TfNSW reference: WST24/00300/001, SF2024/145752
DPHI reference: SSD-74177718

16 August 2024

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

Attention: Pragya Mathema

SSD-74177718, Derringullen Battery Energy Storage System SEARs Request, Yass Valley Way, Yass Valley Council

Thank you for referring the abovementioned request for SEARs to Transport for NSW (TfNSW) seeking comments in relation to the proposed Derringullen Battery Energy Storage System located within the Yass Valley LGA.

TNSW has reviewed the Scoping Study prepared by Bid Energy Partners Pty Ltd dated July 2024 and provides advice in **Attachment A** and **Attachment B** to assist in the preparation of the EIS and supporting documentation for the future lodgement of the application with the Department of Planning, Housing and Infrastructure.

If you have any questions or wish to discuss this matter further, please contact Alexandra Power on 1300 019 680 or email development.renewables@transport.nsw.gov.au

Yours faithfully,

Alexandra Power
Team Leader Development Services Renewables
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Attachment A

SSD 74177718, Derringullen Battery Energy Storage System SEARs Request, Yass Valley Way, Yass Valley Council

Context

- A construction workforce of up to 100 persons is anticipated,
- Construction is proposed to begin in 2026 and continue for a duration of 19 months,
- Access is proposed from regional road Yass Valley Way,
- Yass Valley Way is proposed to be accessed via State road Hume Highway (M31),
- OSOM movements are required. Routes from both Port Kembla and Port of Newcastle are proposed. Further detail is required.

TfNSW advice

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 section 2 of the *RTA Guide to Traffic Generating Developments 2002* and part 12 of *Austroads Guide to Traffic Management* including:
  - Hours, days and periods of construction.
  - Schedule for phasing/staging of the project (including pre-construction, accommodation and ancillary infrastructure works) and identifying the traffic volumes for each stage.
  - Traffic volumes:
    - Surveyed existing background traffic at key intersections. Traffic surveys are to be in accordance with Part 3 *Austroads Guide to Traffic Management* with survey raw data included in the TIA.
    - 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 the peak period for traffic volumes.
  - Traffic volumes are to also include a description of:
    - Ratio of light vehicles to heavy vehicles.
    - Differentiation of Over Size/Over Mass (OSOM) that do or do not require an NHVR permit proposed times of operation on the State road network.
    - Project related traffic interaction with existing and projected background traffic with annual growth rate applied linearly.
    - Peak times for existing traffic.
    - Peak times for project-related traffic.

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    - Transportation hours.
  - The origin, destination and routes for:
    - Employee and contractor light traffic.
    - Heavy vehicle traffic.
    - OSOM vehicle traffic.
    - OSOM high risk loads as identified on TfNSW's website (link below) https://www.transport.nsw.gov.au/system/files/media/documents/2022/transport-management- plan-fact-sheet.pdf

Note: Transport routes are to be identified and a risk assessment undertaken identifying hazards and proposed risk mitigation measures to be employed. Examples of hazards include (but not limited to) rail level crossings, low clearance structures over roads and areas identified as having a crash history.

Note: A high risk OSOM loads route analysis is required as part of the TIA. For further information on undertaking a concept route analysis for these movements please refer to ***Attachment B****.*

- 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.
- 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.
- A turn warrant assessment for the worst-case scenario (ie peak project traffic volumes applied to the identified background traffic at the construction and background peak hour) in accordance with Part 6 of *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.
- The 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 road network. 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 a swept path analysis using the largest vehicle passing through the intersection(s). To assist the proponent in preparing strategic designs, the below link is provided:

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

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.

- Local climate conditions that may affect road safety for vehicles used during construction, operation and decommissioning of the project (eg fog, wet weather, etc)
- Measures to be employed to ensure a high level of road safety for daily staff commutes between accommodation and the construction site, specifically addressing the impacts of unsafe driver behaviour and driver fatigue for all stages of the project and how measures employed will be

enforced.

- Details of emergency access/egress, including details of:
  - How the access will be managed (i.e gates) to prevent the use of the access by non-emergency related vehicle movements.
  - Identify emergency design vehicle and suitability of the access to accommodate.

Provision of 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 shoulder.

