

28 November 2016

SWT12/00141
SF2012/025811
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The Manager
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Diana Charteris

SSD 6686 - PROPOSED BANGO WIND FARM - LOT 206 DP754143, LOT192 DP754103, LOT 80 DP754135, LOT 3 DP625384, LOT 1 DP83173, LOT 298 DP754135, LOT 300 DP754135, LOT 285 DP754109, LACHLAN VALLEY WAY (MR56), BOOROWA.

I refer to your correspondence regarding the proposed Bango Wind Farm which was referred to Roads and Maritime Services for assessment and comment.

Roads and Maritime Services has reviewed the Environmental Impact Statement for the Bango Wind Farm prepared by dated September 2016 including the Traffic and Transport Assessment prepared by SAMSA Consulting dated May 2016. From the information provided it is understood that the application seeks approval for a Wind Farm consisting of approximately 120 turbines and associated infrastructure for access and power transmission.

The documentation identifies the proposed haulage route for the components of the wind turbines and ancillary structures as being along the Hume Highway exiting the highway at its intersection with Lachlan Valley Way and the western intersection with the Yass Valley Way. All routes attempt to bypass the built up urban areas within Yass and Boorowa. The submitted reports appear to define the haulage routes for the large components to the site from the road network, however the source of other products, such as the concrete and gravels has not been addressed.

Whilst the loads required for the transportation of the large components of the wind turbines and electrical transmission infrastructure present issues it is the frequency and volumes of the smaller construction vehicles such as cement trucks that can represent issues for the road network. These issues need to be finalised to allow for the proper assessment of the impacts on the road network. Therefore any consent for this development will require the preparation of an appropriate Traffic Management Plan for construction activities in consultation with the relevant road authorities (Roads and Maritime Services and Council).

Of particular concern to Roads and Maritime is the location of construction compounds and concrete batching plants which will be reliant on access via the proposed access intersection with the Lachlan Valley Way within a 100km/h speed zone. Given the reliance on this access for a significant part of the development for an extended period of time and future maintenance works it is considered appropriate that the intersection with Lachlan Valley Way be located, designed and constructed so as to comply with the Austroads Guide to Road Design as amended by the supplements adopted by Roads and Maritime Services.

The submitted documentation identifies the primary transport routes for the construction related traffic however it is considered appropriate that further planning and consultation with Councils and the Roads and Maritime Services be undertaken to ensure the safe passage of vehicles entering and leaving the site. The Traffic and Transport Assessment indicates that to ensure adequate road safety is maintained, a comprehensive Construction Traffic Management Plan (CTMP) would be prepared in conjunction with the chosen transport contractor and relevant road authorities. The construction management plan needs to be finalised prior to the commencement of any works for the project on the site.

If any parts of the proposed transport routes are not suitable to cater for the project related traffic and transport, the proponent shall be required to improve such part of the road to safely cater for the length, size and volume of vehicles and their loads, and to protect the integrity of the road network. This may include the proponent constructing stopping bays (suitable hard stand areas) at distances and dimensions on the haulage route determined by the relevant road authority. These areas would be required along the proposed route to allow the following vehicle queue to pass.

The submitted reports identify that there will be a need for modification to some of the existing road intersections and the potential need for modification or removal of road structures or furniture to allow for the movement of the larger components. These issues will need to be authorised by the relevant road authority (Council or the Roads and Maritime Services). Further to this it would be appropriate to require a road dilapidation report to be completed in consultation with the relevant road authorities prior to the commencement of construction and again after construction is complete.

Roads and Maritime Services in its consideration of the development proposal noted the following;

- the submitted application and the supporting information supplied particularly in the Environmental Impact Statement Chapter 21 “Statement of Commitments”,
- the Traffic and Transport Assessment and particularly notes section 5 Mitigation Measures and 6 – Summary & Conclusion. The implementation of these measures in respect to the project is considered to be essential for the safety and efficiency of the road network.
- The acknowledgement of the need to develop a Construction Traffic Management Plan to be prepared by the transport contractor in consultation with the relevant road authorities (Roads and Maritime Services and Council) prior to the commencement of construction of the project.

Roads and Maritime emphasises the need, in the design and construction of the development, to minimise the impacts on the existing road network and maintain the safety, efficiency and standard of maintenance along the existing road network and to minimise the distraction to the road user. To achieve this, the logistics associated with the transportation of materials and equipment for the development and access to the site from the Classified Road network is of high importance.

Based on compliance with the submitted documentation, particularly as outlined above, Roads and Maritime Services would raise no objection to the development as proposed subject to the following comments being included as conditions in the development consent;

1. A Construction Traffic Management Plan shall be prepared in consultation with the relevant road authorities (Council and Roads and Maritime Services) to outline measures to manage traffic related issues associated with delivery and construction of the turbines or ancillary structures, any construction or excavated materials, any machinery and personnel involved in the construction or decommissioning process. The plan shall detail the potential impacts associated with the development, the measures to be implemented, and the procedures to monitor and ensure compliance. This plan shall address, but not necessarily be limited to;
 - i) Details of traffic routes to be used by heavy vehicles associated with the project, and any associated impacts and any required changes to the existing road environment along the proposed routes such as intersection upgrade, road widening, temporary

street closures, removal and replacement of road infrastructure, etc required in order for the necessary materials and machinery to be delivered to site.

