

Building Transmission: Construction Guide for Landholders



Planning for your Property

More than 6,500 kilometres of transmission lines are in operation on farms and properties across Victoria. This Construction Guide for Landholders helps us to build a shared understanding of your property and land uses now, how operations can continue during construction, and what reinstatement involves once VNI West is built.

Landholders make transmission projects possible, and it's a big ask to allow critical state energy infrastructure to be built on your property. Where disruption is expected during construction, early discussions and planning ensure that your land use is considered throughout each stage of VNI West.

The best time to think about how disruption is managed, how changes are mitigated, and impacts are compensated, is during the route refinement and planning stage of the project, right after you receive your **Land Easement and Access Package**.

Landholders navigating the **construction guide** are asked to consider how their day-to-day activities, their properties, and business or farming operations may be impacted at each stage of construction. There's a handy checklist of landholder considerations at the end of this guide.

Disclaimer

This guide provides general information about the anticipated construction process for the VNI West transmission project and is subject to change. It is based on current advice from constructability advisors and reflects conservative assumptions developed to inform the Environment Effects Statement (EES) process. These assumptions are intended to provide indicative guidance and ensure sufficient flexibility for future construction procedures and plans that may be adopted by the Transmission Network Service Provider (TNSP) or appointed delivery partner, Iberdrola Australia. All Commonwealth and State planning and environmental approvals must be granted prior to any construction activities commencing.

