

23 September 2025

TfNSW reference: REN25/00159/001

Your reference: SSI-70610456

Department of Planning, Housing and Infrastructure
Locked Bag 5022
PARRAMATTA NSW 2124

Attention: Kurtis Wathen

By email: kurtis.wathen@dpie.nsw.gov.au

CSSI-70610456, Hunter Transmission Project, Response to Environmental Impact Statement

Transport for NSW (TfNSW) is responding to the Hunter Transmission Project (HTP), exhibited from 22 August 2025 to 24 September 2025 referred via the Major Projects Portal.

TfNSW has reviewed the Environmental Impact Statement (EIS) and Traffic and Transport Impact Assessment (TIA) prepared by WSP dated August 2025 for the Hunter Transmission Project, as key documents for preparing this response.

The information provided in the EIS does not demonstrate that HTP has mitigated the traffic safety, efficiency and risks to TfNSW assets on the state road network. TfNSW therefore requests additional information relating to the key issues as detailed in **Attachment A**, to form part of a revised TIA and EIS (where applicable), to be submitted with the Response to Submissions (RtS).

On request, TfNSW can meet with DPHI and the applicant to discuss the information in **Attachment A**. If you have any questions, please contact Glen Hanchard Development Services Case Officer, at 1300 019 680 or email development.renewables@transport.nsw.gov.au

Yours sincerely,

A handwritten signature in black ink that reads "RCumming".

Rachel Cumming

Director Technical Advice & Development Services
Transport Planning
Planning, Integration and Passenger

Attachment A

CSSI-70610456, Hunter Transmission Project, Response to Environmental Impact Statement

Context

TfNSW notes:

- The project proposes to erect a 110km, 500kV transmission line between Bayswater and Olney,
- TfNSW understands that the project will interact with the following state roads to facilitate the construction and delivery of the Hunter Transmission Line project:
 - Golden Highway,
 - New England Highway,
 - John Renshaw Drive,
 - Hunter Expressway,
 - M1 Pacific Motorway
 - Cessnock Road,
 - Wine Country Drive,
 - Putty Road, and
 - Denman Road.
- To construct the proposed transmission infrastructure, the project requires 16 intersections and several access tracks directly to the state road and will utilise several state, regional and local road intersections for transportation of components.
- High Risk Oversize and Overmass (OSOM) vehicles for the transportation of transformers and switch rooms are proposed from the Port of Newcastle to Eraring and Bayswater.
- Project construction will commence in 2027 and be completed by 2029, peaking in mid-2028 with a total of 830 workers. This will generate a significant number of vehicle movements and require the construction of accommodation camps.

Requested Additional Information

TfNSW requests additional information on the **5** key issues identified, as detailed below, to be included in a revised TIA and EIS (where applicable). The revised TIA is to be included within the Response to Submissions (RtS). It must be clear where changes have been made in the revised TIA, which can be in the form of a document with tracked changes, or a table provided in the updated TIA.

1. Requirements for access tracks with direct connection to the state road network

TfNSW requests additional information within a revision to the Technical Report 4-Traffic and Transport Impact Assessment to ensure the traffic assessment is based on the conservative scenario and will mitigate the projects impacts to the state road network.

- a. The Technical Report 4 - Traffic and Transport Impact Assessment (TTIA) indicates within Table 5.5, that intersection treatments are required for each access track with direct access to the state road network, however, Table 5.9, states that no intersection treatments will form part of the project scope. The TTIA does not recommend alternative mitigations or commitments to

address the safety concern of turning and through traffic movements on the state road network, instead of the provision of intersection treatments.

TfNSW advises that the TTIA is to address the safety concerns and proposed alternative mitigation measures, and recommends that for TfNSW to support alternate enforceable traffic mitigation measures, the updated TTIA will need to demonstrate the following:

- Avoidance of the AM/PM network peak hours,
- The hourly and peak hour traffic volumes (if the network peak hour cannot be avoided) must be similar to the traffic volumes that would be typical in the network AM/PM peak hour to the existing land use of the project site,
- Elaborate on the requirements for achieving a compliant Safe Intersection Sight Distance (SISD), as it is a crucial safety measure that must be met,
- Implement carpooling and shuttle bus strategies to reduce traffic volumes,
- Traffic Guidance Schemes (TGS) are proposed, then a draft or indicative TGS would need to be submitted to TfNSW to review, and
- The time limit of the use of the access must not exceed 12 months and must not be used for any other operational or maintenance purpose for the project.

