



Managing Electrical Hazards

REQUIREMENTS WHEN OPERATING MOBILE PLANT, EXCAVATING OR BUILDING IN THE VICINITY OF TRANSPower TRANSMISSION LINES.

Transpower is the state-owned enterprise that owns and operates the National Grid - or high voltage transmission network - that carries electricity around New Zealand.

This information sheet provides important information for civil contractors and builders to ensure they work safely near Transpower overhead transmission lines. It is important to maintain safe separation distances from transmission lines to ensure:

- The safety of operators of machinery and workers on structures near transmission lines.
- The safety of the public in the vicinity of the working area.
- The reliability of the electricity supply.



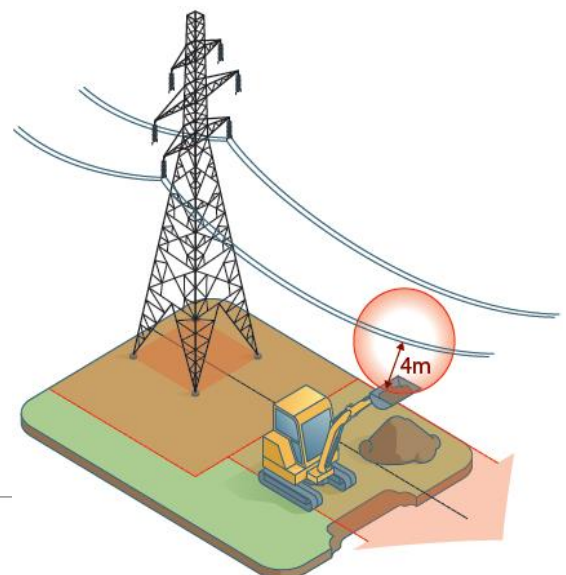
THE ELECTRICAL HAZARD MANAGEMENT PLAN (EHMP)

The New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34: 2001) sets out minimum safe electrical separation distance requirements. Compliance with these regulations is mandatory. Transpower has developed a form (the EHMP) that ensures that you meet the requirements of NZECP34 through safe work planning.

The EHMP contains:

- The contact details of all the key people at both Transpower and the Company managing the work as well as identifying the line name, voltage and location.
- A site safety plan showing where the mobile plant is working, access routes and the height and location of proposed structures relative to any transmission lines,
- A description of any earthworks around the support structures
- A description of the planned work, how close lifting operations or other activities will come to the overhead lines or support structures and the proposed methods to eliminate or mitigate the electrical hazard
- An agreed procedure for dealing with changes of plan or any emergencies that arise
- An assessment whether the work requires the lines to be de-energised (an outage) for work to be completed safely
- The consideration of whether an Electrical Safety Observer is required

A copy of the [EHMP](#) is available on our website.





The EHMP should be completed in consultation with our local Service Provider who can advise you of line heights and safe work practices. A site meeting with your local service provider is the best way to identify hazards and control measures. You can find your local contact [here](#).

Works will not be approved by Transpower without a completed EHMP.

Other Guidance

This information sheet should be read in conjunction with the [Minimum Approach Distance information sheets](#). A copy of [NZECP34](#) is also available on the Transpower website. For further advice, or if in doubt, please contact Transpower – 0508 LANDOWNER.

WHAT IS MOBILE PLANT?

Mobile plant includes cranes, elevated working platforms, tip trucks or similar plant, irrigator booms, any equipment fitted with a jib or boom (e.g. drilling rigs), any device capable of being raised or lowered (e.g. post rammer), loaders, excavators, drilling or pile driving equipment, or other similar devices. [Link](#)



Flashover: If mobile plant, suspended loads or structures touch or come close to high voltage conductors (or wires) electricity can 'jump' the gap causing a major electrical discharge. This can cause serious injury or even death to machine operators and people in contact with or close to the load structure or plant.

REMEMBER: Transmission lines are carrying electricity at very high voltages. Electricity at these voltages can arc through the air even without direct contact. Getting too close to transmission lines, or holding something close to a line, is **EXTREMELY DANGEROUS**.