Transport for NSW

TfNSW reference: WST24/00053/001| SF2024/037106 |
DPHI reference: SSD-67667971

29 February 2024

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

Attention: Ellena Tsanidis

SSD-67667971: Request for Secretary's Environmental Assessment Requirements (SEARs) Aquila Wind Farm and BESS; Various lots off Bundendong Way, Euchareena within the Dubbo Regional Local Government Area;

Thank you for referring the abovementioned request for SEARS via the NSW Major Projects Planning Portal to Transport for NSW (TfNSW) seeking comments in relation to the proposed Aquila Wind Farm and Battery Energy Storage System (BESS).

TfNSW has reviewed the information prepared for ACEN Australia by Umwelt (Australia) Pty Limited and provides advice in **Attachment A** to assist you in the preparation of documentation in support of the proposal for future submission to the Department of Planning, Housing and Infrastructure.

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

Yours faithfully,

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

Attachment A

SSD-67667971: Request for Secretary's Environmental Assessment Requirements (SEARs) Aquila Wind Farm and BESS; Various lots off Bundendong Way, Euchareena within the Dubbo Regional Local Government Area;

Context

- The project proposes construction, operation and decommissioning of a 300-megawatt Wind Farm including a battery Energy Storage System.
- The project is proposed to be constructed and operated across Various lots off Burrendong Way, Euchareena, NSW. Access to the site is likely to occur from the local road, Burrendong Way. Departure from the classified road network is to occur from the Mitchell Highway near Wellington from the north or Northern Distributor Road near Orange from the south.

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) to address the impact of traffic generation on the public road network and measures employed to ensure traffic efficiency and road safety during construction, operation and decommissioning of the project.

The TIA is to be tailored to the scope of the proposed development and include, but not be limited to, the following:

- Traffic volumes including:
  - Existing background traffic,
  - Project-related traffic for each phase or stage of the project,
  - Projected cumulative traffic at commencement of operation, and a 10-year horizon post-commencement.
- Traffic characteristics including:
  - Number and ratio of heavy vehicles to light vehicles,
  - Peak times for existing traffic,
  - Peak times for project-related traffic including commuter periods,
  - Proposed hours for transportation and haulage,
  - Interactions between existing and project-related traffic.
- Capacity analysis using *Austroads Guide to Road Design* at intersections with classified (State) road/s, and where relevant, analysis of any other intersections along the proposed transport route/s.
- Cumulative impacts:
  - Identify and assess implications of any road and rail projects that may occur during OSOM movements on proposed OSOM routes.
  - Identify projects that will have overlapping construction periods and assess the cumulative traffic impacts with emphasis on the following:

  - Cumulative impacts from traffic generated from construction workforces in terms of origin-destination routes, access, AM/PM peaks where they overlap with other projects.
  - Cumulative impacts of heavy vehicle movements in terms of AM/PM peaks and routes where there is an overlap with other projects.
  - Cumulative impacts and consideration in relation to timing of movements of OSOMs where other projects will utilise the same routes as proposed for this development. Please 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 Freight Branch – Special Permits team to discuss access needs and timing.

- Identify accommodation (and transport) needs and facilities available within the local region, to service the project staff, in addition to understanding the cumulative impacts of concurrent accommodation (and transport) needs of staff from other projects. Details of measures employed to promote and enforce safe commuter traffic movements are to be included.
- Road safety assessment of haulage route/s.
  - Where road safety concerns are identified at specific locations on haulage routes, TfNSW suggests the TIA be supported by a targeted Road Safety Audit undertaken by suitably qualified persons in accordance with *Austroads Guidelines*.
- 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 considering the safe systems principles adopted under *Future Transport 2056.*
- Project schedule:
  - Hours and days of work, number of shifts and start and end times,
  - Identify the approximate project's targeted construction commencement date/s.
  - Identify the phases and stages of the project, including construction, operation and decommissioning.
- The origins, destinations and routes for:
  - Commuter (employee and contractor) light vehicles and pool vehicles (including. shuttle buses),
  - Heavy (haulage) vehicles,
  - OSOM vehicles.
- Identify the necessary road network infrastructure upgrades that are required to cater for and mitigate the impact of project related traffic on both the local and classified road network for the development (for instance, road widening and/or intersection treatments).

  In this regard, strategic design drawing/s are to be submitted with the SSD application for any identified road infrastructure and access upgrades. 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* for the existing posted speed limit, including provision of Safe Intersection Sight Distance (SISD).

Note: The design needs to comply with *TfNSW Strategic design requirements for DAs*. 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

- The layout of the internal road network, parking facilities and infrastructure.
- Impact on rail corridors and level crossings along transport route/s detailing any proposed interface treatments, where applicable.
- Controls for transport and use of any dangerous goods in accordance with *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development*, the *Australian Dangerous Goods Code* and *AS4452 Storage and Handling of Toxic Substances*.
- Detailed plans identifying the proposed location of any:
  - Project-related infrastructure within and outside of the project boundary.
  - Transmission line infrastructure, or any other project-related structures, within a road reserve. In respect to this matter the following information is required:
    - Overhead clearances,
    - Construction methods,
    - Potential traffic mitigation measures for construction,
    - Location of infrastructure within or adjacent to the road reserve,
    - Excavation or fill requirements adjacent or within road corridors,
    - Access required to construct and maintain the infrastructure, and
    - Permanent or temporary connection/access to classified roads.

Concept Level Route Analysis

- Heavy vehicle and OSOM routes:
  - In addition to the requested TIA, separate concept-level route analysis based on high-level 3D swept path drawings to identify the return routes for OSOM movements and indicate locations where civil works are needed and indicative pinch points.
  - The TIA is required to include details of OSOM movements, including volumes, times for OSOM movements to occur and identify the location of pull-over bays / rest areas on OSOM routes (including GPS coordinates) and confirmation such facilities can physically accommodate (in terms of size, width and accessibility) the largest OSOM vehicle.
  - Undertake a logistics route analysis that includes:
    - 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:
      - Available sight distances at the site access and nearby intersections and any constraint to achieving the required sight distance for the posted speed limit.
      - An assessment of turn treatment warrants in accordance with *Austroads Guide to Traffic Management* Part 6 and *Austroads Guide to Road Design* Part 4A for intersections on identified transport route/s, identifying the existence of the minimum basic turn treatments and addressing the need for any warranted higher order treatments.
      - 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.
- National Heavy Vehicle Regulator (NHVR) approved routes identified on the Restricted Access Maps (RAV MAP) are to be utilised for the heavy vehicle routes for the proposed development. Please note NHVR permits do not cover civil works required along any proposed OSOM route. Any works required along the OSOM route must be included within the scope of works in the SSD to ensure the development is constructable.

– Identify and provide the following measurements parameters of OSOM components / materials to be moved:
  - Identify types and numbers of OSOM vehicles proposed to be used for the project.
  - Overall combination load length, width, height and mass for components and nominated vehicles.
  - Maximum component length, widths and heights (including clearance to overhead obstructions such as structures, utilities and vegetation),
  - Wheelbase dimensions,
  - Maximum trailer articulation angle(s),
  - Minimum overhang heights above the road surface,
  - Axle loads and axle group loads in terms of both tonnes and Equivalent Standard Axles (refer to *Austroads Guide to Pavement Technology*).