Bango Wind Farm Project

Traffic Management Plan

29 July 2022

Contents

1. Introduction

This plan has been prepared in accordance with Schedule 4, Condition 1 of the NSW Consent. This plan is based on the traffic assessment included in the Environmental Impact Statement prepared by *Samsa Consulting* in May 2016.

This plan supplements the Environmental Management Strategy (EMS) prepared by CWP Renewables, May 2019. Information on the background and locality of the project is included in the Environmental Management Strategy.

The purpose of this Traffic Management Plan (TMP) is to:

- Set out the traffic management initiative that will be deployed to minimise disruption to, and ensure the safety of the wide range of stakeholders potentially affected by the works, including but not limited to: motorists, pedestrians; cyclists; public transport users, local residents and property owners; business owners; and workers/staff engaged on the Project.
- Detail the measures to mitigate and/or manage potential impacts, including construction traffic control, road dilapidation surveys and measures to control soil erosion and dust generated by development related traffic.

1.1 Stakeholder Consultation

The TMP has been reviewed and prepared in consultation with the following road authorities:

- Roads and Maritime Services.
- Yass Valley Council.
- Hilltops Council (previously Boorowa Council).

Input for the TMP has also been sought from the following stakeholders:

- South East Local Land Services (LLS).
- Yass and Boorowa School Bus operators who use Lachlan Valley Way.
- Yass High School.
- Boorowa Central School.
- Rye Park Wind Farm (Tilt Renewables).

Evidence of this consultation is included in *Appendix 6*.

1.2 Scope and Methodology

The preparation of the report included the following tasks:

- Review of project background information.
- Project discussions with Bango Wind Farm Pty Ltd (Bango) project team.
- Discussions with Yass Valley Council and Hilltops Council (previously Boorowa Council) and RMS.

- Visits to the Wind Farm site and surrounding road network, including preferred transportation routes.
- Development of measures to mitigate and/or manage potential impacts, including construction traffic control, road dilapidation surveys and measures to control soil erosion and dust generated by development related traffic.

This Traffic Management Plan is to be used during construction, operation and decommissioning of the Project.

1.3 Conditions of Consent Requirements

This report is a requirement of the Development Consent for Application number SSD 6686 provided under Section 4.38 of Environmental Planning and Assessment Act 1979 dated 4 December 2018.

This Traffic Management Plan (TMP) addresses the Condition 24 to 28 of the Project Approval as shown in Table 1.1.

Table 1.1: Conditions of Consent

Condition Number	Condition	Sections Addressed
24	*Designated Heavy and Over-Dimensional Vehicle Routes* *The Applicant must ensure that all over-dimensional and heavy vehicle access to and from the site is via the Hume Highway and Lachlan Valley Way, as identified in the figures in Appendix 8, unless the Secretary agrees otherwise.* *Notes:* *The applicant is required to obtain relevant permits under the Heavy vehicle National Law (NSW) for the use of over-dimensional vehicles on the road network.*	*Section 6.1*
25	*Road Upgrades* *The Applicant must implement the road upgrades identified in Appendix 7 in accordance with the relevant timing requirements, to the satisfaction of the relevant roads authority.* *If there is a dispute about the road upgrades to be implemented, or the implementation of these upgrades, then either party may refer the matter to the Secretary for resolution.*	*Section 6.2*
26	*Road Maintenance* *The Applicant must:* *a) prepare a dilapidation survey in accordance with the guidelines and standards established by Austroads of the designated vehicle route on Tangmangaroo Road, Wargeila Road and Yass Valley Way, as identified in the figures in Appendix 8:*	*Section 7.4*

Condition Number	Condition	Sections Addressed
	• *prior to the commencement of any construction and / or decommissioning works, other than pre-construction minor works;* • *within 1 month of the completion of any construction and / or decommissioning works, other than pre-construction minor works;* *b) rehabilitate and / or make good any development-related damage:* • *identified / or decommissioning works if it could endanger road safety, as soon as possible after the damage is identified, but within 7 days at the latest; and* • *identified during any dilapidation survey carried out following the completion of the relevant construction and/ or decommissioning works within 2 months of the completion of the survey, to the satisfaction of the relevant roads authority.* *If the construction and decommission of the development is to be staged, the obligations in this condition apply to each stage of construction and / or decommissioning.* *If there is a dispute about the scope of any remedial works or the implementation of these works then either party may refer the matter to the Secretary for resolution.*	
27	*Unformed Crown Roads* *The Applicant must ensure any unformed Crown road reserves affected by the development are maintained for future use, unless agreed with the NSW Department of Industry – Crown Lands and Water.*	*Section 5.12*
28	*Traffic Management Plan* *Prior to the commencement of construction, the Applicant must prepare a Traffic Management Plan for the development in consultation with RMS and the Councils, and to the satisfaction of the Secretary. This plan must:* *a) detail the measures that would be implemented to:* • *minimise the traffic safety impacts of the development and disruptions to local road users during the construction and decommissioning of the development, including:* – *consideration of potential interaction with Rye Park Wind Farm in consultation with the applicant of that project;* – *temporary traffic controls, including detours and signage;* – *notifying the local community about development-related traffic impacts;*	*Section 5.14* *Section 6.3* *Section 7.1* *Section 5.7* *Section 5.8* *Section 5.6* *Section 7.2*

Condition Number	Condition	Sections Addressed
	– *minimising potential conflict between development related traffic and* ▪ *rail services;* ▪ *stock movements; and* ▪ *school buses, in consultation with local schools;* – *implement measures to minimise development related traffic on the public road network outside of construction hours;* – *implement measures to minimise dirt tracked onto the public road network from the development-related traffic;* – *ensuring loaded vehicles entering and leaving the site have their loads covered or contained;* – *providing sufficient parking on site for all development related traffic;* – *responding to any emergency repair requirements or maintenance during construction and decommissioning; and* – *a traffic management system for managing over-dimensional vehicles; and* • *comply with the traffic conditions in this consent;* *b) include a driver's code of conduct that addresses:* • *travelling speeds;* • *procedures to ensure that drivers to and from the development adhere to the designated over-dimensional and heavy vehicle routes; and* • *procedures to ensure that drivers to and from the development implement safe driving practises;* *c) include a detailed program to monitor and report on the effectiveness of these measures and the code of conduct.* *Following the Secretary's approval, the Applicant must implement the Traffic Management Plan.*	*Appendix 5* *and refer Code of Conduct, section 10 Biosecurity* *Section 5.4 and 7.3* *Appendix 5* *Section 6.1* *Appendix 5*

Definitions from Conditions of Consent

Heavy vehicle:

- As defined under the Heavy Vehicle National Law (NSW), but excluding light and medium rigid trucks and buses no more than 8 tonnes and with not more than 2 axles.

Over-dimensional:

- Over-size (length) and/or over-mass (OSOM) vehicles as defined by Heavy Vehicle National Law (NSW).

1.4 Report Structure

The remainder of this assessment report is presented as follows:

Chapter 2 provides a project construction timeline, operation and decommissioning.

Chapter 3 describes existing conditions

Chapter 4 describes proposed conditions.

Chapter 5 discusses traffic management measures to address potential transport impacts identified.

Chapter 6 summarises the traffic management during the construction and operation phases of the Project.

Chapter 7 provides additional information on management of project.

2. Construction, Operation and Decommissioning

2.1 Project Description

The proposed Bango Wind Farm Project is shown in *Appendix* 1*: Proposed Wind Farm Layout* and described in the project Environmental Management Strategy.

The subject Wind Farm consists of permanent and temporary ancillary structures and equipment. The project site is currently used as rural farm land. The land would continue to be rural farm land after construction. Once the Wind Farm is operational it would be monitored remotely, with maintenance staff undertaking regular services in line with the selected wind turbine.

The life span of a Wind Farm is usually 25 to 30 years, after which time there would be an option to either decommission the site and restore the area to its previous state, or to upgrade the equipment and extend the Wind Farm ’s operational life.

For decommissioning, similar general measures would be necessary as those detailed in this report for construction works. This TMP would be revised to address traffic operation and volume changes in the future years during the decommissioning phase.

2.2 Construction and Decommissioning

Construction commenced in July 2019 and commissioning of turbines commenced in October 2020. Construction and commissioning is scheduled for completion in November 2022.

Decommissioning will occur at the end of the life of the wind farm, the timing of which is undetermined, but expected to be at least twenty-five years after the completion of construction.

Construction would be split into three stages:

Pre-construction Activities

- Road Upgrades as detailed *Appendix 7* of the Conditions of Consent to enable site access for Wind Farm Construction.
- Building / road dilapidation surveys.
- Investigative drilling, excavation or salvage.
- Minor clearing or translocation of native vegetation.
- Establishing temporary site office (in locations meeting the criteria identified in the conditions of this approval).
- Installation of environmental impact mitigation measures, fencing, enabling works.
- Minor access roads and minor adjustments to services/utilities, etc.

Wind Farm Construction

- On-site civil works for internal access roads, crane pads, lay-down areas, wind turbine footings and cable trenching.
- Delivery and Install of OSOM materials.
- Transport of wind turbine infrastructure to the Project site.
- Transport of wind turbine infrastructure from the project site to Port of Newcastle.
- Installation of wind turbines on site using cranes.
- Construction of electrical substations.
- Construction of site control room and operations and maintenance facilities.
- Construction of electrical transmission lines.
- Restoration and revegetation of disturbed areas.

Decommissioning

- Similar staging as construction but in reverse and across a shorter timeframe.
- Restoration.

3. Existing Road Network Conditions

A Traffic and Transport Issues Assessment was completed by *Samsa Consulting* (2018). *Section 5* of the assessment identified features of the existing road network. Below is a summary of the main roads in the vicinity of the Project site proposed to serve the subject Wind Farm.

3.1 Lachlan Valley Way

- Lachlan Valley Way is a State Road (MR56) running from Hume Highway in the south to Newell Highway near Forbes in the north.
- Lachlan Valley Way intersects the Hume Highway at a channelised 'seagull' intersection. Lachlan Valley Way generally has a 9 m wide pavement formation incorporating two travel lanes and shoulder areas with centreline and edge line pavement markings.
- The pavement conditions along Lachlan Valley Way are generally above average with improvement works carried out in 2017 to 2018 including new pavement and overtaking lanes.
- The general road environment can be described as rolling terrain with some sharper curves and crests requiring 75 km/h and 85 km/h advisory speeds on curves within the background 100 km/h speed zone.
- Traffic volumes along Lachlan Valley Way (approximately 15 km north of Hume Highway at the Boorowa River bridge crossing) were 1,766 vehicles per day (vpd) in 2006. These volumes almost double in Boorowa town (Marsden Street south of Pudman Street) to some 3,400 vpd in 2006.