If the alternative traffic mitigation measures cannot be committed, or the information provided does not address how the measures will be adhered to, then the intersection treatments identified for state road and access track connection will be required, and strategic concept designs (refer to the fact sheet within the advisory notes) must be submitted as part of the RTS submission package.

- b. The figures on footnoted pages 5 to 9 also identify several access tracks in purple lines. All access tracks to the state road network are to be clearly identified and assessed for use in the updated TTIA.

2. Traffic assessment requirements applicable to all intersections

TfNSW has identified a need for a robust and transparent intersection assessment in the revised TTIA. This is crucial to determine if the scope of works adequately addresses the project's impacts or if traffic mitigation measures are required to ensure compliance with the project's scope of works, as currently presented within the TTIA.

- a. Individual traffic count surveys have not been completed at all state and local road intersections, with midblock traffic counts being completed as an alternative. TfNSW, as part of the request for SEARs for the project, advised that individual traffic count surveys were required for each intersection that forms part of the project construction routes, as midblock traffic counts do not clearly depict the background through and turning movements that occur at each intersection. Traffic count surveys are to be completed for each local road and state road intersection shown in the table. The turn warrants and SIDRA analysis are to be revised based on the outcome of the individual traffic counts for each intersection.
- b. The turn warrants and SIDRA analysis have been based on the construction peak hour (6-7 am and 5-6 pm) instead of the network peak hour and therefore do not represent the worst-case scenario for the project and limit the project's peak traffic movements to the project peak hour

and prohibit traffic movements from occurring during the network peak hour. If this is the intention, further mitigation measures will be required to ensure the project can adhere to the restrictions for project traffic movements. If this is not the intention, the peak project traffic movements during the project peak hour must be included in revised turn warrants and SIDRA analysis to represent the worst-case scenario.

- c. The traffic volumes identified as the worst-case scenario in Table 5.4 for peak hourly Construction Traffic Generation at the construction support sites do not align with the traffic volumes that inform the turn warrants assessment in Appendix C. For example, at Hebden Road, turn warrant construction traffic assessed in AM peak hour equates to a total of 90 (lv/hv) versus the worst-case scenario assumed in Table 5.4 of 103 total lv/hv movements. The turn warrants assessment is to align with the peak traffic volumes identified in Table 5.4.
- d. Turn warrant assessments and SIDRA analysis assumptions for traffic volumes do not represent the worst-case scenario. Currently the cumulative traffic volumes of approved projects and projects that have been given access rights to REZ zones have not been factored into the assessment which was confirmed by EnergyCo in the meeting with TfNSW on 17 September. To ensure the project can appropriately mitigate its impact on the transport network, revised SIDRA and turn warrants assumptions should be considered and results updated. Justification should be included in the updated TTIA for any approved project that is not included in cumulative assessment.
- e. The turn warrants also appear to have been plotted as individual points on the turn warrants assessment graphs and not as one point that is the collective traffic volume for the turning traffic volumes. The turn warrants assessment for all intersections and access tracks are to be replotted as one plot point for the AM/PM peak hours.
- f. The SIDRA analysis is required to be updated based on the revised traffic data and inclusion of cumulative traffic volumes from other projects (as per point d) that will be present in the background and turning volume for each intersection and state road connection. TfNSW notes that the current assessment identifies the following intersections as nearing capacity (from a LOS, DoS, or 95th queue length perspective) and may require further mitigation measures to address the project's additional impacts on queue lengths and LOS.
 - New England Highway (NEH)/Hebden Road (LoS failing in 2028),
 - Range Road/Golden Highway (failing in 2028),
 - NEH/Lemington,
 - NEH/Pikes Gully Rd,
 - Golden/Gouldsville Rd,
 - Golden Hwy/Mitchell Line of Rd, and
 - Putty/Broke Rd.
- g. The TTIA intersection layouts within Appendix C, Tables C.1 to C.41 identifies all traffic movements coming from one direction and turning into the project site instead of being distributed between both the left and the right turn from the state road to the local or access track. TfNSW advised EnergyCo on the 17th of September that the assessment of all traffic turning in one direction would be limited to using the relevant turning direction that has been assessed, and no enforceable mitigation measures have been identified in the TTIA to support the prohibition. If the project wants to maintain the existing ban on the turn directions (i.e. in the

