Transport for NSW

TfNSW reference: WST25/00018
DPHI reference: SSD-79747209 (PAE-79971211)

26 February 2025

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

Attention: Rita Hatem

SSD-79747209, Garoo Solar Farm and BESS, Garoo; Request for Secretary's Environmental Assessment Requirements (SEARS)

Thank you for referring the abovementioned request for SEARs to Transport for NSW (TfNSW) seeking comments in relation to Garoo Solar Farm and BESS located within the Tamworth Regional Local Government Area (LGA).

TfNSW has reviewed the Scoping Study prepared for Garoo Solar Farm and BESS by ERM International Group Limited dated 30 January 2025 and provides advice in **Attachment A** and **Attachment B** to assist in the preparation of the Environmental Impact Statement (EIS) and supporting documentation for the future lodgement of the application with the Department of Planning, Housing and Infrastructure.

TfNSW recommends a meeting to discuss the SEARs requirements before proceeding to EIS.
If you have any questions or wish to discuss this matter further, please contact Emily Lu, Development Services Case Officer, on 1300 019 680 or email development.renewables@transport.nsw.gov.au

Yours faithfully,

Alexandra Power
Team Lead Development Services – Renewables
Transport Planning
Planning, Integration & Passenger Division

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Attachment A

SSD-79747209, Garoo Solar Farm and BESS, Garoo; Request for Secretary's Environmental Assessment Requirements (SEARS)

Context

- GreenPulse Solar Farm and BESS Unit Trust propose to develop Garoo Solar Farm and BESS (the Project), consisting of a solar farm, battery energy storage system (BESS) and ancillary infrastructure.
- Garoo Solar Farm is proposed to have an installed capacity of 155MW alternating current, and the BESS facility is proposed to have a storage capacity of 360MW/1440MWh.
- The New England Highway is a state classified road that will be affected.
- The construction period is anticipated to be 18 months. The construction workforce during the peak construction period is estimated to consist of 250 full-time equivalent staff.
- The operational lifespan of the project is 30 years, with five full-time equivalent operational staff.
- Proposed access to the site is via an access track from Garoo Road. Two routes have been proposed to access Garoo Road – from Lindsays Gap Road, or from New England Highway. The port of entry has been determined as the Port of Newcastle.
- The Scoping Report indicates that the preferred transport route, along with required upgrades, will be confirmed as part of the EIS following a Transport and Traffic Route Assessment.
- Traffic volumes and vehicle types will also be assessed as part of the EIS.

TfNSW advice for SEARs

The Environmental Impact Statement to be submitted as part of the environmental planning process will need to include the following:

Following review of the *Scoping Report*, TfNSW have identified and recommends the following issues be addressed in the Environmental Assessment:

A Traffic Impact Assessment (TIA) prepared in accordance with the methodology set out in *Guide to Traffic Impact Assessment (GTIA) 2024* and part 12 *Austroads Guide to Traffic Management* including:

1. Hours, days and periods of construction.
2. Schedule for phasing/staging of the project (including pre-construction, accommodation and ancillary infrastructure works) and identifying the traffic volumes for each stage.
3. Traffic volumes:
   a. Surveyed existing background traffic at key intersections per Part 3 *Austroads Guide to Traffic Management* with survey raw data included.
   b. Project-related traffic volumes (measured as vehicle trips per an hour and per a day) for each stage including pre-construction, construction, operation, and decommissioning and identifying peak period(s) for traffic volumes.
4. Traffic volumes are to include a description of:

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a. Ratio of light vehicles to heavy vehicles.
b. Differentiation of Over Size/Over Mass (OSOM) that do or do not require an NHVR permit and proposed times of operation on the State road network.
c. Project related traffic interaction with existing and projected background traffic with annual growth rate applied linearly.
d. Peak times for existing traffic and project related traffic.
e. Transportation hours.

5. The origin, destination and routes for:
   a. Employee and contractor light traffic.
   b. Heavy vehicle traffic.
   c. OSOM vehicle traffic.
   d. OSOM high risk loads.
   e. A description of all non-high risk OSOM vehicles and materials to be transported. The shortest and least trafficked route is to be given priority for movement of materials and machinery to minimise risk and impact to other motorists, so far as is reasonably practicable.
   f. The impact of generated traffic and measures employed to ensure efficiency and safety on the public road network during construction, operation and decommissioning of the project. This includes enforcement to managing traffic volumes, driver behaviour and access paths to site.
   g. A turn warrant assessment for the worst-case scenario (ie peak project traffic volumes applied to peak background traffic) in accordance with Part 6 *Austroads Guide to Traffic Management* is to be undertaken at identified key intersections on project routes, project site access and site access points to access ancillary infrastructure.
   h. TIA is to detail improvements to the road network, such as road widening and intersection treatments, to cater for and to mitigate the impact of project-related traffic (including accommodation and ancillary infrastructure components) at key intersections with State roads. Proposed road facilities, access and intersection treatments are to be identified and conform with *Austroads Guide to Road Design* and TfNSW Supplements, including safe intersection sight distance. Strategic designs are to include swept path analysis for largest vehicle passing through the intersection(s). To assist the proponent in preparing strategic designs, the below link is provided: Strategic-Design-requirements-for-DA-Factsheet.pdf (nsw.gov.au)

   Note: Swept paths for OSOM vehicles on, entering and existing the State road network are to be on sealed road pavement.

   Note: It is the proponent's responsibility to acquire and dedicate land required to accommodate road infrastructure including, but not limited to, footways, structures, stormwater drainage, batters, maintenance access and utilities.

