

For further information please contact ETSA Utilities on: 13 12 61 or visit our website at: www.etsautilities.com.au

Look Up and Live: powerline safety

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Safety around powerlines

An important part of our commitment to safety is raising public awareness of safety issues when working or living near electricity transmission or distribution lines.

Powerlines carry significant electrical charges. Touching them, or even getting close to them, could be fatal or lead to serious injury.

People who are most at risk of injury from powerlines include farmers, truck drivers, builders, crane drivers and pilots.

However many outdoor activities can be hazardous around powerlines, including boating, hot air ballooning, construction work, parachuting, kite flying and playing in the street or park.

These activities can be enjoyed if proper safety measures are taken, such as:

- Always checking for powerlines before starting any task.
- Ensuring there is safe clearance between you, the equipment you are using and overhead wires.
- Setting up or building structures well away from powerlines.
- And, if you don't know them, confirming the recommended clearance distances before starting work.

Farm safety

Farmers and their contractors should always be aware of powerlines when operating heaving machinery, especially when using harvesting equipment in paddocks and around homesteads.

Prior to using machinery near powerlines, it is essential to check equipment safety clearances. If your vehicle height is greater than 4.3 metres, the clearance arrangements must be approved by ETSA Utilities or ElectraNet by calling 13 12 61.

The risk of injury or electrocution is much greater on farming properties, because most high voltage transmission lines are located in rural and remote areas. These powerlines can carry up to 275,000 volts of electricity. Before working near powerlines, you should check the height of machinery and tractors and always look to see if there is anything above them. Sheds, haystacks and silos should also be located away from powerlines to minimise the risk of injury.

Heavy machinery safety

Transporting goods on trucks or heavy vehicles can be hazardous near powerlines. Trucks are often stacked high with loads that could connect with or get close to overhead powerlines, or even bring lines down onto the vehicle. You should always check the clearance height of the load and avoid travelling near low-lying powerlines or towers.

Operating large cranes or forklifts around powerlines can also be dangerous, especially in remote areas where the voltage of powerlines is much stronger. Operators should always be mindful of powerlines and keep away from them where possible.

If a truck or heavy vehicle strikes a powerline, the safest thing to do is remain calm and stay inside the vehicle until the power is disconnected. If it's an emergency, you may need to evacuate the vehicle but make sure you jump from the vehicle and avoid touching the ground and the vehicle at the same time.

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Boating safety

Sailing or moving boats near powerlines can be dangerous as many yachts exceed the standard safe clearance height of 4.3 metres. The main risk when boating near powerlines is the mast tangling with overhead wires, potentially causing injury or death for the crew or others near the boat.

Launching or retrieving boats from the water using a trailer is also hazardous as many people forget to check for overhead powerlines near water. There are often powerlines in carparks or near boat-ramps at marinas, and these should be observed by sailors before entering or leaving the water. Motorboats with large aerials or radar equipment should also avoid travelling near powerlines. Another rule for safe boating is to carefully monitor the weather. Yachts and boats can easily be blown off course into overhead powerlines during a storm or gale.

What to do if you contact a powerline

When an object or vehicle comes into contact with powerlines there is a high risk of electric shock. If this happens, you should immediately contact ETSA Utilities on 13 13 66 and do not move until the power is switched off.

However you should evacuate the area if:

- There is an outbreak of fire
- No-one else is aware of the situation
- The powerline could fall down on you.

If a vehicle strikes a powerline, it may be necessary for everyone to evacuate the car or truck to prevent injury. Several steps must be followed to maximise your safety, including:

- Jump out of the vehicle, ensuring you do not touch the vehicle and ground at the same time.
- Calmly walk away using small steps.
- Call ETSA Utilities immediately on 13 13 66.
- Do not return to the vehicle until after the area has been made safe.
- Keep other people well clear.

If you remain in your vehicle, no-one should touch you or the vehicle until after the all clear has been given by ETSA Utilities staff.

In an emergency call 13 13 66. For an ambulance or police assistance, call 000.