VNI West Transmission Infrastructure

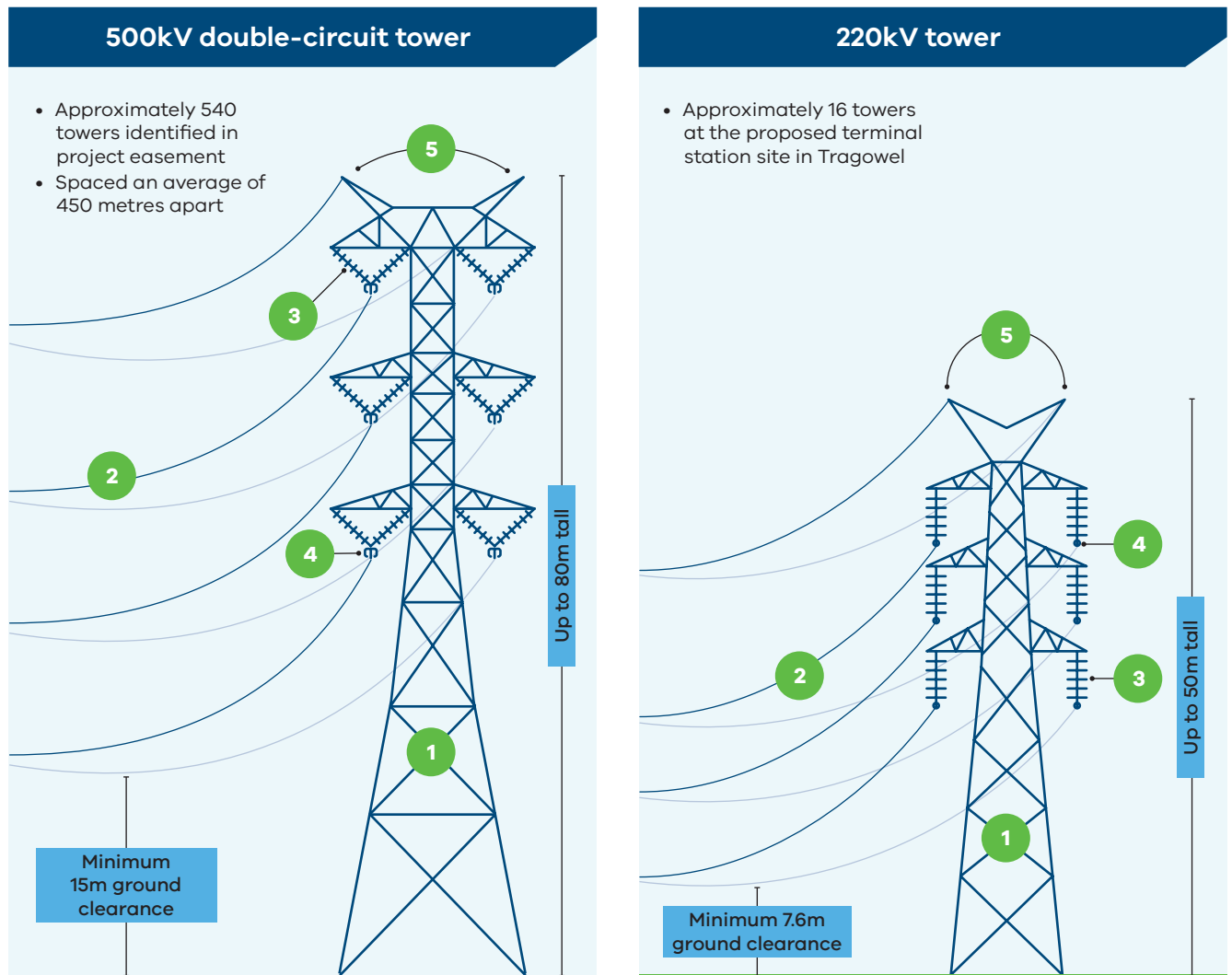


Figure 1: Indicative transmission infrastructure diagrams

Shared features

- | | | | | |
|-----------------------------------|---|-----------------------------|-------------------------|------------------------------|
| 1 Tower — galvanised steel | 2 Transmission line conductors (4 per phase) — primarily aluminium | 3 Insulators — glass | 4 Circuits (two) | 5 Overhead earth wire |
|-----------------------------------|---|-----------------------------|-------------------------|------------------------------|

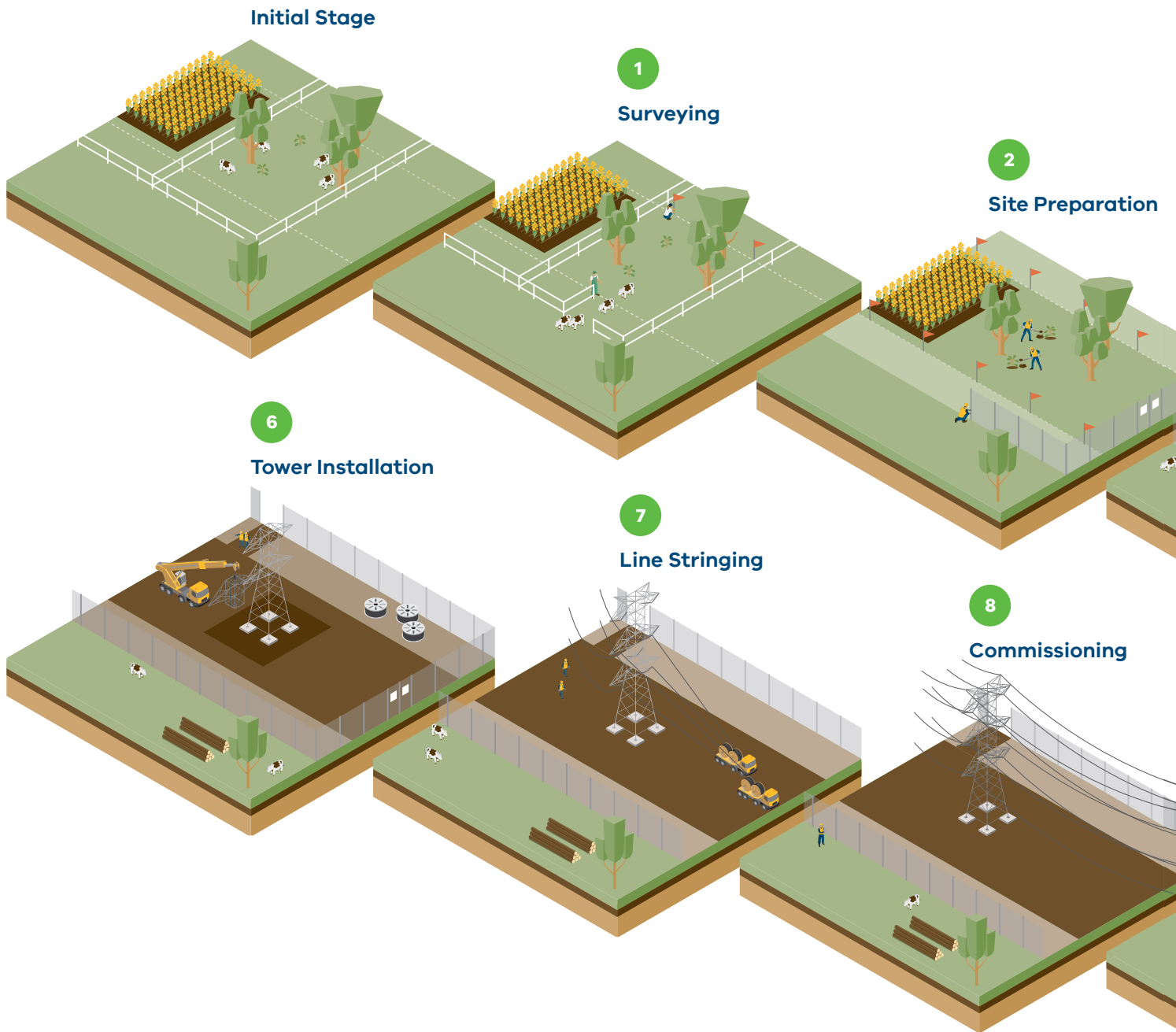
The VNI West project utilises a series of free-standing steel lattice transmission towers, supporting a critical new high voltage double-circuit 500kV electricity connection between Victoria and New South Wales.

