

Electricity and cotton farming



What should I do before commencing any work on a property?

- > Talk to the person in control of the property about any work areas which may be hazardous
- > Know the location of powerlines on the property and their proximity to your work
- > Download the Look Up and Live app. Look Up and Live makes overhead powerline locations and imagery available to the public online, at no cost, via an interactive geospatial map. The app provides the ability to search locations in real time and to overlay maps with third party mapping programs, or print, as required. Visit essentialenergy.com.au/lookupandlive
- > Be aware of electrical safety - ensure workers are suitably trained, competent and familiar with the relevant sections for work being undertaken, especially the safe approach distances between machinery and powerlines as specified in the WorkCover 'Work near Overhead Powerlines' Code of Practice.
- > Complete a risk assessment to identify and put in place the appropriate control measures to prevent any hazards (including work practices and procedures) which may have the potential to harm the health or safety of a person. This should be completed for each paddock and piece of machinery to be used
- > Contact Essential Energy about installing visual markers to improve powerline visibility in any areas where electrical hazards are identified prior to commencing work, as vision can be obstructed due to blind spots in machinery

- > To warn workers of the presence of overhead powerlines:

- Mark either side of powerlines by at least eight to ten metres with appropriate signage
- Where appropriate, provide ground barriers.



- > Carefully monitor weather conditions - powerlines can sway in winds, sag as temperature increases and are difficult to see at dawn and dusk
- > Be aware of reduced powerline heights as a result of damage, usually indicated by uneven conductors, excessive sag, slack guys or ground that has been built up. Stay well clear of damaged powerlines and report them immediately to Essential Energy on **13 20 80**.



Ensure operators are aware of the height and reach of their machinery in both stowed and working positions to ensure that minimum approach distance to powerlines are maintained (see Essential Energy's fact sheet 'Work near overhead powerlines' for minimum approach distances).

Machinery measuring over 4.6 metres has a higher risk of an incident involving overhead powerlines and should be closely monitored to ensure required safe approach distances are maintained. If in doubt contact Essential Energy to confirm the actual height of conductors and arrange for the power to be switched off if required clearances can't be achieved. Do this as early as possible as time will be required to arrange the outage.



Figure 1.

Approximately 36ft 8in long and 5.33m high



Figure 2.

Approximately 23ft 4in long and 7.11m high

SAFETY FIRST

- > If you are operating machinery over 4.6m high, ensure all areas of operation are assessed prior to the commencement of work. If in doubt, call Essential Energy on 13 23 91 for assistance.
- > Don't raise machinery to unload round bales before checking for overhead powerlines.

NOTE: Machine should be set to "MANUAL" regarding auto tip.

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Safe work habits

- Ensure required safe approach distances are maintained. This is the amount of space required between machinery and anything held by a person and the powerlines in order to prevent electricity arcing to you or the machinery
- Ensure sufficient room is allowed when manoeuvring near poles and guys
- Assign a safety observer to each work team to guide machinery movements near overhead powerlines, in order to warn the person/operator of unsafe conditions and ensure minimum safe approach distances are maintained
- Ensure maintenance of machinery, loading, unloading and pressing activities are carried out well away from powerlines
- Lower the ram/tramper to the minimum height - transport position - when relocating cotton module makers every time
- Make sure you locate module builder and round bale sites well away from powerlines. Consideration must also be given to the vehicle length when collecting modules, to ensure that approach distances are maintained

- Lower the bars on top of cotton pickers when picking and relocating between paddocks or farms.



*** Remember to lower machinery to minimum height before relocating and transporting.**

Safety Stickers for use in agricultural machinery cabins are available by calling Essential Energy on 13 23 91

DANGER

THE STOWED HEIGHT OF THIS MACHINERY IS: m	THE EXTENDED HEIGHT OF THIS MACHINERY IS: m	A PERMIT IS REQUIRED IF THE TRANSIT HEIGHT ON A ROADWAY EXCEEDS 4.6m
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3m

CLEARANCE ZONE UP TO AND INCLUDING 132,000 VOLTS

6m

CLEARANCE ZONE ABOVE 132,000 VOLTS UP TO AND INCLUDING 330,000 VOLTS

8m

CLEARANCE ZONE ABOVE 330,000 VOLTS

LOOK UP AND LIVE

KEEP WELL CLEAR OF OVERHEAD POWERLINES

For safety tips visit essentialenergy.com.au/safety or call 13 23 91. In an emergency call 13 20 80

What are the minimum safe approach distances when working near powerlines?

Workers and their equipment should not approach overhead powerlines any closer than 3, 6 or 8 metres depending on the voltage, when machinery is being operated. See Essential Energy's fact sheet 'Work near overhead powerlines' for more information.

What are the minimum safe approach distances when driving under powerlines?

An 'approach distance' is the amount of space required to be kept between machinery and the powerlines in order to prevent electricity arcing to you and includes the load, exhaust pipe and attachments such as rotating/flashing lights, rails, radio aerials, etc. The following table provides minimum safe approach distances for fixed height vehicles.

NOTE: Once any operational work is to be performed, such as unloading bales, the minimum safe approach distances when working near powerlines apply - 3, 6 or 8m.

Nominal phase to phase a.c. voltage (volts)	Minimum approach distance
Low voltage conductors up to 1,000 (Usual supply from transformers to houses, sheds and pumps)	0.6m
Above LV, up to and including 33,000 (Usual supply to rural transformers on single poles with crossarms)	0.9m
Above 33,000 up to and including 132,000 (Usually two poles or single poles without crossarms)	2.1m

SAFETY FIRST

- You can still be injured without directly contacting an overhead powerline, as electricity can arc across open spaces - so keep your distance!
- Be aware that the apparent height of powerlines will vary depending upon the angle from which they are viewed
- Always treat all powerlines as if they were alive even though they may appear to be dead.