



Transmission and agriculture

Community factsheet



This factsheet provides information about agricultural activities occurring close to transmission infrastructure.

Each transmission business provides detailed information for their own infrastructure, relating to the specific transmission line design and in accordance with their organisational approach and policies.

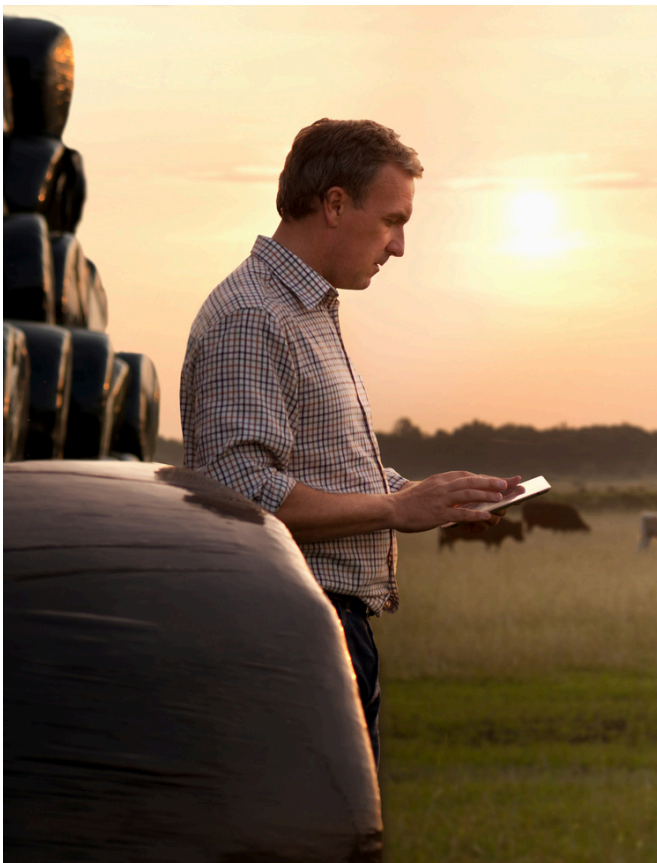
Agricultural activities near transmission infrastructure during construction

During the construction of a transmission line, temporary restrictions on some agricultural activities at construction sites (such as structure locations) may be required at times.

Once construction activities at the location are complete, agriculture activities may resume unless ongoing restrictions have been identified by the transmission business.

In most cases agriculture activities can continue near the transmission easement, even during construction. Transmission businesses will work with landholders to mitigate or minimise any significant impacts on agricultural activities.

If effects on landholder activities cannot be avoided, loss of productivity is included as part of compensation negotiations between transmission businesses and landholders.



Agricultural activities near transmission infrastructure post construction

Many farming practices are not impacted by transmission lines after construction. However, some farming practices may be affected depending on:

- The type of machinery being used, which can be restricted by the height of overhead transmission lines
- The type of cropping practices and the depth of crop roots/excavation, in relation to underground transmission.

The table on the next page shows which agricultural activities may be permitted, permitted with approval, or not permitted, within easements following the construction of overhead and underground transmission lines.

Global Positioning Systems (GPS) and radio equipment

Most GPS based farming equipment will not be impacted by overhead or underground transmission lines. When operating close to transmission towers, the accuracy of GPS readings can be slightly affected.

Technologies that rely on radio signal may also be impacted when used near overhead transmission lines during rain as moisture can enhance the conductivity of transmission lines and potentially increase the level of electromagnetic interference.



Table 1: A selection of agricultural activities and their permissibility near high-voltage transmission lines

