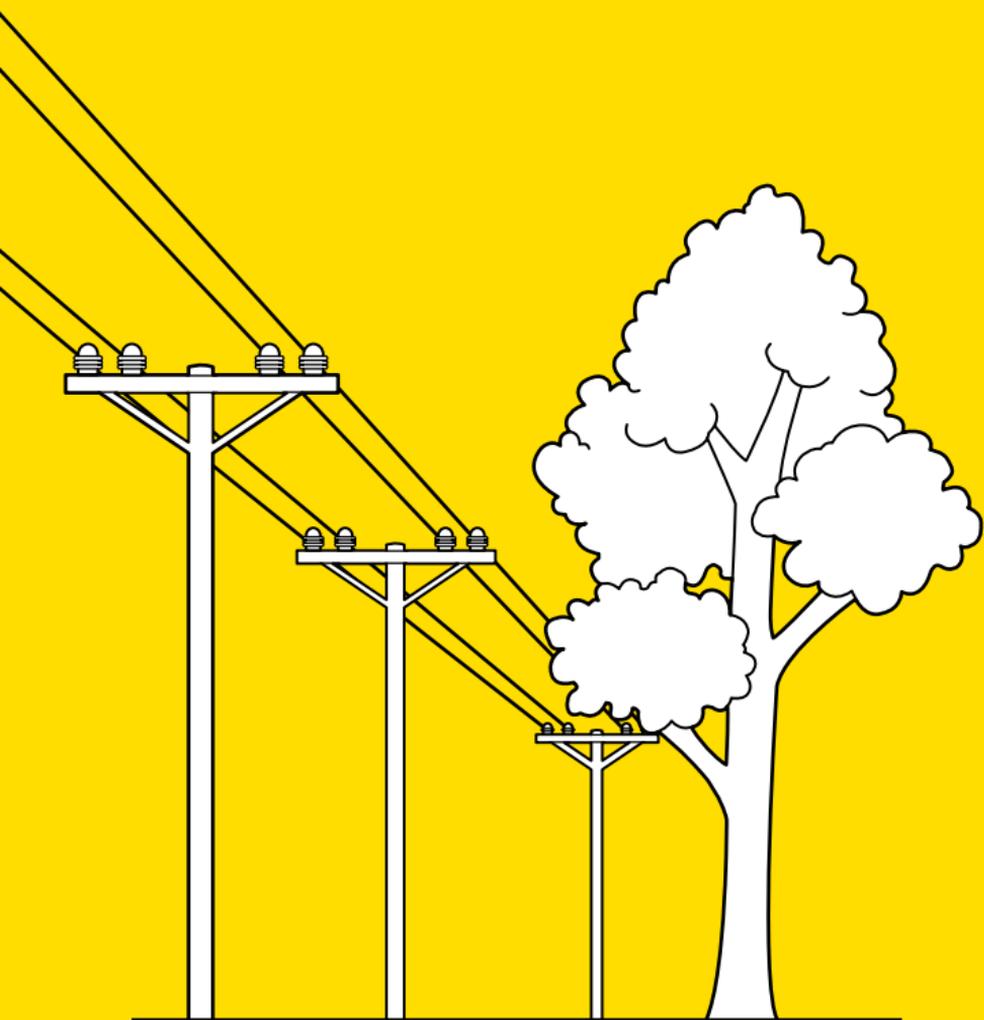


IMPORTANT SAFETY INFORMATION

KEEPING TREES AWAY FROM POWER LINES

Your guide to the Electricity (Hazards from Trees)
Regulations 2003



**KEEP SAFE
AROUND
ELECTRICITY**

Aurora 
ENERGY

YOUR ELECTRICITY NETWORK

Aurora Energy is responsible for delivering safe, reliable electricity supply to more than 88,000 homes, farms and businesses in Dunedin, Central Otago and Queenstown Lakes.

 AURORA ENERGY NETWORK



Trees growing into power lines cause power outages, damage equipment and prevent our crews from repairing equipment quickly, increasing the time it takes to get the power back on to customers.

You may not know it, but as a property owner, you are responsible for keeping the trees growing on your property clear of overhead power lines and underground cables.

The Electricity (Hazards from Trees) Regulations 2003 (Tree Regulations) set out your obligations as a tree owner and prescribe the minimum safe distances for trees growing near network power lines.

We've provided a general summary here on your responsibilities as a tree owner, how to keep safe when clearing trees near powerlines and where to go for help in managing trees.

WE NEED TO ADVISE YOU ABOUT TREE HAZARDS IN YOUR NEIGHBOURHOOD

The trees in your neighbourhood are growing too close to power lines and will need to be trimmed shortly.

