

# Look up and Live



**Always take care when  
operating around  
overhead powerlines.**



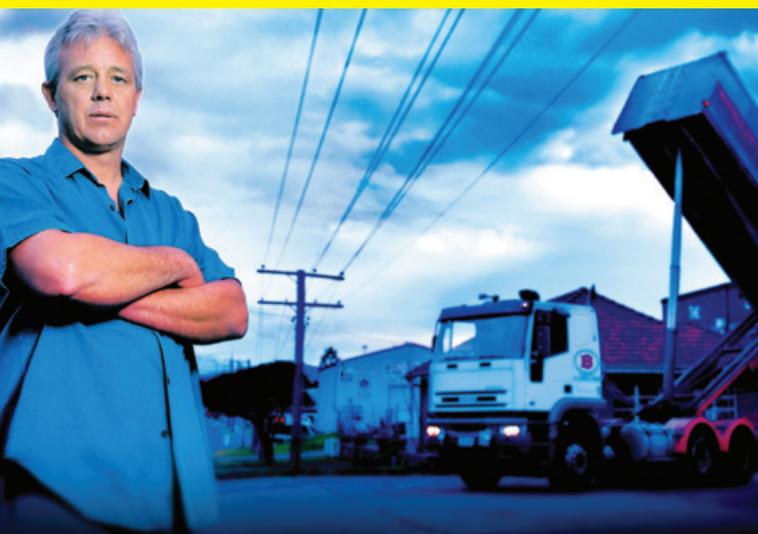
# Look up and Live

**This safe work practice guide contains valuable information about some of the potential dangers of powerlines for operators of machinery including excavators, tip trucks, crop sprayers, harvesters or aircraft and users of scaffolding equipment, irrigators or ladders.**

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.

This brochure is designed to inform you about safe work practices for working around both overhead and underground powerlines.

However, all machinery operators and other workers working near powerlines should also be aware of their safety obligations under the Electrical Safety Act 2002 and adopt safe work practices in accordance with the Code of Practice "Working Near Exposed Live Parts". Copies of these publications can be obtained from the government's Electrical Safety Office.



## Exclusion zones

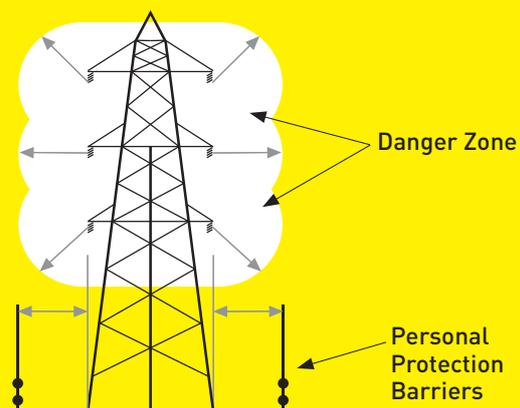
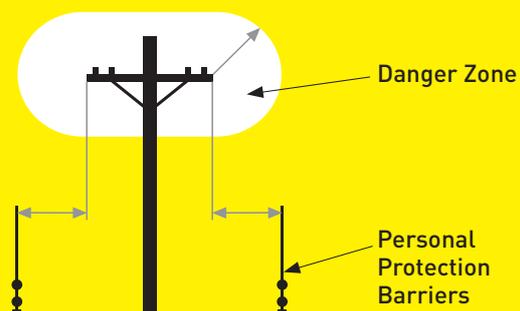
If the work that you and your staff are planning has the potential to encroach into powerline exclusion zones you should contact us for advice on doing the job safely.

Exclusion zone measurements depend on the voltage of the powerline, type of work being performed and qualifications of people involved. If unsure, always seek safety advice from Ergon Energy. 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**
- **8 metres for voltages over 330kV**

However, these exclusion zones can be reduced if the worker has been trained and approved as an Authorised Person. Contact Ergon Energy for information on how to become an Authorised Person.

## Exclusion zones for powerlines



# Always take care when operating around overhead powerlines.

## It pays to Take 5

### 1. Think through the task

### 2. Identify all electrical hazards

### 3. Assess the risks

### 4. Establish and introduce control measures

### 5. Do the job safely

## Identify all electrical hazards

### For overhead powerlines:

- **Look around.** Identify all overhead powerlines in the area.
- **Check site maps or plans.** We may be able to supply maps and information that will show the location of overhead powerlines.
- **Report your findings.** Discuss any hazards with the person in charge and relevant workers.

