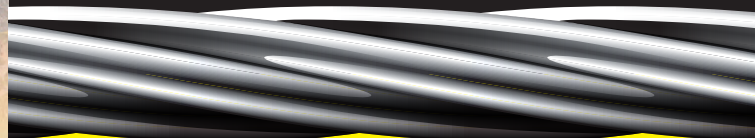




To identify powerline locations, visit **lookupandlive.com.au** and make a plan to stay safe when working near powerlines.



Scan with smartphone



Call for safety advice



1800 635 369



Queensland Government



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13 74 66



13 12 53

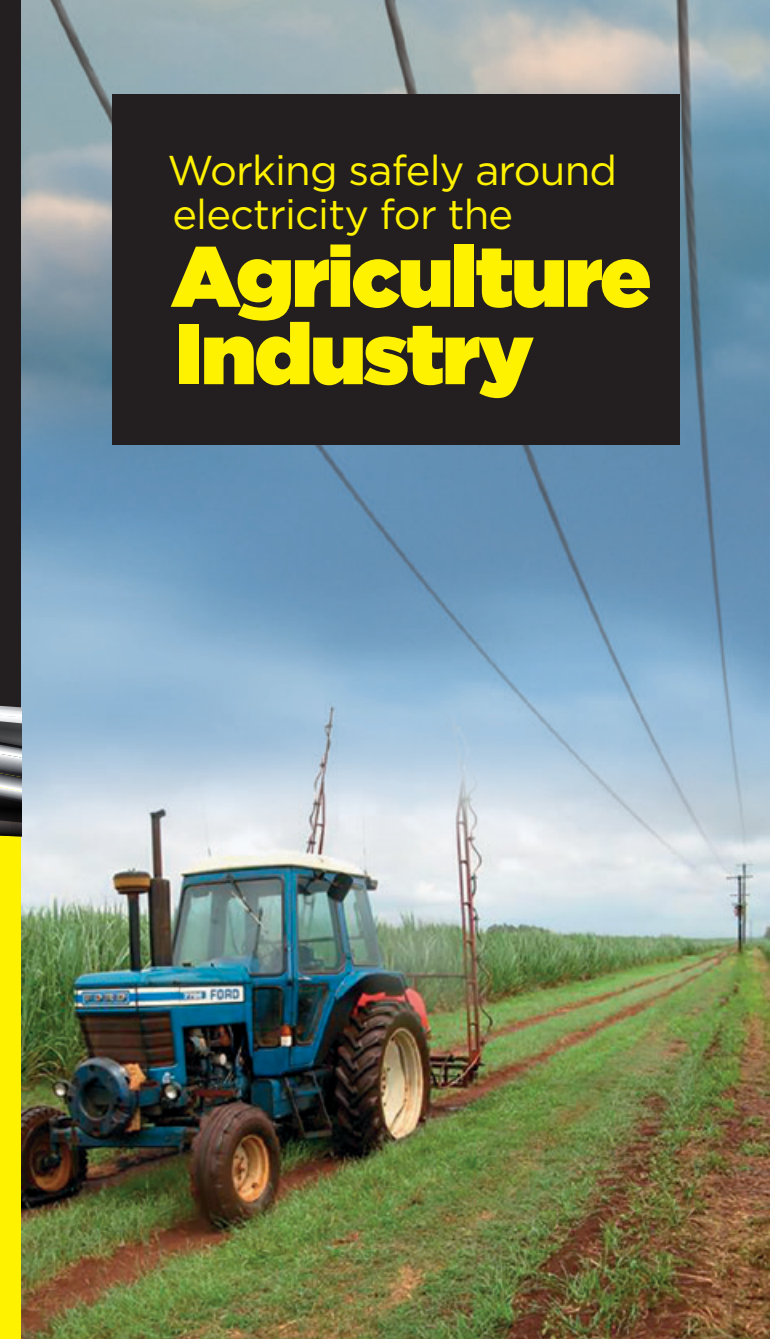
1800 353 031

Emergency numbers

13 16 70

13 19 62

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Working safely around electricity for the **Agriculture Industry**



Queensland Government



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Working in close proximity to powerlines, above or below the ground, has its hazards. Each year, the workers in the agriculture 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 occur during harvesting, spraying, 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.
- Ensure workers have been suitably trained and are competent to perform the work being carried out.
- Know the location of overhead and underground powerlines, poles and stay wires on the property and their proximity to your work.
- Complete a hazard assessment for each paddock and each 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 carefully 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 conductors, excessive sag or slack stay wires.
- Stay well clear of damaged powerlines and report them immediately by calling triple zero (000).
- Monitor closely any machinery or equipment being operated to ensure required powerline exclusion zone clearances are maintained.
- Ensure operators are aware of the height of their machinery in both stowed and extended positions.
- Ensure all farm workers know the emergency procedures applicable for the work being carried out and the relevant emergency contacts.

Practice safe work habits

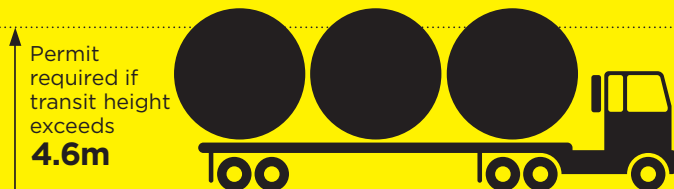
- Identify all electrical hazards, assess the risks, establish and introduce control measures, and review these control measures periodically. Control measures may include, but may not be restricted to:
 - Appropriate signage at least 10 metres either side of powerlines.
 - Contact us about marking powerlines, power poles and stay wires on your property.
 - Ground barriers, where appropriate.
 - Informing workers of required work practices.
- Assign a safety observer to each team to ensure required exclusion zone clearances between machinery / equipment and powerlines are maintained.
- Ensure exclusion zone safety clearances between machinery and powerlines are maintained.
- Keep spray from irrigators clear of powerlines.
- Check for powerlines and take extreme care when relocating or positioning irrigators or irrigation pipes.
- Lower all machinery / equipment to the lowest point before relocating between paddocks.
- Ensure maintenance and storage activities are carried out well away from powerlines.

