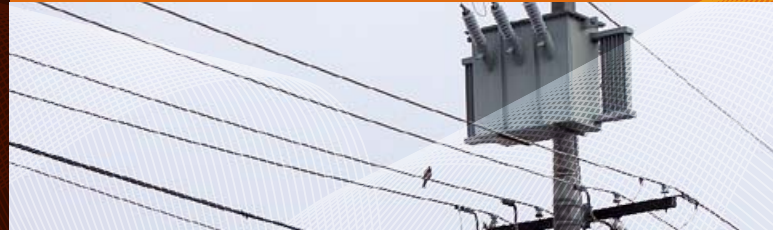


Working near electricity

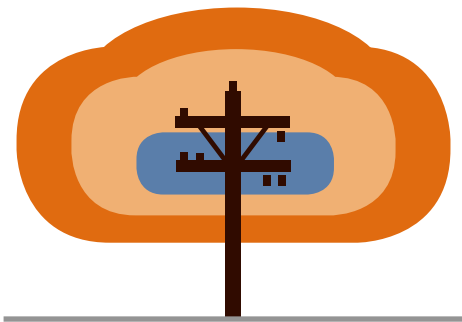
Safe distance and network assets






Work near energised electrical installations and powerlines, whether underground or overhead, is high risk work. A person in control of the work area must ensure that no person, plant or material enters the danger zone of an overhead powerline or other network assets.

This information is designed to help you to plan works near electricity. This information should not be used in isolation and we recommend that you refer to the *Occupational Safety and Health Act 1984* and *Occupational Safety and Health Regulations 1996*. These documents outline WorkSafe WA requirements for working near electricity. For queries relating to these requirements, visit worksafe.wa.gov.au or contact WorkSafe on 1300 307 877.

Danger zones near overhead powerlines



	Less than 1,000 volts (low voltage)	0.6 – 1 m
	1,000 - 33,000 volts (high voltage)	3 m
	33,000-330,000 volts (transmission)	6 m

Danger zone distances **DO NOT** allow for sag or swing of powerlines.

Allowances **must** be made for:

- sag and swing of overhead powerlines
- inadvertent movement of excavation machinery and cranes
- personnel and materials

Unplanned emergency work

Before commencing unplanned work (emergency repairs) you must contact Western Power on **13 13 51** if your risk assessment determines:

- people, plant or material could enter the danger zone
- excavation work is within three metres of the electrical network assets
- network assets are located inside the collapsible area and will be at risk of falling

If any part of Western Power's network assets have fallen or are at risk of falling, immediately secure the area to prevent public access, i.e. arrange traffic management control measures, install temporary barriers and warning signs, and contact our emergency and faults line immediately on **13 13 51**.

Recommended approach distances near underground powerlines

Nominal voltage	Minimum approach distance	
	Powered tool or plant	Non-powered hand tool / person
Up to and including 1,000 V	30 cm	Avoid contact
1,000 V up to and including 33 kV	50 cm	Avoid contact
Greater than 33 kV up to and including 132 kV	3 m	Avoid contact

The above table outlines the recommended approach distances to underground powerlines and network assets. If damage occurs to Western Power network assets, it must be reported on **13 13 51**.

*Powered hand tools may be used up to one metre from underground powerlines of voltage between 33 kV and 132 kV providing:

- a qualified safety observer is present on the site at all times while works are undertaken
- the location of the underground powerlines and network assets has first been established by cable locator and hand digging at all places where excavation is to be undertaken

Before commencing excavation work

In the planning stages of every project involving excavation near electricity network assets Western Power recommends the following steps before you dig:

- Contact *Dial Before You Dig* to obtain a cable location plan - call 1100 or visit 1100.com.au
- Determine if plant or machinery will be operated near overhead powerlines and might enter the danger zone
- Engage a qualified cable locating professional to confirm the locations of known and any unknown cables in the work area
- Follow the 4 Ps process: Plan, Pothole, Protect and Proceed. Visit worksafe.wa.gov.au for further Work Safe practises
- Determine if the proposed excavation is within three metres of any underground and/or overhead electrical network assets
- Determine the collapsible area of the proposed excavation
- Determine if any part of the underground and/or overhead electrical assets will be inside the collapsible area of the proposed excavation (including buildings, walls and fences)

Note: When determining the collapsible area, consideration must be given to the localised soil conditions and the imposed loads immediately adjacent to the edge of the excavation.