right turn), further mitigation measures will need to be identified to ensure monitoring and compliance with the prohibitions or revised assumptions to include the traffic being distributed in both directions will need to be submitted.

- h. The turning volumes at the AM/PM peak hour for each intersection based on direction within the column titled 'HTP 2028 with construction peak volumes' of Table C.1 to C.41 within Appendix C do not align with the turn warrants assessment graph provided in the column titled 'Turn Warrants Assessment' for each intersection and access track with direct connection to the state road network. Review Table C within Appendix C in relation to this point and revise to align with the correct turning volumes and distribution assumptions.
- i. Cumulative impacts of high-risk OSOM movements to the CWO REZ will need to be considered for the project. The Golden Highway is the key transportation route to the CWO REZ and is being upgraded by EnergyCo to accommodate these vehicles. The HTP will need to consider the impact of its project as the timing of movements will overlap.

3. Requirements for revised strategic designs for the road upgrades identified in the appendix of the TTIA

The following section lists changes required to the provided strategic concept designs. These must be provided back to TfNSW for review as part of the revisions to the TTIA.

- a. General requirements applicable to be implemented for all revisions to the strategic concept designs:
 - i. Typical cross sections demonstrating all drainage requirements have not been provided with the strategic concept designs.
 - ii. The proponent is required to clarify the optioning of the scope of road modifications and upgrades presented in the strategic concept designs, in particular, drawing numbers Drawings 2583080-CA-ANC (605-1/2, 606-1/2/3, 607-1/2, 612-1/2, 613-1/2, 617-1/2. A preferred option should be identified.
- b. Specific requirements applicable to be implemented as part of the revisions to the specified intersections are referenced within this section:
 - i. SISD has been assessed for reaction time 2.0sec and not 2.5sec for speeds above 100km/hr. TfNSW notes that in many locations, this may already be achieved however the following intersections are requiring further reassessment to determine if any further mitigation measures or changes to the scope of the project are required to achieve compliance:
 - Gouldsville/Golden Highway,
 - Long Point Road / Golden Highway,
 - Range Road / Golden Highway,
 - Cessnock Road/Oakley Lane,
 - Putty Road access 400m east of in the intersection of Putty Road / Broke Road, and
 - Access off Putty Road 300m west of Loder Creek.
- c. Please remove reference to "intersection update is not required" advice that is shown on plan 2583080-CA-ANC-622 relating to the intersection of Golden Highway / Comleroi Road.

4. Revisions to the concept level high-risk OSOM route analysis to address risk to TfNSW assets and scope of road upgrades

Following review of Technical Report 4 – Traffic and Transport Impact Assessment, TfNSW requires the report to be revised to address the following matters in relation to high-risk oversize/overmass (OSOM) movements.

