



To identify powerline
locations, visit
lookupandlive.com.au
and make a plan to
stay safe when working
near powerlines.



Scan with
smartphone

Call for safety advice



1800 635 369



Queensland
Government



Part of the Energy Queensland Group
13 74 66



13 12 53

1800 353 031

Emergency
numbers

13 16 70

13 19 62

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EGEB0608

Working safely around
electricity on

**Sugar
Cane
Farms**



Queensland
Government



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Working in close proximity to powerlines, above or below the ground, has its hazards. Each year, workers in the cane industry make contact with electricity 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 during harvesting and haul out operations, when moving machinery and plant from one location to another or when irrigating.

Before you start work

- Before starting work, take the time to plan. Visit lookupandlive.com.au - our powerline planning map to identify powerline locations and make a plan to work safe.
- Talk to the person in control of the property about any work areas which may be hazardous.
- Know the location of overhead and underground powerlines, poles and stays on the property and their proximity to your work.
- Complete a hazard assessment for each work site including paddocks, sidings and piece of machinery to be used.
- Install visual markers in any areas where electrical hazards are identified prior to commencing work. Vision can be obstructed by machinery blind spots.
- Monitor weather conditions closely as powerlines can sway in winds, sag as temperature increases and are difficult to see at dawn and dusk.
- Be aware of reduced powerline heights resulting from damage, often indicated by uneven powerlines, excessive sag or slack stays.
- Stay well clear of damaged powerlines and report them immediately by calling triple zero (000).
- Ensure operators are aware of the height of their machinery in both stowed and working positions.
- Monitor closely any machinery being operated to ensure required powerline exclusion zone clearances are maintained.
- Ensure all farm workers know the emergency procedures applicable for the work being carried out and the relevant emergency contacts.

Practice safe work habits

- Identify all electrical hazards, assess the risks, establish and introduce control measures, review control measures periodically. Control measures may include but may not be restricted to:
 - Visual indicators such as rotamarkers fitted to powerlines (contact us for advice)
 - Ground barriers where possible
 - Informing workers of required work practices.
- Assign a safety observer to each work team.
- Ensure required exclusion zone clearances between machinery and powerlines are maintained.
- Investigate solutions and remedy current hazardous powerline locations.
- Lower toppers and elevators to the transport position when relocating, from paddock to paddock and farm to farm.
- Give consideration to operational exclusion zone clearances when building new cane paddocks and sidings to keep safe distances away from powerlines.
- Carry out maintenance and storage activities well away from powerlines.
- Contact us about marking powerlines, power poles and stays on your property.

Transporting a high load?

If the height of your load or plant exceeds 4.6 metres you are transporting a high load.

It's essential that you submit a Notification to Transport High Loads form. You will be required to know your load dimensions (vehicle and load), proposed route and times for transport. We will scope and assess the route to ensure the high load will not contact overhead powerlines.

Before any person or company can transport a high load, authorisation to travel must be received in writing from us.



**Call for safety advice
or high load permits.**

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locations, visit
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stay safe when working
near powerlines.



Scan with
smartphone

Marking overhead powerlines and electrical assets

Call for safety advice



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Before starting work, every person working near powerlines should be aware of their safety obligations under the *Electrical Safety Act 2002*, *Electrical Safety Regulations 2013*, and adopt safe work practices in accordance with the *Electricity Entity Requirements: Working Near Overhead and Underground Electric Lines*. If you are contemplating working or operating plant near overhead or underground powerlines, you can obtain a copy of these documents from our website.

Overhead warning markers

We have a range of overhead warning markers that can be installed to help identify overhead powerlines in areas where machinery is frequently operated.

Painting poles

Painting the lower section of the pole up to 3 metres above ground can also provide a visual indication of structures to help avoid accidental contact.