6. Traffic safety assessment:
   a. Local climate conditions that may affect road safety for vehicles used during construction, operation and decommissioning of the project (eg fog, wet weather, etc).
   b. A review of crash data along the identified transport route/s for the most recent 5-year reporting period and an assessment of road safety along the proposed transport route(s).
   c. Measures to be employed to ensure a high level of road safety for daily staff commutes

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between accommodation and construction site(s), specifically addressing impacts of unsafe driver behaviour and driver fatigue for all project stages and how measures employed will be enforced.

7. Details of emergency access/egress, including details of:
   a. The location of the emergency access(es).
   b. How the access will be managed (e.g., gates) to prevent non-emergency-related vehicle movements from using it.
   c. Sufficient storage at the throat of the access to allow emergency vehicle(s) to store within the access and not within the through lane or road shoulder.

Electricity transmission lines (where applicable)

8. In relation to the EIS, TfNSW requires the identification of ancillary infrastructure, such as Electricity Transmission Lines that are crossing or near the state-classified road network or rail infrastructure within TfNSW remit. With respect to this matter the following information is required:
   a. The heights or depths (under boring) and the vertical and horizontal clearances (overhead) in accordance with Austroads.
   b. The method for construction of the transmission lines.
   c. location of infrastructure and impacts (excavation or fill) relative to the road reserve, including demarcation of local and state-classified road reserves.
   d. Access required to construct and maintain the infrastructure. Access points or access tracks required for ETLs or other infrastructure will require the same level of assessment as the primary project access point.
   e. Strategic concept designs must be provided for each transmission line crossing the state-classified road network.

Workforce Accommodation Camp (where applicable)

9. If workforce accommodation or pre-construction minor works are proposed, then the TIA must include within the traffic assessment the construction schedule, identifying any overlapping activities, staging of the workforce accommodation and assessing the traffic impacts of the pre-construction minor works and workforce accommodation camp, if they are occurring prior to commencing construction works. The traffic assessment requirements identified in points 1-7 will apply to the workforce accommodation and pre-construction minor works stages and the impacts of each stage of pre-construction minor works, staging of workforce accommodation and any overlapping construction activities must be assessed. It will be imperative to also detail at a high level the traffic mitigation measures intended for these stages that are anticipated to commence prior to any road upgrades being completed at the intersection with the state road.

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Attachment B

Concept Level Route Analysis required for High Risk OSOM

1. The route assessment is required for high risk OSOM (as defined on TfNSW website) delivering components to the project. The concept level route analysis must include:
   a. Port or point of origin for the entire route to the site access and intersections required to facilitate high-risk OSOM movements for the project.
   b. Timeframes for the commencement and completion of the deliveries of the high-risk OSOM movements within the construction schedule.
   c. Overall combination type, configuration, load and vehicle configuration.
   d. The laden dimensions, widths, lengths, heights, and weight of the vehicle configuration and loads for each high-risk OSOM vehicle required for the project.
   e. The TIA must include details of all high-risk OSOM loads and vehicle configurations for the project.
   f. Swept path analysis for the largest high-risk OSOM vehicles demonstrating that the largest high-risk OSOM vehicle can physically enter, exit and park without impacting travel lanes and that sufficient parking and access will be provided to other vehicle types permitted to access the identified rest area or pullover locations.
   g. Bridge Assessments for any at-risk bridges on classified roads due to dimensions and weight of OSOM vehicles.
   h. The design vehicle templates used in the swept path analysis software are also requested so that TfNSW can review the software's performance (e.g., Autodesk Vehicle Tracking or Transoft AutoTURN).
   i. Highlighting each at-risk road structure that the haulage route crosses, including bridges, transmission lines, medians, roundabouts, vegetation, traffic signals, signage, major culverts, and minor culverts that may not meet the desirable cover to cater for proposed axle loads.
   j. Traffic mitigation measures or road works, modifications, or road upgrades to facilitate the movement of the high-risk OSOM(s) associated with the project.
   k. Where the EnergyCo P2R road upgrades are relied on to facilitate the project's high-risk OSOM movements, the pavement extents, scope of work, and bridge assessments for the P2R project are to be reviewed and assessed in relation to the project's proposed high-risk OSOM vehicle configuration and loads. Evidence of the consistency check with the EnergyCo P2R project is to form part of the high-risk route assessment. If any further upgrades are identified to facilitate the OSOM movements, strategic designs of the upgrades will be required.
   l. Swept paths are required for all pinch points along the State Road network identified in the route assessment.
   m. Strategic concept designs all pinch points on the State road network that require modifications

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and road upgrades (including median, lighting, signage, powerline relocation, traffic control signals, and widening).

n. Potential high level mitigation measures or commitments to mitigate known traffic, safety and impacts to road users along the high risk OSOM route (i.e school bus routes, mining shift changes, TSRs, harvest periods and events).

o. The Hexham Straight is a notable project impacting Route 2. The route assessment must 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.

p. Identify and assess the implications of any road and rail projects under construction during the indicative schedule for project-related OSOM movements.

q. The identified route within the scoping report nominates a route through the town centre of Muswellbrook. TfNSW highlights on the approach to the Muswellbrook town centre on the New England Highway there is a rail overpass with a height clearance of 5.2m, width constraints and changing levels in the road geometry. This rail overpass will need to be assessed within the route analysis, as it is a known pinch point on the approach to Muswellbrook town centre.

Note: NHVR permits do not cover road works, upgrades, or environmental approvals required along any proposed OSOM route. Any road or upgrade works required along the OSOM route must be included within the scope of work in the SSD to ensure the development is constructible.

Note: Given the high amount of renewable energy and other large-scale projects requiring road haulage of OSOM components, restrictions and limitations on OSOM movements may be imposed. In this regard, it is recommended you engage earlier with TfNSW's Development Services Renewables team to discuss the requirements of the route assessment.

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