TfNSW reference: WST24/00253, SF103383
DPHI reference: SSD-72430958

4 July 2024

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

Attention: Pragya Mathema

SSD 72430958, Finley Battery Energy Storage System (BESS), SEARs Request, Lot 3 DP740920, Riverina Highway, Berrigan Shire

Thank you for referring the abovementioned request for SEARs to Transport for NSW (TfNSW) seeking comments in relation to the proposed Finley BESS located within the Berrigan Shire LGA.

TNSW has reviewed the Scoping Study prepared for Finley BESS by SLR Consulting dated 18 June 2024 and provides advice in **Attachment A** 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 Glen Hanchard on 1300 019 680 or email development.renewables@transport.nsw.gov.au

Yours faithfully,

Alexandra Power
Team Leader Development Services Renewables
Community and Place
Region West Regional & Outer Metropolitan Division

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Attachment A

SSD 72430958, Finley Battery Energy Storage System (BESS), SEARs Request, Lot 3 DP740920, Riverina Highway, Berrigan Shire

Context

- The application is for the Finley Battery Energy Stoage System with a capacity of 100 Megawatts including construction of transmission lines, transformer and auxillary structures.
- Access will be provided at two locations on local road Broockmanns Road,
- Haulage routes for heavy vehicles proposes a preliminary route from Melbourne,
- The affected state classified road is the Riverina Highway,
- The application provides that OSOM will not be required. Clarification has been requested,
- During construction, 50 full time jobs will be required,
- Workforce is proposed to be sourced from the local area and wider region,
- Construction is proposed to commence in 2026.

TfNSW advice

The Environmental Impact Study to be submitted as part of the environmental planning process will need to include a Traffic Impact Assessment (TIA) prepared per 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 identify the traffic volumes for each stage.
- Traffic volumes:
    - Surveyed existing background traffic at key intersections with State road network. Traffic surveys are required for each intersection with the State road networks and are to be in accordance with Part 3 *Austroads Guide to Traffic Management* with raw data included in the TIA.
    - Project-related traffic volumes (measured as vehicle trips per hour and per day) for each stage, including pre-construction, construction, operation and decommissioning and identifying the peak period for traffic volumes.
    - Traffic volumes are to include a description of:
        - Ratio of light vehicles to heavy vehicles (including OSOM that do not require an NHVR permit).
        - Peak times for existing traffic.
        - Peak times for project-related traffic.
        - Transportation hours.
        - Project-related traffic interaction with existing and projected background traffic with annual growth applied linearly to peak of construction.

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- The origin, destination and routes for:
  - Employee and contractor light traffic.
  - Heavy vehicle traffic.
  - OSOM vehicle traffic (inclusive of high-risk).

  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 heavy vehicles (including non-high-risk OSOM vehicles) and materials to be transported.
- The impact of generated traffic and measures employed to ensure efficiency and safety on the public road network during the project's construction, operation and decommissioning. This includes enforcement to manage traffic volumes, driver behaviour, and access paths to the 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 required to detail improvements to the road network, such as road widening and intersection treatments, to cater for and mitigate the impact of project-related traffic (including accommodation and ancillary infrastructure components) at key intersections with the State road network. Strategic designs must be accompanied by safe intersection sight distance and swept path analysis using the largest heavy vehicle and high-risk OSOM 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: Road facilities, access and intersection treatments are to be identified and conform with Austroads Guide to Road Design and TfNSW Supplements

Note: Swept paths for OSOM vehicles entering and exiting 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 project stages and how measures employed will be enforced.
- Details of emergency access/egress, including details of:
  - How will access be managed (i.e., gates) to prevent the use of 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.

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, including demonstrating intermittent closures of State roads for the works will not exceed ten (10) minute delays, with stoppages not exceeding 5 minutes for no more than 6 times per a day and must occur outside of peak hour.
- 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 point and will need to address the matters outlined within this letter for this type of access with the state classified road. Strategic designs and swept path analysis will be required for these types of accesses.

Workforce Accommodation Camp (if 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, for:
  - The construction schedule, staging, traffic generation until the workforce would be fully accommodated at the camp.
  - The traffic volumes during construction and if any parallel or pre-construction would occur 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 parallel to the workforce accommodation camp's construction and full occupation.
  - Assess for the full and partial (where staged) traffic volumes, vehicle types, changes to routes, turning directions/distributions, and changes to the AM/PM project peaks for the operation of the workforce accommodation camp.
  - Identify any emergency access or other accesses to the State road network 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.

Concept Level Route Analysis 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:
  - length, width, height and mass (gcm, tare, weight to axle and payload) for components and nominated vehicles.
  - Wheelbase dimensions.
  - 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 imposed. In this regard, it is recommended that you engage earlier with TfNSW's Development Services Renewables team to discuss the route assessment requirements.