The work needs to be carried out under the Tree Regulations. Under these Regulations, your local electricity network, Aurora Energy, has responsibilities to work with you to keep your trees away from overhead power lines.

Please take a few moments to read this information so you know what you need to do and what to expect when trees are trimmed in your neighbourhood.

TREES CLOSE TO POWER LINES ARE DANGEROUS

Trees close to power lines can be dangerous for a number of reasons. If you touch a tree which is touching a power line, the result could be an electric shock or even death. Branches can break and fall on to lines, especially during high winds and storms, putting public safety and property at risk as well as interrupting power supply. By working with you, Aurora Energy can help you avoid this safety risk and help reduce the impact of a loss of yours and your neighbours' power supply.

The Tree Regulations were introduced by the government, for everyone's safety, and to help provide a reliable power supply.

The complete regulations can be viewed at www.worksafe.govt.nz

THE RESPONSIBILITIES OF TREE OWNERS AND ELECTRICITY DISTRIBUTION COMPANIES

Under the Tree Regulations, your local electricity distribution company is responsible for making sure tree owners are aware of not letting their trees grow too close to network power lines. On the Aurora Energy network, Delta – an experienced contractor – is engaged to check network lines and notify tree owners if their trees are too close to our power lines.

If you receive a notice, the trees may already be too close for you to safely trim them. In these cases a professional arborist (authorised by Aurora Energy to work close to power lines) will be needed to cut back the trees to a safe distance for you to keep them trimmed.

TREES ON PUBLIC LAND

Trees on public land are usually the responsibility of the local council.

Aurora Energy is working with local councils for them to keep their trees on public land clear of power lines. Professional arborists authorised by Aurora Energy can also contract to trim the trees for councils. In order to comply with these regulations for improving public safety and electricity reliability, trees must be trimmed to ensure there is a clear space maintained around the power lines at all times. Professional arborists can generally form a cutting plan that will encourage tree growth away from lines, however in some instances replanting a less vigorous species should be considered.

In most cases, the work will be done from the road reserve and the tree trimming crew will not need to enter private property. However, where trees extend over boundaries, or lines cross private land, it may be necessary to enter the property to trim the tree.

For future public safety, the local council may decide that some trees (especially fast-growing species such as sycamore, pine and eucalyptus) are no longer considered suitable as street trees and need to be removed completely. Local residents will be notified if a large tree of amenity value is to be removed.

TREES ON PRIVATE LAND

The tree owner is responsible for keeping their trees clear of overhead power lines.

THE FIRST CUT OR TRIM IS FREE

Under the Tree Regulations, the cut or trim work arising from the first survey of an area (after the Regulations were brought in) was free, unless a previous arrangement was in place. Our arborists have almost completed a full survey round of our network and have been in contact with tree owners to make arrangements to schedule this service. This service did not apply to trees near your private service lines - private service lines are not covered by the Tree Regulations. Please see the 'Trees near your service lines' section in this brochure.

THE TREE OWNER'S ONGOING RESPONSIBILITY

On completion of our “first cut free” responsibility, further tree work will be at the owner’s expense. However, we will maintain the cost of patrolling the lines and notify customers where tree work is required. Our arborists will continue to carry out regular inspections and will issue the tree owner with a “Cut or Trim Notice” when their tree is getting close to network power lines. Once the tree owner has been notified that the tree is encroaching the Growth Limit Zone (a defined distance from the power line), the owner must:

- Arrange for the tree to be trimmed within the time specified on the notice
 - Use a professional arborist authorised by Aurora Energy to work within 4 metres of electricity lines. This is because working near network lines is extremely dangerous and must only be done by a company employing a certified utility arborist. A list of authorised arborist companies has been provided on www.auroraenergy.co.nz
 - Provide Aurora Energy three working days’ notice before the tree is scheduled to be cut or trimmed by the approved arborist. This is because all activity close to network power lines must be monitored at all times.
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TREES ON PRIVATE LAND

The tree owner is responsible for keeping their trees clear of overhead power lines.

DECLARING 'NO INTEREST'

There are certain cases where a tree owner who does not want to be responsible for the tree can declare 'no interest' and Aurora Energy will likely remove the tree if it is likely to cause an ongoing problem. There are specific regulations about which trees qualify for 'no interest'.

Details are available from

www.auroraenergy.co.nz

or **www.worksafe.govt.nz**

BEWARE OF PENALTIES

Under the Tree Regulations, a tree owner can be fined up to \$10,000 for failing to comply with any of the requirements of a Cut or Trim Notice, plus \$500 per day for ongoing offences. A tree owner can also be liable for costs if network power lines or equipment are damaged by the tree.

