

Erection and Dismantling of Scaffolding in Proximity to Endeavour Energy Overhead Assets

I am writing to you to advise you of Endeavour Energy and Work Cover's requirements regarding the erection of scaffolding near Endeavour Energy's overhead network.

For nominal voltages up to and including 33,000volts, Endeavour Energy has the following requirements:

1. You must comply with the requirements contained within the *WorkCover Code of Practice – Work Near Overhead Power Lines* ("the Code"). (*WorkCover of NSW Publication No. 1394*)
2. You must complete a written risk assessment, have safe work method statements and engage safe systems of work in accordance with *the Code*.
3. The safe approach distances of 4000mm in accordance with table 1 of *the Code* should be maintained at all times from all conductors.
4. Erecting scaffolding within the safe approach distance of live overhead conductors is not permitted. Overhead conductors will be isolated and made safe in accordance with Endeavour Energy's safety rules.
5. Once erected, and with an impenetrable barrier (hoarding) as described in *the Code* affixed in place, the conductors may be re-energised, with safe approach distances reduced as shown in Table B and diagram 1.
6. Scaffolding must be erected to ensure movement of the scaffold towards the overhead conductors is prevented. Sag and wind movement of the conductors must be taken into account when determining safe approach distances.
7. Removal of scaffolding from the proximity of overhead conductors shall only be carried out with the conductors isolated and made safe in accordance with Endeavour Energy's safety rules.

Scaffolding near Overhead Powerlines up to and including 33kV

Where metallic scaffolding or associated components are likely to come within 4.0 metres of existing overhead conductors, under worst conditions of conductor sag and wind movement (blowout), the precautions in **Table A** will apply until the erection of the scaffolding is complete. The same applies when scaffold is dismantled. When the scaffold has been erected the conditions of **Table B** apply.

Note: Endeavour Energy may implement a range of control measures including de-energisation, short circuiting and earthing, issuing access authorities or approval to work, installation of cable covers and re-routing of cables.

Table A – Clearances to Scaffolds – ERECTION & DISMANTLING

Voltage	Conductor	Clearance (Horizontal) (Max Blowout must be added)	Safety Conditions
Low voltage Including Aerial Services & Aerial street lighting circuits	Open Wire (Bare)	Up to and including 4.0m	Isolated, Cable Covers, and appropriate authority, or relocate.
		More than 4.0m	Appropriate risk assessment.
	ABC	Up to and including 0.3m	Isolated, Cable Covers, and appropriate authority, or relocate.
		More than 0.3m and up to and including 1.0m	Isolated, Cable Covers, and appropriate authority, or Cable Covers and Safety Observer.
		More than 1.0m and up to and including 4.0m	Cable Covers and appropriate risk assessment.
High Voltage (upto and including 33kV)		Up to and including 4.0m	Isolated and appropriate authority.
		More than 4.0m.	Appropriate risk assessment.
High voltage > 33kV		To be referred to Network Operator.	

Table B: Clearances to Scaffolds – WHEN ERECTED

Voltage	Conductor	Clearance (Horizontal) (Max Blowout must be added)	Safety Conditions
Low voltage Including Aerial Services & Aerial Switch Wires	<i>Open Wire (Bare)</i>	<i>Less than 0.6m</i>	<i>Isolated, Cable Covers, and appropriate authority, or relocate.</i>
		0.6m to 4.0m	<i>Cable Covers and hoarding with internal signage</i>
	<i>ABC</i>	Less than 0.1m	<i>Isolated, Cable Covers, and appropriate authority, or relocate.</i>
		<i>0.1m to 0.3m</i>	<i>Cable Covers and hoarding with internal signage.</i>
		0.3m to 4.0m	Cable Covers.
High Voltage (up to and including 33kV)	<i>Open Wire (Bare) & CCT</i>	Less than 1.5m	Conductor relocation, or isolation, hoarding with internal signage and appropriate authority.
		1.5m to 4.0m	<i>Hoarding with internal signage.</i>
	<i>ABC</i>	Less than 0.3m	<i>Conductor relocation, or isolation, hoarding with internal signage and appropriate authority.</i>
		0.3m to 4.0m	<i>Hoarding with internal signage</i>
High voltage > 33kV	Bare	To be referred to Network Operator.	

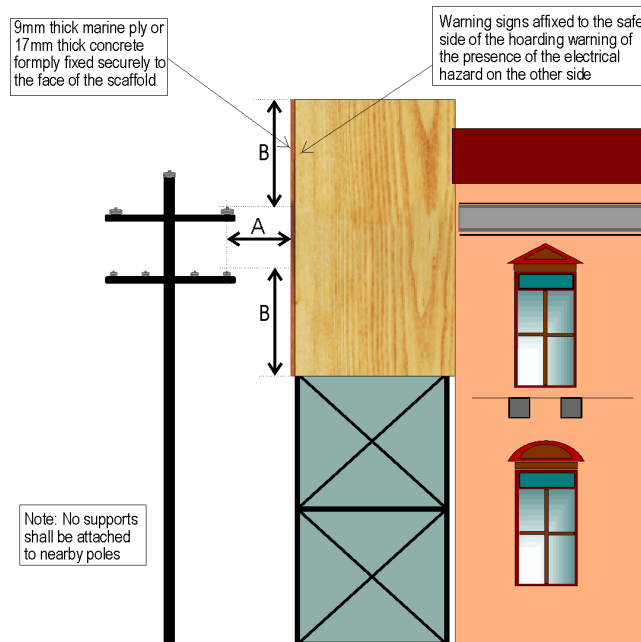
Diagram 1 below depicts the Minimum Clearances between erected scaffolding and a LIVE power line when a non-conductive *hoarding* is used to provide an impenetrable barrier to tools, materials and equipment. The clearances shown are HORIZONTAL SAFETY CLEARANCES and vertical mechanical clearances from the conductors. This Appendix is to be read in conjunction with the requirements of this Guide

WARNING

This Appendix only applies to erected scaffolding. It does not apply to scaffolding either being erected or dismantled.

Clearances for scaffolding under construction are found in Table A.

The clearances for 'A' below are worst case. Conductor Blowout must be added to establish all site specific safety clearances.



Voltage	Conductor Type	Minimum Clearances for "A"	Minimum Clearance for "B"
Low voltage (Including Aerial Services & Aerial Street light circuits)	Open Wire (Bare)	0.6m	2.0m
	ABC	0.1m	1.0m
High voltage up to and including 33kV	Bare & CCT or CC	1.5m	2.0m
	ABC	0.3	2.0m
High voltage > 33kV	Bare	Refer to the Network owner	

Notes:

- Gaps between fitted sheets of approved plywood should not exceed 3mm
- No exposed cut or drilled holes are permitted in the sheets of plywood
- Installer is responsible for attaching plywood to the scaffold, and ensuring that the arrangement can sustain an appropriate wind load

- 4) Warning signs should be affixed to the safe side of the *hoarding* warning of the presence of the electrical hazard on the other side of the *hoarding* and warning that the *hoarding* should not be removed.
- 5) A competent person should visually inspect the hoarding and, if applicable the enclosure on a daily basis to ensure the hoarding and enclosure are in a satisfactory condition and remain impenetrable.

For all scaffold enquiries please email construction.works@endeavourenergy.com.au