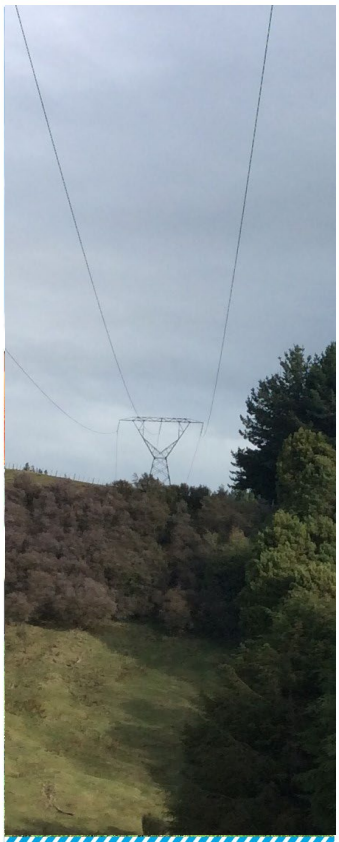


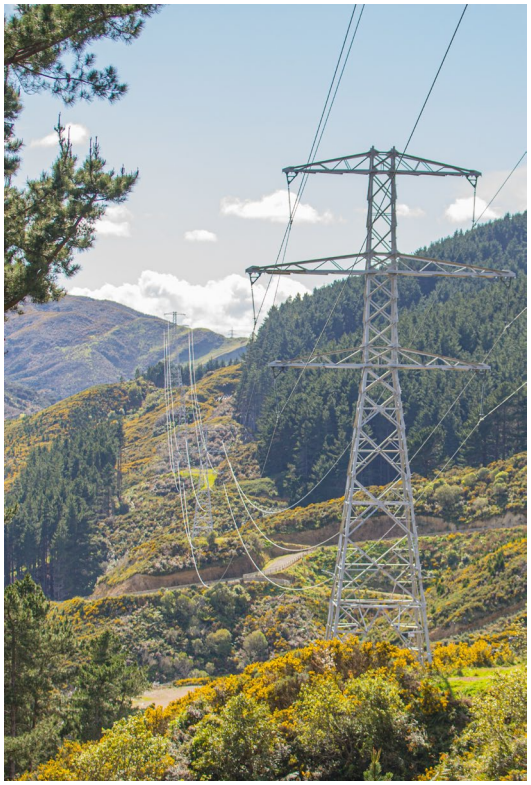
INFORMATION SHEET

Keeping the energy flowing

February 2024

Permanent Carbon Forestry Around Transmission Lines

Transpower is the State-Owned Enterprise that owns and operates the national grid - the transmission network, which carries bulk electricity around the country.



Permanent carbon forests are becoming increasingly common around our transmission lines. These forests can pose a significant risk to the electricity transmission network if not properly planned and managed.

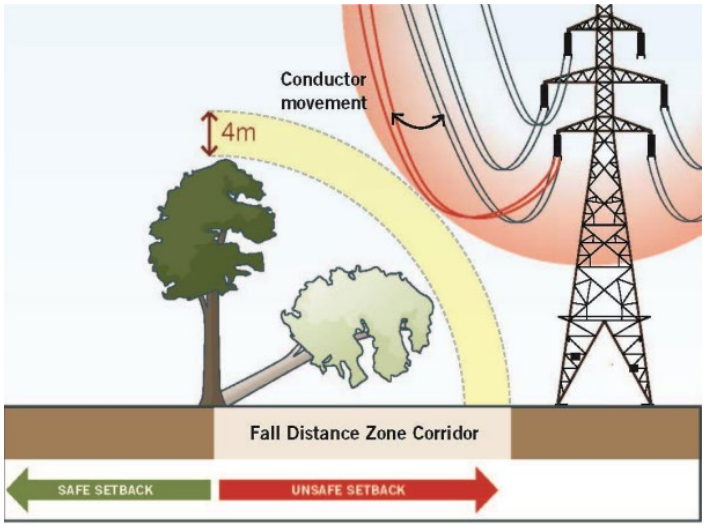
It is important, as responsible forestry owners, you are aware of the risks planting around our lines.

We have developed these guidelines to assist you with your planting plans and to highlight potential risks and mitigations when planting near our lines.

For standard plantation forestry and other tree information please refer to: trees and transmission lines.

Background

As these permanent forests age, they can become more susceptible to windfall and disease. If not harvested or carefully managed, forestry planted near our lines has the potential to fall onto conductors (wires) or on towers or poles. This can result in flashovers, loss of electricity supply and/or forest fires. We call the area where trees can fall onto the lines the Fall Distance Zone (see image below).



Safe Setbacks

The most effective way of managing these risks is to avoid planting within the setback area, the area where mature trees may pose a risk to the lines. The setback area is calculated using span length, conductor (wire) movement, terrain, and maximum tree height.

We use aerial laser surveys to determine these safe setbacks. This allows forestry owners to minimise their risks of any damage or interruption to the national grid and will protect your investment. Transpower can provide these maps or shape files to guide forest planting. We recommend talking to one of our team before you start planting.

Another way to minimise risk is to ensure a managed transition to permanent native forest. This provides biodiversity, soil conservation benefits, and decreases the risk of forest fire and trees striking the lines. We can provide mapping to show maximum safe tree heights for native planting that could allow utilisation of the transmission corridor.

Come and talk to us for:

- Onsite guidance and support
- Design and planning expertise around setbacks maps and shape files for tree planting.

ONGOING MANAGEMENT

Transpower also needs to retain access through the forest to maintain the national grid. We can provide maps of our access routes to ensure that the agreed routes are left clear.

DUTY OF CARE

We believe tree owners (or forest managers) have a duty of care to take reasonable steps to protect Transpower's lines from damage from Fall Distance (FD) trees. This includes removing existing FD trees and not planting trees so close that they could eventually become FD trees. In some situations, if Transpower incurs costs from tree owners failing to manage tree fall distances, we may take action to recover the costs of damage.