3.2 Tangmangaroo Road

- Tangmangaroo Road is an unclassified local road connecting various properties in the area. It runs from Lachlan Valley Way in the south and continues for a distance of approximately 18 km to Rye Park Road in the north. At Lachlan Valley Way it forms the stem of an uncontrolled T-junction.
- Tangmangaroo runs road north from the intersection with Lachlan Valley Way to the central Project entrances (this section of road is wholly within the Yass Valley Council LGA);
- Tangmangaroo Road varies in condition and standard along its length. The southern section between Lachlan Valley Way north for a distance of approximately 2.5 km is relatively open with a 6 m to 7 m wide unsealed pavement formation and no line marking. In this section, the pavement conditions generally appear to be relatively stable.
- North of approximately 2.5 km from Lachlan Valley Way, the carriageway width narrows to average 4 m to 5 m with some localised widening and narrowing of the road. The unsealed surface is of a lesser standard with more rutting and potholes evident.

- The general alignment is largely straight with larger radius curves on a relatively flat terrain with some gentle undulations. There are a number of minor sags due to causeways, which may require road amendments to accommodate and heavy transport.

4. Proposed Conditions

This section describes the proposed conditions during Construction, Operation and Decommissioning of the Wind Farm.

4.1 Wind Farm Site Access Locations

There are two site access points off the public road network.

An internal site road network would allow access within the Wind Farm site linking the public road network with the wind turbine locations – refer *Appendix 1: Proposed Wind Farm Layout*.

The site accesses are proposed to be located as follows:

- Lachlan Valley Way access, approximately 30.7 km north of Hume Highway or approximately 12.4 km south of Boorowa town (50 km/h urban speed zone). Road network access would be directly off Lachlan Valley Way. The access would be used during construction and operation for light, heavy and OSOM vehicles.
- Tangmangaroo Road access located approximately 8.8 km north-east of Lachlan Valley Way. Road network access would be via Lachlan Valley Way and then north-east along Tangmangaroo Road. During operation and construction, the access would be used for light vehicles and trucks with no more than 8 tonnes and with not more than 2 axles.

Appendix 1 shows the layout for access during operation while *Appendix 2* includes the layout for construction and decommissioning at both locations.

4.2 Road Access During Construction and Operation

Transport of materials, components and equipment would travel along the major State Roads south of the site being Hume Highway, Lachlan Valley Way and Yass Valley Way. These routes include all oversize and over mass loads.

All routes to the Boorowa and Yass Valley areas are National Routes or State Highways. The road network provides a relatively high standard of road infrastructure. These routes have relatively wide carriageways and road formations, pavement line marking and controlled access to side roads. In general, they have 100 km/h speed limits. Subject to statutory permit conditions, these roads can accommodate over-mass and over-size vehicles.

One component (1 x Nacelle) will arrive at the Port of Newcastle and will then be transported via road from Newcastle to the Bango Wind Farm site. All other remaining components of the turbines (including nacelles, hubs, blades, base tower sections and GP containers) will arrive at Port Kembla and be transported to the Bango Wind Farm site via road.

Six blades that have already arrived at the project site must be transported from the project site to the Port of Newcastle to return these components to

the manufacturer.

The components are detailed within specific route assessments undertaken for the Project, which are contained within the Transport Management Plans prepared by RJA[1] (attached at Appendix 8 of this TMP).

In general, the turbine components will be transported via the Hume Highway and Lachlan Valley Way road network. The approved heavy haulage routes from port to site, including for OSOM transport, are detailed in specific route assessments undertaken for the Project[3] and summarised in *Appendix 4*.

The routes assessed from entry ports to the Project site are as follows:

- Newcastle to Bango windfarm (478 km): Mayfield no.4 berth to Selwyn Street, George Street, Industrial Drive, Maitland Road, New England Highway, John Renshaw Drive, M1 Motorway, Pennant Hills Road, M2 Motorway, M7 Motorway, M5 Motorway, Hume Highway and Lachlan Valley Way.
- Port Kembla to Bango windfarm (275 km): AAT terminal to Tom Thumb Road, Springhill Road, Masters Road, Princes Motorway, Mt Ousley Road, Picton-Wilton Road, Hume Highway and Lachlan Valley Way.

The route assessed from the Project site to Port of Newcastle (for the purpose of removing damaged blades from the site and returning to manufacturer) is as follows:

- Bango windfarm to Newcastle, 485.0 kilometres Lachlan Valley Way, Hume Highway, M5 Motorway, M7 Motorway, M2 Motorway, Pennant Hills Road, M1 Motorway, Hunter Expressway, John Renshaw drive, New England Highway, Maitland Road, Industrial Drive, George Street, Selwyn Street.

Transport of Wind Farm components manufactured in Australia, would be transported by road via the national highway network and arrive at site via Hume Highway (north and/or south) and Lachlan Valley Way. Whilst there is the ability for the Secretary for Planning to approve OSOM vehicles to use Lachlan Valley Way from north of the site, it is not planned to use this route for the transport of Wind Farm components.

Transport of other construction materials such as gravel, concrete, steel, cement, water, plant, and equipment would be transported via the approved haulage routes for the class of vehicle used. The Project will seek Secretary's Agreement for the use of the Lachlan Valley Way from the north via Boorowa for heavy loads if and when required.

Tangmangaroo Road would be used for the transportation of light loads, personnel and equipment and only occur after the road upgrades detailed in *Appendix 7* of the Conditions of Consent have been undertaken.

1 Rex J Andrews "*Transport Management Plan: GE Bango Wind Farm: Ex Newcastle. 17/07/2020 REV 04*", and "*Transport Management Plan: GE Bango Wind Farm: Ex Pt Kembla 17/09/2020 REV 08*".

4.3 Internal Access Roads

The construction and maintenance of the Wind Farm would require the construction of an internal site road network to reach each of the wind turbine locations and the substation. In some cases, the site road network works would involve upgrading existing access tracks and in others constructing new ones.

Access to construction site offices and facilities buildings would generally be available for conventional two-wheel drive vehicles. Access to individual wind turbine locations may be restricted to four-wheel drive or multiple wheel drive vehicles depending on the internal road network conditions.

5. Managing Traffic Impacts

5.1 Access During Construction and Operation

Site access at Lachlan Valley Way and Tangmangaroo Road would be used during construction and operation of the Wind Farm. Each access location requires upgrade works to be undertaken as detailed in *Appendix 7* of the Conditions of Consent.

Access at Lachlan Valley Way would be left and right in and out for light and heavy vehicles and right in / left out for OSOM vehicles during construction and operation. Access by light vehicles would be unrestricted.

Traffic management will be required during construction to adequately warn southbound traffic along Lachlan Valley Way of turning vehicles, particularly heavy vehicles, and provide safe access into and out of the Wind Farm site.

Access at Tangmangaroo is limited to left-in and right-out as per Conditions of Consent for light vehicles.

Refer to *Section 5.1* and *Appendix 2* for Traffic Control Plan and Vehicle Movement Plans for the accesses. The TCPs and VMPs show the traffic management and vehicle movements including warning signs during construction.

Appendix 1 shows the intersection controls during operation of the Wind Farm.

At the decommissioning stage, the accesses would be returned as per the consent.

5.2 Construction Traffic

In general, construction of the Wind Farm would include the following activities:

- Transport of construction machinery and labour to the Project site.
- On-site civil works for internal access roads, crane pads, lay-down areas, wind turbine footings and cable trenching.
- Road upgrade works (as required) to the public road network to allow over-size and over-mass transportation.
- Transport of wind turbine infrastructure to the Project site.
- Installation of wind turbines on site using cranes.
- Construction of electrical substations.
- Construction of site control room and operations and maintenance facilities.
- Construction of electrical transmission lines.
- Restoration and revegetation of disturbed areas.

5.2.1 Construction Vehicle Types

Traffic generating activities during the works involve the movement of light and heavy vehicles such as concrete trucks, 30-tonne truck and trailer, bin trucks, single unit trucks and semi-trailers. Machinery includes excavators, bulldozers, scrapers, rollers, water carts, mobile and truck mounted cranes, concrete pumps, and miscellaneous small machinery.

Due to the size and weight of the wind turbine components there will be deliveries using over-size over-mass (OSOM) vehicles. Over-size vehicles are those over 19 metres in length, 2.5 metres in width and/or 4.3 metres in height. Over-mass vehicles are those with a gross mass greater than 42.5 tonnes.

These vehicles are regarded as restricted access vehicles (RAVs) and will require special RMS operating permits to allow them to travel on public roads. The operating permits for OSOM vehicles would require one or more escort vehicles to accompany them.

The fleet of vehicles engaged to deliver oversize components would likely consist of:

- Extendable blade trailers of standard semi-trailer width (2.5 m) with the ability to extend to 45 m with up to 4 rear axles, some, or all of which will be steerable.
- Heavy duty low loaders, with up to 10-plus rear axles and with each axle having 8 or more tyres to spread the load of the heavier WTG components. These low loaders may have the ability to carry loads up to 30 m in length and may widen up to 5 m to reduce pressures on the road surface. Depending on the extendable length of these trailers, some of the rear axles may be self-steering.
- Dolly / jinker arrangements to carry loads longer than 30 m, where permitted to do so by permits and the WTG supplier. The rear axle groups on the jinker arrangements are steerable.
- A variety of high-power prime movers, typically rated 130 to 200 tonnes gross combination mass (GCM), as required depending on the total combination weight, i.e. WTG load + trailer + prime mover.

5.2.2 Construction Phase Traffic Generation

Traffic-generating tasks associated with the works include:

- Initial site set-up and access construction during the pre-construction period.
- Construction staff movements between the site and the local centres.
- Wind farm component deliveries (including over-size transport).
- Concrete material deliveries and other general deliveries during construction works.
- Road construction materials.
- Water for construction.
- Operational staff movements during operation and maintenance.
- Decommissioning and reinstatement construction activities.

Construction commenced in July 2019 and commissioning of turbines commenced in October 2020. Construction and commissioning is scheduled for completion in November 2022.

The Wind Farm is expected to operate for 25 to 30 years followed by decommissioning of the project.

The transport of the various Wind Farm components is estimated to generate traffic as shown in *Table 5.1*. The traffic generation is split into Wind farm component delivery, construction staff and construction material deliveries.

The EPC contractor and their sub-contractors will be encouraged to use buses or carpool arrangements for their staff living in Yass and Boorowa. This would have the effect of minimising traffic impacts on the Lachlan Valley Way during certain periods of the day.

