Living with Easements

Endeavour Energy

POWER together

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What is an Easement

An easement is a legal right granted by a property owner over their land that permits another party to use the land for a specified purpose. Once an easement is granted, it remains on the land title in perpetuity and each subsequent property owner is bound by the easement rights until the beneficiary of the easement cancels the rights.

An easement can come in different forms and with various rights. These rights are known as the easement terms.

As an easement is just rights to use/occupy a portion of the land for a specific purpose, ownership of that part of the land that the easement site is located remains with the property owner.

Endeavour Energy easements – Why they are required

Electricity suppliers, such as Endeavour Energy, need electricity easements so they can safely access, operate and maintain a reliable and safe electricity network.

Electricity easements supplement the rights provided by NSW legislation under the Electricity Supply Act 1995 and permit electrical infrastructure, such as poles, overhead electricity conductors, underground electricity cables and electricity substations, to be installed on private land.

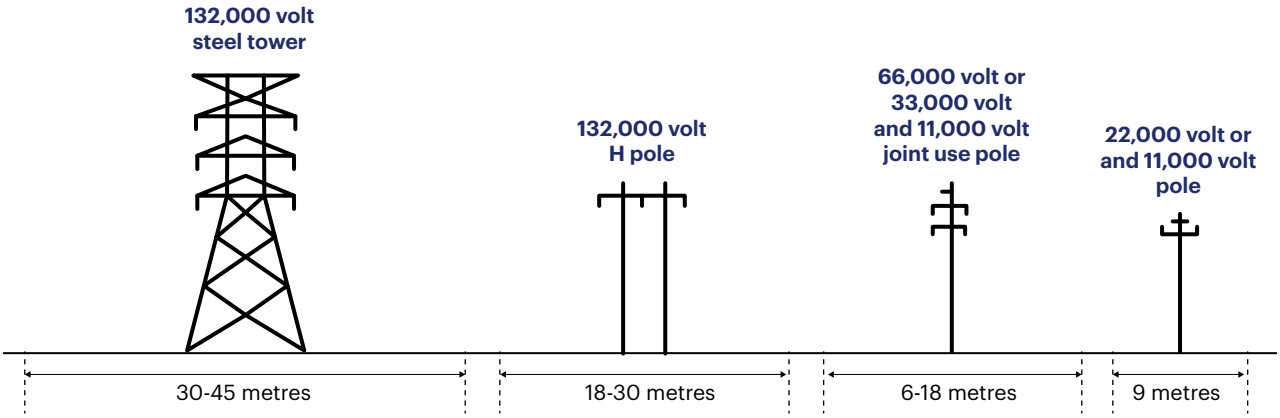
Endeavour Energy electricity easements have been formulated to ensure a safety clearance zone can be maintained around the electricity infrastructure and to allow Endeavour Energy staff access to the asset in cases of an emergency or for planned maintenance purposes.

Property owners must allow Endeavour Energy staff to access powerlines, transformers and other network equipment that is located within an electricity easement on their property. This might mean installation of a Utility Lock for dual access purposes on gates.

Common types of Endeavour Energy easements – what do they look like?

Overhead powerline easement

This easement protects overhead electrical infrastructure such as towers, poles and stays including conductors and can range from 9m wide to 45m wide depending on the voltage of the powerline. The higher the voltage, the wider the easement needs to be. This is to ensure there is suitable safety blowout clearance between the conductor and any building, structure, or vegetation near the powerline as conductor can swing in windy conditions.



Some typical Endeavour Energy easement power lines

Exclusion Zone around a pole or tower

Endeavour Energy has developed an exclusion zone around Endeavour Energy powerlines, towers and structures that enables suitable activities within easements, while providing a safe access and work clearance areas near the asset to protect the network and provide public safety.

Exclusion zones measured at ground level, are,

- 5.0 metres radius from a power pole, and
- 10.0 metres radius from the leg of towers/stanchions.

Most activities are prohibited within the exclusion zone, to ensure unobstructed access to the pole or tower in case it needs to be replaced.

Underground Cable easement

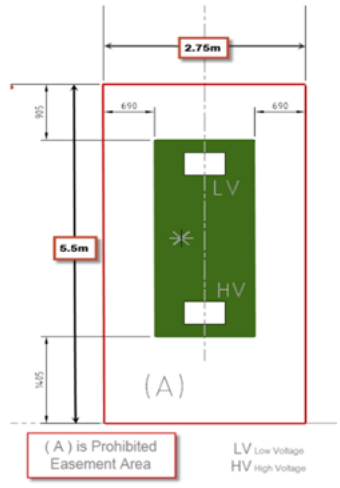
This easement protects underground infrastructure such as cables, conduits and pillars and generally range from 1m wide to 6m wide depending on the voltage of the cable. See table 1 below. The higher the voltage, the wider the easement needs to ensure a suitable safety clearance is maintained when excavating the ground near the cable and to allow reasonable access to the cable for maintenance and upgrade purposes.

