

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

Attention: Anthony Ko

SSD-9679 for Hills of Gold Wind Farm at Morrisons Gap Road, Crawney

14 December 2022

Dear Anthony,

Thank you for referring the abovementioned amended application via the NSW Major Projects Planning Portal dated 15 November 2022 inviting further comment from Transport for NSW (TfNSW).

TfNSW's primary interests are in the road network, traffic and broader transport issues. In particular, the efficiency and safety of the classified road network, the security of property assets and the integration of land use and transport.

Nundle Road / Oakenville Street (MR105) is a classified (Regional) road. Council is the roads authority for this road and other public roads in the area, in accordance with Section 7 of the *Roads Act 1993* (Roads Act).

TfNSW has reviewed the amended application and supporting documentation submitted and **is not satisfied** that the proposed development has adequately addressed the anticipated construction traffic impacts to ensure that the new access routes can provide safe and practical access.

TfNSW is unable to sufficiently comment on the proposal at this time and withholds its concurrence, there is insufficient evidence at this time to inform TfNSW's concurrence role under Section 138 of the Roads Act 1993 for the proposed works associated with the Nundle Bypass Route.

TfNSW comments:

TfNSW understands this amendment (since the previous EIS amendment submission, dated December 2021) further seeks approval for the construction, operation and decommissioning of a Wind Farm comprising of up to 64 Wind Turbine Generators (WTGs), a 100MW/400MWh Battery Energy Storage System (BESS) and supporting ancillary infrastructure. The amendment includes, but is not limited to:

Changes or alterations to:

- The total number of WTGs – noting there are now 64 WTG's proposed.
- (Revised) Transport Routes through and around the town centre of Nundle towards the project site accesses. These are understood be proposed accommodate a split the transport volumes of OSOM and general construction traffic and maintain existing levels of service within Nundle, these routes are understood be as follows:

Route 1 - Nundle Blade Route – "Loop"

- For Transport of Blades only (Option 1)
- It is understood this route has been assessed in previous EIS submissions.
- Use of Local Roads only beyond the termination point of the classified (Regional) road (intersection of Oakenville Street & Jenkins Street). Refer to Council.

Route 2 - Nundle "Bypass" Route

- Proposed to divert large vehicles from Oakenville Street onto Heron Street North and Innes Street and then a right turn on to Jenkins Street and Crawney Road.

- It is noted that 35 % of the construction traffic and OSOM vehicles (excluding blade routes) are proposed to utilise this route, however it is noted, an option in Figure 4, presents an Alternative Blade Route (Option 2) to the Route 1 Loop.
- This route will require TfNSW concurrence under Section 138 of the Roads Act 1993, for any works at the intersection of Oakenville Street (MR105) and Heron Street North, the details of which remain unclear.

Route 3 – Morrisons Gap Road via Barry Road

- It is understood this route has been assessed in previous EIS submissions.
- It is noted that 65 % of the construction traffic, smaller incoming WTG components (blade tips & hubs etc), and packed down outgoing OSOM vehicles, will still (or have the potential to) utilise this route for access to and from the project site.
- Use of Local Roads only beyond the termination point of the classified (Regional) road (intersection of Oakenville Street & Jenkins Street). Refer to Council.

Route 4 – Crawney Road extension

- A relocated site access (with options) connecting to Crawney Road is now proposed, requiring an extension of the route.
- It is noted that these access options are proposed to accommodate an the project construction traffic and OSOM vehicles (including 82m Blade components), associated with Routes 1 and 2 (the Blade Loop & Nundle Bypass).

Additions of:

- Transmission Line options - route easements / connection locations, and tower structures.
- Substation & BESS options - locations & area, requiring additional earthworks.
- The additional use of an existing quarry, located with the Nundle State Forest. Transporting up to 500,000 tonnes per annum of quarry material to site, via Routes 2, 3 and 4 and associated site accesses.