Table 5.1: Wind Farm Component Transportation

Wind Farm Component	Characteristics	Traffic Generation
Nacelle	Weight is up to 125 tonnes, one per wind turbine: single load with installed drive trains.	Traffic generation for 1 wind turbine: 1 over-size (mass) vehicle Traffic generation for 46 wind turbines: 46 over-size vehicles
Blades	Three blades per wind turbine, each blade is in two parts. The longest blade section is approximately 66.5 m long, including the transport frames. Blade tips can be stacked and transported 3 per semi-trailer.	Traffic generation for 1 wind turbine is 3 over-size (length) vehicles (blade root) and 1 semi-trailer (blade tips). Traffic generation: 138 over-size vehicles and 46 semi-trailers\
Hub	Typical weight is approximately 40 tonnes, one per wind turbine in single load. Sometimes the hub 'capping', which is a lightweight fibreglass piece, is stacked into groups of 3 and sent in a single load to site.	Traffic generation for 1 wind turbine: 1 low-loader vehicle Traffic generation for 46 wind turbines: 46 low-loader vehicles
Tower	Typically, five sections, each weighing between 20 and 65 tonnes depending on the section and measuring between approximately 20 m to 25 m long. An additional section for insert into the foundation weighs 10 tonnes and is typically 4 m in diameter and 5 m long.	Traffic generation for 1 wind turbine: 5 low-loader (over-mass) vehicles + 1 semi-trailer truck Traffic generation for 46 wind turbines: 230 low-loader (over-mass) vehicles + 46

Wind Farm Component	Characteristics	Traffic Generation
	Typically 3 to 4 sections per tower, plus the foundation ring. Tower sections range from 15 m (lower sections) up to 30 m (top section).	semi-trailer trucks
Additional Materials	Typically for each wind turbine, additional miscellaneous equipment to be delivered to the site would require approximately one container (semi-trailer) truck.	Traffic generation for 1 wind turbine: 1 semi-trailer truck Traffic generation for 46 wind turbines: 46 semi-trailer trucks
Sub-station Transformers	The collector substation transformers would have a typical weight of up to 90 tonnes. Transportation of up to two transformers would be by road and would involve direct loading onto a platform trailer.	Traffic generation: 5 over-size (mass) vehicles + 10 semi-trailers of support equipment.
Switching Room	Semi-trailer for transportation of switching station components at the point of connection.	Traffic generation: 10 semi-trailers of components and associated equipment.
Overhead Transmission Lines	Semi-trailer for transportation of power poles, conductors, wires, and other materials.	Traffic generation: dependant on final details of pole numbers, spacing and location but assume a minimum 20 semi-trailers of poles and associated transmission line equipment.
Site Cranes	Assume four cranes (2 main cranes and 2 tailing cranes + up another 10 cranes from 30 – 200T) moving between wind turbine sites. These would travel to the preferred site access point at the start of construction and then leave at the end.	Traffic generation: 4 over-size (mass) vehicles + 12 semi-trailers of support equipment.

Additionally, the transport of 6 x blades from the Project site to the Port of Newcastle would generate the following traffic:

- 6 x over-size (length) vehicles (blade root); and
- 2 x semi-trailers (blade tips, stacked 3 per semi-trailer).

In addition to the component deliveries noted in Table 5-1 above, the transport of three replacement blades from Port Kembla to the Project site would generate the following traffic:

- 3 x over-size (length) vehicles (blade root); and
- 2 x semi-trailer (blade tips).

Note: As of July 2022, two of the replacement blades have already been successfully delivered to the project site. The delivery of the third and final replacement blade with tip section is planned for September 2022.

As a worst case, based on delivery of a total of three whole wind turbines per week and working on a six-day week, some five OSOM loads per day would be generated. With the addition of a maximum of two semi-trailer loads of other equipment / components in the one day, it is assumed that the delivery of wind farm components would generate a maximum 14 trips per day, inclusive of 10 OSOM vehicle trips per day.

Construction Staff Traffic

For the majority (10 months) of the 18-month construction period, it is anticipated that construction staff numbers would be up to approximately 100 staff. During peak construction periods, it is anticipated that construction staff numbers would increase up to 150 staff for an approximate eight-month period coinciding with the turbine installation phase.

Traffic generation for both moderate and conservative (in brackets) scenarios associated with construction staff is estimated at 116 (190) vehicles per day (i.e. two-way trips) which would be along Lachlan Valley Way.

Transport of Construction Materials

The major construction materials to be transported include gravel/road base for construction of site access roads, concrete, steel reinforcement deliveries for foundation construction, steel towers and cabling for the transmission lines. Construction material delivery traffic generation for Lachlan Valley Way has been estimated in total traffic generation in Table 5.2, below.

Traffic generation for both moderate and conservative scenarios is shown in *Table 5.2* below and has been classified into daily movement trips (i.e. two-way trips), shown as vehicles per day (vpd).

The ‘moderate’ traffic generation estimate is an ‘average’ day throughout the majority of the works. The conservative scenario assumes peak construction staff numbers coincide with other peak traffic generating activities such as large single day concrete pours and the delivery of materials and components. The oversized vehicle deliveries would occur at night.

The temporary increase in traffic volumes due to construction-related activities is able to be readily absorbed by the subject road network with appropriate road infrastructure upgrades and construction traffic management measures. These measures are discussed in *Section 6.1*.

Table 5.2: Project Traffic Generation

Traffic Generating Activity	Moderate Daily Vehicle Estimate (vpd)	Conservative Daily Vehicle Estimate (vpd)
Wind farm component delivery Standard heavy vehicles OSOM vehicles	 0 0	 28 10*
Concrete delivery (heavy vehicles)	40	40
Delivery of steel reinforcement (heavy vehicles)	6	10
Gravel / road base deliveries (heavy vehicles)	28	50
Inter-turbine cabling delivery (heavy vehicles)	6	6
Water deliveries (heavy vehicles)	20	34
Other miscellaneous construction deliveries (heavy vehicles)	10	10
TOTAL Heavy vehicles **TOTAL OSOM vehicles**	**110** **0**	**178** **10**

* Night-time deliveries

5.3 Operational Phase Traffic Generation

There is proposed to be 15 operational / maintenance staff, likely to be based in the local area, servicing the wind turbines.

Operational traffic will consist of 4WD-type service vehicles travelling between individual wind turbine sites along the internal road network after gaining access off the public road network from either of the two site access locations. Approximately 30 trips per day. Will be experienced during operations primarily comprising journey to work and home trips.

This relatively minor traffic generation as a result of operations will have negligible traffic and road network impacts. There are no additional management measures as a result of the traffic generation caused by vehicles during operation with the exception of the access location as discussed in *Section 5.1*.

5.4 Staff Parking and Transportation to Site

It is anticipated that construction staff numbers would be up to approximately 100 staff. During peak construction periods, it is anticipated that construction staff numbers would increase up to 150 staff for an approximate eight-month period coinciding with the turbine installation phase.

Parking by staff vehicles and queuing of trucks on public roads during

construction would be avoided as sufficient on-site parking will be available. Designated areas for the standing of trucks and parking would be provided within the site during construction.

Parking for the Wind Farm Project site during construction and operation will be located within the site and shall be designed in accordance with *AS2890.1*. Parking shall be on formed laydown and hardstand areas.

During operation there would be car parking spaces to cater for the 15 operational / maintenance staff, likely to be based in the local area, servicing the wind turbines.

The workforce for the site will be encouraged to arrive by site using car pool from nearby centres to minimise construction and operational staff trips. There would be information provided at induction on the benefits of car-pooling.

5.5 Pedestrians and Cyclists

Staging of the construction works for the road upgrades and accesses would most likely include the closure of the road shoulder / cycle lane/s. Safe cyclist and pedestrian access would be maintained at all times through or around worksites during construction works. Pedestrians and cyclists will be provided with advance warning traffic control signs and static signage for long term roadworks.

Local bicycle and walking groups would be updated on traffic controls / conditions throughout the works.

5.6 Schools

There are no 40 km/h school zones located along the access roads of Lachlan Valley Way or Tangmangaroo Road in the vicinity of the site. Heavy vehicle routes in vicinity of the site along Hume Highway, Lachlan Valley Way or Barton Highway do not pass any schools or school zones.

There are two school buses that travel along Lachlan Valley Way route N1165 from Yass whose timetable is shown below in *Table 5.3* below.

Table 5.3: School Bus Routes

Time	Address	Time	Address
7.30am	Depot - 4 Hardwick Lane, Yass 2582	3.28pm	Yass High School Grampian Street, Yass 2582
7.50am	Walls Junction Road, Via Yass 2582	3.32pm	1429 Yass Valley Way, Yass 2582
8.02am	'Kangiara' 2131 Lachlan Valley Way, Bowning 2582	3.40pm	390 Lachlan Valley Way, Yass 2582
8.05am	'Long Gully' Lachlan Valley Way, Yass 2582	3.42pm	'Limestone Springs' 575 Lachlan Valley Way, Bowning 2582

Time	Address	Time	Address
8.07am	Kangiara Rd Intersection, Kangiara 2582	3.44pm	'Willow Bridge' 748 Lachlan Valley Way, Bowning 2582
8.14am	'Tangmangaroo' 1528 Lachlan Valley Way, Bowning 2582	3.48pm	'Baranbougie' 1330 Lachlan Valley Way, Bowning 2582
8.16am	'Baranbougie' 1330 Lachlan Valley Way, Bowning 2582	3.50pm	'Tangmangaroo' 1528 Lachlan Valley Way, Bowning 2582
8.21am	'Willow Bridge' 748 Lachlan Valley Way, Bowning 2582	4.00pm	Kangiara Road Intersection, Via Yass 2582
8.24am	'Limestone Springs' 575 Lachlan Valley Way, Bowning 2582	4.02pm	'Long Gully' Lachlan Valley Way, Yass 2582
8.28am	390 Lachlan Valley Way, Yass 2582	4.04pm	'Kangiara' 2131 Lachlan Valley Way, Bowning 2582
8.34am	1429 Yass Valley Way, Yass 2582	4.20pm	Walls Junction Road, Via Yass 2582
8.40am	Yass High School Grampian Street, Yass 2582	4.40pm	Depot - 4 Hardwick Lane, Yass 2582

The N1166 route from Boorowa leaves Boorowa at 7.30am and arrives at the Kangiara Road Intersection to meet the N1165 at 8.10am and returns to Boorowa after waiting 10 minutes to exchange passengers. In the afternoon it arrives at Kangiara at 3.50pm and begins its return journey to Boorowa at 4pm. The affected school bus operators have been consulted during the preparation of this plan.