Third party services

To ensure it is safe for you to undertake your proposed work, Western Power strongly recommends that you engage a qualified service provider. In the first instance, you should consult the architect, civil, structural or electrical engineer or project manager specific to your project. To help you, Western Power also publishes a list of qualified service providers who can provide professional advice and services to keep your work and our network safe.

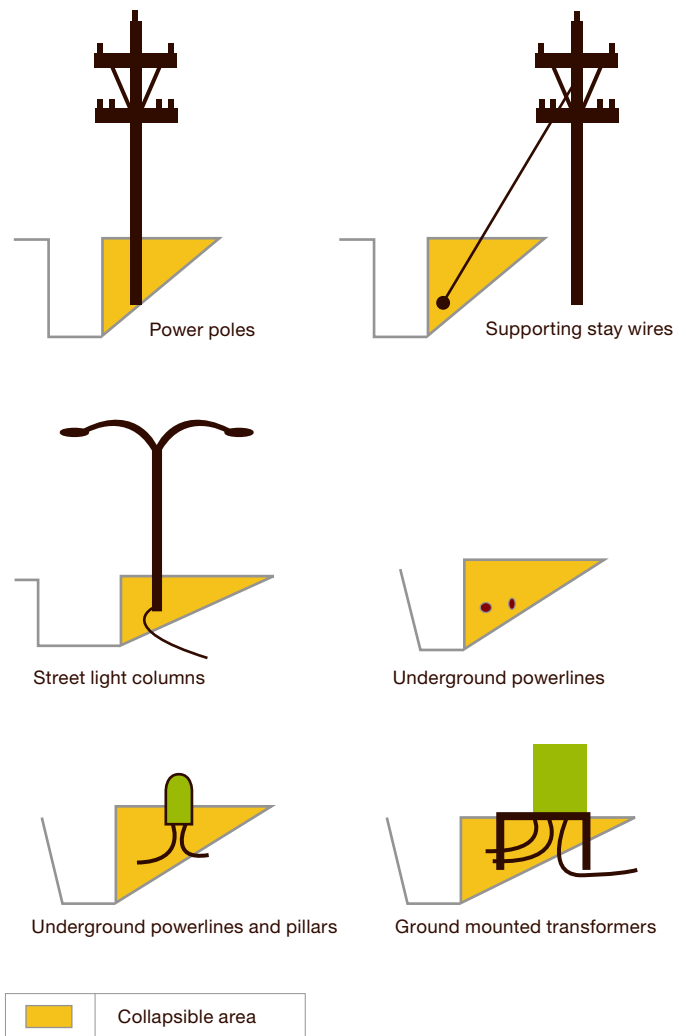
Western Power does not make any enquiry or offer any warranty about the capacity or competence of the listed service providers. Publication of the list is not a recommendation or endorsement of services offered.

The list of third party service providers can be found at: westernpower.com.au/safety/WorkingAroundPowerLines/working_near_electricity.html



Examples of electrical network assets in collapsible areas

Set out below are examples of typical underground and overhead network assets that are possibly located within the collapsible area and are therefore at risk of collapse into the excavated area or as a result of the excavation.



Contact information

Faults & emergencies, power interruptions, estimated restoration times (open 24 hours) **13 13 51**

General enquiries **13 10 87**
(7am - 5pm Monday to Friday)

enquiry@westernpower.com.au
westernpower.com.au

 This information is available in alternative formats on request.



Interpreter services

Telephone Interpreter Services

13 14 50

TTY users (speech or hearing impaired only)

1800 13 13 51

363 Wellington Street Perth WA 6000
GPO Box L921 Perth WA 6842