Minimum easement width table

Voltage	Asset type	Construction	Minimum Easement (m)
400v - 22kv	Cables	Ducted / direct buried	3
		Concrete covered ducts (Min 75 mm concrete cover at Standard burial depth)	1
33kv - 132kv	Cables (Single feeder only)	Ducted / direct buried	5
		Cable pits / joint bays	6

Padmount Substation easement

This easement protects electricity transformer infrastructure that connect to the underground electricity network. The transformer equipment is in a locked cubicle, normally green in colour (example shown below), and **the minimum standard easement is 5.5m long X 2.75m**, however this may vary at times to suit the location conditions.

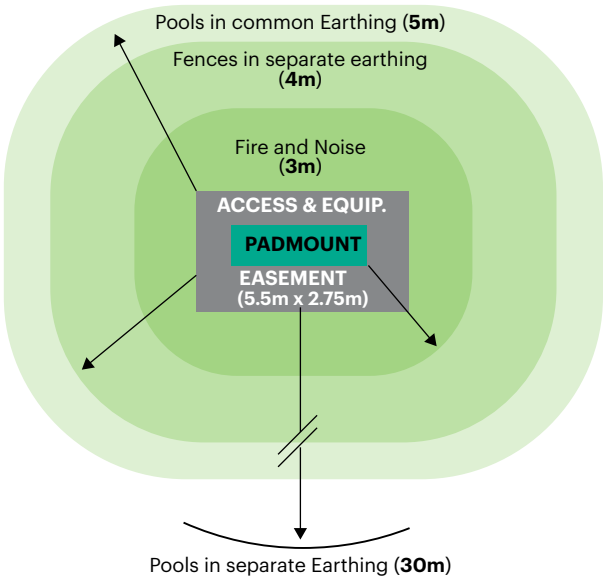


Example of a padmount substation

Padmount Substation restriction zone

Associated with a padmount substation easement, Endeavour Energy may register on the land title, restrictions on the use of land that allows Endeavour Energy to control development near a padmount substation for safety purposes. The most common restrictions are:

1. **Fire restriction zone** – This restriction requires any building within 3m of the padmount substation to meet the appropriate fire resistance level in compliance with Australian Standard 1530 and the National Construction Code (NCC). An electricity padmount substation is considered a fire source under the NCC and the purpose of this restriction is to minimise and protect the building from damage should a fire occur in the padmount substation.
2. **Swimming pool restriction zone** – This restriction prohibits a swimming pool or spa being installed within a certain area near the padmount substation easements depending on the earthing system installed with the substation. The purpose of this earthing system is to ensure the safe and reliable operation of the electrical network at the time of an electricity fault occurring in the substation. Swimming pools and spas near an earthing system require particular care and assessment, due to the increased risk of persons being vulnerable to electrical shock if an earthing fault occurs in the padmount substation. Swimming pools and spas installed near a padmount substation should be equipotential bonded and earthed and/or separately isolated in accordance with Australian Standard AS/NZS 3000.
3. **Metal Fencing and structure restriction zone** – This restriction is to provide a safety clearance between metallic fences/structures and padmount substations with separate earthing. It prohibits metal structures being erected near the padmount substation and requires metallic fencing near the substation to be insulated from the fence posts and from the ground.



Padmount easements and clearances

What activities are allowed within an electricity easement or near electricity infrastructure.

For many years, Endeavour Energy has assessed the safety risk of various activities that residences and businesses have sought to place in an easement. These assessments have considered the safety impact of the activity to the electricity infrastructure whilst maintaining appropriate access to operate the electricity infrastructure.

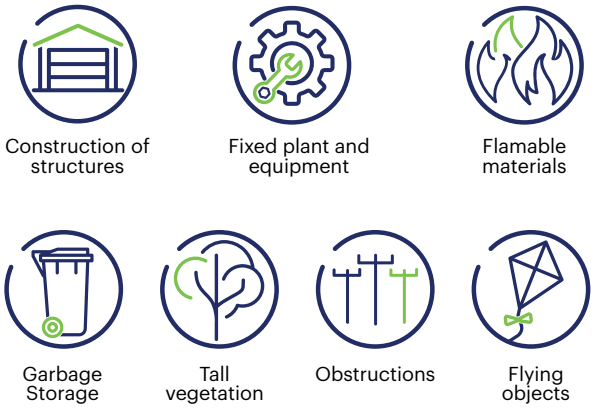
If you are proposing an activity or development within or adjacent to an easement, you must contact Endeavour Energy and seek advice/permission if the activity or development can proceed and if any conditions will apply.

Endeavour Energy will assess each request on its own merit and consider the impact of the activity or development on the electricity asset located in the easement. This will include safe access for Endeavour Energy staff working on the asset and safety considerations for the occupants of the land.

Written advice will be provided for each request that either gives permission or deny the request.

Examples of Prohibited activities in an Endeavour Energy Easement

The following are examples of activities that are prohibited within an Endeavour Energy easement and **No Approval** will be given under any circumstance.



