VNI West

Environmental Impact Statement (EIS)
Dinawan substation expansion

FACT SHEET | AUGUST 2025
Application number SSI-72887208

VNI West proposes the construction, operation and ongoing maintenance of a, 500kV double circuit overhead transmission line that would connect the high voltage electricity grids in NSW and Victoria. As part of the EIS for VNI West (NSW), an assessment was undertaken of the potential construction impacts associated with the expansion of the Dinawan substation. For more information, refer to **Chapter 3: Project Description**.

Proposed Dinawan substation expansion

The new 330kV Dinawan substation was approved and is currently under construction as part of the EnergyConnect (NSW – Eastern section) project. To provide a connection point for the new 500kV transmission lines, Transgrid is proposing an expansion of this substation. The proposed expansion would include the construction and operation of a new 500kV switchyard, two new 330kV bays, and other ancillary and connection works.

Image: Dinawan 330kV substation under construction as part of EnergyConnect.

Built form and layout

The footprint of the proposed expansion would be around 17 hectares (inclusive of a required buffer zone surrounding the site) and would be constructed on land currently owned by Transgrid. The substation would include:

- six single-phase 500kV/330kV transformers
- six three-phase shunt reactors
- a range of supporting 500kV electrical components including overhead conductors, busbars and gantries
- 500kV circuit breaker switchgear equipment
- modifications to the existing 330kV switchyard to allow connection to the new 500kV switchyard
- neutral earth resistors and other electrical equipment
- an auxiliary services building.

Safety and security

Security fencing would be installed on all sides of the expanded substation and would integrate with the current fencing being constructed at Dinawan substation. To comply with Transgrid's safety requirements, additional security measures would be incorporated across and around the substation site including security cameras, signage and an asset protection zone (an area maintained to be cleared of all trees and vegetation which may affect the substation during a bushfire).

Other design features

The substation expansion would include a series of other design elements including:

Lighting – additional operational lighting would be installed for site security and for the safety of personnel operating and maintaining the substation equipment

Water supply – the expanded substation would require additional water for operation and maintenance purposes. This would be sourced from on-site rainwater tanks or from the local council via water truck deliveries (if required)

Stormwater and drainage – an on-site stormwater drainage system at the future Dinawan substation would be operational to capture and discharge stormwater collected from within the site. Some additional stormwater drainage would be required to cover the proposed 500kV switchyard footprint

Bushfire mitigation – the substation would be operated in accordance with Transgrid's Bushfire Risk Management Plan and the Dinawan Substation Emergency Response Manual prepared as a requirement of the EnergyConnect (NSW – Eastern section) project. More information on Bushfire Management is available on the Transgrid website at www.transgrid.com.au/safety/managing-bush-fire-risk.

Construction of the proposed Dinawan substation expansion

- The proposed Dinawan substation expansion would be constructed east of Kidman Way, to the south of the future 330kV substation. The construction methodology for the proposed 500kV Dinawan substation expansion would consist of the following key activities:
- site establishment (including vegetation removal and establishment of a temporary construction compound)
- earthwork and preparation of the site for concrete foundations
- excavation and installation of reinforced concrete and piled foundations for electrical equipment
- erection of galvanised steel supports using cranes
- installation of electrical equipment on concrete foundations
- installation of portable auxiliary services buildings on steel supports
- installation of low voltage electrical cables and terminations;
- erection of the site boundary security fence, including site access gates
- surfacing and stabilising works for access, dust and vegetation suppression and drainage.

Site restoration

Restoring and rehabilitating construction sites, would occur as soon as practicably possible following completion of construction works.

Next steps

You have the opportunity to review and comment on the EIS via submission to the Department of Planning, Housing and Infrastructure (DPHI) during August 2025. Electronic copies of the EIS are available via:

- DPHI Major Projects website: https://www.planningportal.nsw.gov.au/major-projects
- VNI West (NSW) project website: www.transgrid.com.au/vniw

Following the EIS Exhibition period, Transgrid will produce a Submissions Report to formally respond to community and stakeholder feedback received during exhibition.

Image: Example of an existing 500kV substation at Bannaby..

For more information on the VNI West EIS, please scan the QR code, or visit www.transgrid.com.au/vniw.

Connect with us

Transgrid is committed to working with landowners and communities throughout the delivery of VNI West.
Please connect with us for more information.

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