19 November 2020

SF2017/249332; WST17/00173/05

The Manager
Resource Assessments
Department of Planning, Industry & Environment
GPO Box 39
SYDNEY NSW 2001

**Attn: Lander Robinson**

Dear Mr Robinson

**SSD 8847: Lots 137, 140 and 80 DP 754309 & Lots 1 & 2 DP 854326; Allweather Road, Dunedoo**
**Environmental Impact Statement (EIS) - Dunedoo Solar Farm**

Thank you for the above EIS referral via the NSW Major Projects Portal dated 15 October 2020 inviting comment from Transport for NSW (TfNSW) pursuant to *cl 104 of State Environmental Planning Policy (Infrastructure)2007 (ISEPP)* and requesting concurrence pursuant to *s138(2) of the Roads Act 1993.*

From a review of the Environmental Impact Statement, TfNSW understands the proposed major project involves:

- Approximately 173,000 PV solar panels, mounted on single axis tracking systems, powered by approximately 2,850 tracker motors to achieve a capacity of 55MW.
- Access is proposed to be provided via the Castlereagh Highway and Allweather Road (local road) intersection for heavy vehicles. Light vehicles will access the site from the Dilgilah East Road (local road)/Golden Highway intersection.
- During construction there will be 40 (80 movements a day) heavy vehicles and 12 light vehicles (24 movements a day) accessing the site each day.
- The largest design vehicle will be a 20.6m in length.
- Construction timeframe proposed to be 10-12 months commencing late 2021.
- The peak workforce during construction will be 125 workers, and
- The hours of operation for construction will be Monday to Friday 7am to 6pm and Saturday 8am to 1pm.

The Traffic Impact Assessment (TIA), undertaken by Stantec, proposes heavy vehicle movements to be undertaken via the Castlereagh Highway/ Allweather Road and light vehicle movements to be undertaken via the Digilah East Road/Golden Highway access.

This will include 80 heavy vehicle movements per day via the intersection of Allweather Road and the Castlereagh Highway. These movements trigger the warrant for Basic Left turn (BAL) and a Basic Right turn (BAR) treatments in accordance with Figure A 10 of *Austroads Guide to Road Design Part(s) 4 & 4A* to be undertaken by the applicant as part of this proposal.

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The location of this intersection is 40 metres north of the Talbrager River which consists of a bridge with guard rails and table drains on either side of the Castlereagh Highway.

The road environment and proximity to the intersection with Allweather Road constrains the ability to provide a Basic Left Turn and Basic Right Turn Treatment at this intersection within the existing configuration and road corridor.

We understand the applicant has engaged in correspondence with relevant land owners within close proximity to this intersection as a means to facilitate possibilities of reconfiguring the current road alignment. While not confirmed, we understand no agreement has been reached to acquire any land within this locality between the land owner and the applicant.

Subsequently this has deemed access via this intersection, in particular by heavy vehicles as part of this proposal as not suitable to TfNSW due to the inability to undertaken to construct the resulting required intersection upgrade at the intersection of the Castlereagh Highway and Allweather Road by the applicant.

The TIA prepared by Stantec proposes an alternative treatment of widening the shoulder in the north eastern corner of the intersection of Allweather Road. This proposed alternative treatment will not alleviate the inherent safety risk of heavy vehicles accessing Allweather Road from the Castlereagh Highway as part of this proposal. Through traffic will not be able to safely pass heavy vehicles turning right into Allweather Road or turning left from Allweather Road onto the Castlereagh Highway, increasing the risk of rear end collisions with through traffic.

The inherent safety risks associated with the proposed use of the Castlereagh Highway/ Allweather Road intersection were previously outlined in correspondence from TfNSW Development Western team dated 7 May 2020 to the applicant. These concerns were further discussed in a meeting held between TfNSW, Council and representatives on behalf of the applicant on 6 November 2020. TfNSW had indicated there were inherent safety concerns with the proposed use of Allweather Road as part of this proposal without an intersection upgrade and had not agreed to the options proposed by the applicant. These remain inadequately addressed within the Environmental Impact Statement (EIS).

Based on the above analysis TfNSW cannot concur, pursuant to *s138(2) of the Roads Act 1993,* to the use by vehicles required to access the site as part of this proposal via the intersection of the Castlereagh Highway and Allweather Road, as proposed.

It is understood that discussions have occurred between Council and the applicant regarding concerns for the use by heavy vehicles as part of this proposal via Digilah East Road, specifically the capacity of the bridge to facilitate safe passage by heavy vehicles and further concerns that this road is subject to flooding.