### For underground cables:

- **Identify any electrical equipment in the area.** Street lights, padmount substations, pillar boxes, phone boxes and traffic lights are all indicators that underground cables are nearby.
- **Check site maps or plans and dial 1100 before you dig.** 'Dial before you dig' is an Australia-wide telephone service advising the location of some Ergon Energy and other underground cables on work sites and properties.
- **Look for warning signs.** Orange strips, conduits, concrete slabs and orange tape warn of the presence of underground cables.

## Assess the risks

### For overhead powerlines consider the following:

- **Is it a hot day?** Heat can cause powerlines to sag, thus reducing clearance levels for machinery.
- **Is it windy?** Powerlines can swing, increasing the risk of contact if you're working close to the exclusion zone.
- **How dark is it?** At dawn or dusk, or on overcast days, powerlines can be harder to see.
- **How high are the powerlines?** Apparent height of powerlines will vary depending on the angle from which they are viewed.

**Remember: Electricity can arc up to 2 metres, meaning you can still be injured without direct contact.**

### For underground cables:

- **How old are your maps?** Plans and maps identifying the location of underground cables can date quickly. Road upgrades and developments can also alter the depth of cables.
- **How deep are the cables?** Depth can vary from site to site, even on the same property.
- **Do the cables need moving?** Never move a cable without the express permission from the authority responsible for the cables.
- **Are any other service lines present?** Check for gas pipes and communication lines before you dig.

**Remember: New electrical cables may have been laid using old conduits. Also, there are a variety of methods to protect underground cables - orange strips, conduits, concrete slabs, orange marker tape and soft sand could indicate the presence of underground cables when digging.**

## Establish and introduce control measures

- **Determine safe method of work.** Once the hazards have been identified and their risks assessed, determine and introduce safe work practices.
- **Ensure all workers are aware of hazards and controls.** Alert workers to exclusion zones for powerlines, location of underground cables and safety barriers, etc.
- **Can powerlines be switched off?** Always assume all powerlines are 'live' until you have received confirmation from Ergon Energy that they have been de-energised, isolated and earthed.

### If powerlines can't be switched off

**Is there another way of doing the work to avoid working near powerlines?** Consider work to be done and investigate alternatives to avoid working near powerlines.

- **Install temporary hazard identification.** Tiger tails, flag markers and where possible, ground barriers, can help warn workers of the presence of powerlines. Contact us on 13 10 46 for information on marking powerlines and power poles on your property.
- **Nominate a Safety Observer.** Where there is a possibility of breaching the exclusion zone for powerlines a trained Safety Observer must be appointed. Contact Ergon Energy for information on how to become a trained Safety Observer.
- **Maintain exclusion zones.** Generally workers and their equipment must maintain exclusion zones around powerlines as set out in the front of this booklet. However, these exclusion zones may be reduced if the worker has been trained and approved as an Authorised Person.

- **Seek safety advice.** Contact Ergon Energy on 13 10 46 for advice about the voltage and height of powerlines and information on becoming an Authorised Person. This is a free service.

Review control measures periodically. As conditions can change on a worksite, control measures should be periodically reviewed to ensure that they are still maintaining the safety of all concerned.

### What if contact with a powerline occurs?

- **Stay safe and do not try to move the equipment.** Don't try to break the contact between machinery and powerlines because powerlines can be inadvertently torn down.
- If safe to do so, **stay in the cabin.** Machinery operators should not leave their machinery until the power is switched off and they have been given the all clear by an authorised Ergon Energy employee.
- **Get the power turned off.** Call 000 immediately and ask for police to report powerlines down or a life threatening situation. You can also contact us on 13 16 70 to switch off the power.
- **Keep bystanders at least eight metres away.**

### If immediate evacuation of equipment is necessary

- **Jump well clear** ensuring you land with your feet together, and then continue jumping with your feet together until you are at least 8 metres clear of the vehicle, powerlines or anything else in contact with them. Practise this technique.
- **Don't try to be a hero.** Never approach, attempt to rescue or allow others to approach any machinery or vehicles in contact with powerlines. Too often, inexperienced people are injured or killed coming to the aid of another.

# Look up and Live



## It pays to Take 5

1. Think through the task
2. Identify all electrical hazards
3. Assess the risks
4. Establish and introduce control measures
5. Do the job safely

Customer Service

13 10 46

7.00am - 6.30pm Monday to Friday

[ergon.com.au](http://ergon.com.au)

Ergon Energy Corporation Limited ABN 50 087 646 062

Faults only

13 22 96

24 hours a day,

7 days a week

Ergon Energy Queensland Pty Ltd ABN 11 121 177 802

Life-Threatening  
Emergencies only

000 or 13 16 70

24 hours a day, 7 days a week