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.

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



Scan with smartphone

Marking overhead powerlines and electrical assets

Call for safety advice



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Emergency numbers

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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

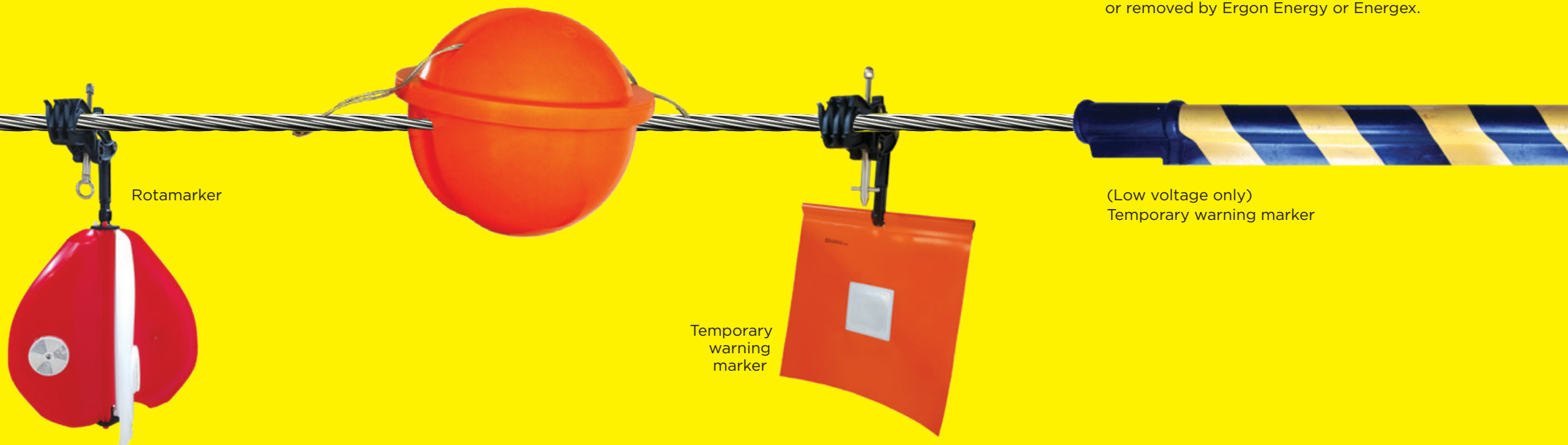
Cable markers should be installed where regular low-level flying operations take place. Refer AS 3891 - 2008 Air navigation - Cables and their supporting structures - Marking and safety requirements.

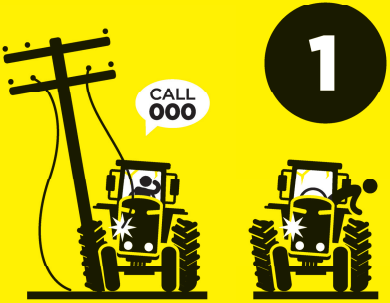
The red and white rotamarker is the standard powerline marker. Markers of different colours may be used to provide contrasts when viewed in different directions or conditions e.g. white and orange alternated.

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.





STAY CALL WAIT

in the tractor 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 tractor by jumping - make sure to land with both feet together.

4 When jumping, **don't touch the tractor 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 tractor.

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

What to do if your tractor brings down powerlines



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EQL18117

Look up and Live

This machinery's **stowed height** is m

This machinery's **extended reach** is m

Call for safety advice

Untrained Person Exclusion Zones

6m Up to and including 330kV

3m Up to 132kV

10m 10m

Safety Observer Area **Safety Observer Area**

Permit required if transit height exceeds 4.6m

Powerlink **Queensland Government** **EGON ENERGY NETWORK** **energex**

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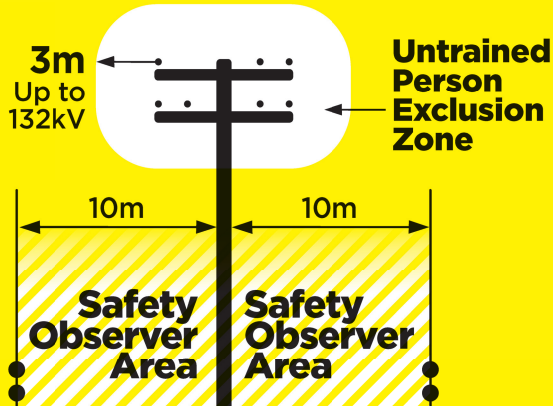
Outside view looking through glass

View from inside windscreen



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Look up and Live



Call for safety advice
Ergon 13 74 66 | Energex 13 12 53

Permit required if transit height exceeds
4.6m



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



1800 635 369



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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:

- 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 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.

What should you do if contact occurs

1. 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.
2. Advise anyone near the incident site to stay a minimum of 10 metres from the vehicle and anything else in contact with the powerlines.
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 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.