

WST23/00008/01 | SF2023/015860

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

Attention: Julia Green

SSD-53293710: Request for Secretary's Environmental Assessment Requirements (SEARs) for Mallee Wind Farm in Wentworth Shire Council LGA

31 January 2023

Dear Julia,

Thank you for referring the abovementioned request for SEARs via the NSW Major Projects Planning Portal on 17th January 2023 inviting comment from Transport for NSW (TfNSW).

TfNSW has reviewed the Scoping Report, prepared by Umwelt (Australia) Pty Limited, dated 30 November 2022 prepared for the prospective Mallee Wind Farm development comprising:

- Construction, operation and decommissioning of up to 150 Wind Turbine Generators (WTG), up to maximum tip height of 280m (maximum blade length not identified), producing a supply capacity around 1000 MW.
- Construction of a Battery Energy Storage System (BESS) of up to approximately 300 MW / 1200 MWh,
- Five (5) potential Oversize-Overmass (OSOM) route options from ports in NSW, VIC and SA (requiring further investigation).
- The proposal also includes ancillary infrastructure and temporary facilities associated with construction including:
 - Electrical infrastructure including main and collector substations, switching and other related electrical facilities,
 - Overhead and underground electrical cabling,
 - Internal access tracks, (2) site access points off of Arumpo Road and Hardstands
 - A construction site compound, with office buildings, work areas and storage facilities as well as concrete batching plants, rock crushing facilities and an operations and maintenance facility.
 - Temporary and permanent meteorological masts,
 - Temporary accommodation camp – options being investigated, including the potential re-use of the EnergyConnect accommodation camp (details not provided).

TfNSW key interests are the safety and efficiency of the transport network, the needs of our customers and the integration of land use and transport in accordance with the *Future Transport Strategy 2056*.

To ensure that TfNSW's key interests are addressed, TfNSW requests that any future application be submitted with an Environmental Impact Assessment (EIA) containing a Traffic Impact Assessment (TIA), prepared by a suitably qualified person/s in accordance with the *Austroads Guide to Traffic Management Part 12*, Australian Standards and any complementary TfNSW Supplements, and *Roads and Maritime Guide to Traffic Generating Developments*. The TIA should contain information listed in Attachment A: Traffic Impact Assessment (TIA).

In addition to the requested TIA, due to the significant scope of the transport logistics for OSOM transit, a concept-level route analysis is required to be provided with the SSD application based on high-level 3D swept path analysis to generally indicate locations where civil works are likely to be required. The route analysis is to include at a

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minimum the following:

- Identify the OSOM route(s) within a route survey that highlights any key pinch points along all identified route/s vertically, horizontally and laterally and assessing the load limits. A pinch point assessment for all routes is required and must identify the measures to mitigate the risks, including any potential civil works required to safely accommodate the OSOM vehicles. This is to further include any section of the route/s (from Port to site) inclusive of interstate ports.
- The logistics assessment is to highlight each at-risk road structure that the haulage route crosses including bridge assessments (identify vertical, horizontal, lateral and load limits), traffic signals, signage, major culverts, electricity poles, hardstand and minor culverts that may not meet the desirable cover to cater for proposed axle loads.
- Emergency and pull-over bay locations for the OSOM vehicles or identification of any long haulage segments of the route where overtaking cannot be achieved.
- Identify (if known) proposed OSOM movements within the construction period, if night travel is proposed and measures to mitigate night travel and cumulative impacts associated with moving of the OSOMs from port to place with any other OSOMs expected to move at a coinciding time with the Mallee Wind Farm and along the same route.
- Identify any projects whether public or private that could have implications for moving OSOMs along the nominated routes.
- The design vehicle templates used with 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).
- Provide the following measurements parameters of the OSOM components / materials to be moved:
 - Identify all the types of OSOM vehicles proposed to be used for the project.
 - Overall combination length, width, height and mass
 - Maximum component length (e.g. blade length, blade overhang length, etc.), widths (e.g. turbine tower, battery component, pipes, etc.) and load heights (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).
- It is advised that GPS coordinates should be provided for the OSOM routes.