VNI West will primarily consist of two tower designs — suspension towers and tension towers.

Suspension towers are used to support transmission conductors (also known as wires) across linear sections of the alignment or where only small angles are required. They are the most common tower type along the project route. Their primary function is to keep the wires at a safe height above the ground and to support their weight across long spans.

Tension towers are used where changes in direction are required, for larger changes in alignment, or at the ends of the line at terminal stations. They act as anchoring points to apply tension to the conductors and are typically found at the start and end of long spans, at road or railway crossings, and in locations with terrain changes, river or stream crossings, transposition requirements, or geotechnical constraints. These towers require thicker steel and more substantial foundations to withstand higher horizontal loads.

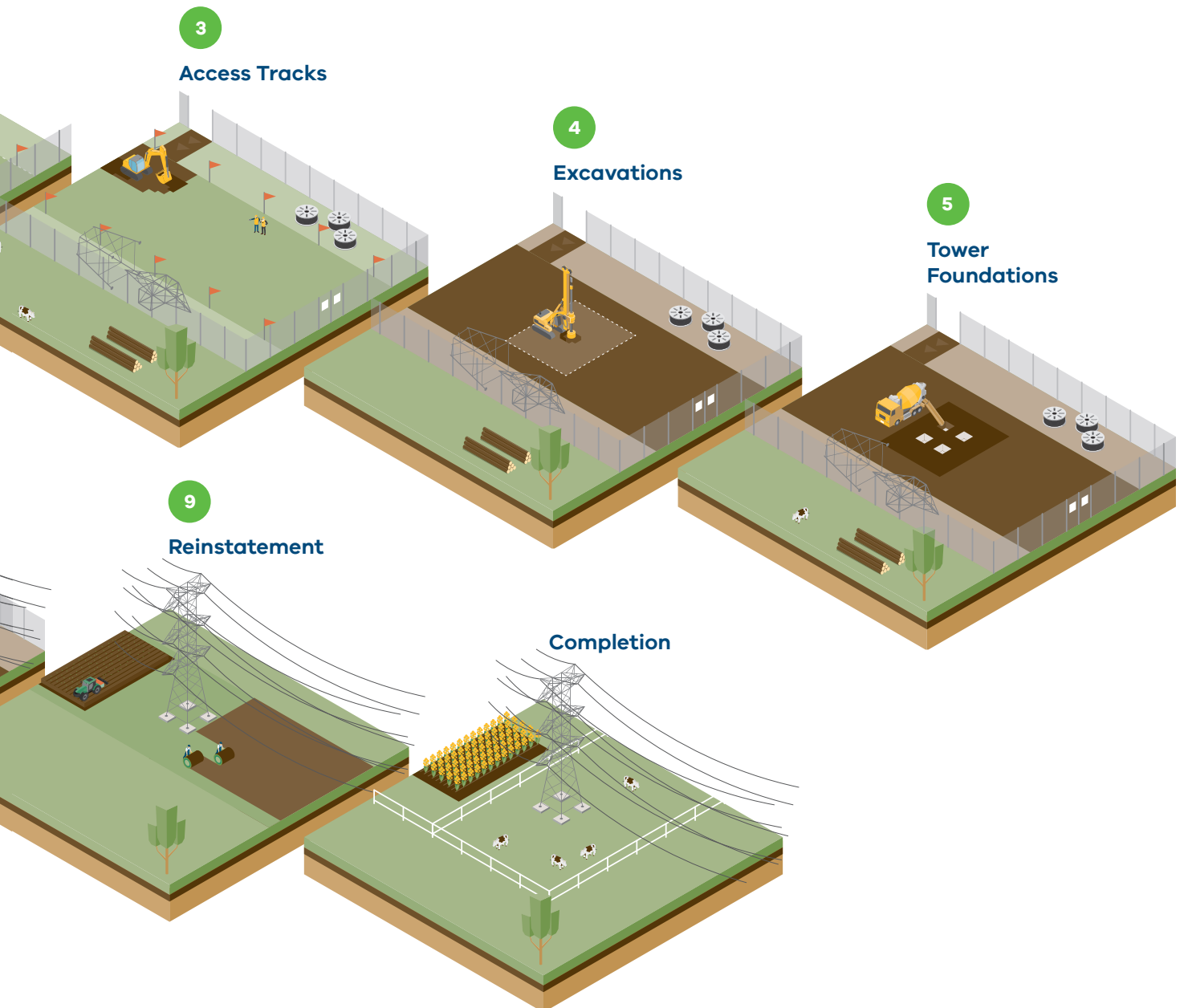
Stages of Construction



Construction Licence Area

A temporary 100-metre-wide zone required for most properties during the construction phase, centred on the project easement, enabling construction works.

