

20 June 2024

TfNSW reference: WST24/00207/001| SF2024/100218

Your reference: SSD-38358962

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

Attention: Lauren Clear

TfNSW response- SSD-38358962- Keri Keri Wind farm – Sturt Highway, Keri Keri, NSW

Dear Lauren,

Transport for NSW (TfNSW) is responding to SSD-38358962 referred on 23 May 2024.

The information submitted has been reviewed. TfNSW has identified additional information necessary to ensure the project's traffic and transport impacts are managed to maintain road safety and traffic efficiency on the State road network. The requested **additional information** is set out in **Attachment 1**

On request, TfNSW can meet with DPHI and the Applicant to discuss the contents of this submission.

If you have any questions, please contact Ruvimbo Timba, Development Services Case Officer, on 1300 019 680 or email development.renewables@transport.nsw.gov.au.

Yours faithfully,

A handwritten signature in black ink, appearing to read "Alexandra Power".

Alexandra Power

Team Leader Development Services (Renewables)
Community & Place
Regional and Outer Metropolitan

OFFICIAL

Attachment 1

TfNSW response- SSD-38358962- Keri Keri Wind farm – Sturt Highway, Keri Keri, NSW

This attachment relates to TfNSW's response dated 20 June 2024 reference SSD-38358962.

Context

TfNSW understands the subject application includes:

- Development of a wind farm with up to 155 wind turbine generators.
- A new private access to the Sturt Highway for the development.
- Use of the existing intersection of Keri Keri Road/Sturt Highway to access the three project site access points from Keri Keri Road.
- Construction commencing late 2027 and continuing for 24 months.
- 650 construction workers accommodated on-site during the peak of construction.
- Two routes from both Port of Newcastle and Port of Adelaide for high-risk OSOM movements.
- Blades-overall length 108m with overall dimensions: 105.0l x 4.8w x 4.9h x 108.5T.

Additional required information | TfNSW comments

In response to the EIS exhibition, TfNSW requires additional information to address the project's traffic, efficiency, and interactions with state road assets as set out below:

Traffic generation and data

1. The existing project traffic volumes in the TIA only represent the light vehicles and not all the project traffic volume and vehicle types. The TIA and turn warrant assessment (see Figure 3.25 of AGTM Part 6) must be revised to account for all construction traffic volumes and vehicle types for each public and private access to the state road network. The revised turn warrants assessment is required to:
 - a) Apply AM/PM construction traffic volumes (with a ratio of light and heavy vehicles and turning volumes) for the worst-case scenario at each public and private connection.
 - b) Include background traffic volumes measured at AM/PM network peaks, annual growth rates applied linearly to peak construction and accumulative traffic volumes for project AM/PM peak traffic hours (for overlapping period) of any significant projects (at EIS stage or approved).
 - c) Include input for turn warrant assessment(s) (i.e. project traffic, turning and background traffic volumes, growth rates, and accumulative traffic volumes). Data must be plotted on turn warrant nominal graphs for each public and private access to the state road network.
2. Assess Safe Intersection Sight Distance (SISD) at each existing public and private road intersection with project related new and existing accesses to the state road network. Measures required to achieve SISD are to be provided.
3. The TIA states traffic surveys were undertaken at the intersection of Keri Keri Road and Sturt Highway between 18 and 21 September 2022. The raw data collected for the traffic counts has yet to be provided as a part of the TIA. TfNSW requires the underpinning raw data collected in the September 2022 traffic survey for Keri Keri Road/Sturt Highway intersection to be provided as an appendix to the revised TIA.
4. The TIA must be updated to identify the design vehicle (largest heavy and OSOM vehicles) accessing each public and private connection to the state road network.

5. The TIA states 38 OSOM vehicle trips will occur per day during peak of construction. The TIA must identify proportion of OSOM movements attributed to high and low risk OSOM vehicles able to travel under notice under the NSW Class 1 Load Carrying Vehicle Operator's Guide.
6. The TIA must be revised to clearly distinguish light and heavy vehicle routes for all project stages and connections to the state road network.

Workforce accommodation camp

7. Identify timing and sequencing of workforce accommodation camp construction.
8. Identify traffic generation (and vehicle types) for workforce accommodation camp construction during AM/PM peaks.
9. Provide a turn warrant assessment for the worst-case scenario of workforce accommodation camp construction and post-completion (entire operation).
10. Identify traffic volumes required for pre-construction work that will occur in parallel.
11. Assess operational traffic volumes for servicing accommodation camps, vehicle types, and AM/PM peak hour changes for traffic generation at each intersection with the state road network along construction transport routes.