Overhead transmission easements			Underground transmission easements		
✓ Permitted	✎ Permitted with approval	✗ Not permitted	✓ Permitted	✎ Permitted with approval	✗ Not permitted
Grazing, cropping and orchards					
<ul style="list-style-type: none"> ✓ Grazing of livestock ✓ Cropping ✓ Orchard operation and planting mature height trees within the allowable limit of the overhead line (typically a maximum mature height of 3 m) 	<ul style="list-style-type: none"> ✓ Grazing of livestock ✎ In some instances, underground cables have a trench depth that allows for some types of cropping; however, this would need to be confirmed with the responsible transmission business ✗ Deep crop cultivation, vineyards and orchard operation are prohibited to avoid risk of damage to the cable system 				
Machinery and equipment					
<ul style="list-style-type: none"> ✓ Operating heavy machinery and equipment below safety exclusion zones 	<ul style="list-style-type: none"> ✗ Operating mobile plants that breach safety clearance requirements or any activity that intrudes upon the safety exclusion zones 		<ul style="list-style-type: none"> ✎ Operating heaving machinery and equipment 		
Aerial equipment					
<ul style="list-style-type: none"> ✎ Aerial crop spraying. While there are potential risks in terms of aviation near overhead infrastructure, in most cases, this risk can be managed ✎ Use of drones near overhead transmission requires a safety assessment and approval from transmission businesses 			<ul style="list-style-type: none"> ✓ Aerial crop spraying ✓ Use of drones 		

Overhead transmission easements			Underground transmission easements		
✓ Permitted	✎ Permitted with approval	✗ Not permitted	✓ Permitted	✎ Permitted with approval	✗ Not permitted
Fencing and structures					
✓ Erection of small temporary non-habitable structures within allowable limits (ie at least 20 m from the transmission tower or 5 m from directly under the conductors)	✎ Erecting fences (electric and non-electric), with height limits set by transmission businesses of typically 2.5 m to 3 m	✗ Erecting any obstruction (ie shed or structure within the easement of the tower) ✗ Constructing homes			✗ Fences or retaining walls which restrict access to the cable or have potential to impact cable ✗ Building of any structure above cable alignment, or structure that results in any ground disturbances / altering ground levels
Burning					
	✎ Burning off / lighting fires*	✗ Placing any rubbish, timber or flammable material on the easement		✎ Burning off / lighting fires*	
Dams and irrigation					
✓ Water storage dams (within clearance distance of conductors and towers)	✎ Centre pivot and lateral irrigation systems, including end guns (some height restrictions may apply) ✎ Installing or modifying irrigation systems	✗ Large gun irrigators		✎ Gun, centre pivot and lateral irrigators, including end guns	✗ Installing irrigation systems ✗ Water storage dams

*Note that local councils must also provide approvals for burning off.

Overhead transmission lines are designed and built to comply with State or Territory safety regulations and also the *AS/NZS 7000:2016 Overhead Line Design standard* to ensure minimum electrical safety distances between the conductors and the ground or on-the-ground land-uses, such as farming and other machinery, vehicles and equipment.

Managing risks to agricultural business

Biosecurity

Biosecurity risks, including the spread of insect pests, weeds, pathogens and diseases between properties, or introduction of new biosecurity material from outside the local area, are a significant concern for agricultural businesses.

Planning, constructing and maintaining transmission infrastructure requires individuals, vehicles, machinery and equipment to enter onto property. Clothing, boots, tyre treads, vehicle undercarriages and equipment can become contaminated and present concerns about the introduction of biosecurity risks.

However, there are many ways to reduce this risk. For example, decontamination of equipment and washing down of vehicles between properties, and the use of dedicated clothing such as overalls and footwear. Property specific biosecurity management plans and risk mitigations should be adhered to by transmission businesses.

Organic farming

Organic farming is the production of food or other agricultural products without the use of chemical fertilisers, pesticides, or artificial chemicals.

Vegetation management on transmission line easements for both overhead and underground transmission infrastructure can involve using chemicals. These practices may affect the organic status of certain farming practices as the presence of chemical residues could jeopardise compliance with organic certification standards.



Managing risks

Transmission businesses will work with landholders to understand potential risks and agree on land access protocols before entering a property. These protocols will cover when and how the property will be accessed during the project lifecycle, whether for early investigations, construction or maintenance activities, and by who.

These protocols should include information such as:

- When the transmission business will be operating on the property and transmission easement
- The agreed entry and exit points to access the property and transmission easements
- Biosecurity protection measures compliant with any applicable biosecurity management plans for the property and legislation
- Vegetation management methods, such as restricted use of chemicals
- The equipment the transmission business plans to use on the property.

Transmission businesses are required to monitor and follow controls to protect livestock and crops throughout construction and ongoing operations and maintenance.

Landholders should seek to communicate early with the relevant transmission business and ensure the agreed land access protocols contain all reasonable requirements for effectively managing biosecurity on their property.



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