Figure 2: Stages of Construction

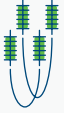


Building High Voltage Transmission

Before construction begins, VicGrid must secure key State and Commonwealth approvals for VNI West, including through Victoria's rigorous Environment Effects Statement process. Construction will happen in stages — typically short durations of work, followed by quiet periods — until crews return for the next phase.

While different construction stages may be underway across the broader project area, timing on individual properties will vary. As the project progresses, more detailed information about construction timing and methods will become available to landholders.

The construction phase of VNI West is expected to span between three and four years. Landholders are encouraged to review the indicative timings of each construction activity in the table below, and planned breaks between stages, when considering potential impacts to their properties.

	Construction Licence Area access (workers)	Likely impact on land use (landholders)
 1. Surveying (Pre-Construction) <i>Approximately 2-4 weeks per property parcel</i> Crews enter properties under the landholder's agreed terms. Terrain measurement, marking tower sites and access points. Stock relocation if required.	Selective access to the Construction Licence Area	Low - Short visits - Low-impact surveys
Activity breaks: Construction activity is intermittent, meaning some stages of work vary across the alignment. There may be periods between stages where little or no activity takes place on a property.		
 2. Site Preparation <i>Approximately 2-4 weeks per property parcel</i> Temporary fencing installed where required, vegetation cleared with care to minimise disturbance. Utilities may be relocated.	Frequent access localised to easement and access tracks	Moderate - Clearing - Temporary fencing and restrictions
 3. Access Tracks <i>Approximately 1-3 weeks per property parcel</i> Building access tracks and roads, grading, construction materials delivered, and exclusion zones established to protect work areas.	Sustained access to Construction Licence Area	Moderate – High - Grading and construction of access routes - Machinery and trucks present
 4. Excavations <i>Approximately 1-4 weeks per property parcel</i> Excavation equipment removes soil and rock for tower foundations.	Frequent access localised to Construction Licence Area	Very High - Earth movement - Temporary exclusion zones
 5. Tower Foundations <i>Approximately 2-4 weeks per property parcel</i> Underground foundations are installed, including reinforcement, level setting, and concrete pouring. These form the base.	Regular and concentrated access to tower locations	High - Concrete pours and machinery - Fenced-off work areas
 6. Tower Installation <i>Approximately 2-4 weeks per property parcel</i> Tower sections are pre-assembled at ground level, lifted and fixed into position using heavy vehicles such as cranes or helicopters.	Intensive works in Construction Licence Area	Very High - Cranes, heavy vehicles - Extended exclusion zones around towers
 7. Line Stringing <i>Approximately 4-10 weeks per property parcel</i> Insulators and pulleys guide conductors, which are winched into place between towers using helicopters, drones, or ground-based equipment. Conductors are then clipped into insulators.	Intensive works in Construction Licence Area	Very High Broad safety restrictions in place.
 8. Commissioning <i>Approximately 3 months per property parcel</i> Safety checks and electricity network testing are carried out to ensure the system is ready for operation.	Limited access to Construction Licence Area during testing.	Low – Moderate - Testing and inspections - Short-term restrictions during testing
 9. Reinstatement <i>Approximately 4-5 weeks per property parcel</i> Land stabilised, vegetation and soil restored. Access tracks are remediated, pastures reseeded, and temporary fencing removed.	Limited access to Construction Licence Area.	Low Land restoration, soil and fencing reinstatement.



1. Surveying (Pre-Construction)

Before construction begins, surveys will be carried out to mark tower locations and work areas. These surveys help crews understand the land's levels, topography, and utility locations. Landholders are encouraged to finalise any required stock movements or irrigation adjustments. Your Landholder Liaisons can help plan timing and access to make this process as smooth as possible.

Access and activities will take place in line with the agreed Property Management Plan (PMP) to best manage any disruption to your operations. If an impact can't be managed through the PMP, this can be considered in the Option for Easement (OfE) and reflected in the offer of compensation.



Responsible access

Learn more about responsible access to properties in VNI West's **Biosecurity Fact Sheet**. Property access is guided by landholders — you can define your access requirements by completing an **Enablement and Access Deed**.



2. Site Preparation

Once the Construction Licence Area and areas designated as safety zones for restricted access are marked, site preparation begins. Small crews may install temporary fencing around sensitive areas, manage vegetation within the easement, and relocate utilities where impacts are expected. Utility relocation impacts vary depending on utility type (i.e. existing electricity distribution lines) and will be coordinated with the relevant utility owner and the landholder.

Temporary fencing may be installed at access track sites, around construction areas, and at safety exclusion zones. We'll work with landholders in their PMPs, to agree on temporary fencing and gate requirements, separate construction activity, and to ensure stock can graze on adjacent land. Gates may be installed at property boundaries along the project route, or at designated crossing points, to maintain safe and convenient access for farm operations.