TfNSW encourages early discussions with proponents regarding the traffic and network matters associated with State Significant Development. If you wish to discuss this matter further, please contact the undersigned on ph. 0401 668 223

Yours faithfully,



Alexandra Power

Team Leader Development Services (Renewable Resources)

West Region | Community and Place

Regional and Outer Metropolitan

Attachment A: Traffic Impact Assessment (TIA)

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

- 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. Include demarcation of local and classified road reserves.
 - If the access point for the transmission line work is via a classified road the TIA will be required to include an assessment of the proposed traffic generation lights, heavy, OSOM at the AM/PM peaks for this component of the project, identify the design vehicle, provide the distribution splits for the vehicle types, provide an assessment of the turn warrants as per *Figure 3.25 of Austroads Guide to Traffic Management Part 6*.
 - Permanent or temporary connection/access to classified roads.
 - The Scoping Report identifies that ancillary infrastructure and temporary facilities are to be provided on-site including (but not limited to) concrete batching facilities & provision for an accommodation camp. The TIA should identify:
 - Concrete batching facility - The source for input materials and quantify the traffic generation associated with the haulage of the source materials. Where the location of source materials is not yet known, worst case scenarios for traffic distribution of those materials to and from the development site are to be addressed.
 - Accommodation camp option - Details of any proposed camp, including but not limited to location of the camp, the maximum accommodation capacity, the work schedules relevant to staff turn over at the camp, the transport options available (Light Vehicles, Shuttle Buses, carpooling etc) and traffic generation volumes of workers arriving / departing the camp, transport route/s between project and camp sites, any staff pick up locations external to the project & camp sites, peak shift change details, any services required to support the accommodation camp and what traffic will those support services will generate.
- Transport Routes – all vehicles:
 - Identify the return routes for Light Vehicles, Heavy Vehicles & OSOM movements.
 - Details of the road geometry and alignment along the identified transport route/s (for all vehicle types), including existing formations, crossings, intersection treatments and any identified hazards. This should further include;
 - Safe Intersection Sight Distance 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 the *Austroads Guide to Traffic Management Part 6* and *Austroads Guide to Road Design Part 4A* for intersections along the identified transport route/s, identifying the existence of the minimum basic turn treatments and addressing the need for any warranted higher order treatments.
 - Swept path analysis demonstrating the largest design vehicle entering and leaving the development, and moving in each direction through key intersections along the proposed transport route/s.

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- Transport Routes - Heavy Vehicle and OSOM:
 - 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.
 - Identify all OSOM permit / approval requirements by all relevant NSW and interstate agencies, along the identified OSOM route/s.
 - Detail the number of OSOM movements, the intended time for OSOM movements to occur, strategies to manage the movements and identify the location of pull-over bays / rest areas along the OSOM routes.
- Cumulative impacts:
 - Identify and assess the implications of any road and rail projects that will potentially be occurring simultaneously with the scheduling of the OSOM movements along the proposed OSOM routes.
 - Identify and assess the any large scale or traffic generating projects within close proximity to the subject Project Area, transport route/s and site accesses.
 - Identify and projects that will have overlapping construction periods and assess the cumulative traffic impacts with emphasis on the following:
 - A map demonstrating the locations of all proposed and existing large-scale projects (both renewables and non-renewables) within proximity and along the transport route/s of the proposed wind farm.
 - The cumulative impacts from traffic generated from the construction workforces in terms of the origin-destination routes, access, AM/PM peaks where there is overlap with other projects.
 - The 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 the timing of movements of OSOMs where other projects will be utilising the same routes as proposed for this development.
 - Further address, the proposed mineral sands mine referred to in the Scoping Report as being located within the subject Project Area and across adjacent properties. Information about this proposed development remains unclear at this time, and further details are required, in particular, but not limited to, the exact location (in relation proposed wind farm), the scale of the proposed development, the worst-case scenario traffic volumes (addressing both concurrent construction and operational activities), the site access points, and any other potential cumulative impacts.
 - Further consideration should be given to identifying and analysing the cumulative impacts of concurrent accommodation (and transport) requirements of the project's workforce and workers from other projects (both renewables and non-renewables).
- 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.
 - Phases and stages of the project, including construction, operation and decommissioning.
- 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,

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- Interactions between existing and project-related traffic.
- 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 and access upgrades 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, hardstand areas, pullover bays, site access upgrades, intersection treatments etc).