In order to minimise interruption to school bus routes along the Lachlan Valley Way the following rules will apply:

- No OSOM vehicles will enter Lachlan Valley Way between the hours of 7.15 am and 8.30 am on a school day.
- No OSOM loads will leave the site entrance between the hours of 3.15 pm and 4.30 pm.
- No OSOM loads will enter Lachlan Valley Way between the hours of 3.15 pm and 4.30 pm.

It is planned that OSOM deliveries would occur outside school hours. A route assessment by the transport contractor has identified that there are no schools and school zones along the route. Layby areas along the Lachlan Valley Way will be utilised to ensure OSOM vehicles do not restrict traffic flow during bus operation periods. If no layby area is found on Lachlan Valley Way then the Mundoonan Southbound Rest Area on the Hume Highway would be utilised.

School Bus operators will be notified of any planned works along school bus routes as detailed in *Section 7.1* of this report. Traffic Management which restricts traffic flow along the Lachlan Valley Way would be avoided during the period that the school buses are operating along Lachlan Valley

Way.

Movements by heavy vehicles during the school drop-off and pick-up times (8:00 am to 9:30 am and 2:30 pm to 4:00 pm) on school days would be avoided where possible to prevent conflicts with school traffic and school buses. The Contractor will ensure appropriate notifications are provided in driver and subcontractor inductions and Driver's Code of Conduct.

5.7 Impact on Public Transport

There are no regular public bus services in vicinity of the site.

Regular coach services operate along Hume Highway and stop in Bowning and Yass interchanges during the afternoons. The coach services would be unaffected by the works.

The nearest train stations are:

- Yass Interchange Station located 27km or 19 minutes' drive from Tangmangaroo Road at Lachlan Valley Way, and
- Bowning Station which is located 18.2km or 13 minutes' drive to Tangmangaroo Road at Lachlan Valley Way.

Services and roads servicing these stations would be unaffected by the works being located off haulage routes or roadwork sites associated with the project. The EPC has indicated the they will not need to adjust the overhead powerlines at the rail bridge overpass on the Lachlan Valley Way as outlined in *Appendix 7* of the Conditions of Consent.

5.8 Stock Movements

The site access routes pass Traveling Stock Reserves TSR on Lachlan Valley Way and Tangmangaroo Road. The grazing industry uses Travelling Stock Reserves (TSR) for grazing stock. Local Land Services is responsible for the care, control, and management TSR land.

The movement of stock on a Travelling Stock Reserve (TSR) or along a public road requires a permit. The permit allows stock to be walked over TSRs between sunrise and sunset. The permit must be applied at least 2 working days in advance. Approved stock warning signs must be displayed when stock is walking or grazing near or on a roadway.

OSOM vehicle movements would generally occur outside of the permit hours and as such avoid any conflicts.

Information on the location of TSR would be provided to drivers within the Transport Code of conduct. Drivers would be made aware of the potential to encounter livestock and adherence to safe driving practises at all times. The code of conduct will include a requirement for drivers to reduce their speed when encountering a stock warning sign.

5.9 Emergency and Police Vehicles

The Police and Emergency Services including the NSW Rural Bushfire

Service will be informed in a timely manner of relevant construction activities. Regular updates will be provided to emergency services, including changes to traffic control (short term lane closures, stop / slow), changes to road conditions and worksite access locations, through emails and face to face discussions.

Traffic would be maintained along existing public roads under traffic control throughout construction of site accesses. Disruptions to access during staging of the works is discussed in *Section 6.3*.

The arrangements during operation will result in no change to access public roads for emergency vehicles.

5.10 Impacts on Commercial and Residential Property Access

There are no impacts on existing commercial or residential properties access as these will be retained.

5.11 Special Events

In reviewing Yass Valley and Hilltops Councils' website for special events near the site, the Yass Show will be held on 23 to 24 March 2019. The Show is located in Yass and is unlikely to be affected by the works.

There are no other listed major special events in the region which may be affected by the works.

5.12 Crown Land

The project has been designed so that the future use of any unformed Crown Road Reserve will not be compromised by the development. The project holds a Licence number CL 602734 to occupy Crown Roads.

5.13 Cumulative impacts

Two nearby major developments or projects (both Wind Farms) were identified as potentially resulting in cumulative impacts to the subject Wind Farm project. The developments are the Rye Park Farm to the north east and Coppabella Wind Farm to the south west.

The Rugby Wind Farm application has been withdrawn and a new submission has not been submitted by the applicant.

5.14 Rye Park Wind Farm and Coppabella Wind Farm

The Rye Park Wind Farm project was determined on 22 May 2017 and is currently in the construction stage. The approved heavy vehicle and OSOM routes for the Rye Park Wind Farm include Lachlan Valley Way and Hume Highway. An additional access is also located to the south of the Rye Park Wind Farm. The section of Lachlan Valley Way from Hume Highway to the Bango Wind Farm access point is a shared heavy vehicle

and OSOM vehicle route with Rye Park Wind Farm. See *Appendix 6* for consultation with the proponents of the Rye Park Wind Farm.

The construction of the Coppabella Wind Farm is likely to overlap the Bango Wind Farm works. Over-size and Over-mass vehicles would be using the Hume Highway.

Mitigation measures to reduce the impact of shared routes include:

- Notifying Rye Park Wind Farm and Coppabella Wind Farm contractors of OSOM deliveries to minimise any conflict along Hume Highway and Lachlan Valley Way between road transport movements;
- Notifying Rye Park Wind Farm and Coppabella Wind Farm contractor of any changes to traffic control (short term lane closures, stop / slow), changes to road conditions and worksite access locations, through emails and face to face discussions.
- Regular meetings during concurrent construction activities between staff from Bango and Rye Park Wind Farms and Coppabella Wind Farm and their respective construction contractors to discuss load deliveries and plans to minimise potential traffic congestion and conflicts.

There are no road or other work sites adjacent or within the immediate area which would impact on the current traffic and transport network.

6. Traffic Management

6.1 Fleet Management During Construction

Trucks to be used on the project will be compliant with NSW legislation and standards including the Heavy Vehicle National Legislation.

Drivers of vehicles shall be responsible for driving safely and in accordance with the road rules, exercising care and working in accordance with Vehicle Movement Plan(s).

Fleet Management Measures include the following items which will be incorporated in the Transport Code of Conduct. A full list of measures are listed in the Transport Code.

- Schedule local deliveries to site during standard work hours to mitigate safety problems on local roads and reduce disturbance for residences.
- Transport through any urban areas would generally occur during daylight periods, unless otherwise approved.
- All vehicles would enter and exit the site to/from the public road network in a forward direction only.
- All vehicles generated by construction staff would be accommodated within on-site parking areas.
- Scheduling of transport deliveries to avoid school bus route along Lachlan Valley Road. Ensuring OSOM vehicles do not use the Lachlan Valley Way between 7.30 am and 8.30 am and 3:30 pm to 4:30 pm, unless in case of an emergency.
- OSOM transport routes that pass through any school zones would be avoided during school drop-off and pick-up times (8:00 am to 9:30 am and 2:30 pm to 4:00 pm) on school days to prevent conflicts with school traffic and buses.
- Scheduling of transport deliveries to minimise platoons and convoys of vehicles along public roads.
- Managing transport operations including provision of warning and guidance signage, traffic control devices, temporary construction speed zones and other temporary traffic control measures.
- Undertaking community consultation before and during OSOM and night transport and haulage activities.
- All OSOM vehicle operations will be conducted in accordance with the Chain of Responsibility (CoR) Management Plan.
- Community information in regard to heavy vehicle and OSOM movements to include contact details to ensure community concerns are logged and addressed.
- In order to minimise development-related traffic on the public road network outside of standard construction hours:
  - Scheduling of deliveries and movements to / from site in construction hours;

- Operating gate controls to log vehicle movements outside of hours and take action where necessary.
- Implementing out of hour movements when necessary and as listed in *Section 7.2* of this report.
- Drivers Code of Conduct to include a reference this requirement.

6.1.1 Haulage Routes

Haulage routes were defined in the Conditions of Consent 24 and *Appendix 8*. Condition 24 reads:

> *The Applicant must ensure that all over-dimensional and heavy vehicle access to and from the site is via the Hume Highway and Lachlan Valley Way, as identified in the figures in Appendix 8, unless the Secretary agrees otherwise.*
>
> *Notes:*
> *The applicant is required to obtain relevant permits under the Heavy vehicle National Law (NSW) for the use of over-dimensional vehicles on the road network.*

With reference to the Conditions of Consent, a 'Heavy Vehicle' is termed as a vehicle that is defined under the Heavy Vehicle National Law (NSW), but excluding light and medium rigid trucks and buses no more than 8 tonnes and with not more than 2 axles.

The location and source of construction materials (water, sand, gravel, cement, etc) will be determined by the chosen contractor prior to and during construction. In the event that construction materials are located to the north of the site access on the Lachlan Valley Way then an application would be made to the Secretary for Planning to allow heavy, not oversize vehicles to allow access from the north from Boorowa and beyond. The application to the Secretary would be made in accordance with the provisions of Schedule 3 Condition 24 of the Conditions of Consent. Any movement though Boorowa would adhere to the existing RMS Routes through town being Pudman Street, Court Street, Brial Street, Long Street and Rugby Road which are approved up to B-Double RAV at GML and CML.

Where civil construction materials such as water, sand and gravel are sourced outside the approved development corridor and the approved access routes a separate Traffic Management Plan may be prepared following consultation with the relevant Council and the RMS.

Vehicle haulage routes for OSOM and heavy vehicles are included in *Appendix 4* of this report.

6.1.2 Over-Size / Over-Mass (OSOM) Road Authority Approvals

An NSW Roads & Maritime Services (RMS) permit is required to be obtained for road access for over-mass and over-size vehicles along the major road network (National Routes or State Highways) from areas of component manufacture. Any permits under the Heavy Vehicle National Law (NSW) for the use of over-dimensional vehicles on the road network will also be obtained prior to the commencement of haulage of Over dimensional vehicles.

Pilot vehicles, transport restrictions and appropriate traffic management would be adopted to ensure safe passage from the public road network onto the site by over-size and over-mass vehicles to be used for Wind Farm component delivery.

Over dimensional vehicles, generally vehicles that are greater than 25m length or 3.5m width will have a pilot(s) as per the road authority requirements. Extremely long or wide vehicles may require a police escort (fee payable). Other requirements outlined in the Publication '*Operating Conditions: Specific permits for oversize and over mass vehicles and loads*' would be followed.

Transport Companies would be responsible for obtaining all required approvals and permits from the RMS and local Councils and for complying with conditions specified in the approvals.