- a. Laden Dimensions – Provide the full laden dimensions of the high-risk OSOM transformer loads, including overall length, width, height, gross mass, axle and group loadings, articulation count, turning radius, and swept path envelope.
- b. Scope and Concept Design – Clarify the scope of works for all state road infrastructure modifications required between the Port of Newcastle and the Eraring Power Station, supported by Strategic Concept Designs (see Note 1), for each modification identified in Coastal Transport Services' high-risk OSOM route analysis (Appendix F).
- c. Consistency Check – The transport operator is to perform a consistency check of the laden transformer dimensions to ensure alignment with the Port-to-REZ works, specifically the Port of Newcastle → Eraring Power Station route segment and Port of Newcastle → Bayswater segment and confirm that the same dimensional assumptions are applied across all assessments.
- d. Route Suitability Re-Assessment – Re-run the high-risk OSOM route analysis using the laden dimensions provided under (a), confirming suitability and constraints (vertical/horizontal geometry, bridge capacity/clearance limits), with particular emphasis on height restrictions along Awaba Road on the approach to the Eraring Power Station.
- e. Additional Destinations – Confirm and, if necessary, revise the high-risk OSOM route analysis for any overmass/oversize loads in the high-risk category that are required to the Olney and Bayswater switching stations. The existing Coastal Transport Services within Technical Report 4-Traffic and Transport Impact Assessment, does not identify a requirement for high-risk OSOM loads. TfNSW
- f. Program and Mitigation Interface – Confirm the proposed timing of high-risk OSOM movements and identify any mitigation measures required due to interactions with concurrent TfNSW projects or the logistics/operational management of high-risk OSOM movements between the Port of Newcastle and the Central-West Orana REZ.
- g. Swept Path Analysis – Provide a complete, dimensioned swept path analysis for all pinch points along the nominated OSOM route. The current assessment is insufficient as it only circles obstructions and uses arrows to indicate manoeuvres. The revised analysis must include scaled vehicle/load templates, clearance offsets, encroachment details, and demonstrate compliance with Austroads and TfNSW swept path requirements. EnergyCO advised on 16 September via email that they had provided the swept paths for the high-risk OSOM in Appendix E; however, on review by TfNSW, what is provided is the swept paths for intersections for project vehicles. Please update the Route Study prepared by Coastal, to include the swept paths for the high-risk OSOM from port to site and include swept paths as part of the concept designs for any affected access intersection.

5. Minor Matters that need to be resolved prior to determination

The following are minor matters that require further explanation or resolution as part of the revisions to the TTIA.

- a. Table 4.1 – Hunter Expressway has been misdescribed, it is a four lane, two way road.
- b. Table 8.1 of the TIA describes mitigation measures which are suggested to occur post approval, TT1, TT2 and TT3. TfNSW has reviewed the mitigation measures, and these are required to be addressed prior to consent to ensure that the scope of the works necessary to facilitate these measures has been accounted for within the project approval and should not be left to post-consent.
- c. Crossover of the Hunter Central Coast Transmission (HCC) and Hunter Transmission line timing and mitigation measures are required to be considered by the project.
- d. Stringing Sequencing detail should be provided in a Stringing Strategy for the transmission line crossing of the state road network.

TfNSW Advisory Notes

1. Strategic concept designs are required for works along the state road network route.
<https://www.transport.nsw.gov.au/system/files/media/documents/2024/Strategic-Design-requirements-for-DA-Factsheet.pdf>
2. Turn treatments must comply with Austroads Guide to Road Design Part 4A, here:
<https://austroads.gov.au/publications/road-design/agrd04a>
3. Safe Intersection Sight Distance (SISD) must comply with Austroads Guide to Road Design Part 4A and TfNSW supplements to Austroads, noting that TfNSW adopts different reaction times for SISD. AGRD04A | Austroads:
<https://austroads.gov.au/publications/road-design/agrd04a>
4. Austroads Design Vehicles and Turning Path Templates (AP-G34-23) must be reviewed for swept path analysis requirements.
5. Bridge assessments for TfNSW assets can be obtained by contacting spu@transport.nsw.gov.au.
6. All pavement that is to accommodate the project traffic, heavy vehicles, light vehicles, and high risk OSOM, is to consist of permanent pavement treatments that are consistent with the existing state road pavement.
7. If the proponent requires the use of UGLRL assets, the applicant must consult with UGLRL. This can be done through lodgment of a request for a permit via the National Heavy Vehicle portal, or directly to UGLRL via “heavyvehicle@uglregionallinx.com.au”. The applicant must submit the request at least two (2) months before passage and include the specifications of their OSOM and heavy vehicles (axial loading and axial spacing as well as dimensions of the heavy vehicles) with the lodgment of the request.