- Residential houses, granny flats, garages, shipping containers or large structures.
- Commercial and Industrial buildings.
- Swimming pools and Spas – inground and above ground.
- Excavating or filling the land over an underground cable.
- Excavating or filling the land under a powerline within 5.0 metres of any power pole, support wire or within 10.0 metres of a steel tower structure.
- Obstructions within 5.0 metres of any power pole, support wire or within 10.0 metres of a steel tower structure.
- Storage of any flammable, corrosive, combustible or explosive materials and liquids such as petrol, diesel fuel and gas bottles.
- Planting or cultivating trees or shrubs which exceed 3.0 metres in height or that have a root system greater than 400mm deep.
- Sound walls, Fire/Blast walls, Retaining walls or their footings or foundations.

How can I seek Endeavour Energy's permission?

You can seek Endeavour Energy's permission to carry out activity or development within or adjacent to an Endeavour Energy easement by emailing **easements@endeavourenergy.com.au**

This should be done prior to proceeding with the activity or seeking a development consent from the Local Council or your consent authority. Endeavour Energy's permission is given as holder of the easement only and does not constitute approval to carry out the activity or development required under any Planning legislation.

Please check that your proposal is consistent with these Easement Guidelines before you seek Endeavour Energy's permission, so that we can respond as efficiently and accurately as possible.

Your request for permission should include the following information:

Name of applicant and/or company or Council	✓
Contact information including phone number, address and email address	✓
Property address and Lot and DP no.	✓
Description of the proposed activity or development including its height, depth and location and an assessment of impact on Endeavour Energy's electricity infrastructure.	✓
A detailed legible and to-scale plan showing the proposed activity in relation to property boundaries and Endeavour Energys easement and electricity infrastructure which includes measurements.	✓
For large scale subdivisions, a Site Plan showing how existing easements and electricity proposed access to the easement and electricity infrastructure.	✓
If the activity involves earthworks in an Endeavour Energy easement that has overhead powerlines, a centreline conductor profile survey showing the distance between the existing ground surface level and proposed finished surface levels and the existing conductors.	✓

Who is responsible for Maintenance of the easement site

The land on which an easement is granted remains in the ownership of the property owner with the easement rights permitting Endeavour Energy to install, access and maintain electricity infrastructure. The maintenance of an easement site such as lawn growing and mowing, rubbish and vegetation control and removal, remain the responsibility of the property owner, the same as the rest of their land.

Should Endeavour Energy access or undertake work on the electricity infrastructure in the easement and causes damage to the land, Endeavour Energy must repair and restore the land back to the condition it was before access was obtained.

Easement Maintenance around a Padmount Substation

Endeavour Energy has a responsibility to its staff under Work Health and Safety legislation to provide a safe work environment when working on padmount substations. Endeavour Energy staff regularly attend padmount substations, sometimes at night, when a fault occurs on the network, so it is important have clear unhindered access to the substations with no obstacles or obstructions in the vicinity of the substation that may accidently cause an injury to staff.

Therefore, it is important for the property owner to periodically maintain the area around the padmount substation in a clear and tidy state. Vegetation and fencing should not be placed in a padmount substation easement at all as this restricts access for operation and maintenance.

Having vegetation growing in proximity to the padmount substation is a fire risk that could cause damage to both the padmount substation and any house or building nearby.

Correctly maintained padmount surrounding area

For property owners who may find it onerous to maintain the easement on a regular basis, they may consider covering the surface of an easement around a padmount substation with material that can be easily removed and restored such as grass, wood chips, stones, gravel, or bitumen. As an example, the property owner at their cost, may do the following:

- Remove or spray all vegetation with a non-toxic grass and weed deterrent
- Remove all foreign objects leaving the easement in an approved and level state
- Form up the easement perimeter with treated timber minimum 75-100mm deep
- Laying of a suitable porous weed mat; and
- Covering the weed mat with 20mm min. size blue metal or coloured stones, wood bark/chips, asphalt or install pavers that are easily lifted.

The above suggestions, if employed correctly, will require less ongoing maintenance ensuring a clear firm footing for Endeavour Energy staff to carry out electrical maintenance or emergency works. This will ensure clear unhindered access to our electrical infrastructure whilst maintaining an approved aesthetic state for your local community.

Will an easement impact the value of a property?

Yes, an easement does impact the value of your land. Therefore, when an easement is initially acquired, the property owner is usually compensated in accordance with the *Land Acquisition (Just terms Compensation) Act 1919*.

Once an easement is created it remains on the land title in perpetuity and is an encumbrance that remains with the land. Subsequent property owners are not entitled to any compensation.

An easement can affect the use and development of your property by controlling what you can build in the easement, or near electricity infrastructure, what size trees you can plant, and what outdoor activities you can carry out within the easement.

If you have any questions or concerns about any planned activities or work within an easement or proximity to any electrical infrastructure, please contact us by email at: **easements@endeavourenergy.com.au.**

NOTE: For all electrical incidents, contact Endeavour Energy Emergency Services on 131 003 immediately. Available 24/7.

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