The indicative transport routes for wind turbine components are as follows:

- Newcastle to Bango windfarm (478 km): Mayfield no.4 berth to Selwyn Street, George Street, Industrial Drive, Maitland Road, New England Highway, John Renshaw Drive, M1 Motorway, Pennant Hills Road, M2 Motorway, M7 Motorway, M5 Motorway, Hume Highway and Lachlan Valley Way.
- Port Kembla to Bango windfarm (275 km): AAT terminal to Tom Thumb Road, Springhill Road, Masters Road, Princes Motorway, Mt Ousley Road, Picton-Wilton Road, Hume Highway and Lachlan Valley Way.
- Bango windfarm to Newcastle, 485.0 kilometres Lachlan Valley Way, Hume Highway, M5 Motorway, M7 Motorway, M2 Motorway, Pennant Hills Road, M1 Motorway, Hunter Expressway, John Renshaw drive, New England Highway, Maitland Road, Industrial Drive, George Street, Selwyn Street

These routes will be confirmed along with any modifications to roadside furniture when the Road Transport Company is selected and a detailed transport route assessment prepared.

The OSOM Haulage Route will be inspected and any road infrastructure modification works and/or bridge strengthening works would be identified.

Traffic management for OSOM vehicles will be done at the time of passing through the intersection / section as per the road authority permit conditions. Temporary, short-term full road closures ('rolling' road closures as vehicles pass critical locations) will be detailed in the Transport Assessment by the Transport Contractor.

6.1.3 Vehicle Maintenance

All vehicles delivering equipment, materials and personnel to the site during the construction phase will be registered vehicles maintained in an appropriate fashion to address the necessary emissions controls (including noise, exhaust and fluids).

6.1.4 Driver Code of Conduct

All vehicle operators will be expected to operate in a safe and sensible manner. A Driver Code of Conduct has been developed for the project

outlining the behavioural expectations for drivers travelling to and from, and within the site – refer to *Appendix 5*: The Driver Code of Conduct.

6.2 Potential Road Infrastructure Upgrades

6.2.1 Temporary Modifications for OSOM Deliveries

Temporary road modification works and/or bridge strengthening works would be confirmed by the licensed transport contractor as part of their transport route assessment based on specific vehicles to be used.

Modifications required for OSOM deliveries include:

- The EPC will adjust the overhead powerlines at the rail bridge overpass on the Lachlan Valley Way as necessary to allow access to over-dimensional vehicles as outlines in *Appendix 7* of the Conditions of Consent
- Additional modifications will be provided by the EPC prior to commencement of haulage of wind turbine components

Once OSOM deliveries have been completed, any temporary modifications would be removed and/or reinstated to ensure the intended swept path and traffic control devices of the road for typical usage are maintained, i.e. to maintain safe operations. This could include reinstatement of temporary infill areas and relocation of road furniture, signage, etc.

6.2.2 Works Required by Consent

Road upgrades include the adjustment of overhead lines and construction of new site accesses in accordance with *Appendix 7* of the Project Approval.

The roadworks will be designed in accordance with the Austroads *Guide to Road Design*. The table below describes the requirements of the Conditions of Consent.

The staging of works will be planned to minimise the impacts on highway traffic and facilitate cost effective construction phase.

In the event of a dispute in relation to road upgrades either parties may refer the matter to the Secretary for resolution. Advice may also be sought from the Engineers Australia on mediating the dispute.

Table 6.1: Road Upgrades

Road / Intersection	Start-End	Length (km)	Upgrade	Timing
Lachlan Valley Way	Hume Highway to Site Access Point	30	Adjust overhead powerlines at rail bridge overpass a necessary to allow access for over-dimensional vehicles.	Prior to commencing the use of Lachlan Valley Way for any over-dimensional or heavy vehicle traffic associated with the construction of the development.
Lachlan Valley Way / Site Access Point Intersection	-	-	Upgrade with a Basic Right Turn (BAR) and Basic Left Turn (BAL) intersection treatment in accordance with the Austroads Guide to Road Design as amended by the supplements adopted by RMS.	Prior to commencing the use of the Lachlan Valley Way / site access point intersection for any traffic associated with the construction of the development.
Tangmangaroo Road / Site Access Points Intersection	-	-	Upgrade with a Rural Property Access the treatment in accordance with the Austroads Guide to Road Design as amended by the supplements adopted by RMS.	Prior to commencing the use of the Tangmangaroo Road / Site Access point intersection for any traffic associated with the construction of the development.
Wargeila Road / Site Access Point Intersection*	-	-	Upgrade with a Rural Property Access type treatment in accordance with the Austroads Guide to Road Design as amended by the supplements adopted by RMS.	Prior to commencing the use of the Wargeila Road / Site Access point intersection for any traffic associated with the construction of the development.

*Contingency only – works on Wargeila Road not required as the access off Wargeila Road would not be used.

6.2.3 Works on Tangmangaroo Road

Tangmangaroo Road will be used for the transportation of light loads, personnel and equipment. No heavy or OSOM loads will travel along Tangmangaroo Road to access the site.

The key work to occur on Tangmangaroo Road will involve the construction of a Rural Property Access the treatment in accordance with the Austroads Guide to Road Design as amended by the supplements adopted by RMS. This will take the form of two opposing entrance ways to allow construction traffic to cross Tangmangaroo Road between the internal wind farm roads. Once completed and approved by Yass Valley Council, heavy and OSOM vehicles will be allowed to cross Tangmangaroo Road at this intersection.

The roadside verges are vegetated with high conservation value Box-Gum Woodland, and as such, Council have advised that rather than clearing the vegetation for safe site distances can be minimised and alternate traffic control such as signage and traffic control could be used.

The intersection upgrade will involve the placement of compacted imported gravels for select fill, and modified gravels for base and subbase courses, drainage works at the entrance ways and the pavement section of Tangmangaroo Road. All works will be subject to a Section 138 approval from Council.

6.2.4 Works on Lachlan Valley Way

During the stakeholder feedback RMS requested the following:

An intersection of any proposed access road with the Lachlan Valley Way shall comply with the following:

- 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.
- 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.
- 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.

- 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.
- 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 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.
- 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,
- 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.
- 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.
- 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.

6.3 Traffic Control

Traffic Control Plans (TCP) will be prepared in accordance with the RMS *Traffic Control at Work Sites* and *AS1742: Manual of Uniform Traffic Control Devices* (*Ver: 5.0 27/07/2018* or the latest). Plans would be

prepared for the use of traffic control personnel, including spotters and/or signs and devices, traffic controllers, fencing, lighting and barriers on public roads.

Information and advance warning signage will be installed at the work sites and the surrounding road network and will include signage for:

- Protection of workers.
- Provision of adequate warning of changes in surface condition and the presence of personnel or plant engaged in work on the road.
- Adequate instruction of road users and their safe guidance through, around or past the work site(s).

The potential traffic control measures throughout construction work will include:

- Single-lane alternate (stop / slow) operations which may result in short-term delays.
- haulage operations and over-dimension vehicle movements which may impact other vehicles in the vicinity of haulage operations.
- Short-term lane closures with reduced speed limit which may result in short term delays.

Notifications would be prepared for the local community as outlined is *Table 7.1*.

6.3.1 Traffic Control Plans

Works that have been identified as requiring a Traffic Control Plan are detailed below.

- Adjustment of overhead power lines at rail bridge overpass.
- Intersection treatment works at Lachlan Valley Way and Tangmangaroo Road Access points.
- Modifications works for OSOM deliveries as identified by the EPC.
- Traffic Control for OSOM deliveries (where large vehicles execute difficult manoeuvres on public roads) as identified by the EPC.

Appendix 2 provides details expected durations, timing for implementation, the works being undertaken and the expected traffic impacts.

6.3.2 Traffic Control Devices and Measures

On completion of Short Term Traffic Control (one shift or less), all temporary traffic control signage and devices associated will be removed or covered. Any long term traffic and devices would remain in place until no longer required and then these devices and signs would also be removed.

Flashing arrow signs (vehicle or trailer mounted units) may also be used to protect the workforce and provide driver guidance during the installation, or removal of lane closures or during the initial implementation of traffic route alterations.

Portable VMSs may be deployed during the works to inform motorists of any significant changes to the road network.

Consideration will be given to installing TMAs on vehicles to be used:

- to effect lane closures on multi-lane section of roads; and
- as shadow vehicles on mobile works as a device for traffic management and to protect workers.

Temporary Speed Zones will be implemented during road works to assist in controlling the speed of traffic through the roadwork site. Any 40 km/h road speed zones would be implemented during works on public roads as per RMS Traffic Control at Worksites (TCWS) and following approval from RMS. All non-applicable or redundant speed limit signs will be securely covered or removed (not turned around) during any period for which roadwork speed limits apply. Appropriate records will be kept (for 7 years) of the locations, dates and times that road work speed limits are in operation.

7. Other

7.1 Communications and the Community

Bango Wind Farm Pty Ltd (Bango) will be responsible for the dissemination of information to the community including affected residents, Yass Valley and Hilltops Council, drivers, businesses and the public.

The Environmental Management Strategy details the manner in which Bango Wind Farm Pty Ltd (Bango) would allow the community access to information and meet the requirements of Schedule 4 Section 6 of the Conditions of Consent.

Section 6 of the Conditions of Consent reads:

The Applicant must:

a) Make the following information publicly available on its website as relevant to the stage of the development:

- *The EIS*
- *The final layout plans for the development*
- *Current statutory approvals for the development*
- *Approved strategies, plans or programs required under the conditions of the consent*
- *The proposed staging plans for the development if the construction, operation and / or decommissioning of the development is to be staged*
- *A comprehensive summary of the monitoring results of the development, which have been reported in accordance with the various plans and programs approved under the conditions of this consent*
- *A complaint register which is to be updated on a monthly basis*
- *Minutes of the Community Consultation Committee meetings*
- *The annual Statement of Compliance with the EPL*
- *Any independent environmental audit, and the Applicants response to the recommendations of the audit; and*
- *Any other matter required by the Secretary; and*

b) Keep this information up to date.

The table below provides the proposed communications to be implemented for this Plan.