KEEP THE TREE TRIMMED

Tree owners who do not wish to replace the tree with low growing plants can save the ongoing costs of complying with the Tree Regulations by having the tree trimmed to a safe clearance from the power line where they can maintain trimming themselves. A tree owner can trim the tree only when all parts of the tree are 4 metres or more away from network power lines.

PLANT WISELY TO PREVENT PROBLEMS

To avoid incurring the costs of regular tree trimming, choose low-growing plants and shrubs that will not grow close to power lines instead of trees. A guide for choosing suitable plants for planting under power lines is available at www.auroraenergy.co.nz

FALL HAZARD ZONE

Tree owners should be aware that trees present a hazard if they fall and damage power lines. The closest a tree can be located is calculated on the basis of the height of tree plus 4 metres. Check that your trees are outside the fall hazard zone and consider trimming or removal to avoid causing damage and incurring future costs.



SAFE CLEARANCE AND HEALTHY TREES

When trimming trees near power lines, safety is the priority. There are specified distances from power lines that the general public and registered persons must follow. The outcome is to provide a safe clearance from the lines and equipment and to ensure the tree remains healthy. However, in order to correctly trim the tree and protect its health, it may be necessary to make a pruning cut beyond the Notice Zone - for instance at the main trunk or stem.

The pruning techniques used by Aurora Energy arborists follow the recommendations of Dr Alex Shigo's Natural Target Pruning Techniques*. Dr Shigo's techniques are accepted by many arborists, both locally and internationally, as best practice for utility arboriculture.

* Dr. Alex Shigo's Natural Target Pruning Techniques & ANSI A300 Part 1 2001 Pruning for Tree Care Operations Tree Shrub and other Woody Plant Maintenance Standard Practices.

The technique sometimes uses a 'V' cut which encourages the growth of the tree to extend away from the line. Please be aware that the visual effect of this trimming can be dramatic directly after pruning. Using professional arborists ensures the tree recovers swiftly. Within six months the tree will be showing re-growth and the prune points will be less obvious.

Your patience and understanding are appreciated while the work is being done and while the trees adjust after trimming. Remember, keeping trees away from power lines is necessary for everyone's safety.

TRIMMING TREES TO A SAFE DISTANCE

Under the Tree Regulations, trees must be kept outside the Growth Limit Zone around network power lines and underground cables.

Importantly for everyone's safety, by law only authorised persons can work within 4 metres of an overhead power line.

GROWTH LIMIT ZONE

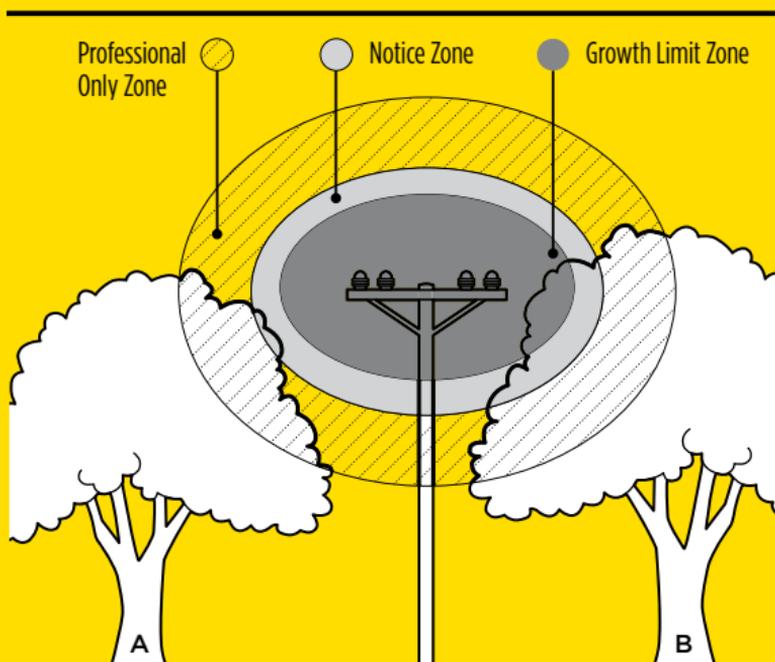
The Growth Limit Zone is the minimum distance any tree, or part of a tree, must be kept away from an overhead power line or underground cable. The size of the Growth Limit Zone depends on the voltage of the power line.