- ii) Details of measures to be employed to ensure safety of road users and minimise potential conflict with haulage vehicles such as necessary route or time restrictions for oversized vehicles, use of traffic diversions, changes to speed zones, potential extended delay periods for motorists due to haulage vehicles etc,
 - iii) Proposed hours for construction activities, as night time construction presents additional traffic related issues to be considered.
 - iv) The management and coordination of the movement of construction and workers vehicles to the site and to limit disruption to other motorists, emergency vehicles and school bus timetables,
 - v) Scheduling of heavy vehicles movement to deny the need for access through school zones during school zone operating times
 - vi) Scheduling of haulage vehicle movement to minimise convoy length or platoons,
 - vii) loads, weights and lengths of haulage and construction related vehicles and the number of movements of such vehicles,
 - viii) procedures for informing the public where any road access will be restricted as a result of the project,
 - ix) Details of measures to be employed to ensure traffic volumes, acoustic and amenity impacts along the haulage routes is minimised,
 - x) the provision of hard stand areas for parking of transport vehicles in the case that unsealed sections of road are closed due to adverse weather or to allow for loads to be disassembled for transportation along the remainder of the route. This is not permitted in heavy vehicle rest areas, and
 - xi) any proposed precautionary measures such as signage to warn road users such as motorists about the construction activities for the project.
2. The preparation of the detailed traffic and transport planning for the project and the Construction Traffic Management Plan is required to involve the appointed transport contractor and is to be undertaken in conjunction with the Roads and Maritime Services and the Councils to determine the final details of haulage, including exact transport routes, Road-specific mitigation measures, haulage timing.
3. All works within the road reserve of the Lachlan Valley Way (HW20) shall be located, designed and constructed in accordance with the requirements of Roads and Maritime Services and the Austroads Guide to Road Design as amended by the supplements adopted by Roads and Maritime Services for the posted speed limit and to cater for the largest size vehicle likely to access the site.
4. An intersection of any proposed access road with the Lachlan Valley Way shall comply with the following:
- a) The intersection of the Lachlan Valley Way and proposed access road is to be located and the roadside maintained so as to provide the required Safe Intersection Sight Distance (SISD) in either direction in accordance with the Austroads Publications as amended by the Roads and Maritime Services supplements for the posted speed limit. Compliance with this requirement is to be certified by an appropriately qualified person prior to construction of the vehicular access.
 - b) As a minimum the intersection of the Lachlan Valley Way and proposed access road shall be constructed to the standard of a public road intersection with a Basic Right Turn (BAR) and Basic Left Turn (BAL) intersection treatment in accordance with the Austroads Guide to Road Design for a B-Double route as amended by the supplements adopted by Roads and Maritime Services for the prevailing speed zone on the Lachlan Valley Way.
 - c) The intersection of any proposed access road with the Lachlan Valley Way shall be designed and constructed so that any vehicles entering or exiting the development are not required to cross to the opposing travel lane of the highway in order to perform the access

or egress manoeuvre to/from the proposed access road. As a minimum the proposed access road is to be line marked to separate the swept path of vehicles entering and exiting the development. Associated directional marking and signage is to be installed and maintained in accordance with Australian Standards.

- d) Any proposed access road shall be bitumen sealed for a minimum length of 50 metres from the carriageway of the Lachlan Valley Way. A management plan to provide measures to suppress dust generation from the development site and the access road shall be prepared and implemented to the satisfaction of Council and Roads and Maritime Services.
- e) The intersection of a proposed access road with the Lachlan Valley Way is to be designed, constructed and maintained to prevent water from proceeding onto, or ponding within, the carriageway of the highway. If a culvert is to be installed and is to be located within the clear zone of the Lachlan Valley Way for the prevailing speed zone it is to be constructed with a traversable type headwall.
- f) The pavement standard for the works to the Lachlan Valley Way shall be appropriately designed for the through traffic and the proposed turning traffic to the satisfaction of Roads and Maritime Services,
- g) Appropriate signage and line marking shall be installed and maintained for all road works in accordance with relevant Australian Standards and the requirements of Roads and Maritime Services.
- h) As the Lachlan Valley Way is part of the State Road network the developer is required to enter into a Works Authorisation Deed (WAD) with Roads and Maritime Services before finalising the design or undertaking any construction work within or connecting to the road reserve. The applicant is to contact the Manager Land Use for the South West Region on Ph. 02 6923 6611 for further detail.

The design and construction of the works, including pavement works, within the carriageway of the Lachlan Valley Way shall be in accordance with the requirements of Roads and Maritime Services. The developer will be required to submit detailed design plans and all relevant additional information including cost estimates and pavement design details for the works, as may be required in the Works Authorisation Deed documentation, for each specific change to the state road network for assessment and approval by Roads and Maritime Services. The developer is encouraged to submit concept plans of the proposed works for concurrence by Roads and Maritime Services prior to undertaking the detailed design phase.

