TRANSPOWER

Keeping safe around transmission assets

Irrigation NZ

INFORMATION SHEET | AUGUST 2026

Transpower's network is made up of transmission towers, substations, fibre optic telecommunication cables, and over 12,000 km of lines that run the length of New Zealand. Our network runs above ground, underground, and across private and public land. Here's what you need to know to stay safe when working around our assets.

How incidents, injury, and damage can occur when working around our transmission assets

- Electricity can arc (jump) through the air to nearby equipment, water spray, pipes or people. You do not need to touch a transmission line for serious harm to occur.
- Water, irrigation equipment, metal pipes, fence lines and other conductive materials can become energised or carry induced voltage, creating hidden electrical hazards even without direct contact with a transmission line.
- Irrigators, booms, machinery, aircraft, trucks, long loads, water spray and spray drift can get too close to transmission lines, causing flashover, contact or electrical arcing.
- Overhead transmission lines can sag or swing from their normal position due to electricity loading, temperature and wind, reducing safe clearances. Never assume the clearance you see today will be the same tomorrow.
- New irrigation infrastructure, ponds, pipelines, pivots and other structures installed too close to transmission assets can create safety risks and reduce required clearances.
- Excavation, trenching, drilling, earthworks, changes to land levels, irrigation layouts or vegetation growth can damage underground cables, compromise tower or pole foundations, or reduce safe clearances over time.

What can an injury look like?

- Injuries can include electric shock, severe burns, internal injuries and falls resulting from loss of control. Injuries can range from small entry and exit burns to extensive burns, charred clothing and severe internal damage. In some cases, there may be little or no visible external injury, but life-threatening internal injuries can still occur.
- Electrical contact can be fatal.

That's why it is critical to know where our assets are, and to maintain safe practices when working around them.

In the event of an emergency call 111 then 0800 THE GRID

- Transpower can de-energise the line and provide advice on what to do next.

If a transmission line or cable is struck:

Stay put

- If your machine contacts an overhead transmission line or underground transmission cable or you see a flash, do not move or exit your machine unless there is an immediate danger such as fire.
- Turn off all machinery and call 111 then Transpower on 0800 THE GRID.
- Warn others – do not let anyone approach or touch the transmission line, cable, fibre or machinery.

If you must evacuate your machine

- Jump clear — keep both feet together and don't touch the machine and ground at the same time as this creates a path for electricity to flow through your body.
- Shuffle or hop away, small steps reduce the chance of shock.

Don't touch!

- Never touch downed or damaged transmission lines – always treat them as live.
- Electricity can travel through the ground and metal, even if a line appears to be broken or 'dead'.

*If a telecommunications cable is struck, please call Transpower's Network Operations team first on **0800 TPOWER**, selecting Option 2*

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Staying safe around our assets

Plan ahead

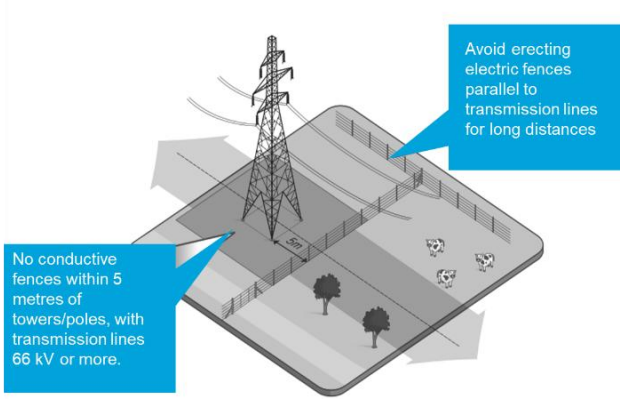
- Identify all transmission assets in your work area – both overhead and underground.
- Check asset locations and position of transmission lines before undertaking irrigation works, excavation, drilling or earthworks using beforeUdig.co.nz.
- Plan irrigation systems, pivots, laterals, ponds, pipelines and other infrastructure and consider water spray direction to maintain safe distances from transmission assets.
- Discuss any proposed earthworks, changes to ground levels, or work near towers, poles or cables with Transpower before starting.

Permanent structures must be built well clear of assets

This applies to pump houses, sheds, stock shelters, permanent fences, or other permanent buildings. Permanent structures must be:

- 12m from any tower.
- 8m from any pole.

Temporary conductive fences should be at least 5m from assets

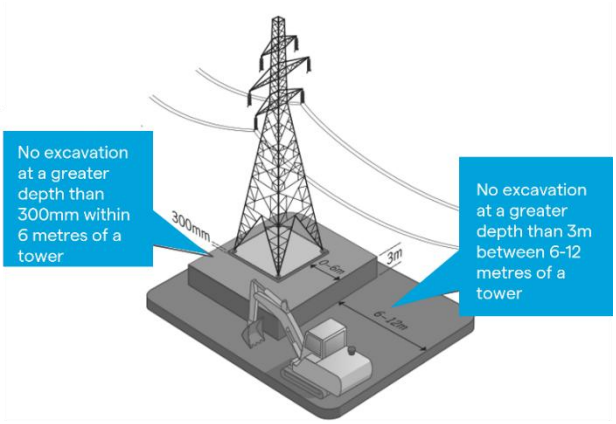


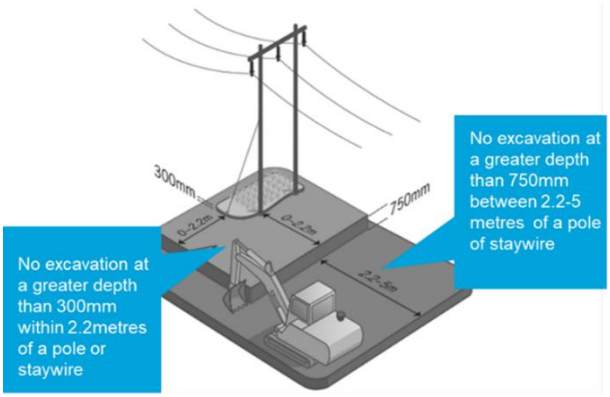
***IMPORTANT**

If work is needed within these distances, you must contact Transpower for approval before starting.

Install and operate irrigation systems safely

- Position irrigation systems to maximise separation from transmission lines wherever practicable.
- Ensure water spray, overspray and spray drift do not contact transmission lines or other transmission assets.
- Take extra care when moving, assembling or disassembling irrigators and handling long lengths of pipe near transmission lines.
- Ensure irrigation equipment is properly earthed, as long metal structures can pick up induced voltage even without direct contact with a transmission line.
- Locate pivot irrigators at least 20 m from tower or pole foundations and configure them to avoid transmission structures.
- Avoid excavation that could damage underground cables or compromise tower and pole foundations. Talk to us first if unsure whether your activities could compromise asset ground conditions.





Maintain safe distances

- Stay at least 4 m from 66 kV and 110 kV lines and 6 m from 220 kV lines.
- Keep irrigators, water spray, booms, machinery, trucks, long loads and metal pipes well clear of transmission lines at all times.
- Be aware that transmission lines can sag or move sideways in hot or windy conditions, reducing clearances.
- Install physical stops or markers to prevent irrigators and equipment entering unsafe areas or spraying water onto transmission assets.
- Keep permanent structures such as pump houses and sheds at least 12 m from towers and 8 m from poles.

We are here to help

Contact us on **0800 LANDOWNER** for advice and use beforeyoudig.co.nz to locate underground assets.