

Noise and vibration

Hunter Transmission Project

Fact Sheet | February 2026

The Hunter Transmission Project is a key part of securing NSW's energy future. It will deliver a new 110-kilometre overhead 500 kilovolt (kV) transmission line from Bayswater (near Muswellbrook) to Olney (near Eraring), connecting into the State's 500 kV network.



This link will unlock renewable generation from the Central-West Orana and New England Renewable Energy Zones, allowing it to flow into the electricity grid where and when it is needed. By strengthening this part of the network, the project will help keep power affordable and ensure reliable supply as coal-fired power stations retire.

Planning for the HTP

The Hunter Transmission Project (HTP) is a critical State significant infrastructure project that requires an Environmental Impact Statement to assess potential economic, environmental and social impacts. The HTP Environmental Impact Statement was on public exhibition from 27 August to 24 September 2025.

EnergyCo is reviewing community feedback and preparing a Submissions Report and an Amendment Report. The Submissions Report will summarise the issues raised by the community, government agencies, and other stakeholders and outline how EnergyCo has considered this feedback, and include updates to the project where appropriate. The Amendment Report will describe specific refinements or updates to the project that have been made since exhibition, informed by technical studies and consultation feedback. When complete, the Submissions and Amendment Reports will be lodged with the Department of Planning, Housing and Infrastructure and made publicly available.

Noise and vibration assessment overview

EnergyCo has carried out a comprehensive noise and vibration assessment to identify potential impacts during construction and operation of the Hunter Transmission Project.

The study area was delineated to capture all potentially affected receivers. Sensitive receivers include residential properties, medical centres, schools, places of worship, and recreational areas. Background noise levels were measured at representative locations across the study area, including near where proposed construction works, construction support sites and new switching stations would be located. These measurements informed the development of Noise Management Levels (NMLs) – the maximum acceptable noise level for a sensitive receiver, based on local background conditions and regulatory guidelines.

By establishing NMLs, EnergyCo can predict where potential impacts may occur and design targeted measures to avoid, minimise or manage them.

The noise assessment identified that some nearby receivers may experience noise impacts during construction.

Impacts may range from negligible to clearly audible, with short-term, highly intrusive noise expected during peak activities, particularly when works occur close to sensitive receivers.

The assessment also identifies a smaller number of highly affected receivers that may experience more significant impacts.

Vibration impacts

The vibration assessment found that some nearby properties may feel vibration during construction. For most people this would be noticeable but not harmful and may cause some temporary disturbance.

In a smaller number of cases, buildings could experience minor cosmetic damage such as small cracks. This type of damage would be repairable and would not affect the building's safety or structure.

EnergyCo will:



Undertake pre-construction dilapidation surveys to document existing building conditions



Implement protective measures before works start where higher vibration is expected



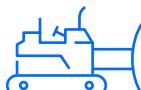
Conduct ongoing vibration monitoring during construction at locations close to sensitive receivers



Adjust construction methods or equipment if monitoring shows vibration approaching threshold levels.

Construction impacts

Construction activities such as earthworks, foundation excavation, plant and equipment operation, construction traffic and operation of construction support site facilities may cause temporary noise and vibration impacts. Potential sources include:



Site establishment, vegetation clearing and topsoil removal



Construction compounds, utility relocations and construction support sites



Access track construction and intersection upgrades, including vibratory rollers



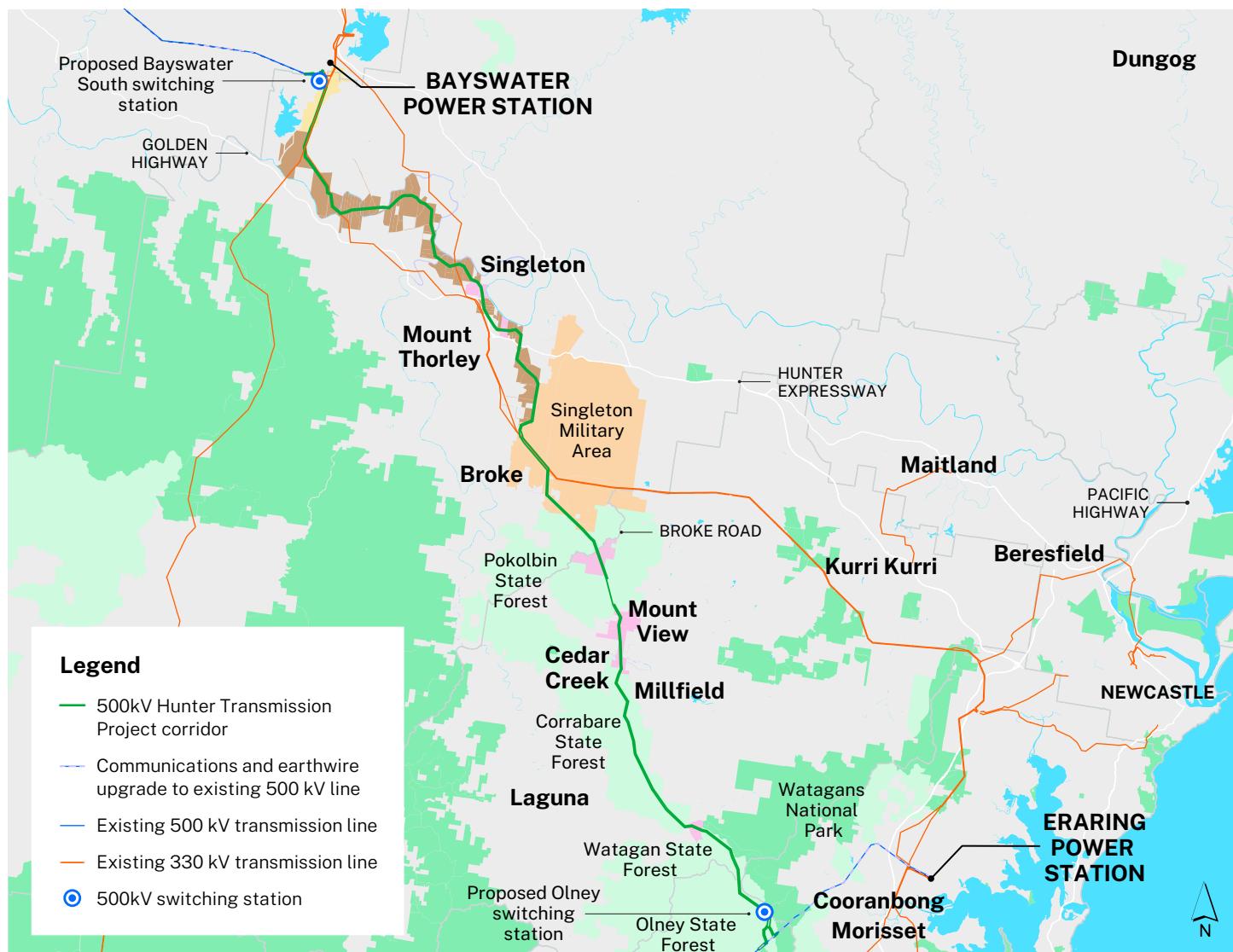
Tower foundation excavation, piling and conductor stringing



Rock breaking and drilling in some locations.

This approach ensures that potential impacts are assessed, managed and mitigated at every stage of the project – before, during and after construction.

Hunter Transmission Project refined corridor



The proposed alignment shown represents the refined corridor following the Environmental Impact Statement public exhibition and includes anticipated updates to be detailed in the Amendment Report.

Standard construction hours

Standard construction hours will be:

- 7 am – 6 pm, Monday to Friday
- 8 am – 1 pm, Saturday

Some works will occur outside standard hours for safety or traffic management reasons, such as stringing lines over major roads or rail lines, or transporting large equipment during off-peak times. Impacted landowners will be notified in advance.

Helicopters and drones will be used to access remote areas for stringing transmission lines, with flight paths and landing sites chosen to minimise noise where practicable.





A key regional road within the HTP study area

Management and mitigation

A Construction Noise and Vibration Management Plan will be prepared before construction commences to outline detailed mitigation measures to minimise impacts.

These measures will include:

- confirm proximity to sensitive receivers during detailed design
- use quieter equipment and alternative construction methods, where possible
- schedule noisy activities to avoid multiple high-noise events occurring at the same time
- install barriers or screens where feasible
- monitor noise and vibration levels to comply with required limits
- notify and consult with potentially affected stakeholders before noisy works
- apply respite measures where ongoing high impacts are expected.

As the project progresses through detailed design and delivery, updated information on noise and vibration impacts – and how they will be managed – will be provided to the community.

To protect community amenity:

- noise monitoring will be undertaken post-construction to confirm actual operational noise levels
- if impacts are identified, EnergyCo will consult directly with affected landowners to agree on mitigation measures
- where necessary, targeted measures such as individual receiver agreements or equipment adjustments will be applied.

By committing to verification monitoring and responsive management, EnergyCo ensures that operational noise and vibration remain within acceptable limits throughout the life of the project.

Operational impacts

Once the Hunter Transmission Project is up and running, noise from the transmission lines, switching stations, and the Eraring substation extension is expected to be very low.

When it is not rainy or foggy, noise levels are predicted to be less than 10 decibels – about the same as a quiet library – so most people won’t notice any change.

In light rain or mist, you might hear a gentle hum or crackle from the transmission lines, known as corona noise. This could be noticeable for a small number of nearby homes.

To view the submission for the HTP’s EIS, visit: planningportal.nsw.gov.au/major-projects/projects/hunter-transmission-project

Contact us

EnergyCo is the NSW Government statutory authority responsible for delivering the HTP as a critical part of transitioning to a cleaner future under the Electricity Infrastructure Roadmap.

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 energyco.nsw.gov.au/htp



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