Vegetation Management

Vegetation will be assessed by a qualified arborist to determine what needs to be removed. Crews will typically remove vegetation in the Construction Licence Area, access tracks, and work areas at tower sites to ensure safe construction. If vegetation clearing is required, landholders can request specific approaches, including:

- That the vegetation is removed entirely from their property
- Vegetation is retained in protection zones (fenced areas) where possible (and not in the easement)
- Felled timber left on site for firewood
- Top and subsoil stored separately
- Input into how grading works are done

Expected Vehicles and Equipment

Other equipment may also be required at this stage.

- 4WD utility vehicles
- Light trucks
- All-terrain vehicles (ATVs)
- Small excavators

- Skid steers
- Arborist equipment
- Water carts for dust suppression
- Cleaning equipment

During construction stages for VNI West, work hours and activities will comply with the Property Management Plan, Construction Management Plan, the Environment Effects Statement, and Environmental Protection Authority guidelines.



Figure 3: Indicative site preparation activities

- | | | | | | |
|--------------------------------|--|------------------------------------|--------------------------|--------------------------------------|-----------------------|
| 1 Relocating farm structures* | 2 Securing Environmental or Cultural Values (Site Environment Management Plan) | 3 Fencing access track* | 4 Vegetation management* | 5 Soil management for reinstatement* | 6 Tower assembly area |
| 7 Final Construction Footprint | 8 Construction Licence Area: Agreed land for project construction activities | 9 Crossing points for landholders* | 10 Easement | 11 Minimum 300m dwelling setback | |

*Controlled via Property Management Plan (PMP)



3. Access Tracks

After the site is prepared, temporary access tracks are built to help vehicles and machinery reach tower sites safely. These tracks usually connect to existing roads and are used to move equipment such as cranes and concrete trucks along the easement.

Access tracks are usually between 4 and 6 metres wide. Design depends on the property's features, how long they'll be used, what equipment is needed, and local soil conditions. Where possible, existing farm tracks may be used or upgraded if agreed with you in the PMP.

New Access Tracks

If a new temporary track is needed, typically crews remove the top layer of soil and store it nearby to protect it. A fabric layer is laid to keep soil and gravel separate, and crushed rock is added to create a stable surface. In soft areas, mats or steel plates may be used to protect the ground. Drainage is added where needed to manage water and prevent erosion.

The delivery partner is responsible for keeping tracks safe, stable, and functional. After construction the tracks are removed, and the land reinstated, unless a permanent access track is agreed to support future line maintenance. If a permanent track is retained, this will be discussed with landholders and reflected in the PMP, along with any drainage requirements or local approvals needed.

Construction materials such as steel tower sections, conductors, and insulators can be secured in agreed areas, usually within the easement. These areas are temporary and may remain in place for a period of a few days to several weeks. While materials are onsite, these areas will be fenced or signed as safety zones, with access restricted to authorised personnel.



Steel tower sections



High-voltage conductor reel/drum



Glass insulators

Expected Vehicles and Equipment

Other equipment may also be required at this stage.

- 4WD utility vehicles
- Light trucks
- Excavators
- Bulldozers and graders

- Dump trucks or tipper trucks
- Rollers and compactors
- Water carts for dust suppression
- Cleaning units



4. Excavations

Once access tracks are in place, crews begin preparing the property for tower foundations with work expected in short bursts, dependent on soil, weather, and site conditions. As topsoil is excavated to establish each tower site, crews will often spray water or treat the grass and surface vegetation first.

This stops the soil from clumping or “balling up” when the grader or excavator removes it, ensuring the soil can be stored as agreed with the landholder, and reused more effectively during the **reinstatement** stage. Once the topsoil is shifted, piling rigs (large, specialised drilling machines) are typically used to bore holes for each tower leg and foundation.

To protect soil and water quality during construction, the project will follow an erosion and sediment control plan. This includes using barriers, drains, and other measures to manage runoff and keep access tracks stable. During site preparation, crews may install silt fencing or other controls to stop soil and debris from entering paddocks, drainage lines, or nearby waterways. Noise and dust will be managed in line with EPA requirements to minimise disruption to the property.

Expected Vehicles and Equipment

Other equipment may also be required at this stage.

- 4WD utility vehicles
- Service vehicles
- Drilling rigs/piling machines
- Excavators/backhoes
- Concrete agitator trucks
- Concrete pump trucks
- Small cranes/telehandlers
- Water carts for dust suppression
- Biosecurity cleaning equipment



Piling rig boring foundations for tower legs

5. Tower Foundations



After boring and excavation works are complete, steel cages are installed, providing support to the concrete that is then poured and compacted to engineering standards. Strict quality checks are carried out, and the concrete is allowed to cure fully, with fencing or barriers in place to keep the area secure.

Tower designs reflect local site conditions. Tower foundation design will be based on specific site investigations and requirements of the Environmental Management Plan including geotechnical investigations, the Surface Water Management Plan, and flood mitigation requirements.