Powerline differences

There are various types and sizes of powerlines that transmit and distribute electricity. ElectraNet SA manages extra high voltage powerlines that transmit electricity from power stations over long distances and into regional areas.

These powerlines are located on large steel towers that can be up to 50 metres high and normally carry between 132,000 and 275,000 volts. The minimum safe clearance distance from these types of powerlines for a person is 6 metres.

ETSA Utilities manages powerlines that are lower in voltage and deliver electricity to local homes and businesses. These distribution powerlines are supported by stobie poles which are common in metropolitan areas and range in height from 10 metres to about 30 metres.

Distribution powerlines carry between 415 and 66,000 volts. The safe clearance distance from each type of powerline varies according to its size and voltage.

Safe clearance distances from powerline

'Clearance' is the distance that must be maintained between a powerline and an object to avoid the risk of electric shock. For more information call ETSA Utilities on 13 12 61 or ElectraNet on 1800 243 853.

We do everything in our power to deliver yours

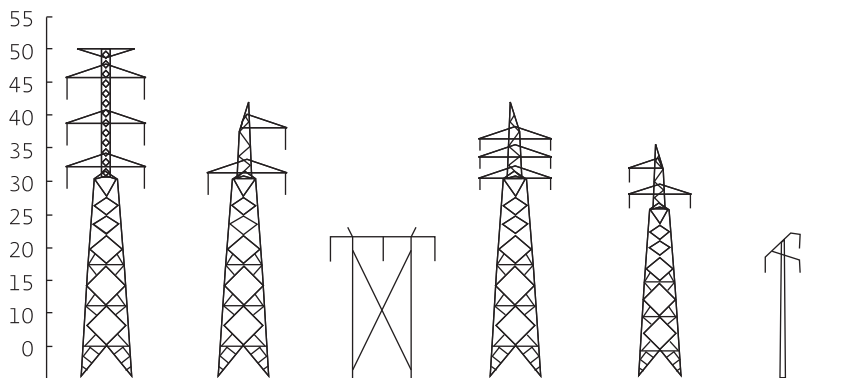
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Transmission lines

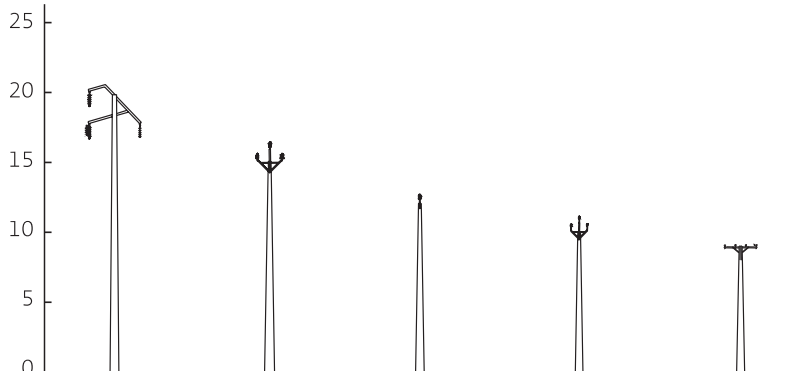
HEIGHT IN METRES



Voltage	275,000	275,000	275,000	132,000	132,000	132,000
No. of circuits	Double	Single	Single	Double	Single	Single
Construction	Steel tower	Steel tower	Double	Steel tower	Steel tower	Steel pole
Minimum safe clearance from powerline for a person	6 m	6 m	6 m	6 m	6 m	6 m
Minimum safe clearance from a powerline for a vehicle	3.2 m	3.2 m	3.2 m	2.4 m	2.4 m	2.4 m
Easement width	50 m	50 m	50 m	40 m	40 m	30 m

Distribution lines

HEIGHT IN METRES



Voltage	66,000	33,000	19,000 [SWER]	11,000	415
Minimum safe clearance from powerline for a person	4 m	3 m	3 m	2 m	1 m
Minimum safe clearance from a powerline for a vehicle	2.4 m	2.4 m	2.4 m	2.4 m	0.33 m

REMEMBER: YOU DON'T HAVE TO TOUCH A LINE TO RECEIVE A SHOCK.