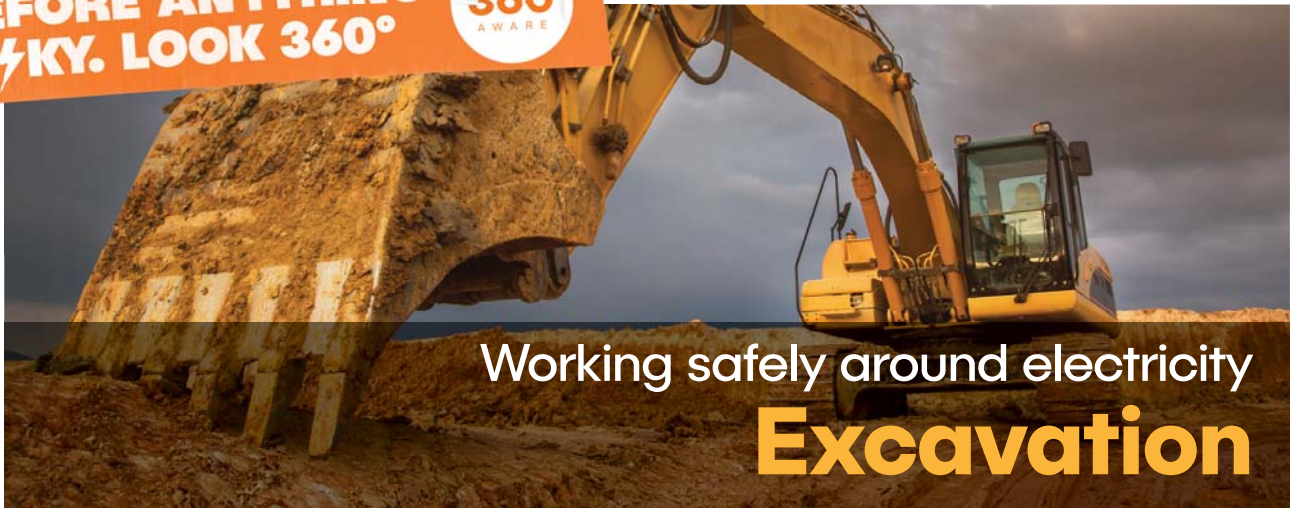


**BEFORE ANYTHING  
RISKY. LOOK 360°**



## Working safely around electricity **Excavation**

Excavating can be dangerous if you do not know what is below the surface. If you are supervising the work area you must make sure that everyone on site is aware of the location of Western Power assets and the controls to prevent contact with the network.

When working near underground assets, it is your responsibility to ensure that the proposed work can be carried out safely. This factsheet provides information about how to conduct your work to ensure you, your workmates and the community remain safe and the power remains on.

### Your duty of care

Working around electricity, whether underground or overhead, is high risk work. All workers have a duty of care to ensure that no person, plant or materials enter the danger zone of any electrical network asset. The danger zone is set out in the [Occupational Safety and Health Regulations, 1996 - Reg 3.64](#). Be sure to observe the requirements of the Code of Practice – Excavation 2005 published by Commission for Occupational Safety and Health.

### Planning and preparation

Before any excavation work commences, the exact location of underground services needs to be established in accordance with [Occupational Safety and Health Regulations, 1996 - Reg 3.64](#).

Dial Before You Dig can help prevent damage and disruption to underground pipe and cable networks, including electricity, gas, communications and water. Contact with a single cable or pipe can leave an entire community without essential services and may result in injury or death. There are also heavy financial penalties for negligent behaviour and you may be liable for damages or injuries.

Dial Before You Dig plans will only show the Western Power network. The underground service cable from a mini pillar is owned and maintained by the property owner and will not be shown unless privately registered.

### Identify the location of underground assets

The location and depth of cables shown on the Dial Before You Dig Plans are a guide only. Services may not be located in the area shown on the plans.

Verify the location of underground services using a non-destructive underground service location method. Seek assistance from an accredited underground service locating contractor. Do not use mechanical excavators to expose underground services or to prove the location of assets.

