Scaffolding near service lines

Last reviewed March 2020

Guideline

Erecting, dismantling and use of scaffold near service lines

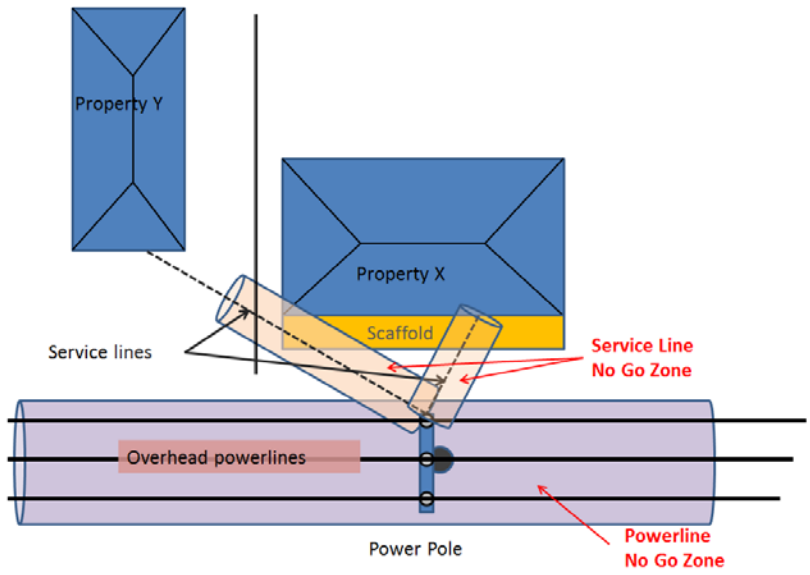
This guideline has been developed to provide guidance for the erection, dismantling and use of scaffolding near insulated service cables/lines. For those situations where the scaffold is also within 4.6 metres of overhead powerlines refer to the ESV document, Guidelines for Scaffolding near Overhead Powerlines.

The movement of scaffolding components near powerlines can put workers in a dangerous or hazardous situation and the risks must be controlled. Energy Safe Victoria (ESV) and Worksafe Victoria consider the skill set of an 'ESV Spotter' (required for mobile plant) is not adequate to control No Go Zone risks associated with scaffolding work.

A service cable or line, as defined by the Electrical Safety (Installations) Regulations 2009 is "the final span or section of a low voltage aerial line or underground line that is part of the supply network of a major electricity company that is connected to a point of supply".

If the erected scaffold or erection/dismantling process causes scaffold components to come within 4.6 metres of any service line (Service Line No Go Zone) then assessment and discussion with the power distribution company is crucial for safety before the work proceeds. The power distribution company may issue a Permit To Work (PTW) or provide advice on clearance distances if a PTW is not necessary.

Image 1: Plan view of No Go Zones with regard to service lines



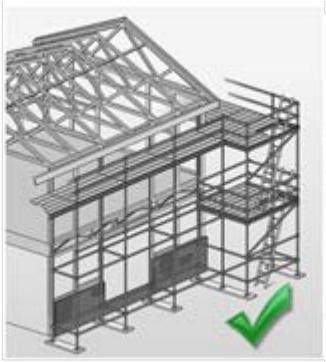
Work shall be carried out under the conditions detailed in a PTW that has been issued by the power distribution company.

The PTW issued by the power distribution company may require the scaffolding company to have a competent person to act as an observer to monitor **the actual scaffolding erection** dismantling work and compliance with the PTW conditions. The observer must have no other duties while they are monitoring the works and be authorised to stop work immediately if they observe that workers or scaffold components are likely to come within an unsafe distance of the service line or if any of the conditions set out in the PTW are not being met.

The power distribution company may charge for the works they undertake to provide safe access (e.g. de-energisation, cable relocation, installing insulation on cables) through an agreed contractual arrangement.

This document equally applies to hung bracket scaffolding as to conventional scaffolding. It does not apply to safety guardrail systems.

Hung bracket



Standard scaffolding

Safety guardrail

Power Distribution Company Assessment for PTW

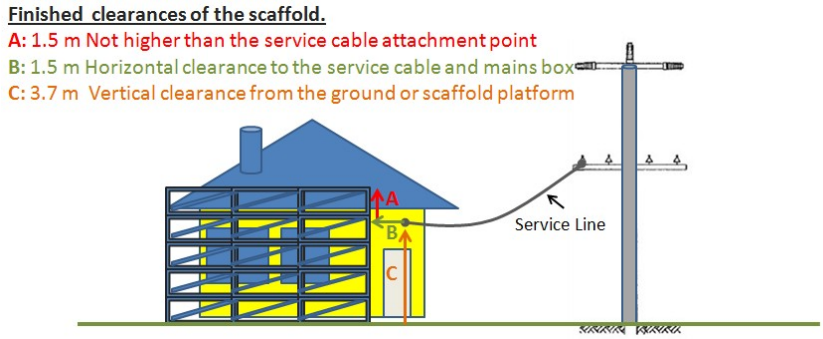
The considerations from the power distribution company when assessing if a PTW is required will depend on a number of factors, including the following:

- the finished erected position of the scaffold in relation to the service line,
- insulation condition of the service line,
- integrity of service line attachment points,
- the nature or type of work that is proposed to be completed from the scaffold.