In this regard, a strategic design drawing/s should be submitted with the SSD application for any identified road infrastructure and access upgrades at the project area entrance or to facilitate the OSOM movements. It should be noted that any identified road infrastructure upgrades will need to be to the satisfaction of TfNSW and Council. Works must be appropriately designed in accordance with *Austrroads 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 the link: <https://roads-waterways.transport.nsw.gov.au/business-industry/partners-suppliers/documents/planningprinciples/strategic-design-fact-sheet-02-2022.pdf>

- Road safety assessment of key haulage route/s:
 - Where road safety concerns are identified at a specific location along the proposed haulage routes, TfNSW suggests that the TIA be supported by a targeted Road Safety Audit undertaken by suitably qualified persons in accordance with the *Austrroads 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*.
- Consideration of the local climate conditions that may affect road safety during the life of the project (e.g. fog, wet and dry weather, icy road conditions).
- The layout of the internal road network, parking facilities and infrastructure.
- Impact on rail corridors and level crossings along the transport route/s detailing any proposed interface treatments, where applicable.
- Impact on public transport (public and school bus routes) and consideration for alternative transport modes such as carpooling and shuttle buses during construction.
- Identification and assessment of potential environmental impacts of the project, such as blasting, lighting, visual, noise, dust and drainage on the function and integrity of all affected public roads.
- 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*.
- A draft Traffic Management Plan (TMP) that could be implemented following approval of the EIS, in consultation with relevant Councils and TfNSW. The TMP is to address the construction, operation and decommission phases of the proposed development and be prepared and implemented in accordance with *Australian Standard 1742.3* and the *Work Health and Safety Regulation 2017*.

The TMP would need to identify strategies to manage the impacts of project related traffic, including any community consultation measures for peak haulage periods | OSOM movements. The developer should consider the need to consult widely (i.e. outside the development's local government area), as the cumulative impacts of OSOM haulage, particularly blades, are acutely felt by the local communities in the townships along

the route. Identification of the relevant townships likely to be affected and any consultation undertaken with those communities should be included in the TMP.

The TMP would need to identify strategies to manage the impacts of project related traffic, and propose a Driver Code of Conduct for haulage operations which should include, but not be limited to:

- OSOM transportation details, including but not limited to, requirements for permits, pilot vehicles, identification of route/s, pull-over bays, processes and approvals for contraflow / traffic control to manage restricted OSOM vehicle movements etc.
- Where applicable, further considerations to address cumulative peak traffic activity along the proposed transport route/s, in particular proposing relevant safety procedures for drivers during any identified peak traffic periods.
- A Driver Code of Conduct (DCoC) for haulage / transport operations which addresses, but not limited to:
 - Map of primary transport route/s (Light Vehicle, Heavy Vehicle & OSOM) highlighting critical locations.
 - Any proposed temporary measures such a Traffic Guidance Scheme (TGS)
 - Any proposed workforce travel restrictions to mitigation traffic impacts.
 - Identification of local bus operations, including maps and consultation with local bus operators.
 - Safety initiatives for haulage through residential areas and/or school zones.
 - An induction process for vehicle operators and regular toolbox meetings.
 - A public and company/contractor complaint resolution and disciplinary procedure.
 - Procedures for transport in adverse weather conditions.
 - Community consultation measures for peak haulage periods.
 - Fatigue Management
 - Appendices of documentation relevant to external contractors and employee responsibilities, where applicable to the TMP and DCoC inclusions.