No noted changes to:

- Load dimensions or mass of the WTGs or OSOM components
- Transport Routes between the Port of Newcastle & Nundle township (to the Heron Street North intersection)

Notwithstanding the above observations, TfNSW notes the following in review of the amended application and supporting documentation, in particular, addressing the key intersection of Oakenville Street and Heron Street North:

- TfNSW understands that the preferred access for the wind farm OSOM components, in particular the 82m blades, is to be off Crawney Road via Routes 1, 2 and 4.
- Insufficient information has been provided regarding the proposed Nundle Bypass via Route 2:
 - No swept paths have been provided for the largest construction design vehicles at the key intersection.
 - The OSOM swept paths provided for the Alternate Blade Route provided in the TIA, Route Survey and Amendment Report are considered to be incomplete, as they are presented in segments only and in some cases do not appear to align with adjacent movements. It is understood that this proposed option is under investigation, however, as this proposal may impact any Section 138 approvals and TfNSW's concurrence, and any associated environmental approvals are required to be identified & addressed prior to determination.
 - The Amended TIA demonstrates Directional Traffic Splits and an intersection assessment for Oakenville Street / Jenkins Street only, however this does not appear to align with the proposal to split the construction and OSOM traffic between various routes, not all of which include this intersection. Further to this, the same assessments in addition to a turn warrant assessment, for the newly proposed additional key intersections of Oakenville Street & Heron Street North / Innes & Jenkins Street, have not been undertaken.
 - It remains unclear:
 - How the proposed split of 35% & 65% for construction traffic volumes will be managed.
 - What the project related traffic impacts are at the key intersection.

- What the existing general road geometry (including turn treatments) is at the key intersections for Route 2.
- Whether the intersections are currently capable of accommodating two-way movements of heavy vehicle at each leg of the key intersections, in particular during concurrent opposing heavy vehicle turn movements
- If an upgrade of the intersections is required to accommodate an increase in traffic and the swept paths of the design vehicles and the extent of that work if applicable.

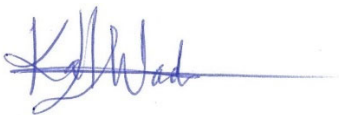
Further Information Required:

TfNSW's concurrence is required prior to the Consent Authority's approval to works on Oakenville Road (MR105) in accordance with S138 of the Roads Act. To enable TfNSW to undertake an assessment of the proposed amendments and any potential impacts of the works on the classified road network, the following additional information is required regarding proposed Route 2, ("Nundle Bypass") in particular, information regarding the key intersection of Oakenville Street and Heron Street North, which may impact the classified road network. It is recommended that the Consent Authority request the applicant to:

- Update the Amendment Application to reflect the proposed traffic impacts at the key intersection addressing the above points for consideration and identify any potential upgrades required.
- Provide a scaled strategic design of the Nundle Bypass between Oakenville Street and Jenkins Street. The updated plans are to demonstrate the scope of works required for any potential upgrade to the Oakenville Street & Heron Street North intersection. Including but not limited to the provision of:
 - The extent of the proposed works, including permanent and temporary footprints, including but not limited to the provisions of any turn treatments, road widening and hardstand areas.
 - Any turn treatments, designed and constructed in accordance with the relevant *Austroads Guidelines*, *Australian Standards* and related *TfNSW Supplements*, demonstrating all relevant line-marking, lane & shoulder widths.
 - Building or tree removal, relocation of utilities, stormwater management, and signage etc.
 - Safe Intersection Sight Distance (SISD) requirements in accordance *Austroads Guide to Road Design Part 4A* are achieved in both directions at the intersection with Oakenville Street.
 - Dedicated swept path diagrams, clearly identifying the size & type of the relevant design vehicles, the swept path of both the wheel base, any vehicle (load) overhang and stationary vehicle positioning, demonstrating the largest (construction) design vehicle will be able to safely and efficiently arrive and depart the key intersection in both directions to access the site, travelling wholly within the required travel lanes and clearly identifying where applicable, any additional works required to accommodate those vehicles.
- Over Sized Over Mass (OSOM) swept paths should demonstrate the single movement from Oakenville Street through to Jenkins Street. Further demonstrate any pull-over bays required to undertake the movements and any required traffic control processes, where applicable, to enable the required turn movements.

If you wish to discuss this matter further, please contact the undersigned at development.west@transport.nsw.gov.au or on ph. 0429 270 678.

Yours faithfully,



Katrina Wade

A/ Team Leader Development Services (Renewables)
West Region | Community and Place
Regional and Outer Metropolitan