Working in close proximity to powerlines, above or below the ground, has its hazards. Every year, workers die or suffer serious injuries, mostly because safe work practices around electricity have not been applied. Not only could contact with powerlines cause injury or death but costs to repair the damage could be expensive.

All machinery operators and other workers working near powerlines should be aware of their safety duties under the Electrical Safety Act 2002 and The Electrical Safety Regulation 2013 and adopt safe work practices in accordance with the Code of Practice ‘Working Near Overhead and Underground Electric lines’.

If you are contemplating working or operating plant near overhead or underground powerlines, you should obtain a copy of the ‘Electricity Entities requirements: Working Near Overhead and Underground Electric Lines’ document which is available at ergon.com.au/lookupandlive or energex.com.au/lookupandlive.

All machinery operators and other workers working near powerlines should

Call for safety advice

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Exclusion Zone

An Exclusion Zone is a safety envelope around an overhead powerline. Exclusion zones ensure people, operating plant and vehicles are a safe distance from an overhead powerline. The exclusion zone is designed to ensure a vehicle should enter an exclusion zone whilst the overhead powerline is energised (live).

Exclusion zone measurements depend on the voltage of the powerline, type of work being performed and qualifications of people involved.

Generally, owners and their equipment must maintain exclusion zones around powerlines as follows:
- 3 metres for voltages up to 132kV
- 6 metres for voltages up to 330kV

If the work that you and your staff are planning has the potential to encroach into powerline exclusion zones or if you are unsure, contact us for safety advice before starting the job.

These exclusion zones can be reduced if the worker has been trained and approved as an Authorised Person. Contact us for information on how to become an Authorised Person.

Safety Observer Zone

A Safety Observer Zone is the area where machinery or equipment is operating where any part of the machinery or equipment COULD enter the exclusion zone. A trained safety observer MUST be used if the equipment can reach the exclusion zone. Encroachment into the exclusion zone is strictly forbidden.

To ensure the equipment does not come within an unsafe distance, we recommend that a Safety Observer Area of 10 metres be delineated either side of overhead powerlines as per the diagram below. A Safety Observer SHOULD be used when any machinery or equipment is operating in the Safety Observer Area.

Safety Observer

A Safety Observer or spotter is a person who:

a. observes the operating plant; and
b. advises the plant operator if it is likely that the operating plant will enter the exclusion zone for an overhead powerline.

Safety Observers undergo specific training and must be competent to perform the role in observing, warning and communicating effectively with the plant operator. Contact us for information on how to become a qualified Safety Observer.

What to do if contact with powerlines occurs

What if the person in the vehicle needs to be evacuated

An emergency evacuation is extremely dangerous and should only be attempted as a last resort, such as if the vehicle is on fire. Remember, never approach the vehicle to assist an evacuation and always treat all powerlines as though they are ‘live’.

Tyres can explode

When a vehicle contacts an overhead powerline, a massive electrical current flows through the vehicle and its tyres to earth. This can cause the tyres to explode on contact or to start burning on the inside. Tyres burning on the inside create a potential hazard where the build-up of gases and heat can cause the tyre to explode at a later time, even 24 hours after the incident. Flying debris from the tyres exploding could potentially injure any persons in close proximity to the vehicle.

Ensure the vehicle is isolated with a 20m exclusion zone for a minimum of 24 hours. After 24 hours, the vehicle thoroughly inspected for tyre and mechanical damage.

What should you do if contact occurs

1. Try to get as far away from the vehicle as possible until the power has been isolated and the powerlines removed. Don’t risk being electrocuted by attempting to leave the vehicle before power is disconnected.
2. Advise anyone near the incident site to stay a minimum of 10 metres from the vehicle and anything in contact with the powerline.
3. Treat all powerlines as if they are ‘live’.
4. Call 000 immediately to report powerlines down and a life threatening situation.

We recommend that operators of machinery practise this jump / shuffle technique on a regular basis.

