhead line	Notice zone	Growth limit zone
33kV (high voltage)	3.5 metres	2.5 metres
11kV (high voltage)	2.6 metres	1.6 metres
400V/230V (low voltage)	1.5 metres	0.5 metres

Note:

- 1) These distances are from the power line, not the power pole
- 2) These distances are a minimum and apply in all conditions including high wind or snow
- 3) In most instances the power lines that go to a house or building are low voltage power lines. Power lines that go down a street may be low or high voltage.

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Rights of Orion and the tree owner

Where Orion is aware that there is immediate danger to people or property because a tree has come into contact with or caused damage to a power line, we are obliged to undertake any work needed to remove that danger.

If the tree owner does not want to be responsible for future maintenance of the tree, they may give a 'no interest' notice to Orion no later than 10 working days from the date of the Orion notification. A no interest notice can only be given for a tree that was naturally sown, or for a planted tree that the owner believed on reasonable grounds would not interfere with any conductor when fully grown. If the tree owner gives a no interest notice, Orion may arrange to remove the tree to reduce future maintenance costs.

A tree owner can apply to Orion for dispensation from cutting or trimming a tree – this application must be made no later than five working days from the date of the Orion cut or trim notice. The tree owner can then apply to an arbitrator if dispensation is not granted or if they disagree with the terms of any dispensation – this application must be made no later than five working days from receipt of the notice regarding that dispensation. If a dispute arises after a tree owner makes contact with Orion, the following arbitrators can be contacted (in writing):

Terry Cochrane

33 Cropp Place
Wellesley Street
Auckland 1141
Fax: 09 355 9583
terry.cochrane@opus.co.nz

Brad Cadwallader

33 Cropp Place
Richmond
Nelson 7020
Fax: 03 544 2682
brad.cadwallader@paradise.net.nz

If a tree owner refuses Orion access onto the land to cut or trim a tree (in instances where no dispensation has been applied for/approved), the tree owner is responsible for the maintenance of the tree including the cost of the first cut or trim. If the tree owner fails to comply with the requirements of the regulations, they are liable to Orion for the costs of fixing any damage caused to a conductor.

If the tree owner is required to undertake the cutting, the following applies:

- the tree owner must advise Orion of the time and location of the proposed tree cutting or trimming, at least three working days before the work is scheduled to be carried out

- tree cutting or trimming work must be undertaken by a competent worker in accordance with OSH Approved Code of Practice for Safety and Health in Tree Work - Part 2: Maintenance of Trees around Power Lines.

Heavy fines can be imposed

A tree owner commits an offence where a notice to cut or trim a tree is given, and without reasonable excuse the tree owner fails to have the tree cut or trimmed, or fails to advise Orion of the time and location of the cut or trim.

A person who commits such an offence is liable on summary conviction to a fine of up to \$10,000. If the offence continues, that person is also liable for a further fine of up to \$500 for every day or part day during which the offence continues.

What to consider when planting near power lines

It is best to plant shrubs that will not intrude on power lines in years to come. Consider their 'mature height and spread' to avoid future clearance problems.

A variety of shrubs are suitable for planting near power lines – we recommend you contact your local nursery for advice. Dwarf varieties of the following species may be suitable:

- **Natives:** Clianthus puniceus, Coprosma, Corokia, Flax, Fuchsia, Hebes, Hoheria, Leptospermum, Lophomyrtus, Macropiper exelsum, Olearia, Pittosporum, Psuedopanax, Ribbonwood, Sophora
- **Exotics:** Alder, Apple blossom, Crab apple, Cypress, Dogwood, Gleditsia, Maples, Prunus, Thuja, Viburnum, Wattle.

Where trees have been removed, you can stop regrowth or sprouting by applying environmentally-friendly herbicides to the stumps.

Contact Orion if in any doubt about your tree

We aim to work with tree owners to ensure safety is maintained and power outages are minimised. We will actively work with tree owners to get trees trimmed or cut before regulatory powers are applied. However as we wish to ensure the safety and security of the public, we will use the regulations where necessary.

Please contact Orion for more information about the regulations or for assistance regarding your trees.

Orion New Zealand Ltd

218 Manchester Street, Christchurch
Phone: 03 363 9898
Website: oriongroup.co.nz

If you see a tree touching power lines and sparking, or another hazardous tree condition, please contact Orion immediately on **03 363 9898**.

**Orion**
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