

PLAN BEFORE YOU PLAN

A GUIDE TO PLANTING AND MANAGING
TREES NEAR POWERLINES





FOR SAFETY'S SAKE

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PLANT



Vegetation management near powerlines

The right trees in the right place provide shade, privacy, wildlife habitat and help prevent erosion.

The wrong trees planted near powerlines can become a safety hazard to the local environment and property and may impact the reliability of your power supply.

Throughout the year we plan ahead and manage vegetation near powerlines to reduce the risk of power outages and potential bushfires caused by vegetation falling on, or coming into contact with powerlines.

Why vegetation management is important

Continuous vegetation management:

- > Reduces the potential harm to people, damage to property or the local environment
- > Minimises tree-related power outages
- > Reduces the incidence of branches contacting powerlines and potentially causing bushfires.

Our vegetation management program relies on a collaboration between councils, landowners or occupiers and the broader community to manage vegetation that encroaches on our network.

THE IDEAL SAFETY MEASURE

Our people are inspecting and responding to trees and other vegetation encroaching on electricity infrastructure every day.

It's a constant job and an essential part of our maintenance program. We know many problems can be avoided if we take action early and encourage more appropriate vegetation to be planted near powerlines.

Vegetation management benefits everyone

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Always plant a tree at least 15 metres away from powerlines or a distance equal to its mature height – whichever is greater. Some properties may be subject to easement conditions that impose even greater clearance distances

Make sure any vegetation is kept well clear of powerlines. Remember – tree trimming can be hazardous near overhead powerlines and should only be performed by qualified tree trimmers.

To avoid the need for tree trimming we encourage landowners to plant responsibly – Plan Before You Plant.

Use this guide as a source of information to Plan Before You Plant and determine what species are not appropriate to plant near powerlines and what guidelines you should follow when planting near powerlines.

If you are unsure, contact Essential Energy on 13 23 91.

Please note: most trees are unsuitable for planting under or near powerlines. The following list includes some common unsuitable species.

Botanical Name	Common Name
Acacia species (large)	Wattle
Acer species	Maples (not Japanese)
Acmena species (large)	Lilly Pilly or Bush Cherry
Alnus species	Black and Evergreen Alder
Araucaria species	Bunya-Bunya, Hoop or Norfolk Island Pine
Bambusa species	Bamboo
Banksia species (large)	Banksia
Betula species	Birch
Brachychiton species	Lace-Bark, Flame and Kurrajong
Caesalpinia ferrea	Leopard tree
Casuarina species	She-Oak
Cedrus species	Cedar, also Fir and Spruce
Celtis species	Nettle tree
Cinnamomum camphora	Camphor Laurel
Cupressus species	Cypress trees
Delonix regia	Poinciana or Flamboyant
Erythrina species	Coral tree
Eucalyptus species	Gum tree
Ficus species	Fig tree
Fraxinus species	Ash
Gleditsia species	Honey Locust
Grevillea robusta	Silky Oak
Hymenosporum flavum	Native Frangipani
Jacaranda mimosifolia	Jacaranda
Ligustrum species	Privet
Liquidamber species	Liquid Amber
Lophostemon confertus	Brush Box
Magnolia grandiflora	Bull Bay Magnolia
Melaleuca species (large)	Paperbarks
Melia azedarach	White Cedar
Palm species	Palm
Pinus species	Pine
Platanus species	Plane tree
Populus species	Poplar
Quercus species	Oak
Salix species	Willow
Schinus species	Peppercorn tree
Stenocarpus sinuatus	Queensland Firewheel tree
Syncarpia glomulifera	Turpentine
Syzygium species	Lilly Pilly or Bush Cherry
Tamarix aphylla	Athel Pine
Tilia species	Linden or Lime tree
Tipuana tipu	Racehorse tree
Ulmus species	Elm
Zelkova serrata	Japanese Elm

