

Transport for NSW

30 October 2023

TfNSW reference: WST21/00253/03 | SF2021/285613

Your reference: SSD-29508870



Energy Assessments
Department of Planning & Environment
Locked Bag 5022
PARRAMATTA NSW 2124

Attention: Nestor Tsambos

SSD-29508870 for Birriwa Solar Farm at Barneys Reef Road and Birriwa Bus Route South, Birriwa. (various land parcels)- response to RTS and Amendment Report

Dear Nestor,

Transport for NSW (TfNSW) is responding to the SSD-29508870 referred 5 of October 2023 in relation to the Birriwa Solar Farm and Battery

TfNSW has reviewed the information and is unable to properly assess possible impacts on the state transport network and its users. Details of **additional required information** are set out in **Attachment 1**.

If you have any questions, please contact, on 1300 019 680 or email development.west@transport.nsw.gov.au.

Yours faithfully,

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

Alexandra Power

Team Leader Development Services (West)-Renewable Resources
Community & Place
Regional and Outer Metropolitan

SSD-29508870 for Birriwa Solar Farm at Barneys Reef Road and Birriwa Bus Route South, Birriwa. (various land parcels) response to Amendment Report and RTSSSD-29508870 for Birriwa Solar Farm at Barneys Reef Road and Birriwa Bus Route South, Birriwa. (various land parcels)- response to RTS and Amendment Report

This attachment relates to TfNSW response dated 30 October 2023 reference WST21/00253/03.

Additional required information | TfNSW comments

As a part of the preparation of this response TfNSW reviewed the following supporting information for the Amendment Report and RTS:

- Birriwa Solar and Battery Project- Traffic Impact Assessment prepared for ACEN by EMM Consulting dated July 2022
- Birriwa Solar and Battery Project Amendment Report- Prepared for ACEN by EMM Consulting dated September 2023.
- Birriwa Solar and Battery Project Submissions Report September 2023
- Appendix D OSOM report January 2023.
- Appendix C Traffic Count data (TfNSW).
- Appendix E Scaled Strategic Design of proposed access road intersection.

TfNSW requires the following additional information to continue the assessment of the traffic, safety and efficiency matters within TfNSW legislative remit:

Amendment Report

1. The Amendment Report and the RTS states that the maximum AM/PM peak volumes of light traffic will be 360 light vehicles (associated with the workforce commuting from Dubbo, Mudgee, Gulgong and Warrumbungle's LGA) as the workforce from other areas of NSW or outside of NSW will now be accommodated within the Workforce Accommodation Camps. However, based on the Amendment Report and RTS there will be an additional workforce required to construct the Temporary Workforce Accommodation (35-30 FTE), it is also unclear based on the sequencing for the construction at what stage the Temporary Workforce Accommodation will be provided to fully accommodate the 360 staff that account for the non-local workforce, as it appears that the accommodation will be provided in stages. Therefore, the TIA is required to provide a conservative assessment of the traffic generation at the peak of construction and accounting for the parallel construction activities, the additional workforce required for the construction and operation of the Temporary Workforce Accommodation and the increased traffic generated from light vehicles between each stage of the accommodation being provided given that construction stages will occur in parallel.

2. The Amendment Report and RTS have not identified if the heavy vehicles and heavy vehicles requiring escort will be increased during the AM/PM peak because of the inclusion of the Temporary Workforce Accommodation and the fact that activities will be overlapping or occurring in parallel. The TIA is required to be revised to provide a breakdown of the additional traffic associated with all vehicle types and assess the cumulative impact associated with the peak of construction because of the inclusion of the Temporary Workforce Accommodation Camp.
3. It is noted within the Amendment Report that there is an option to provide accommodation for other renewable projects and will seek to accommodate a potential 1000 workers at the site. Clarification is required if accommodation facilities will seek to provide accommodation to other renewable project workforces throughout the duration of the Birriwa Solar and BESS construction period. If this will occur, then the cumulative traffic volumes on the common routes will need to form part of the revised TIA. This is particularly pertinent as the previous assessed non-local workforce equated to 360 FTE while the accommodation being provided equates to 500–1000-person capacity.
4. The AM/PM peak hour for the operation of the Temporary Workforce Accommodation will be different to the AM/PM peak hour during construction of the Birriwa Solar and BESS. The TIA is required to be revised to identify what the AM/PM peak hour will be for the operation of the Temporary Workforce Accommodation.
5. The TIA is required to be revised to identify any changes in the travel direction and distribution for all types of vehicles associated with the project because of the inclusion of the Temporary Workforce Accommodation.
6. The TIA is required to be revised to address LOS changes because of the inclusion of the Temporary Workforce Accommodation and include the Central West Orana Transmission Line project traffic volumes within the cumulative traffic generation analysis.
7. The current SIDRA Analysis for the with development scenario is required to be revised based on the inclusion of the Temporary Workforce Accommodations and changes to the peak of construction scenario.

