EnergyCo

NSW GOVERNMENT

Noise and vibration

Hunter Transmission Project

Environmental Impact Statement | Fact Sheet | September 2025

The Hunter Transmission Project (the 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.

North transmission tower

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.

What is an environmental impact statement?

The environmental impact statement (EIS) is a detailed report EnergyCo must prepare so government can assess whether the Hunter Transmission Project should proceed. As critical State significant infrastructure, NSW law requires an EIS to assess potential effects on the environment, communities, and the economy — and explain how negative impacts will be avoided, reduced, or managed, and how benefits will be maximised. The EIS is placed on public exhibition so the community, government agencies, and other stakeholders can review the findings, ask questions and provide feedback. This process ensures transparency, considers all views and helps the government decide whether the project should proceed. Final approval rests with the NSW Minister for Planning and Public Spaces and the Australian Minister for the Environment and Water.

Noise and vibration Assessment Overview

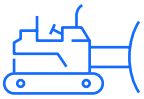
EnergyCo has carried out a comprehensive noise and vibration assessment to identify potential impacts during construction and operation of the Hunter Transmission Project.

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.

Construction impacts

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



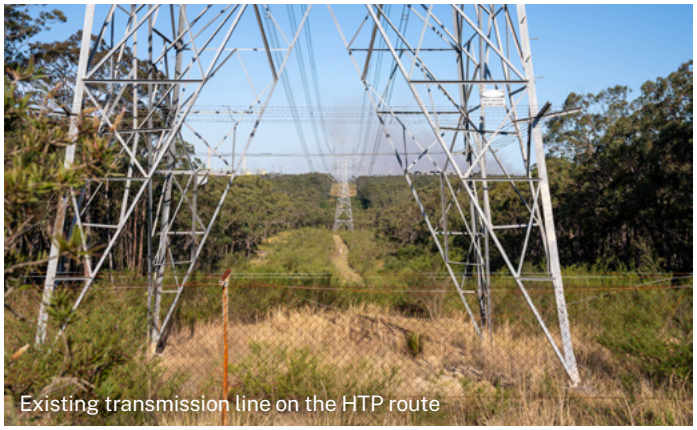
Site establishment, vegetation clearing and topsoil removal

Construction compounds, utility relocations and accommodation facilities

Access track construction and intersection upgrades, including vibratory rollers

Tower foundation excavation, piling and conductor stringing

Rock breaking and drilling in some locations.



Existing transmission line on the HTP route

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.

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.

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.

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

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 below 35 decibels at the edge of the project corridor – 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 – around 11 rural properties in the central and southern parts of the project impact area – but only occasionally and usually under these specific weather conditions.

Workers at a Switching Station

Stay informed and have your say

The Hunter Transmission Project EIS is on public exhibition from 27 August to 24 September 2025. You can:

- Read the full EIS, including **Chapter 16** and the Technical Report on Noise and Vibration for the full assessment, mitigation measures, and management plans, on the NSW Planning Portal.
- Contact the project team at any time, including during the public exhibition period:
  - **Email:** htp@energyco.nsw.gov.au
  - **Call:** 1800 645 972 (9am to 5pm, Monday to Friday)
  - **Visit:** energyco.nsw.gov.au/htp

Make a submission

You can provide feedback on the Hunter Transmission Project Environmental Impact Statement (EIS) during the exhibition period.

By post

Send to: Director – Energy Assessments, Department of Planning, Housing and Infrastructure, Locked Bag 5022, Parramatta NSW 2124

Your submission should include:

- Your name and address (can request to be withheld)
- Application name: Hunter Transmission Project
- Application number: SSI-70610456
- A short statement on whether you support, object, or want to comment on the proposal
- Reasons or supporting information for your views

Existing transmission line

Online

Visit the NSW Planning Portal at planningportal.nsw.gov.au/major-projects/have-your-say → search 'Hunter Transmission Project' → click 'Make a submission'

For more details, visit the NSW Planning Portal at planningportal.nsw.gov.au/major-projects/have-your-say

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.

htp@energyco.nsw.gov.au

1800 645 972 (9am to 5pm, Monday to Friday)

energyco.nsw.gov.au/htp

Scan the QR code for more information.

If you need help understanding this information, please contact the Translating and Interpreting Service on **131 450** and ask them to call us on **1800 645 972**.