The power distribution company shall provide written approval to the applicant/representative that the erection, dismantling or use of scaffolding can be undertaken without a PTW, providing the highest point of the scaffold is not higher than:

A. 1.5 m above the point at which the service line attaches to the building and no scaffolding components are placed above the service cable or closer than:
B. 1.5 metres horizontally to the service line or its point of attachment to the building and
C. 3.7 metres below the service line.

Image 2: Diagrammatic representation of when a PTW may not be required



Note: Any time where the erection, dismantling and use of scaffolding is closer than 1.5 metres horizontally, or closer than 3.7metres below the service line, or anywhere above the service line then a PTW is required by law and other conditions and controls may need to be applied.

General requirements when using scaffold near service lines

1. A Safe Work Method Statement (SWMS) must be completed prior to the commencement of any scaffolding work near service lines and state the controls that will be implemented to ensure the workers or scaffold components do not come within an unsafe distance of the service lines. The SWMS should include what actions are required in the event of an accidental contact with service lines & powerlines.
2. To ensure workers are not put at risk from overhead service lines during the erecting and dismantling, or use of the scaffold. It is essential the power company is contacted for advice and information, if the scaffold or components will be in the service line No Go Zone (within 4.6 metres)
3. Service lines should be de-energised when erecting, altering or dismantling scaffolding within the No Go Zone. However, depending on specific site and equipment conditions and if other risk controls can be applied, work may be undertaken while the service lines are energised, only after advice or a permit to work has been issued by the power company. Work shall be carried out in accordance with any conditions listed on the PTW, if issued, and the SWMS.
4. The PTW is location and task specific and will only apply for a specific period of time. This means that separate PTW's could be required for the:
   - erection of the scaffold
   - work from the scaffold
   - dismantling of the scaffold.
5. The power distribution company may require a suitably competent person to observe the work being undertaken to ensure contact and or damage does not occur to the service line and attachments. The competence of this person is such that they:
   - understand how the specific scaffolding is erected
   - understand how the components are assembled
   - have suitable vision and communication to be able to observe and warn against any hazardous situation
   - understand the conditions detailed in the PTW
   - understand the SWMS controls and how these will ensure that the PTW conditions are maintained and complied with
   - have no other duties whilst observing the work.
6. Hoarding or shade cloth may be required to be secured to the face and or ends of the scaffold as a barrier depending on the work that is planned to be undertaken from the scaffold.
   - Hoarding can be 9mm marine ply, 12mm C/D construction ply, concrete form ply or similar. Shade cloth must be of an industrial grade.

- Fitted sheets of hoarding/shade cloth need to be installed in a manner to minimise the gaps, this will prevent inadvertent protrusion of materials that may contact live conductors. Effective risk management controls shall be applied with regard to any gaps in the structure.
- Permit conditions may require the hoarding / shade cloth to have the top edge extend above the work platform adjacent to the electrical line.

7. Where erected scaffolding encloses a service line, the service line would generally be de-energised during the erection/dismantling of the scaffold.

   Note: Power distribution company may choose to vary this condition when other specific risk controls are being applied.

8. Insulated service lines can be re-energised and remain in service through an erected scaffold with the addition of mechanical protection and or barriers as specified by the PTW conditions.

No Go Zone requirements for scaffold erection near service lines

Distance from scaffold to service line		
<300mm	**300 to 1500mm**	**1501 to 4600mm**
• De-energise service line • PTW • SWMS	• PTW • SWMS • Visual/Mechanical protection on service line • Competent Person	• SWMS • Competent Person • [1]Consideration for Visual / Mechanical protection on service line • [2]PTW

[1] The application of visual and mechanical warning may be recommended by the power distribution company assessor.

[2] The power distribution company may advise that a PTW is not required after assessing the condition of the service line and has determined that the work being undertaken can be completed safely.

How to find your power distribution company

1. You should be able to identify the electricity distribution company from the electricity bill for the property, or
2. Go to the website link below and type in the suburb and the distribution company/s for that area will be displayed along with the contact phone number. In some areas, there may be more than one power distribution company that supplies the suburb. This will be resolved by discussion with one of the companies.

   http://jemena.com.au/outages/find-my-distributor.aspx

Contact numbers for power distribution company enquiries

CitiPower	13 12 80
Jemena	13 16 26
Powercor	13 24 12
AusNet Services	13 17 99
United Energy	13 20 99
Yarra Trams	1800 800 007
Metro Trains	1800 800 007