Aircraft warning markers

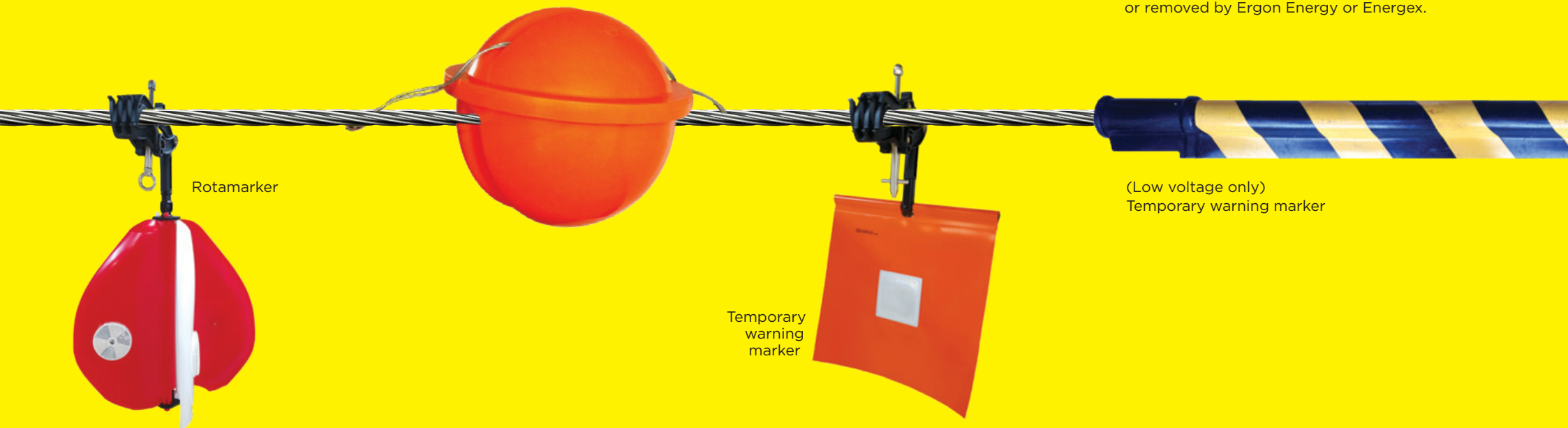
Cable markers should be installed where regular low-level flying operations take place. Refer AS 3891 - 2008 Air navigation - Cables and their supporting structures - Marking and safety requirements.

The red and white rotamarker is the standard powerline marker. Markers of different colours may be used to provide contrasts when viewed in different directions or conditions e.g. white and orange alternated.

Responsibilities

The responsibility for marking overhead powerlines, cables and structures should be as follows:

- The person requesting planned low-level flying operations e.g. the land owner, is responsible for requesting installation of markers.
- The pilot or pilot's delegate should be satisfied as to the need for and effectiveness of markers prior to commencing low-level operations.
- Aerial markers should only be installed, maintained or removed by Ergon Energy or Energex.





1

STAY CALL WAIT
in the harvester 000 for help



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

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

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

5 Once landed with both feet together (careful not to stumble or fall), jump or shuffle with your feet together away from the harvester.

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

**What to do if
your harvester brings
down powerlines**



1800 353 031



Queensland
Government

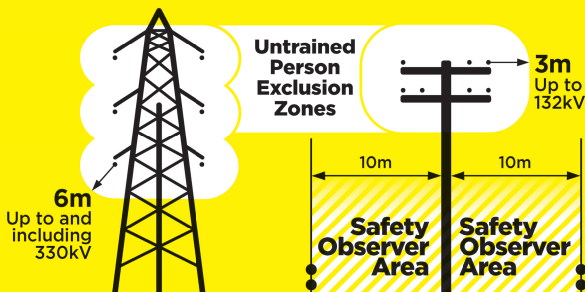


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Look up and Live



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Know your machine



How high are the powerlines on your property? Call for safety advice.

Load height [] m



**Call for safety advice
or high load permits**

Place these
handy stickers in
key locations

More industry
specific information

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’.

Look
up
and
Live

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

Always take care when
operating around
overhead powerlines.

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.

Call for safety advice



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This guide contains valuable information about some of the potential dangers of and how to work safely around, both overhead and underground powerlines, for operators of machinery including excavators, tip trucks, trucks, crop sprayers, harvesters or aircraft and users of scaffolding equipment, irrigators or ladders.

Exclusion zone

An exclusion zone is a safety envelope around an overhead powerline. Exclusion 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 enter an exclusion zone while 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, workers 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 machinery or equipment is operating in the Safety Observer Area.

Safety Observer

A Safety Observer or spotter is a person who:

- observes the operating plant; and
- 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 happens if overhead or underground powerlines are contacted

- 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.
- Anything in contact with the powerlines will also become 'live', such as fences and trees.
- 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.

What should you do if contact occurs

- Try not to panic, remain calm and stay in the vehicle 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.
- Advise anyone near the incident site to stay a minimum of 10 metres from the vehicle and anything else in contact with the powerlines.
- Treat all powerlines as if they are 'live'.
- 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 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 in an evacuation and always treat all powerlines as if they are 'live'.

Tyres can explode

When a vehicle contacts overhead powerlines 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 creates 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 that the vehicle is isolated with a 300m exclusion zone for a minimum of 24 hours. After this, have the vehicle thoroughly inspected for tyre and mechanical damage.