This is further evidenced in the EIS. It noted the results of the flood modelling assessment suggest that the northern section of the site that has been identified for the development of the Dunedoo Solar Farm is not in an area of high flood risk. However, local catchment runoff supplemented by Talbragar River floodplain flows during major flood events impacts the site.

It further noted:

- The flood model results show that access to the site from Dunedoo via Digilah Road would be cut in even minor flood events such as the 20% Annual Exceedance Probability(AEP), due to the low level of the bridge crossing of the Talbragar River.

- The design flood model results indicate that access via the Digilah Road bridge may be expected to be cut for around a 2-day period for frequent flood events such as the 20% AEP and around 4-days for major flood events such as the 1% AEP.

- Access to Dunedoo via the Castlereagh Highway should remain trafficable during flood events up to the 10% AEP. However, for events of a 5% AEP or rarer the highway would be closed for a period, although alternative access to the site could potentially remain via the Castlereagh Highway to the north.

- Road access to the site should remain possible via Allweather Road (not Digilah Road) during flood events up to a 10% AEP, with access becoming difficult at the 5% AEP and not possible at the 2% AEP.

TfNSW held a meeting with a representative from Warrumbungle Shire Council on 12 November, 2020 to discuss the access routes to the proposed solar farm. It was agreed at this meeting that there did not appear to be a resolution offered by the applicant for the proposed use of Allweather Road and the Castlereagh Highway that Council and/or TfNSW could offer consent in accordance with Section 138(2) of the *Roads Act, 1993*.

The intersection of Digilah East Road and the Golden Highway was therefore deemed the only access option remaining for this proposal. In order for TfNSW to concur, pursuant to Section 138(2) of the *Roads Act, 1993*, we seek the applicant is subject to the following conditions being met:

- The Applicant is to undertake a structural assessment of the Digilah East Road pavement, including the Golden Highway and Digilah East Road intersection and Allweather Road, the results of which are to be made available to TfNSW and Council.

- The assessment would need to assume the road pavement is to be constructed to a suitable capacity to enable the safe passage of all loads required to access the site as part of this proposal throughout construction and operation of the solar farm to the satisfaction of the roads authority.

- A structural assessment of the bridge located along Digilah East Road is to be undertaken by the applicant to ascertain any required upgrades to this infrastructure to enable safe passage by all vehicle and loads required to access the site throughout construction and operation of the solar farm.

- The intersection of Digilah East Road and the Castlereagh Highway is to be upgraded to adequately cater for the increase and change in traffic movements resulting directly from this proposal. As the TIA for this proposal included the use of Allweather Road and the Castlereagh Highway intersection, the applicant is to undertake a revised traffic impact assessment to inform the resulting scope of the required intersection upgrade for the intersection of the Golden Highway and Digilah East Road. This information is to be referred to Council and TfNSW for review.

- The intersection is to be designed in accordance with *Austroads Guide to Road Design* and any relevant TfNSW supplements. An application with a concept design for the proposed upgrade is to be referred to TfNSW in accordance with Section 138(2) of the *Roads Act, 1993* for concurrence via Warrumbungle Shire Council as the roads authority and consent authority for these works prior to any works commencing on site as part of this proposal.

- The intersection upgrade is to include any required pavement upgrade works and geometric standards including width of pavement formations; width of bitumen seal; surface and pavement depths and base and sub base materials and all drainage requirements including any necessary culvert works designed and constructed in accordance with *Austroads Guide to Road Design* and any relevant TfNSW supplements.

- The intersection treatments should be designed to provide Safe Intersection Sight Distance (SISD) requirements as outlined in Part 4A *Austroads Guide to Road Design*

- A Road Occupancy Licence (ROL) is required prior to any works commencing within three (3) metres of the travel lanes of a State classified road, or work that has potential to impact traffic flow such as the use of traffic control devices or signage to protect workers. The applicant is to contact 1300 656 371 for further information regarding a ROL. A Traffic Control Plan prepared by a TfNSW accredited person is to be submitted as part of the ROL application.

- Works in a State Classified Road are subject to the developer being required to undertake private financing and construction of these works in which TfNSW has a statutory interest. A formal agreement in the form of a Works Authorisation Deed (WAD) is required between the developer and TfNSW prior to works commencing. This will be further addressed as part of a Section 138 *Roads Act, 1993* referral to TfNSW.

- The use of local roads for the purposes of heavy vehicle haulage will require consent from Warrumbungle Shire Council. All routes specified by the applicant for these purposes are to comply with the NSW Combined Higher Mass Limits (HML) and Restricted Access Vehicle (RAV) map and or may be the subject of a Special Heavy Vehicle Permit via the National Heavy Vehicle Regulator (NHVR).

