

WST23/00036/01 | SF2023/066923

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

Attention: Nestor Tsambos

SSD- 55968733: Request for Secretary's Environmental Assessment Requirements (SEARs) for Burroway Solar Farm in Narromine Shire LGAs 20 March 2023

Dear Nestor,

Thank you for referring the abovementioned request for SEARs via the NSW Major Projects Planning Portal on 9 March 2023 inviting comment from Transport for NSW (TfNSW).

TfNSW has reviewed the Scoping Report, prepared by Edify Energy Pty Ltd, dated February 2023 prepared for the prospective Burroway Solar Farm development comprising:

- Construction of a ground mounted photovoltaic solar array with a generating capacity of up to 100MW (AC).
- Construction of a Battery Energy Storage System (BESS) of up to approximately 100MW / 400MWh.
- The proposal also includes ancillary infrastructure and temporary facilities associated with construction including, but not limited to:
 - Single axis tracker photovoltaic solar panels mounted on steel frames over most of the site (maximum tilt up to 4.5m in height).
 - Underground and overground electrical conduits and cabling to connect the arrays to the inverters and transformers.
 - Systems of inverter units and voltage step-up throughout the arrays.
 - On site substation, connecting to the existing 132 kV Essential Energy transmission line (line 94W/1), that traverses the Project study area.
 - Site office and maintenance building, vehicle parking areas, internal access tracks and perimeter security fencing.
 - Site access track off Eumungerie Road.

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).

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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.

On determination of this matter, please forward a copy of the final SEARs to TfNSW at development.west@transport.nsw.gov.au

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.
 - Permanent or temporary connection/access to classified roads.
 - The Scoping Report does not provide any details regarding construction materials or specify whether any temporary facilities are to be provided on-site including (but not limited to) concrete batching facilities. The EIS and TIA must identify 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.
- 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 routes.
 - An assessment should be undertaken as a part of the EIS and TIA to identify the projects that will have overlapping construction periods and assess the cumulative traffic impacts with emphasis on the following:
 - 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.
 - A further assessment should be undertaken to address the cumulative impacts of the project's workforce accommodation (and transport) requirements, concurrent to other project's workforce requirements or proposals, within the local and sub-regional context and must consider the following:
 - The accommodation requirements of the project.
 - The local accommodation capacity, including types, and applying context including proximity to relevant town centres and other services which may be utilised by the workforce.
 - Origin and destination of the workforce.
 - The transport options available (Light Vehicles, Shuttle Buses, carpooling etc), any associated incentives or requirements to encourage the workforce to take up those options, and any staff pick up locations external to the project site.
 - The above matters rely on enforcement and therefore the worst-case scenario for peak of construction without the above enforcement measures must be the base case for the TIA assessment.

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- Heavy Vehicle and OSOM routes:
 - Identify the return routes for Heavy Vehicles and OSOM vehicles.
 - 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 and 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 load length, width, height and mass
 - Maximum component length, widths and heights
 - 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 *Austrroads Guide to Pavement Technology*).
 - Further include details on the number of OSOM movements, the intended time for OSOM movements to occur and identify the location of pull-over bays / rest areas along the OSOM routes.
- 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,
 - Specify the design vehicles for the project (in particular identifying the all relevant types of heavy / OSOM / specialist vehicles and shuttle buses)
 - 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.
- Route analysis for all vehicle types accessing the site, which includes:
 - Identifying potential constraints and / or pinch points along the route/s.
 - 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).
 - Details of the road geometry and alignment along the identified transport route/s, including existing formations, crossings, intersection treatments and any identified hazards. This should include;

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- 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 the *Austrroads Guide to Traffic Management Part 6* and *Austrroads 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 intersections along the proposed transport route/s.
 - 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 strategic design drawing/s for any identified road infrastructure and access upgrades. 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) to be provided with the EIS, that could be developed further in consultation with relevant Councils and TfNSW and implemented following approval of the EIS.