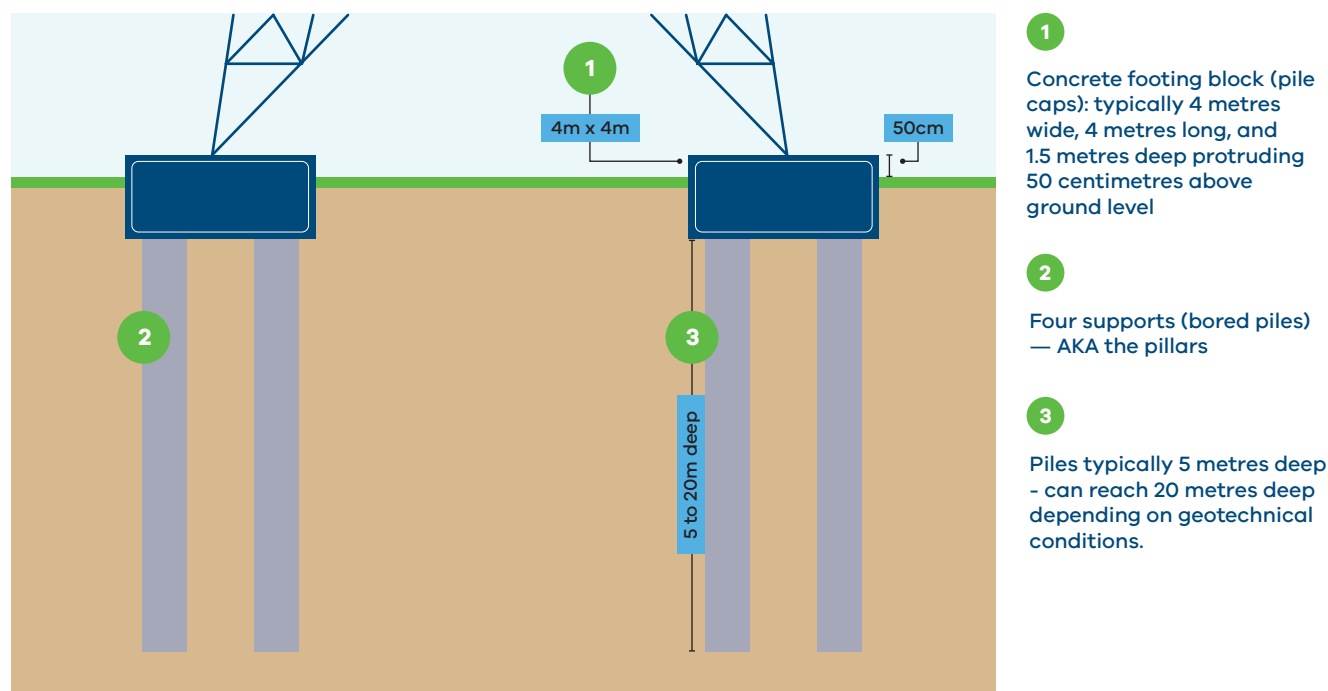


Figure 4: Tower Foundations

Expected Vehicles and Equipment

Other equipment may also be required at this stage.

- 4WD utility vehicles
- Service vehicles
- Drilling rigs/piling machines
- Excavators/backhoes
- Concrete agitator trucks

- Concrete pump trucks
- Small cranes/telehandlers
- Water carts for dust suppression
- Biosecurity cleaning equipment



6. Tower Installation

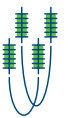
Once the foundations have been installed, crews will assemble and erect the transmission towers. Each tower is assembled on a hardstand area, or tower installation pad, of about 65.5 metres by 52.5 metres, usually within the 70-metre easement, within the Construction Licence Area. The final footprint will be approximately 20 metres by 20 metres.

Tower parts are fabricated, galvanised, and bundled offsite, then delivered to the property in sections. Cranes are the primary equipment used to erect the transmission towers and associated insulators and other hardware.

Expected Vehicles and Equipment

Other equipment may also be required at this stage.

- 4WD utility vehicles
- Cranes (various sizes depending on tower design)
- Semi-trailers and rigid trucks
- Elevated work platforms (EWPs)
- Water carts for dust suppression
- Biosecurity washdown equipment
- Telehandlers and small loaders



7. Line Stringing

Once towers are assembled, the next stage is to string the conductors — the transmission wires or bundles — along the alignment. Conductors are installed from temporary work areas called stringing pads, generally located every one to five kilometres along the project alignment.

Stringing operations require the use of large machinery, elevated lines, and continuous movement along long sections of the easement. During this stage, significant portions of the easement — sometimes hundreds of metres at a time — will be active work zones.