Table 7.1: Communication Notifications

Notification	Communication
Community notice	Major project milestones Expected period of OSOM deliveries, (e.g. between January 2020 and September 2022), to affected business owners, residents at significantly affected intersections

	Major Traffic disruptions including detours, notice of expected traffic delays
Email	General Project Information Direct contact with individuals that require regular updates, e.g. sensitive noise
Community information centre	General Project Information Major project milestones Construction access locations and approved haulage routes.
Internet	Major project milestones Construction access locations and Haulage Routes. Expected period of OSOM deliveries, e.g. between January 2020 and September 2022. Projected component deliveries Major Traffic disruptions including detours, notice of expected traffic delays, restricted access
On site briefings	As required
Press Release	Major project milestones Long term road closures
Community Consultative Committee	Major project milestones Expected period of OSOM deliveries, e.g. between January 2020 and September 2022. Major Traffic disruptions including detours, notice of expected traffic delays, restricted access
Variable message signs	Major Traffic disruptions including detours, notice of expected traffic delays, restricted access. As required by other approvals e.g. OOH or ROL.
Advanced warning signs	Construction access locations.

Any enquiries, complaints and/ or compliments will be directed to the Project Information line or via email or project office.

7.1.1 Community Consultative Committee

A Community Consultative Committee (CCC) was established in 2013 in accordance with Schedule 4 Section 6 of the Consent. The CCC is comprised community members and stakeholders. The CCC would be advised of construction details including traffic delays, detours and other traffic impacts.

7.1.2 Complaint Handling Procedure

The Environmental Management Strategy includes a Complaints Procedure and Complaints Register. All community enquiries and complaints will be recorded and responded to within 48 hours. A 24-hour telephone number will be established during the construction and operations period and postal

address and email address have been established to receive complaints.

The complaints register will record:

- Date and time of complainant / enquiry;
- Type of communication (telephone, mail, meeting, email etc.);
- Name, address, contact telephone number of complainant/enquirer (if possible);
- Nature of the complaint and enquiry;
- Actions taken in response including timeframes for implementing the action;
- If no action was taken, the reason no action was taken; and
- When and how the complainant was notified of the outcome.

If a complaint is traffic related then the following management measures will be considered including:

- Additional traffic controls (e.g. signage, barricades, lighting);
- Alternate access route (where permitted / approved);
- Variation to construction hours (where permitted / approved); and
- Additional onsite traffic management (e.g. staffed controllers).

7.1.3 Travelling Public

The following measures would be undertaken where the works impact on the travelling public.

- Motoring public will be forewarned of any changes, including road closures, road changes and long-term lane closures well in advance using appropriate traffic control signage,
- Variable message signs (VMS) would be used in advance of road closures, major detours and any expected traffic delays.
- For long term vehicle detours, VMS would be used for advance warning and these may be replaced with static signs throughout the detour period.
- Pedestrians and cyclists will be provided with advance warning traffic control signs and static signage for long term detours.
- Warning signs will be placed near the site entrance point to inform road users construction traffic will be exiting and entering the site should requirements of RMS Traffic Control at Worksites (TCWS) are met.

7.2 Working Hours and Out-of-Work Hours Protocol

In general, construction would be limited to the following times (as per Condition of Consent 6):

- Monday to Friday, 7:00 am to 6:00 pm;
- Saturday, 8:00 am to 1:00 pm; and
- No construction on Sundays or NSW public holidays.

Construction works required to be undertaken outside of the standard

construction hours may to be undertaken in the following circumstances (as per Conditions of Consent):

- Activities that are inaudible at non-associated residences.
- The delivery of materials requested by the NSW Police Force or other authorities for safety reasons including the delivery of components by OSOM vehicles from Port Kembla or to/from Port of Newcastle.
- Emergency work to avoid the loss of life, property and / or material harm to the environment.

It is anticipated that, subject to permit conditions the bulk of the OSOM wind turbine component deliveries would be done at night with components generally arriving to site no later than 7 pm. If deliveries are later than this, then the provision in *Section 5.2* regarding school bus routes would prevail.

7.3 Incident Management

The types of emergencies / unplanned incidents that may occur include but are not limited to the following items.

- Motor vehicle crashes
- Bush fires
- Environmental spills
- Terrorist attacks
- Bomb threats
- Construction type incidents
- Structural catastrophic failures
- Inclement weather conditions
- Flooding and
- Anti-social behaviour
- Building fires

In the event of an incident involving the transportation of goods or other traffic related incident then reporting will follow Schedule 4 Section 4 of the Conditions of Consent relating to Incident Reporting as follows:

"The Department must be notified in writing to compliance@planning.nsw.gov.au immediately after the Applicant becomes aware of the incident. The notification must identify the development, including the development application number and the name of the development, and set out the location and nature of the incident."

In the event of a transport related incident the following management measures would be implemented:

- The contractor would coordinate with RMS (Transport Management Centre's Traffic Operations Manager) in event of incidents or undue congestion to minimise delays and improve public safety.
- In the event of a traffic accident occurring within the construction work sites or at other locations affected by the works, the project team is required to record the facts and photograph the approach to the

accident site including the location of all safety devices and signs as soon as possible after the accident. A report with this information must be forwarded to TMC, RMS and Workcover.

- The Transport Contractor will assign labour, plant and material to repair, make safe and/or cordon areas where an incident has occurred. For example:
  - in event of vehicle breakdown, arrange for load to be retrieved and vehicle towed (without load);
  - in event of pavement damage that affects road safety, repair damage as soon as possible;
  - in event of materials on roadway arrange crane to retrieve materials.
- Traffic control by qualified traffic controllers would be provided for emergencies associated with the project within or adjacent to the work sites, roadways and footpaths.
- Planned works that will interfere with the incident or create additional delays to those road users already affected by incident would be re-scheduled until the incident has been resolved.
- TCPs and this plan would be reviewed and updated, in response to incident, if required;
- In the event of flooding or bushfire in the area, the contractor will allow for emergency or evacuation access for local properties via the worksite and / or internal road under instruction of emergency services and in accordance with emergency evacuation plans.

If the New South Wales Police Service, Emergency Services, RMS and TMC are controlling an incident, the project team:

- Will comply with any instruction or direction by the New South Wales Police Service, Emergency Services, RMS and TMC in relation to any proposed closure to a lane or shoulder.
- Will not restrict, close, interfere with or obstruct the free flow of traffic on any lane or shoulder of the existing highway or a local road contrary to the instructions of the New South Wales Police Service, Emergency Services, RMS and TMC.
- Shall act in accordance with any instructions of the New South Wales Police Service, Emergency Services, RMS and TMC including to suspend any of the contractor's work and to re-open the lane or shoulder.

More information located in the EMS, prepared by CWP Renewables, dated May 2019.

7.4 Dilapidation Reporting

The Contractor shall engage a suitably qualified person to prepare a pre-construction dilapidation report prior to the commencement of construction and a post-construction dilapidation report at the completion of construction works. The dilapidation survey would be carried out in accordance with the

guidelines and standards established by Austroads and in accordance with Condition of Consent 26 and the Road Agreement.

The methodology would include:

- Stage 1: Pre-Construction Inspection which records the existing condition of the pavement and forms the basis for future comparison.
- Stage 2: Joint three-monthly inspections throughout the work to identify any project related damage that may require repair.
- Stage 3: Post Construction Inspection to record any observable change in the pavement condition.
- Stage 4: Ongoing monitoring during warranty and defects periods for repair work.

The extent of the dilapidation surveys for regular construction traffic is proposed within 300m of the construction access located on a State Road and along the length of Tangmangaroo Road between the State Road and Site Access.

A similar road inspection / assessment is undertaken by Transport Contractors along haulage routes for OSOM vehicle routes. The report covers pavement, drainage and bridge structures for all of the proposed transport routes before and after construction. This is discussed further in *Section 6.1.2*.

7.4.1 Reporting

A dilapidation report is required to be provided to the RMS, Hilltops Council and Yass Valley Council prior to haulage occurring on public roads.

The inspection method implemented to determine the condition of the local roads proposed to be used for haulage and the survey methodology is detailed below.

- Pavement condition. A survey will be carried out using a video drive through. Each travelled lane will be surveyed. A desktop inspection will be carried out of the video to locate any existing defects;
- Bridge and culvert condition. Structural inspection and reporting.
- Structural condition of footpaths, buildings and other utilities in the vicinity of the project. Identification of existing defects.
- Signs. Surveyed using the video from the pavement survey. This will identify any faded, damaged or out of specification minor signs.

Reporting would include street location, identifying features, photos and condition information for existing defects. This information is collated and provided to the relevant council prior to the use of the local road for haulage.

The following information will be provided to RMS and Council/s for review and agreement:

- videos of public roads;
- dilapidation reports; and
- details of any defects or damage identified during the site inspection are recorded in a register and presented in a spreadsheet.

The reporting would document the review record/comment form from Road Authorities. Once prepared and reviewed by Road Authorities, the dilapidation reports are to be submitted for the approval of the Planning Secretary as per Consent Conditions.

Within one month of the completion of all construction activities, a report will be prepared to assess any damage to the road that may have resulted from the construction of the Project. The same methodology outlined in pre-construction will be implemented to undertake the survey.

Any damage resulting from construction traffic, except that resulting from normal wear and tear, would be repaired to pre-existing conditions. The proponent would outline the proposed works, design criteria, location and scheduling of the work for approval by the Road Authority. Alternatively, a contribution amount would be negotiated. In the event of a dispute between the proponent and Council or the RMS on repair techniques, designs and the like, the matter would be referred to the Secretary for resolution.

7.4.2 Ongoing Inspections and Repair Work

It is proposed that joint inspections between RMS and Yass Valley and Hilltops Council/s and contractor would occur every three months.

Any damage caused by contractor will be raised to the relevant Council representative to seek work permit approvals to allow for remediation

works. Repairs and damage resulting from construction traffic will be undertaken as soon as possible after the damage is identified and within 7 days at the latest. Urgent repairs which threatened the safety of road users would be undertaken immediately in consultation with the RMS and Council.

Repair work undertaken before the post construction dilapidation report would be in accordance with restoration requirements found in Road Opening Permit/s. Photos will be taken and placed on record after repairs are undertaken. The Council and RMS representative/s would be invited to inspect works and provide signoff.

Any repairs identified during the post construction dilapidation survey will be undertaken within 2 months of the completion of the survey unless the relevant roads authority agrees otherwise.

7.5 Stakeholders Consulted

The following table identifies the stakeholders consulted during the development of this plan.