NOTICE ZONE

The Notice Zone extends 1 metre beyond the applicable Growth Limit Zone. When a tree is cut or trimmed under the Regulations, it must be cut clear of the Notice Zone. For the health of the tree, proper tree trimming techniques may mean the tree needs to be cut or trimmed further than the Notice Zone.

PROFESSIONAL ONLY ZONE

Trimming trees near network power lines is extremely dangerous work. Under the Electricity (Safety) Regulations 2010, only authorised arborists are allowed to trim trees within 4 metres of network power lines, with the written permission of the network company. A tree owner can trim a tree themselves provided all parts of the tree are 4 metres or more away from network power lines. A list of authorised arborists has been provided on our website at www.auroraenergy.co.nz



Tree B is in the Growth Limit Zone and will need to be cut or trimmed by an authorised arborist within the prescribed timeframe.

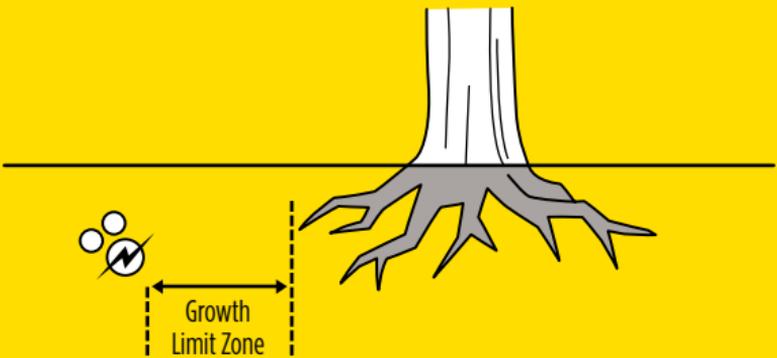
Both Tree A and Tree B are within the Professional Only Zone and need an authorised arborist to trim.

ZONES FOR NETWORK LINES

Overhead Line Voltage	Growth Limit Zone	Notice Zone	Professional Only Zone
66kV or greater	4.0m	5.0m	4.0m
50-66kV	3.0m	5.0m	4.0m
33kV	2.5m	3.5m	4.0m
11kV	1.6m	2.6m	4.0m
6.6kV	1.6m	2.6m	4.0m
230-400V	0.5m	1.5m	4.0m

These distances apply to power lines with spans between poles up to 150 metres. Additional clearances apply for spans greater than 150 metres.

Tree owners will be advised which voltage applies to lines near their trees in the Cut or Trim Notice issued by Aurora Energy.



ZONES FOR UNDERGROUND CABLES

Underground cables	Growth Limit Zone	Notice Zone
All voltages	0.5m for tree roots	1.5m

Tree roots must also be kept clear of underground network cables. Under the Tree Regulations, Aurora Energy may cut and remove any tree roots that are within the Growth Limit Zone for the safe operation or repair of underground cables.

TREES NEAR YOUR SERVICE LINES

The property owner is responsible for keeping trees away from private service lines.

While the Tree Regulations do not cover private service lines, it makes good sense to keep trees away from these lines for safety reasons and to protect your property and its power supply.

A property owner is responsible for the maintenance and repair of electrical lines and equipment on their property. These are known as service lines or private service lines. Aurora Energy is responsible only for the lines and equipment up to the point of supply, which is usually on a pole at the boundary of the property.

This means that the electricity network is not responsible for checking or trimming trees around private service lines, or for notifying property owners when those trees are too close to the lines. It is up to you, the property owner, to keep trees away from your private service lines for safety and to protect your own power supply.



TREES NEAR YOUR SERVICE LINES

TRIMMING TREES NEAR SERVICE LINES

You can hire a professional arborist to trim trees around your service lines.

You can also trim the tree yourself. You must be aware, however, that private service lines are dangerous so, unless you are using an arborist qualified to work around live lines, always have your power supply temporarily disconnected before commencing any work near service lines.

A temporary disconnection of your power supply (service line) to allow you to work safely is provided at no cost.

To arrange a free temporary disconnection, contact Aurora Energy on **0800 22 00 05** or call your electricity retailer.

BE A GOOD NEIGHBOUR

KEEP TREES AWAY FROM POWER LINES

Trees growing near or through power lines are a major safety hazard and can cause power cuts. Working together, we can keep trees a safe distance from power lines. Always use an Aurora Energy-approved contractor to safely trim or cut down trees growing within four metres of any power lines.





**FOR ANY
QUESTIONS
GET IN TOUCH**

0800 22 00 05
info@auroraenergy.co.nz
www.auroraenergy.co.nz
or find us on Facebook