- Any Oversize/Overmass haulage required as part of this proposal will be subject to a special permit being obtained prior to haulage commencing via the National Heavy Vehicle Regulator (NHVR). The NHVR processes ALL Oversize/Overmass permit applications for travel within and between the Australian Capital Territory, New South Wales, Queensland, South Australia, Tasmania and Victoria via: https://www.service.nhvr.gov.au/

- During construction the applicant has advised 40 (80 movements a day) heavy vehicles (20.6 m heavy vehicle configuration) and 12 light vehicles (24 movements a day) will be required to access the site each day. Accordingly TfNSW seek the consent authority impose a suitable condition be imposed on the applicant in any consent condition to adhere to this commitment including specifying the heavy vehicle types to be used.

- Prior to the commencement of construction works the applicant is to submit a Construction Traffic Management Plan (CTMP), including a broader Traffic Management Plan (TMP) for the entire life cycle of the project. This is to be prepared in consultation with the TfNSW and Warrumbungle Shire Council.

- The Traffic Management Plan (TMP) and Driver Code of Conduct is to outline measures to manage traffic related issues associated with all phases of the development (e.g. deliveries, construction, operation, maintenance, decommissioning), any construction or excavated materials, machinery and personnel involved. The TMP is to detail the potential impacts associated with the development, the measures to be implemented, and the procedures to monitor and ensure compliance. The TMP is to address (but not be limited to):

a. Specific commitments for the provision and use of buses and car-pooling during construction to limit peak hourly traffic in accordance with the approved Environmental Impact Statement (EIS) and conditions of consent. Plans and measures to manage the impacts of personal vehicle parking at pickup points (e.g. in towns) are to be detailed.

b. An enforceable policy for staff and contractors to use the designated commuter route in preference to back roads, where the journey is not unreasonably lengthened, as detailed in the approved EIS.

c. Details of origin, destination, quantity, size and frequency of vehicle movements associated with the development including those accessing and egressing the site.

d. Timings and staging of construction and operation of the development.

e. Existing and projected background traffic, peak hour volumes and types and their interaction with projected development related traffic.

f. Loads, weights, lengths and number of movements of haulage and construction related vehicles including Over Size Over Mass (OSOM) loads.

g. The management and coordination of construction and staff vehicle movements to the site and measures to limit disruption to other motorists, including special OSOM management measures.

h. Scheduling of haulage vehicle movements to occur outside of daily commuter peak periods, local special event times, school bus (both in rural and town areas) and school zone operating hours.

i. Active communication procedures for traffic such as school buses or haulage vehicles from other quarries, or near potential safety hazards.

j. Scheduling of heavy vehicle movements to minimise convoy or platoon lengths.

k. Consideration to minimise the route length for road transport, particularly for OSOM loads.

l. Any OSOM will be the subject of separate permits through the National Heavy Vehicle Regulator.

m. Mitigation of local climate conditions that may affect road safety for vehicles used during construction, operation and decommissioning of the facility (e.g. scheduling during daylight hours, or outside of fog, wet weather, ice or snow).

n. Transport of hazardous materials in accordance with the relevant transport codes.

o. Specific mitigation measures along the approved transport routes. Road and intersection improvement works are to be completed prior to the commencement of on-site construction unless specifically approved otherwise in the conditions of consent.

p. Consultation and engagement with affected stakeholders, including regulatory authorities, landowners, businesses, bus operators and so forth.

q. Policies and procedures for addressing concerns raised by the community on project related matters.

r. Dust suppression and mitigation measures on public roads and within the site boundaries.

s. Toolbox meetings to facilitate continuous improvement initiatives and incident awareness.

t. Truckloads are to be covered at all times when being transported, to minimise dust and loss of material onto roads which may form a traffic hazard.

u. Measures to ensure responsible fatigue management and discourage driving under the influence of alcohol and/or drugs, dangers of mobile phone use and driving to the conditions, and adherence to posted speed limits.

Please be advised that under the provisions of the Environmental Planning & Assessment Act it is the responsibility of the Consent Authority to assess the environmental implications, and notify potentially affected persons, of any development including conditions.

TfNSW appreciates the opportunity to review the EIS, and seek the aforementioned is considered by the consent authority as part of any consent determined for this proposal. Should you wish to discuss this matter further, please contact Ainsley Bruem, A/Manager Land Use on (02) 6861 1449.

Yours faithfully

Holly Davies
A/Senior Customer Services Manager
West

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