What happens if overhead or underground powerlines are contacted

1. The machinery or vehicle will become ‘live’ at the same voltage as the powerlines contacted and electricity will attempt to pass through the vehicle to the ground.
2. Anything in contact with the powerlines will also become ‘live’, such as fences and trees.
3. A potentially dangerous electrical field will be created around anything in contact with the powerline. This field extends for approximately 10 metres around these items.

Exclusions zones keep people, operating plant and vehicles a safe distance from energised overhead powerlines. No part of a worker, operating plant or a vehicle should ever approach the vehicle to assist an evacuation and always treat all powerlines as though they are ‘live’.
More information
Our Community Safety Team is available to discuss any questions relating to electrical safety legislation and requirements.

Call 1300 736 349

Network customer service 13 74 66
7.00am - 6.30pm, Monday to Friday

Faults only 13 22 96
24 hours a day, 7 days a week

Life-threatening emergencies only
000 (Triple zero) or 13 16 70
24 hours a day, 7 days a week

ergon.com.au

Call 13 74 66 for safety advice or high load permits.

Ergon Energy Corporation Limited ABN 50 087 646 062

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Practice safe work habits

- Be aware of poles and overhead powerlines in your work area.
- Check for poles and overhead powerlines before going aloft on your vehicle.
- Carry out maintenance and storage activities well away from powerlines.
- Lower plant to the transport position when moving or relocating. Never drive with plant elevated.
- Ensure that your load height is correct and does not exceed 4.6 metres.
- Don’t use “bumpers” or Polypipe to keep wires from snagging the load.
- Contact us for powerline heights - never try to measure them yourself. Any contact with powerlines can cause shocks or electrocution.
- Be sure to check before reversing as underground pillar boxes can be difficult to see and are easily run over by cars and trucks.
- Ensure machinery is checked after contact with overhead wires. Tyres can be damaged and have the potential to explode.
- Stay well clear of damaged powerlines and report them immediately on 13 22 96.

Transporting a high load?

High loads come in all shapes and sizes. If the height of your load or plant exceeds 4.6 metres you are transporting a high load.

You will be required to know your load dimensions (vehicle and load), proposed route and times for transport. We will need to scope / assess the route to ensure the high load will not contact overhead powerlines.

It’s essential that you obtain a Notification to Transport High Loads form from us by calling 13 74 66 or emailing highloads2@ergon.com.au

Before climbing your vehicle

Check for poles and overhead powerlines before going aloft on your vehicle to tie down loads, fasten tarps or check livestock.

Remember powerlines can be difficult to see at dawn and dusk.

Working in close proximity to powerlines, above or below the ground, has its hazards. Unfortunately, each year, the road transport industry has the highest impact on Ergon Energy assets. This includes contact with poles, wires and pillar boxes by vehicles, the loads they are carrying or their associated plant. Contact can also occur when working aloft on these vehicles either when tying down loads, fastening tarps or checking livestock.
50mm x 100mm sticker

210mm x 100mm sticker
1. Stay in the vehicle. Call 000 immediately.

2. If there's an immediate danger, like fire, and evacuation is absolutely necessary, access your escape route and check for fallen powerlines.

3. Exit the vehicle by jumping - make sure to land with both feet together.

4. When jumping, don't touch the vehicle and the ground at the same time.

5. Once you’ve landed with both feet together (be careful not to stumble or fall), jump or shuffle with your feet together away from the vehicle.

6. Move in this way until you are at least 10 metres away from the vehicle. DO NOT go back.

What to do if your vehicle brings down powerlines

ERGON ENERGY 13 16 70
NETWORK
Queensland Government
Powerlink Queensland 1800 353 031
energex positive energy 13 19 62
Look up and Live

Know your machine

This machinery's stowed height is __m

This machinery's extended reach is __m

Call for safety advice

Untrained Person Exclusion Zones

Safety Observer Area

6m Up to and including 330kV

10m

Permit required if transit height exceeds 4.6m

outside view looking through glass

inside view from inside vehicle