Table 7.2: Stakeholder Consultation

Stakeholder	Date	Consultation	Response
Roads and Maritime Services (RMS)	18/02/201 12/03/2019	Email and Phone conversations regarding RMS requirements for TMP	Email response 02/04/2019 No additional requirements and support for “Heavy Vehicles” to enter from the north via Lachlan Valley Way
	03/05/2019	Email requesting comments on TMP	Email response 09/05/2019 with additional items to be covered in the TMP
	10/05/2019	Email confirming updated to TMP	TMP updated to incorporate items raised
	8/05/2020	Email requesting comments on amended / updated TMP	Email response 9/06/2020 covering additional information to be covered in the

Stakeholder	Date	Consultation	Response
			TMP.
	28/01/2021	Email requesting comments on amended / updated TMP	Email response 5/02/2021 covering additional information to be covered in the TMP.
Yass Valley Council	18/02/2019	Email regarding YVC requirements for TMP	Email response 11/03/2019 no additional requirements
	03/05/2019	Email to YVC requesting comments on TMP and follow-up phone calls 17/05/19 and 20/05/19.	No response
	8/05/2020 4/06/2020	Emails requesting YVC comments on TMP	No response
Hilltops Council (previously Boorowa Council)	18/02/019	Email regarding HTC requirements for TMP	No response
	30/05/2019	Email requesting HTC comments on TMP	Reply 17/05/2019 with review of TMP and suggested amendments.
	8/05/2020 4/06/2020	Emails requesting HTC comments on TMP	No response
Peter Timmer Bus operator Route N1165	18/02/2019	Email and phone conversations regarding bus timetables	Email 14/03/2019 with timetable

Stakeholder	Date	Consultation	Response
	03/05/2019	Email requesting comments on TMP	No response
Rachael Taylor Bus operator Route N1166	19/02/2019	Email and phone conversations regarding bus timetables	Email 26/03/2019 with timetable
	03/05/2019	Email requesting comments on TMP	No response
Local Land Services	13/03/2019	Email regarding TSR's	No response
Boorowa Central School	18/02/2019	Email and phone conversations regarding bus timetables	Supplied Bus operator's details
Yass High School	19/02/2019	Email and phone conversations regarding bus timetables	Supplied Bus operator's details

Stakeholder consultation has been incorporated into this report in *Appendix 6* and review comments are contained in *Appendix 7*.

7.6 Construction Inspections and Monitoring

During construction the site will be monitored by the site supervisor. Signs/ lines that impact on the public will be monitored daily during site operating hours.

The following monitoring will occur during construction.

- Inspection and maintenance monitoring for the local road access network to ensure condition of roads are maintained in a safe state.
- Monitoring of internal access tracks to ensure safe access.

- Additional traffic monitoring may be undertaken in response to complaints or incidents regarding traffic.
- Inspection of traffic control in accordance with RMS Traffic Control at Worksites (Ver: 5.0 27/07/2018 or the latest) including:
  - Daily pre-start and pre-close down inspections of short-term traffic control,
  - Weekly inspections of long-term traffic control,
  - Night inspections of long-term traffic control, and
  - Pre-opening inspections of traffic switches.

Records including Traffic Control Plans and Road Occupancy Licences (ROL) implemented for pedestrian management, lane closures, etc will be maintained on site. Any changes required to the traffic control set up will be authorised by a holder of an RMS "Prepare a Work Zone Traffic Management Plan" or equivalent.

Environmental monitoring will occur in accordance with the Environmental Management Strategy.

7.7 Decommissioning

The potential traffic impacts during the decommissioning phase, essentially mirror the construction phase impacts, although would occur over a shorter time period. For decommissioning, similar general measures would be necessary as those detailed for construction. However, this TMP would need to be revised to address traffic operation and volume changes in the future years during the decommissioning phase.

At the time of decommissioning, the contractors would communicate with associated landowners and mineral title holders that may wish to retain internal roads.

7.8 Council Permits During Construction

Works that have been identified as requiring Council permits include the following items.

- Road opening permits (ROP) and Lane Occupancy Licences for works for any proposed works on local roads including:
  - Construction of Tangmangaroo Road and access point (Yass Valley Council),
  - Any repair works.
- Modifications works for OSOM deliveries at:
  - Local road intersections locations
- Lane Occupancy Licences covering traffic management during OSOM deliveries (where large vehicles execute difficult manoeuvres at local road intersections).

7.9 RMS Required Permits During Construction

7.9.1 Permits

Works that have been identified as requiring RMS permits include:

- Road occupancy Licences for works for any proposed excavation works on State roads including:
  - Construction of intersection at Lachlan Valley Way and access point
  - Any repair works
- OSOM vehicles permits; and
- Speed Zoning Authorisation for Local and State Roads.

7.9.2 Works Authorisation Deed

A Works Authorisation Deed (WAD) is 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.

The following intersections require a WAD:

- Construction of intersection at Lachlan Valley Way and access point;
- Other critical locations as identified by the transport contractor.

7.10 Construction Traffic and Transport Training

All personnel will attend a site induction and show competence in the safety, quality and environmental requirements of the project. The induction will include the Drivers Code of Conduct covering vehicle maintenance requirements, covering of loads and site-specific conditions relating to the school zones.

Operators and drivers will be required to have general construction industry induction cards and will be required to attend ongoing general project and site-specific inductions.

All operators will be comprehensively trained with regard to community expectations and impacts from haulage operations. The induction will have a particular focus on operator behaviour. Operator competency and standards of behaviour will be continually assessed, and discipline procedures will be put in place to maintain compliance.

Site toolbox talks will be carried out for site personnel and vehicle drivers to update on road conditions and any access issues. Vehicle operators will be advised of designated access routes and roadways during inductions.

Personnel involved in traffic management would be trained in RMS Traffic Controller Certification policy in line with the RMS Traffic Control at Worksites.

7.11 Review and Improvement

This Plan and its implementation will be reviewed at least every three months from commencement of construction.

The review will consider:

- Client, site personnel and agency comments;
- Environmental monitoring records;
- Complaints;
- Incident reports;
- Environmental non-conformance;
- Changes in organisational structure;
- Changes in construction methodology; and

- Changes in legislation and standards.

The effectiveness of the traffic management plans and site implementation will be assessed against relevant criteria. This will be reported monthly by the EPC to the principle and during inspections, audit, incident management and compliance tracking. As appropriate, and in accordance with the EMS, review and update may be made to the project risk register, objectives and targets, the TMP per condition 4.3 of the approval.

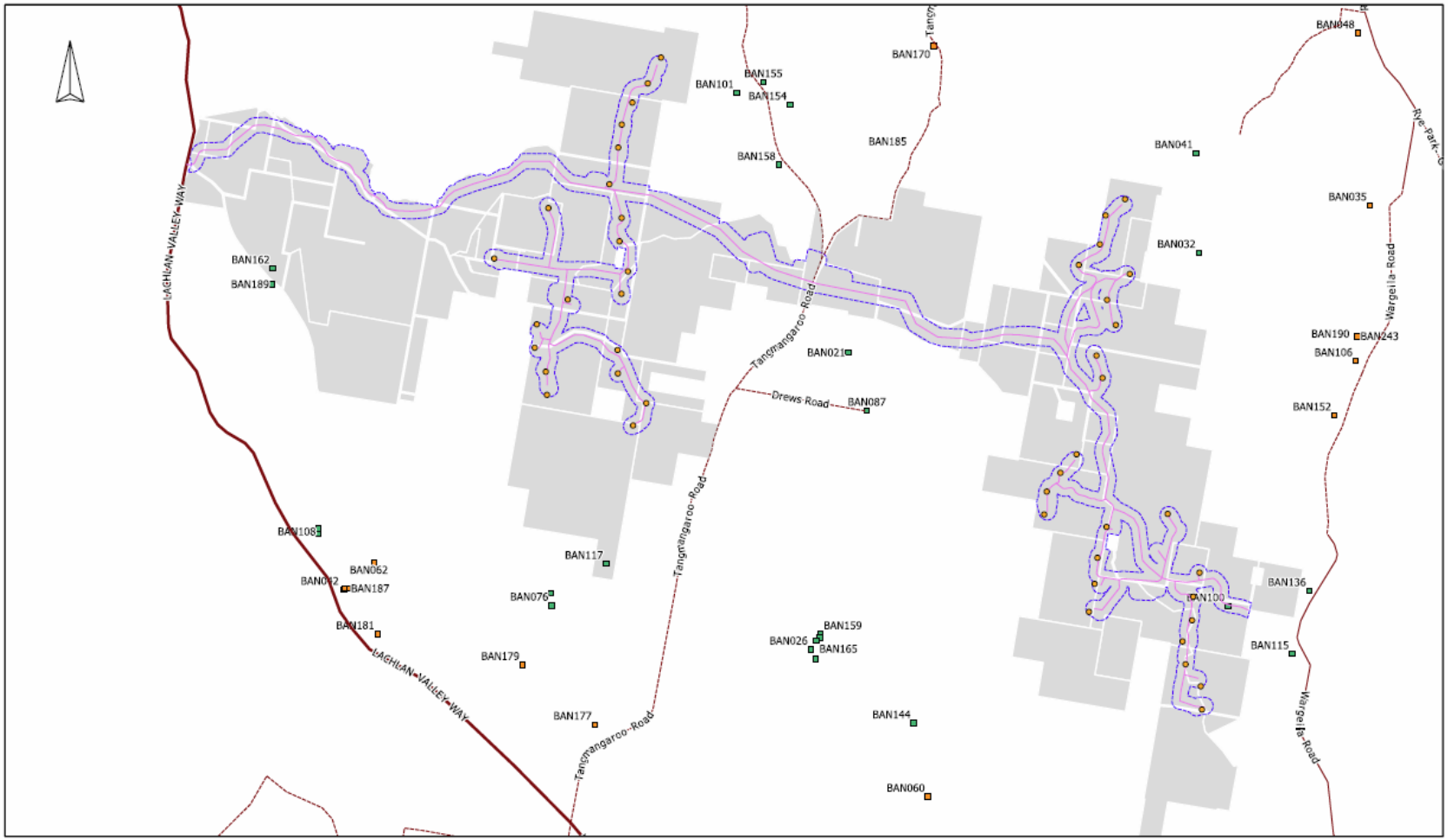
7.12 References

The following documents were used in the development of this plan:

- Roads and Maritime Services (RMS) Traffic Control at Worksites (2010) (Ver: 5.0 27/07/2018 or the latest)
- AS 1742.3 Manual of uniform traffic control devices Part 3: Traffic control for works on roads
- Relevant Austroads Guides and RMS Supplements
- Bango Wind Farm Environmental Management Strategy
- Contractor Health and Safety Standard
- The NSW Rural Fire Service Bush Fire Management Plan for the Southern Tablelands area
- Transport Management Centre Road Occupancy Manual (2012) (ROM)
- TfNSW TDT 2010/07 Use of Variable Message Signs
- RTA – NSW Speed Zoning Guidelines (2004)
- RTA – Delineation Guidelines (2008)
- RTA – Road Occupancy Manual

