

# Planning for Works near Overhead Powerlines



The presence of overhead powerlines can significantly restrict the profile of adjacent buildings, and working near these powerlines is extremely dangerous. Making allowance for the presence of adjacent powerlines is an important step in the design process for any construction or demolition works.

Australian Standards and WA state legislation specify minimum overhead clearances must be maintained between structures or any adjacent works and powerlines.

All structures or works near overhead powerlines must be planned with appropriate setbacks or clearances to ensure a safe separation can be maintained.

## WorkSafe

The Occupational Safety and Health Regulations 1996 (3.64) state that personnel, plant or material which includes scaffolding, guttering and metal building materials, shall not be used within 6 metres of overhead transmission powerlines. Please refer to the Worksafe brochure 'Guidelines for Work in the Vicinity of Overhead Transmission Powerlines' as a guide to planning works.

Western Power will be pleased to provide information to assist with planning for works near overhead powerlines.

Western Power is responsible for the safe, efficient and reliable operation of the electricity network known as the South-West Interconnected System (SWIS). The powerlines that make up the SWIS are classified according to voltage as either transmission or distribution powerlines.

**Transmission Powerlines:** Transmission powerlines enable large amounts of electricity to be transported efficiently over long distances. They transport electricity from power generators to over 140 major substations, located mainly in metropolitan areas. Western Power's transmission powerlines are operated at the following voltages:

- 330,000 volts (330 kV)
- 220,000 volts (220 kV)
- 132,000 volts (132 kV)
- 66,000 volts (66 kV)

**Distribution Powerlines:** The distribution network transports electricity from the major substations and 'distributes' it to homes and businesses. Western Power's distribution powerlines are operated at the following voltages:

- 33,000 volts (33 kV)
- 22,000 volts (22 kV)
- 11,000 volts (11 kV)
- 6,600 volts (6.6 kV)
- 415 volts

Please contact Western Power to request advice or assistance in identifying the type of powerlines near the work site.

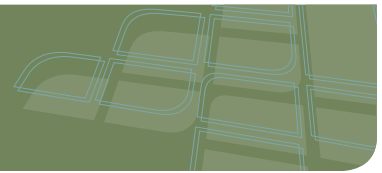
## Working near Powerlines

Low voltage distribution powerlines (415V) can be covered to allow work to take place in close proximity. This can be arranged by contacting Western Power. Details can also be found on the Western Power website.

High voltage distribution or transmission powerlines cannot be covered, so work near these powerlines must be well planned to ensure:

1. Compliance with WorkSafe and electrical clearance requirements during site works
2. Adequate separation between the completed work and the adjacent line.

Western Power will provide assistance to determine whether there will be adequate separation between the works and any adjacent powerlines.



## Electrical Clearances

**Easements:** In some areas Western Power may have an easement registered on the Certificate of Title (CT) of a lot for the purpose of managing activities that may lead to a contravening of safety standards. If such an easement is noted on the CT it is advisable to contact Western Power prior to planning any works.

**Restriction Zones:** In the absence of a registered easement, Western Power uses the term 'restriction zone' to describe the area adjacent to a powerline within which clearance restrictions must be observed.

Western Power will provide its standard easement conditions to any interested party on request. These conditions detail the works which are subject to constraint within easements or restriction zones.

## Building Line Setback Requirements

Minimal or zero setbacks may not be achievable where there is a powerline adjacent to the work site. Transmission powerlines typically require a broad easement or restriction zone. Prior to establishing any plans, it is highly advisable to contact Western Power for advice.

## Mitigation of Conflict with Powerlines

If a development cannot proceed due to the proximity of a powerline, there are two possible courses of action:

1. Amend the plans for the development to maintain adequate clearance and/or
2. Reconfigure or relocate the powerline.

Difficulties may occur if the presence of the powerline is not taken into consideration early in the planning process. If work configuration or relocation of a powerline is required, please refer to the Transmission Line Relocation fact sheet or contact Western Power for more details.



## Documentation and further information

For all enquiries please call **13 10 87**.

For more information on planning for works near overhead powerlines, please refer to the Western Power website.

Application forms are also available on the Western Power website via the following link:  
[http://www.westernpower.com.au/documents/forms/work\\_near\\_overhead\\_lines.pdf](http://www.westernpower.com.au/documents/forms/work_near_overhead_lines.pdf)

For a copy of Guidelines for work in the vicinity of overhead powerlines, please contact the Department of Consumer and Employment Protection.

## Related fact sheets

- Transmission line relocations

The information provided here is to be used as a guide only.