Workforce Accommodation Camp (where applicable)

- If workforce accommodation is proposed, then the TIA is required to assess the worst-case scenario based on the inclusion of the workforce accommodation camp, with respect to:
  - The construction schedule, staging, traffic generation until the point of when the workforce would be fully accommodated at the camp.
  - The traffic volumes during construction and if any parallel construction or pre-construction would be occurring in parallel.
  - Identify the traffic generation of all construction traffic post full occupation of the workforce accommodation camp.
  - Identify the traffic volumes associated with any pre-construction and construction works occurring in parallel to the construction and full occupation of the workforce accommodation camp.
  - Assess for the full and partial (where staged) the traffic volumes, vehicle types, changes to routes, turning directions/distributions, changes to the AM/PM project peaks for the operation of the workforce accommodation camp.
  - Identify any emergency accesses or other accesses to the state classified road required for the workforce accommodation camp.
- 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.

Strategic concept designs

- Identify the necessary road upgrades and scope to achieve compliance with Austroads and TfNSW requirements to mitigate the traffic, safety, efficiency and impacts to TfNSW assets on the state classified road network associated with the project. Any identified road infrastructure upgrades will need to be to the satisfaction of TfNSW and Council. Works must be appropriately designed in accordance with *Austroads Guide to Road Design.*
- Strategic concept designs will need to be accompanied by swept paths for the largest vehicle required to access the access point or intersection. The swept paths must demonstrate that the largest vehicle can turn concurrently in all turn directions without crossing into the incorrect lane, tracking off the proposed/existing pavement and within the existing intersection treatments (where applicable). Swept paths will be required for the high risk OSOM to demonstrate that the high risk OSOM can be delivered within the existing or proposed pavement and if further pavement widening is required to accommodate these movements.
- The strategic concept designs must identify any acquisition required to facilitate the scope of the road upgrades and road works. The Developer will be responsible for the dedication and acquisition of land if required to accommodate the road infrastructure including, but not limited to, footways, structures, stormwater drainage, batters, maintenance access and utilities, to the satisfaction of TfNSW.

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

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

Electricity transmission lines (where applicable)

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. In respect to this matter the following information is required:

- The heights or depths (under boring) and the vertical and horizontal clearances (overhead) in accordance with Austroads.
- The method for construction of the transmission lines.
- location of infrastructure relative to the road reserve, including demarcation of local and state classified road reserves.
- If excavation or fill is required adjacent to the road corridor.
- Access required to construct and maintain the infrastructure.
- Strategic concept designs for each transmission line crossing the state classified road network must be provided.
- Access points or access tracks required for ETLs or other infrastructure will require the same level of assessment as the primary project access and will need to address the matters outlined within this letter.

Attachment B

Concept Level Route Analysis required for High Risk OSOM

- The route assessment is required for high risk OSOM (as defined on TfNSW website) required to deliver components to the project. The concept level route analysis must include:
  - The port or point of origin and must be for the entire route to the site access or intersections required to facilitate the high risk OSOM movements required for the project.
  - The TIA is required to include details of all high risk OSOM loads and vehicle configurations for the project.
  - The location of pull-over bays / rest areas along the high risk OSOM routes (including GPS coordinates) and demonstrate through swept paths that the high risk OSOMs can be physically accommodate all high risk OSOMs for the project (in terms of size, width and accessibility).

  Expanding on the points above, the concept route assessment is required to include:
  - Details of the road geometry and alignment along the identified transport route/s, including existing formations, crossings, bridges, intersection treatments and any identified hazards, including:
    - Bridge Assessments for any at risk bridges on the classified road network due to dimensions and weight of OSOM vehicles.
    - Swept path analysis demonstrating the largest design vehicle can enter and leave the development, and simultaneously pass through intersections along the proposed transport route/s.
    - The design vehicle templates used in the swept path analysis software are also requested in order for TfNSW to review the performance within the software (e.g. Autodesk Vehicle Tracking or Transoft AutoTURN).
    - Highlighting each at-risk road structures that the haulage route crosses including bridges, traffic signals, signage, major culverts, and minor culverts that may not meet the desirable cover to cater for proposed axle loads.
  - Identify and provide the following measurements parameters of OSOM components / materials to be moved:
    - Identify types and numbers of high risk OSOM vehicles proposed to be used for the project.
    - Overall combination type, configuration, load and vehicle configuration:
    - Wheelbase dimensions.
    - length, width, height and mass (gcm, tare, weight to axle and payload) for components and nominated vehicles.
    - Maximum trailer articulation angle(s).
    - Minimum overhang heights above the road surface.
    - Vehicle configurations.
    - Traffic mitigation measures or road works, modifications, or road upgrades to facilitate the movement of the high risk OSOM(s) associated with the project.
    - 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).
  - Identify and assess implications of any road and rail projects that may be under construction during the indicative schedule for the OSOM movements.

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

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