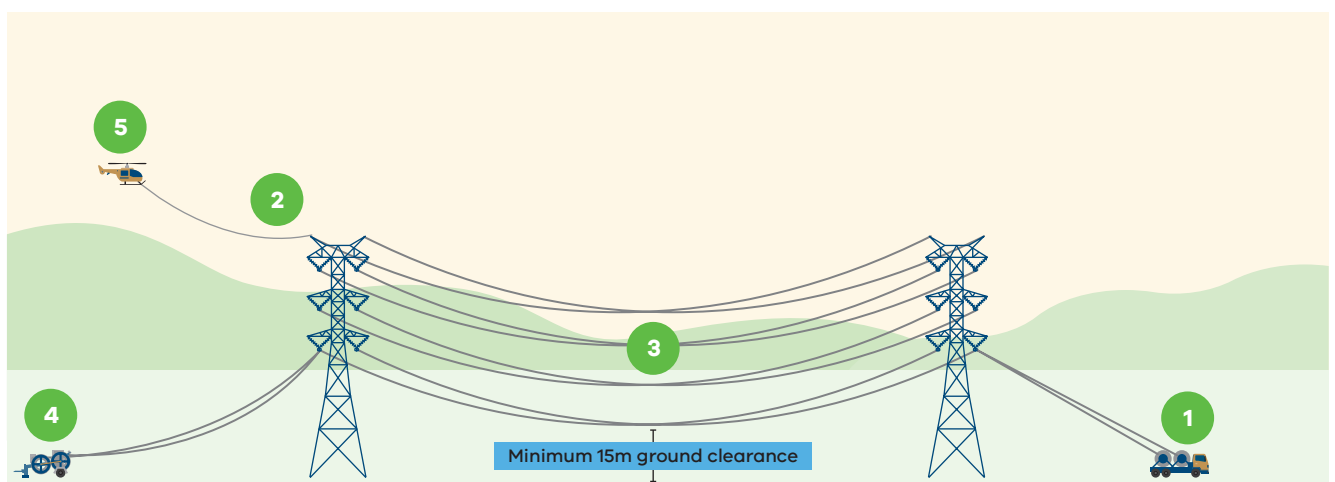


Figure 5: Indicative line stringing process

- | | | | | |
|---|--|--|---|--|
| 1 Conductor reels (spools of the high-voltage wires) | 2 Pilot line (a thinner guide wire) | 3 Conductors (the main thick wires) | 4 Tensioners (machines that keep the wire elevated and under steady tension) | 5 Helicopters or drones — if required |
|---|--|--|---|--|

Note: The delivery partner may choose to use tractors, drones, or helicopters for stringing activities.

Land Access and Disruptive Activity

During this stage, there will be greater access controls for landholders, stock, or non-project vehicles through the Construction Licence Area. Restricted areas will be marked and fenced, with spotters — Energy Safe Victoria (ESV) registered observers — present to manage safety during site movements.

This is due to the longer lengths of easement required to string the transmission lines to each tower. In some terrains, a helicopter or drone may also be used to guide the pilot line, which may disrupt stock.

Landholder Liaisons will notify you in advance of access requirements during this stage, however you should consider your land use requirements — such as rotational grazing — in advance and modify your PMP or valuation informed compensation assessment.

After stringing activities have moved past the property, some access restrictions will be lifted and limited use of the easement area may resume. The PMP will include agreed access and notification arrangements to help landholders plan farming operations around this activity.

Expected Vehicles and Equipment

Other equipment may also be required at this stage.

- 4WD utility vehicles
- Light trucks
- Winches and tensioners
- Elevated work platforms (EWPs)
- Cranes (for tensioner and reel setup)
- Helicopters or drones (if required)
- Biosecurity cleaning equipment



8. Commissioning

This stage confirms that the transmission line and terminal station works are complete. It ensures that all parts of the new infrastructure are safe, secure, and performing to design standards before the line is energised (switched on).

During commissioning, landholder access to areas near the towers or easement may be temporarily restricted while high-voltage testing is in progress. Any restrictions, timing, and safety requirements will be agreed with landholders and reflected in the PMP.

Expected Vehicles and Equipment

Other equipment may also be required at this stage.

- 4WD utility vehicles
- Light service vehicles
- Biosecurity cleaning equipment
- Elevated work platforms (EWPs)



9. Reinstatement

The full reinstatement program will continue across the project alignment for a longer period as works progress. Reinstatement involves restoring all disturbed areas to the agreed condition outlined in the PMP and in line with environmental and safety standards. Typical activities include:



Removing temporary works

Access tracks, stringing pads, and other work areas are taken out unless agreed to keep them for maintenance.



Soil reinstatement

Topsoil and subsoil are put back in the right order to protect soil health.



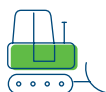
Fencing and gates

Temporary fencing and gates are removed or replaced as agreed.



Pasture reseeding or crop restoration

Disturbed areas are reseeded or replanted to support productive use of the land, using species agreed with you to match existing paddocks or crops.



Surface stabilisation

Areas are graded to their original contours to ensure safe drainage and prevent erosion.