Response to Submissions

8. The supporting traffic counts for the existing TIA and the traffic counts obtained from TfNSW were both obtained during peak of COVID-19 and therefore do not present an accurate reflection of the traffic volumes on the Castlereagh Highway. Further traffic counts are required to be obtained at the Barneys Reef Road/Castlereagh Highway for a minimum of 1 day (preferably 7 days for improved accuracy) and must be collected in accordance with *Austroads Guide to Traffic Management Part 3*. The tube counts will need to be provided as an appendix to the revised TIA.

9. The current SIDRA Analysis and background traffic volumes underpinning the RTS and existing TIA have been based on the inaccurate traffic data collected during COVID-19. The SIDRA Analysis is required to be revised after the traffic counts have been collected and must also include the growth rate for the Castlereagh Highway (1.6%) at the year of peak of construction and the inclusion of any other projects that have identified coinciding construction periods. The SIDRA files must be provided as part of the revised TIA.
10. The strategic design provided for the Barneys Reef Road/Castlereagh Highway intersection reflects a Basic Right Turn and Auxiliary Left Turn treatment which is not representative of the existing turn warrant assessment which identified the requirement for a Channelised Right Turn and an Auxiliary Left Turn treatment. No justification has been provided for the revised scope of the treatments as a part of the RTS.
11. The Strategic Design will be required to be revised based on point 10 for the Barneys Reef Road/Castlereagh Highway intersection with the inclusion of swept path analysis showing concurrent passing in all directions for the identified design vehicle.
12. The TIA relies on a significant uptake of carpooling for the local workforce commuter traffic and shuttle buses for non-local commuter traffic volumes. Clarification is required in relation to any changes to the commitments to carpooling and shuttle buses because of the amendment report and how these commitments will be enforced and achieved for the development (i.e what strategies, incentives and enforcement measures will be in place to ensure compliance with the commitment).
13. It does not appear that any measurements have been provided as a part of the Amendment Report or response to the RTS of the compliance with Safe Intersection Sight Distance for the Barneys Reef Road/Castlereagh Highway intersection. The revised TIA is to include a measurement of the existing SISD at proposed intersection at the Barneys Reef Road/Castlereagh Highway intersection, if SISD is not compliant then measures to achieve compliance will need to be identified as apart of the revised TIA and if required the necessary measures to achieve compliance will need to be included within a strategic design for this intersection.

Note: The existing TIA identifies that a 2.0sec reaction time is suitable for the 100km/hr+10km/hr design speed, TfNSW will not support a 2.0sec reaction time for a 110km/hr an hour design speed. The correct reaction time is 2.5sec which would require 300m of SISD in each direction.

Further to this point, TfNSW adopts a 10km/hr above the posted speed zone as the design speed on rural roads.

14. The OSOM Route Assessment information provided does not include the swept paths for the key pinch points identified within Appendix D OSOM report or the additional road works within a strategic design required to accommodate the OSOM design vehicle. Specifically, the additional widening that may be required at the project access, the Castlereagh Highway/Golden Highway intersection, and the removal of the of the refuge islands at Selwyn Street/George Street/Industrial Drive at Mayfield and at Bettington Street/Vennacher Street in Merriwa.



15. No information has been within the Appendix D OSOM report provided in relation to pull over bays, if pull over bays are accessible for the design vehicle, if there are any vertical clearance issues along the route for the OSOM vehicle or bridge assessments.
16. It is unclear if this is the route for all OSOM vehicles (heavy vehicles requiring escort) or just the specialised vehicles required for the transformer delivery.