- 5. Conditions relevant to the construction of the intersection and access road are to be completed prior to issue of any Construction Certificate for any works associated with the proposed windfarm. This is to ensure safe access arrangements are provided for the construction activities on the development site.
- 6. The Proponent must engage an appropriately qualified person to prepare a Road Dilapidation Report for all road routes to be used during the construction (and decommissioning) activities, in consultation with the relevant road authority (Roads and Maritime Services and Council). This report is to address all road related infrastructure. Reports must be prepared prior commencement of, and after completion of, construction (and decommissioning). Any damage resulting from the construction (or decommissioning) traffic, except that resulting from normal wear and tear, must be repaired at the Proponent's cost. Such work shall be undertaken at a time as agreed upon between the Proponent and relevant road authorities.

The Proponent shall commit to restore all relevant roads to a state, described in the original Road Dilapidation Report where the dilapidation is attributable to construction traffic. The cost of any restorative work described in the subsequent Report or recommended by the relevant road authorities after review of the subsequent Report, shall be funded by the Proponent. The

applicant is accountable for this process, rather than the proposed haulage contractor. Such work shall be undertaken at a time as agreed to by the relevant road authorities.

7. A full and independent risk analysis and inspection of the transport route will be required to be undertaken by an appropriately qualified person and a copy provided to the relevant road authority. Further analysis and reporting to assess possible damage to, and repair of the route will be required on a regular basis.
8. Prior to the commencement of construction, the Proponent must undertake all works to upgrade any road, its associated road reserve and any public infrastructure in that road reserve, to a standard suitable for use by heavy vehicles to meet any reasonable requirements that may be specified by the relevant roads authority. The design and specifications, and construction, of these works must be completed and certified by an appropriately qualified person to be to a standard to accommodate the traffic generating requirements of the project. On Classified Roads the geometric road design and pavement design must be to the satisfaction of the Roads and Maritime Services.
9. Any disturbances to the road infrastructure within the road reserve of a classified road are to be reinstated to pre-existing or better condition. This includes any impact on the road pavement, culverts, bridges, causeways, stock grids, signage, drainages structures and traffic islands.
10. No external lighting at night of any infrastructure associated with the project including wind turbine generators that may cause distraction to road users is permitted other than low intensity security lighting.
11. Any specific details for construction of, access to and signage associated for any proposed viewing areas along the classified road network are to be developed to the satisfaction of the Roads and Maritime Services.
12. All works associated with the project shall be at no cost to the Roads and Maritime Services or the relevant road authority.

It is requested that the applicant be advised of the following;

- The conditions of development consent do not guarantee consent from Roads and Maritime Services to specific road work, traffic control facilities and other structures and works on the classified road network. The developer is required to obtain approval under Section 138 from Council with concurrence from Roads and Maritime Services for any works within the road reserve of a Classified Road prior to the commencement of any work.
- Prior to the commencement of any work within the classified road reserve, the Proponent may require a Road Occupancy Licence from Roads and Maritime Services. The application must be accompanied by a Traffic Management Plan (TMP) prepared by a person who is certified to prepare Traffic Control Plans.
- All arrangements for the traffic control on classified roads are to be in accordance with the publication *Traffic Control at Work Sites*. Where any works are required on or adjacent to a public road a Traffic Control Plan providing details of all warning signs, lights, barriers, etc. to be provided and maintained in accordance with AS 1742 "Manual of Uniform Traffic control devices" and the RMS's Guideline *Traffic Control at Work Sites*;
- A formal agreement in the form of a Works Authorisation Deed (WAD) may be required between the developer and Roads and Maritime Services should the developer wish to undertake "private financing and construction" of improvement works on Classified Roads such as the Hume highway or Lachlan Valley Way. This agreement is necessary for works in which the Roads and Maritime Services has a statutory interest.

- Any work undertaken on the Hume Highway or Lachlan Valley Way must be undertaken by a qualified contractor that has been approved by the Roads and Maritime Services. A list of pre-qualified contractors may be found on the Roads and Maritime Services's website, currently located at:
www.rta.nsw.gov.au/doingbusinesswithus/tenders/prequalifiedcontractors.html
- The requirements outlined in the Publication "Operating Conditions: Specific permits for oversize and over mass vehicles and loads" are to be followed. This publication is available online at: <http://www.rta.nsw.gov.au/heavyvehicles/oversizeovermass.html>. Where required, the applicant is required to obtain permits for any oversized and over-mass load from the Special Permits Unit.

Under the provisions of the Environmental Planning & Assessment Act, the Consent Authority, is responsible to consider any likely impacts on the natural or built environment. Depending on the level of environmental assessment undertaken to date and nature of the works, it may be necessary for the developer to undertake further environmental assessment for any ancillary road works required as a condition on the development.

Any enquiries regarding this correspondence may be referred to the Manager, Land Use for Roads and Maritime Services (South West Region), Maurice Morgan, phone (02) 6923 6611.

Please forward a copy of the Notice of Determination for this Development Application to the Roads and Maritime Services at the same time as advising the applicant.

Yours faithfully



Per:
Mr Lindsay Tanner
Regional Manager
South West Region