Waste removal

Any leftover materials or debris are removed and disposed of properly.



The reinstatement phase involves the restoration of all disturbed land. The timing of this process is determined by the PMP. We encourage landholders to review the terms of the agreement, and raise any seasonal considerations or other concerns, directly with their Landholder Liaison. This will help us reach a reinstatement standard that accommodates their specific agricultural requirements.

Throughout reinstatement, the project team will conduct inspections to ensure the land is stable, safe, and in accordance with agreed standards. This includes monitoring and audit of reinstatement works, and any additional maintenance such as weed control or reseeding, which may be arranged where required.

Long-term easement management is done in accordance with the agreed standards outlined in the Memorandum of Common Provisions (MOCP). The MOCP sets out the rights and obligations of VicGrid and the landholder once the easement is in place. This supports safe operation of the line while allowing ongoing productive use of the land.

Expected Vehicles and Equipment

Other equipment may also be required at this stage.

- 4WD utility vehicles
- Light trucks
- Excavators (for backfilling and grading)
- Skid steers or small loaders (for soil handling and contouring)
- Water carts (for dust suppression or soil conditioning)
- Seeders or spreaders (for pasture reseeding)
- Rollers and compactors (to stabilise soil and track areas)
- Mulchers or slashers (for vegetation management)
- Fencing equipment (for removing or reinstalling fencing and gates)
- Biosecurity cleaning equipment

Construction Stage Landholder Checklist

This checklist is designed to help landholders plan for each stage of construction on properties. It highlights key activities to think about, questions to ask, and documents to review — such as the Property Management Plan (PMP), Option for Easement (OfE), and Memorandum of Common Provisions (MOCP).

Use this as a guide to discuss timing, access, and operational impacts with your Landholder Liaison, ensuring construction works are managed with minimal disruption and that your preferences are documented.

1 Surveying (Pre-Construction)	☐ Confirm agreed access points for survey vehicles ☐ Consider your aerial spraying requirements during construction ☐ Plan livestock movements to avoid interference with surveyors ☐ Clarify notice periods and communication channels with your Landholder Liaison ☐ Identify and communicate areas of sensitive infrastructure (e.g. irrigation lines, access tracks) ☐ Note seasonal activities such as spraying, sowing, or lambing that could be impacted
2 Site Preparation	☐ Assist in identifying areas of sensitive infrastructure (pipes, troughs, tracks) that need protection ☐ Agree on fencing types for cultural or environmental exclusion zones ☐ Ensure soil and vegetation clearing preferences are documented (e.g. reuse of timber, retaining topsoil) ☐ Consider timing to align with seeding, spraying, or lambing activities
3 Access Tracks	☐ Agree on preferred routes to minimise disruption to farming operations ☐ Specify drainage needs to prevent waterlogging or erosion in productive areas ☐ Document if any access tracks should remain for future farm use ☐ Consider impacts of track construction on current crops or grazing patterns
4 Excavations	☐ Ensure machinery access is compatible with soil conditions (e.g. avoid wet paddocks or compaction risks) ☐ Identify restricted zones for vehicle movement due to biosecurity or soil compaction concerns ☐ Confirm fencing and safety measures to keep livestock away from excavation sites ☐ Discuss timing in relation to seeding, spraying, or harvest schedules ☐ Clarify spoil storage locations to avoid contamination or loss of productive soil
5 Tower Foundations	☐ Discuss curing times and any limitations on farm access during this period ☐ Consider seasonal factors, such as avoiding heavy machinery during wet periods or key cropping times
6 Tower Assembly	☐ Plan livestock movements to maintain livestock health management ☐ Confirm timing of crane and truck movements to mitigate conflict with farm traffic or activities ☐ Ensure dust suppression is in place near sensitive crops or infrastructure ☐ Clarify if temporary access restrictions can be lifted for critical farm activities
7 Line Stringing	☐ Plan for full access restrictions to the easement during stringing, and identify any paddocks or areas critical to your farming operations that may be affected during this time ☐ Confirm notice periods and communication protocols for activity scheduling ☐ Plan rotations or temporary relocation of stock well in advance
8 Commissioning	☐ Confirm timing of testing activities that may require restricted access ☐ Consider fencing impacts to keep livestock clear of towers and work areas during energisation and testing ☐ Ensure all safety signage, barriers, and access restrictions are in place and consistent with agreements
9 Reinstatement	☐ Ensure reinstatement aligns with agreed conditions ☐ Verify that all temporary infrastructure, fencing, and debris are removed ☐ Schedule a post-construction inspection with your Landholder Liaison ☐ Discuss weed management, inspection, and maintenance regime

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If you need an interpreter, please call 13 12 50 and reference VNI West. If you are deaf and/or find hearing or speaking with people on the phone difficult, please contact the National Relay Service on voice relay number 1300 555 727, TTY number 133 677 or SMS relay number 0423 677 767.

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