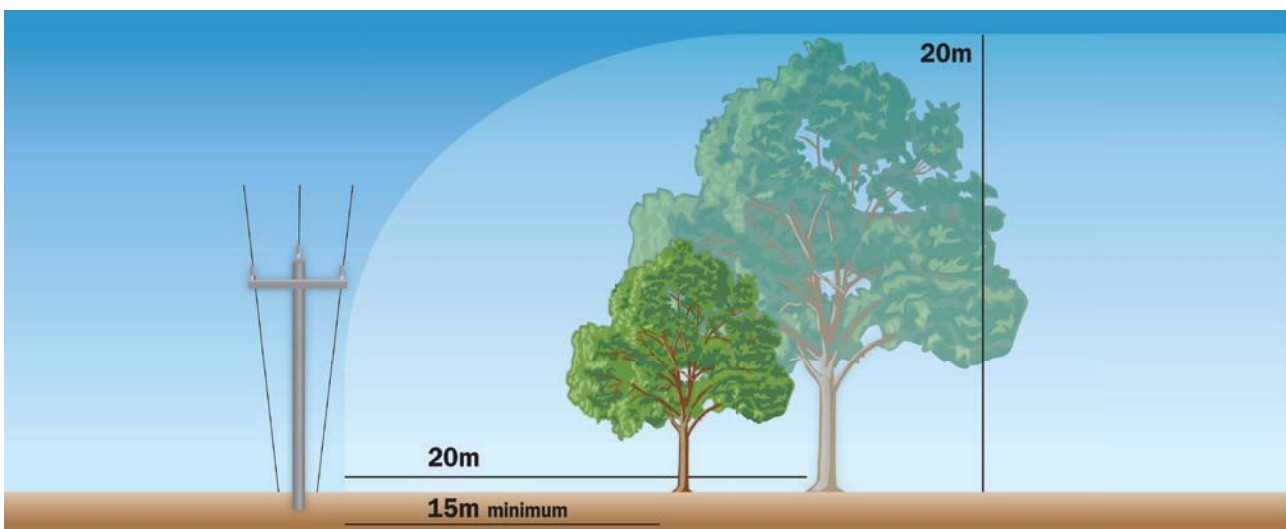
Tall growing fruit and nut trees

PLANTING GUIDE



Always plant a tree at least 15m from powerlines, or a distance equal to its mature height – whichever is greater. Some properties may be subject to easement conditions that impose even greater clearance distances.

- > Look up before you plant.
- > Consider how big the tree or vegetation will grow and what structures will be affected.
- > Plant taller varieties further away from powerlines using the planting guide above.
- > Do not plant on the nature strip without local council approval.
- > Remember that access to powerlines is required for future maintenance and repairs.
- > Select plant species that are native to your area.
- > Avoid plant species that could invade the surrounding environment.
- > Consideration should also be given to underground powerlines to avoid roots damaging the underground network.
- > Plant away from underground electricity pits, pillar boxes and padmount transformers to ensure electricity assets are accessible for inspection, maintenance or repair.
- > Tall growing species including the trees shown in the tables (on previous page) are unsuitable under or near powerlines.
- > A property owner may be responsible for the cost of managing tree trimming or removal of trees planted close to powerlines.



TRIMMING TREES

How does Essential Energy determine which trees should be trimmed?

As part of our comprehensive network maintenance program, powerlines are regularly inspected to assess risk levels and ensure minimum safety clearance zones* between vegetation and powerlines. Trimming further than the minimum safety clearance zone is also performed so vegetation will not encroach on this zone before trees are trimmed again. The voltage of nearby powerlines, local bushfire classifications and a tree's age, species, regrowth rate and general health are also taken into consideration.

Who is responsible for tree trimming?

Essential Energy has programs in place to identify trees and other vegetation that could damage or interfere with the power supply or pose a bushfire or public safety risk. We also encourage landowners or occupiers to alert us if they're concerned that vegetation is getting close to powerlines on their property by calling **13 23 91**, or visiting essentialenergy.com.au/trees to report the hazard online.

Responsibility for the trimming or removal of trees identified as a risk may depend upon whether they're naturally propagated or if they've

been planted and allowed to grow directly under or alongside powerlines. A property owner may be responsible for the cost of managing tree trimming or removal of trees planted too close to powerlines.

Please do not attempt to trim trees near powerlines

Trimming vegetation near powerlines is extremely dangerous and should only be undertaken by qualified personnel. Ask Essential Energy for further advice.

Why is it important to use qualified vegetation contractors?

Essential Energy promotes best practice environmental management, and where practical is consistent with the Australian Standard AS4373 – Pruning of Amenity Trees. All vegetation contractors are required to comply with Workplace Health and Safety Regulations, use the latest internationally approved techniques and be competent in:

- > **arboriculture techniques**
- > **the safe use of tools and equipment**
- > **herbicide application and storage**
- > **working near powerlines.**

They must also be qualified and authorised to meet industry regulatory requirements.