Road assessment comments

12. Provide within the updated route study further assessment of roundabout intersections identified on the Sturt Highway (Figures 22,23 and 24 within the TIA) addressing the following:
 - a) Clarification on whether a portion of roundabouts will be removed or if it is proposed to mount existing annulus(s).
 - b) Swept paths and road design plans to confirm impacts on the roundabout(s).
 - c) Identify any vegetation removal or trimming required.
 - d) Any other infrastructure required to be removed or modified.
13. The removal of traffic islands at the Gillenbah Road/Sturt Highway (Figure 27 of route assessment) pinch point to facilitate the high-risk OSOM movements will conflict with the service centre conditions and infrastructure to prohibit right turns into Gillenbah Road. Alternative designs to navigate this pinch point without impacting on service centre consent conditions are required to be investigated and included within a revised route assessment (accompanied by swept paths and strategic designs).
14. Timing of high-risk OSOM deliveries within the construction schedule, indicative weekly program(s), and timeframe to complete deliveries from relevant port to the site is required.
15. Route 2 will require loads to traverse Denman Bridge from Port of Newcastle. The Denman Bridge has a height limit of 5.6m. For loads higher than 5.6 m, the Wybong and Bengalla Road detour will be required. The route assessment must assess OSOM vehicles required to travel Wybong and Bengalla Roads and upgrades or other mitigation measures for each pinch point along this route.
Note: Wybong and Bengalla are currently being reclassified as state roads.
16. Provide correct units of measurement for rotor diameter, as the rotor diameter is currently measured using squared metres as a unit of measurement.
17. Strategic concept designs are required to be provided for each pinch point requiring road upgrades or modifications to the State road network.
18. Dimensions of swept paths and parking plans must be provided for each pullover, layby, and rest area on OSOM routes, demonstrating applicable high-risk OSOMs can physically be accommodated and mitigate impacts to other road users.
Note: Locations and identification of OSOM design vehicle will be used to access each pullover, including rest areas.

19. The route assessment must include mitigation measures to manage impacts to other road users, including OSOM movements travelling in the opposite direction and road users travelling behind high-risk OSOM vehicle(s).
20. The RJA route assessment and Traffic Impact Assessment (TIA) is contingent upon road upgrades provided by EnergyCo from Port of Newcastle to Elong Elong. The applicant must review pavement extents and scope of works to ensure vehicle configurations and swept paths for this project's higher-risk OSOM align with the scope of the P2R project, particularly relocation of traffic signals at George Street, Industrial Drive and Mayfield Road intersection. Evidence of the assessment of consistency with P2R project is required as a part of the revised route study.
21. The RJA route study does not include relevant TfNSW projects on the state road network. The route study must be updated to include TfNSW projects that have commenced or have been completed and mitigation measures to navigate any identified pinch points. The Hexham Straight is a notable project impacting Route 2 and the route assessment must be updated to assess the alternative route via Newcastle Inner City Bypass to Newcastle Road, for high-risk OSOM loads that do not exceed the vertical clearance limitations.
A bridge and culvert assessments are to be completed for all bridge and culvert structures along each OSOM Route identified within the RJA route study. The proponent can request a bridge and culvert assessment to be undertaken by TfNSW Freight Operations at spu@transport.nsw.gov.au

Strategic designs

22. Strategic designs must be accompanied by swept paths for the largest vehicle required to access each public and private access with the state road network. Swept paths must demonstrate the largest heavy vehicle can turn concurrently in all turn directions without crossing into the incorrect lane, well within proposed/existing pavement and within existing intersection treatments (where applicable). Intersection upgrades are to be in accordance with *Austrroads* and relevant TfNSW supplements.
23. Strategic designs must identify any acquisition required to facilitate the scope of road upgrades and road works inclusive of pinch points. The Developer is responsible for dedication and acquisition of land, if necessary, to accommodate road infrastructure, including but not limited to footways, structures, stormwater drainage, batters, maintenance access, and utilities, to TfNSW's satisfaction.

Note: The design must comply with TfNSW strategic design requirements for DAs, TfNSW technical directions, supplements, corridor strategies, Austrroads, and any other applicable TfNSW policies/strategies. To assist in preparing the designs, please refer to the link below:

<https://roads-waterways.transport.nsw.gov.au/business-industry/partners-suppliers/documents/planning-principles/strategic-design-fact-sheet-02-2022.pdf>

Rail

24. A heavy vehicle application will need to be made for Level Crossings and Bridges that fall within the Country Regional Network to avoid damage to any rail infrastructure. Upon receipt of the NHVR route planner ID and application number, the UGL heavy vehicle team will complete a review of the route to assess Level Crossings and Bridges on the network for suitability according to OSOM requirements. The heavy vehicle team can be contacted by email at heavyvehicle@uglregionallinx.com.au for any further information or assessment.
25. A further detailed assessment is to be provided to TfNSW at the rail underpass on Sturt Highway at Wagga Wagga before any further consideration of the proposed route. This is required as the clearances of the underpass may impact the viability of the transport route for blade components.