Once services shown on plans have been identified, the location should be visually identified by potholing. Additional potholing should also be undertaken in the work area to identify services that may not be shown on the Dial Before You Dig plans.

If a Western Power cable shown on the plans cannot be found after service locating and potholing and you do not believe it is safe to proceed, stop work and call 13 10 87 during business hours, or in an emergency make the safe call to Western Power on **13 13 51**.

## Protect

Install safety barricades and traffic management around the excavation site to ensure the safety of the public and work crew.

Reinforce the area surrounding the exposed services to ensure that Western Power assets are not damaged.

## Proceed

Only commence digging once you have identified and proved the location of underground services.

Nominal voltage	Minimum approach distance	
	Power tool or plant	Non-powered hand tool/ non-destructive digging
Up to and including 1,000V	30cm	Approach with care, avoid contact
1,000V up to and including 33kV	50cm	
Greater than 33kV up to and incl. 132kV	3m	

## Working near electricity process

Planning ahead is vital in ensuring you are safe when working near our electricity network. Follow these steps prior to commencing your work:

1	Seek out asset information: <b>Submit a Dial Before You Dig enquiry on 1100.com.au</b> or freecall 1100 to determine the location and voltage of Western Power overhead and underground network assets
2	Perform an <b>onsite inspection</b> – existence, location, alignment of assets that could be impacted by your works
3	Conduct a <b>job risk assessment</b> and safe work method statement to determine if works can be completed outside of the danger zone/s
4	<b>Consider your options</b> , if works cannot be completed outside of the danger zone/s, contact Western Power to establish what services are available to ensure that you can complete your works safely
5	<b>Follow the 4 P's of excavation:</b> Plan, Pothole, Protect and Proceed, for any works in proximity to underground network assets. Visit Dial Before You Dig at 1100.com.au or freecall 1100 for further advice on 'safe excavation' practices.

## Tips for working around underground network

### Always

- Establish the location and voltages of network assets in your work area by contacting Dial Before You Dig
- Determine if excavation is within the danger zone of any underground cables
- Determine the extension, reach and height of equipment and that it doesn't enter the danger zone for overhead powerlines
- Determine collapsible area of proposed excavation
- Visually locate all underground services depicted on Dial Before You Dig plans, by potholing or any other non-destructive means
- Proceed with mechanical excavation after all services have been identified and exposed.

### Never

- Proceed if you have been unable to visually locate all underground infrastructure depicted on the underground service map. Instead call Western Power on 13 10 87 for more information on how to proceed with your works.

## In case of emergency

- In a life threatening emergency, call emergency services on 000 as a priority
- For all other electrical emergencies, or after you have called 000, call Western Power's 24/7 emergency number on **13 13 51**
- Keep bystanders at least 8m clear from any impacted network assets
- Wait for Western Power to attend to make the area safe. Treat all network assets as live until told otherwise
- If you receive an electric shock, seek medical advice even if you are not injured.

## What to do in a vehicle in contact with electricity

1	Stay in the vehicle. Call 000 immediately.
2	If there's an immediate danger, like fire, and <b>evacuation is absolutely necessary</b> , access your escape route and check for fallen powerlines.
3	Exit the vehicle by jumping - make sure to land with both feet together.
4	When jumping, <b>don't touch the vehicle and the ground at the same time</b> .
5	Once you've landed with both feet together (be careful not to stumble or fall), jump or shuffle with your feet together away from the vehicle.
6	Move in this way until you are at least 8 metres away from the vehicle. <b>Do not go back.</b>

## Safe work habits

- Ensure operators of machinery or delivery vehicles are aware of the height of their load and are aware of powerline locations
- Assign a safety observer to each team to guide machinery movements or when handling materials near overhead powerlines to maintain required clearances
- Activities such as roofing, painting, water blasting and scaffolding can be dangerous if carried out close of overhead service and powerlines
- Take extra care when handling roofing materials, especially when windy and at heights
- Be aware of reduced powerline clearances caused by damage, often indicated by uneven lines and excessive sagging.