TRIMMING TREES

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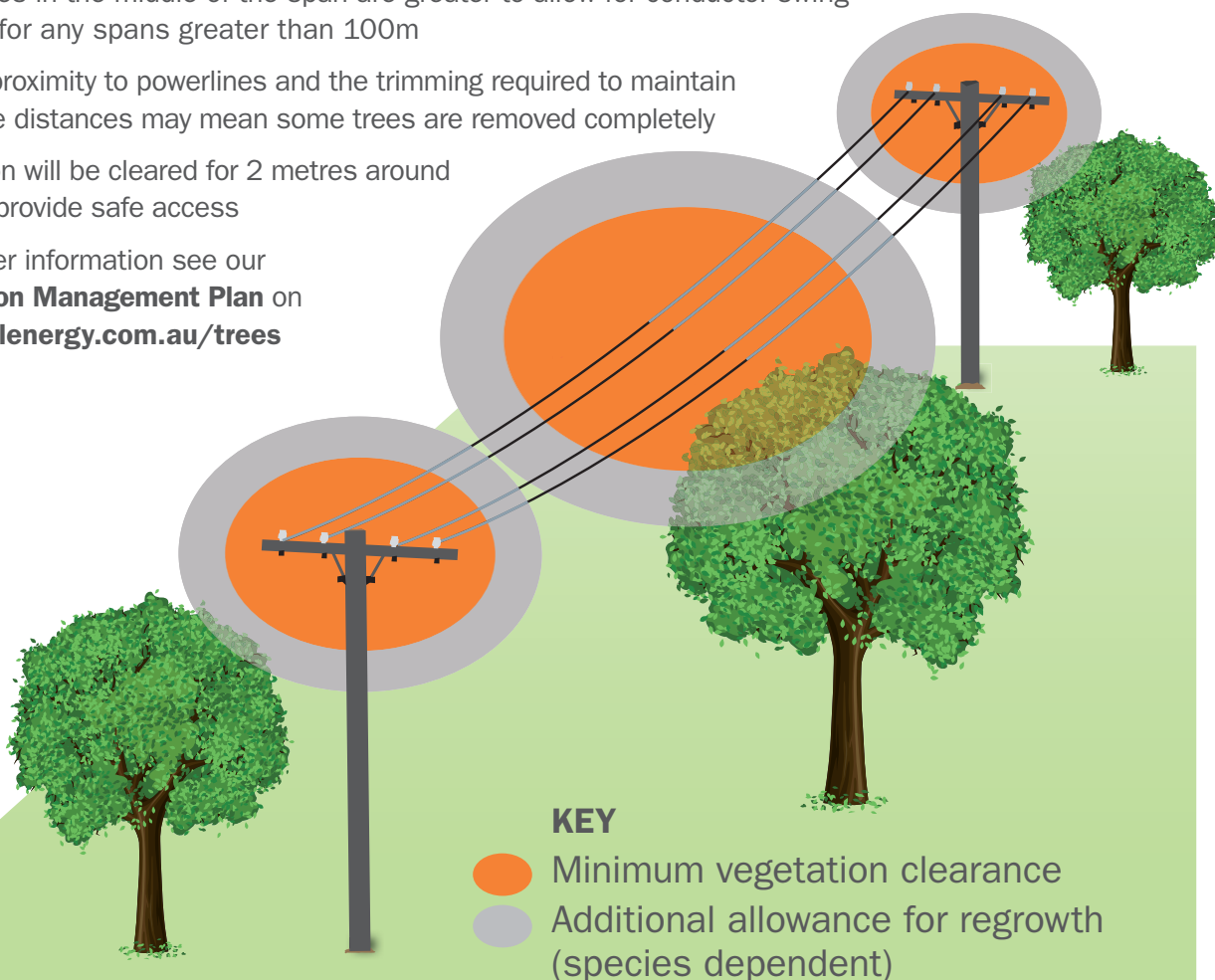
How are trees trimmed?

Like most Australian power companies, Essential Energy uses the standard arboriculture practice of directional pruning to ensure trees remain healthy and clear of powerlines. Directional pruning doesn't interfere with a tree's natural defence system and is well supported by years of research. Every effort is made to retain the visual appeal of trees, especially with significant or heritage trees, however, public safety and power supply reliability must be

our top priority. In the event trees encroaching on powerlines pose a safety hazard to the community and a threat to the reliable supply of electricity, it may be necessary to remove the tree.

*In NSW – the guidelines for clearance distances between vegetation and overhead powerlines, designed to accommodate safety clearances as well as regrowth, has been developed by the Industry Safety Steering Committee (ISSC) Guidelines ISSC 3 Guideline for Managing Vegetation Near Powerlines.

- > Where practical, trimming is carried out to meet the Australian Standard 4373 which may require branches be cut back to growth points
- > Clearances between trees and powerlines increase as voltage and span length of the powerlines increase
- > Clearances in the middle of the span are greater to allow for conductor swing and sag for any spans greater than 100m
- > A tree's proximity to powerlines and the trimming required to maintain clearance distances may mean some trees are removed completely
- > Vegetation will be cleared for 2 metres around poles to provide safe access
- > For further information see our **Vegetation Management Plan** on essentialenergy.com.au/trees



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- > For further information see our Vegetation Management Plan at essentialenergy.com.au/trees
- > Or call **13 23 91** for general enquiries or **13 20 80** to report a power outage.