Appendix 1 Proposed Operational Layouts

Drawing Number	Description
	Wind Farm Operational Layout



LEGEND

Wind Farm	Roads	Residences
Micro sited turbine	Unsealed	Associated
Indicative access road	Sealed	Non-associated
Approved Development Corridor		

SCALE BAR 0

COMPANY: BANGO WIND FARM PTY LTD

TITLE: FINAL LAYOUT

DATE	SCALE	DWG NO	REV	VER
		256	A	1
		SHEET: 1 OF 1	JOB NO: 080811	SIZE: A3

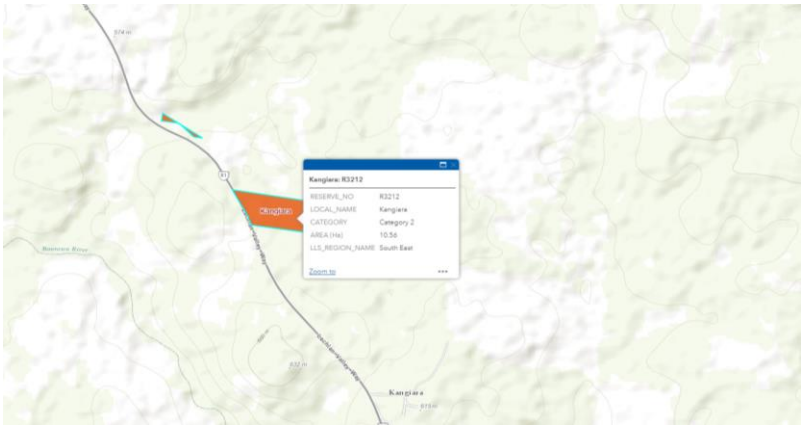
Appendix 2 Traffic Control Plans and Implementation

TCP #	Location	From	To	Timing	Traffic control	Works	Impacts
	Lachlan Valley Way	At Access Point		24hr	Construction Access	Internal Works on site	No impacts to traffic
	Lachlan Valley Way	At Access Point		Day works	Slow lane closure and pedestrian management	Access construction/ removal	Minimal impacts to traffic as one lane maintained at any one time
	Lachlan Valley Way	At Access Point		Day works	Shoulder closure and pedestrian management	Access construction/ removal	Minimal impacts to traffic as travel lanes maintained Pedestrian detoured across roadway with signs
	Lachlan Valley Way	At Access Point		Day / night works	Road closure	Road re-surfacing	Traffic re-routing
	Lachlan Valley Way	Along route		Day / night works	Shoulder closure and pedestrian management	Vegetation removal	Minimal impacts to traffic as travel lanes maintained Pedestrian detoured across roadway with signs
	Tangmangaroo Road	At Access Point		24hr	Construction Access	Internal Works on site	No impacts to traffic
	Tangmangaroo Road	At Access Point		Day works	Slow lane closure and pedestrian management	Access construction/ removal	Minimal impacts to traffic as one lane maintained at any one time Pedestrian detoured across roadway with signs

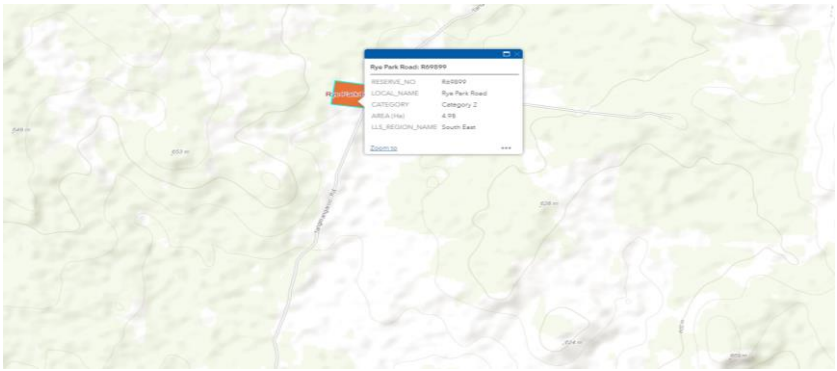
	Tangmangaroo Road	At Access Point		Day works	Shoulder closure and pedestrian management	Access construction/ removal	Minimal impacts to traffic as travel lanes maintained Pedestrian detoured across roadway with signs
	Tangmangaroo Road	At Access Point		Day / night works	Road closure	Road re-surfacing	Traffic re-routing
	Tangmangaroo Road	Along route		Day / night works	Shoulder closure and pedestrian management	Vegetation removal	Minimal impacts to traffic as travel lanes maintained Pedestrian detoured across roadway with signs
	Wargeila Road	At Access Point		Day works	Slow lane closure and pedestrian management	Access construction/ removal	Minimal impacts to traffic as one lane maintained at any one time Pedestrian detoured across roadway with signs
	Wargeila Road	At Access Point		Day works	Shoulder closure and pedestrian management	Access construction/ removal	Minimal impacts to traffic as travel lanes maintained Pedestrian detoured across roadway with signs
	Wargeila Road	At Access Point		Day / night works	Road closure	Road re-surfacing	Traffic re-routing
	Wargeila Road	Along route		Day / night works	Shoulder closure and pedestrian management	Vegetation removal	Minimal impacts to traffic as travel lanes maintained Pedestrian detoured across roadway with signs

Appendix 3 Travelling Stock Reserves

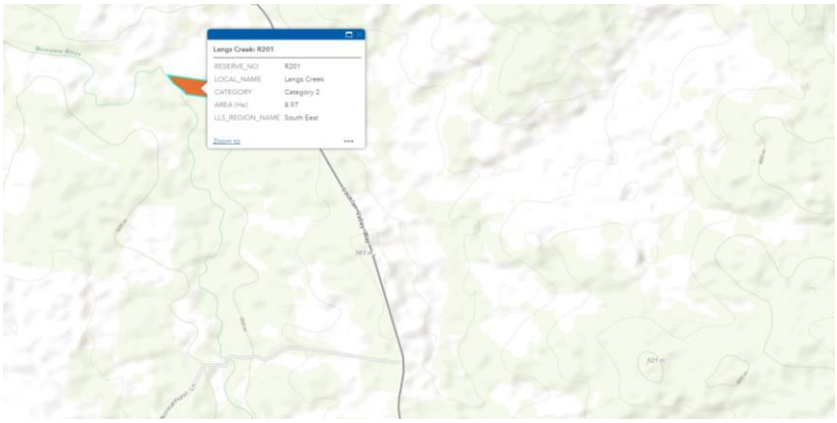
Below are TSRs in vicinity of the project. Source: Travelling Stock Reserves State Classification Online Map.



TSR on Lachlan Valley Way



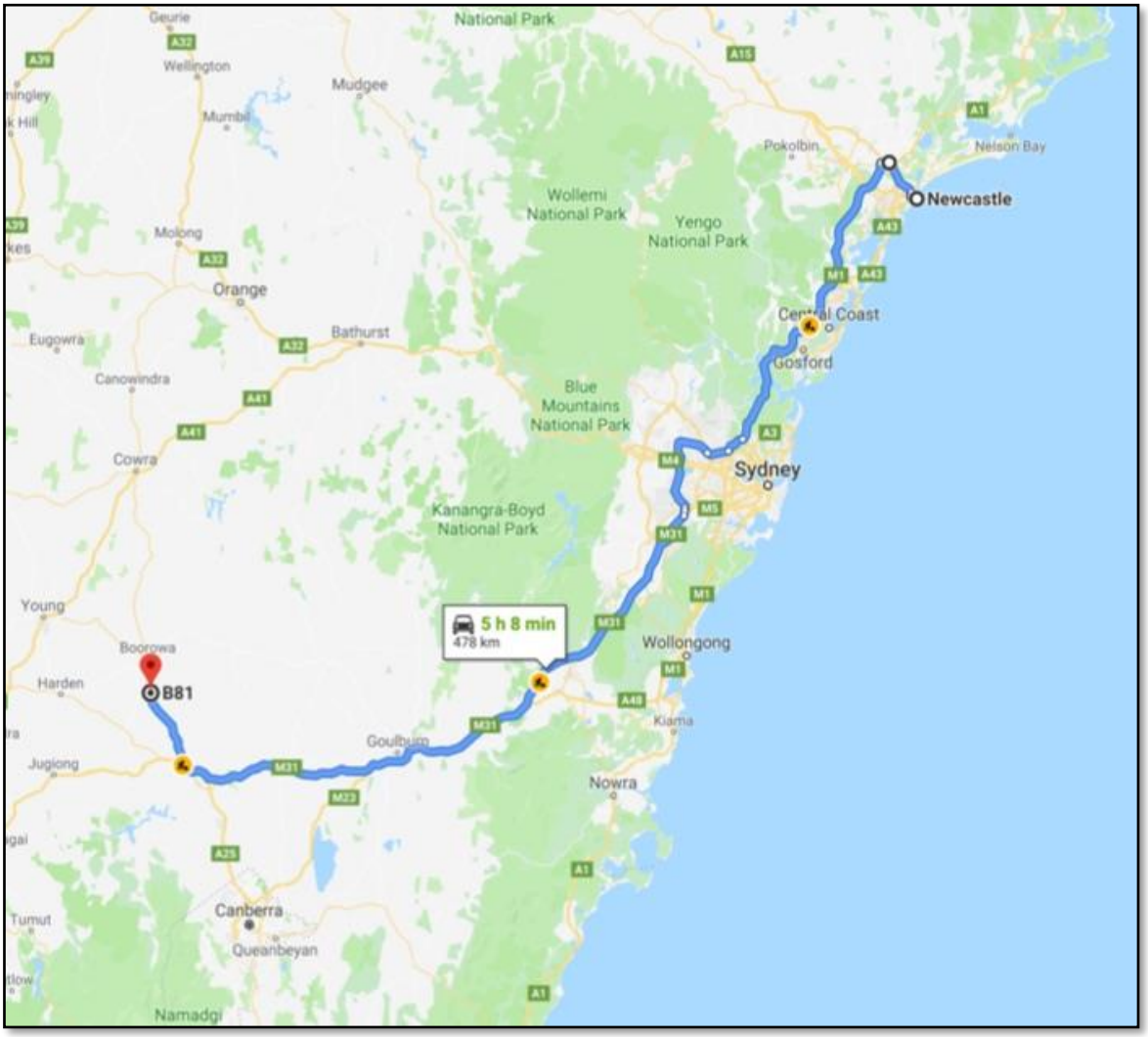
TSR on Tangmangaroo Road



TSR on Lachlan Valley Way

Appendix 4 Indicative OSOM Haulage Routes

Preliminary Oversize / Over Mass Haul Route from Port of Newcastle to Bango Windfarm site



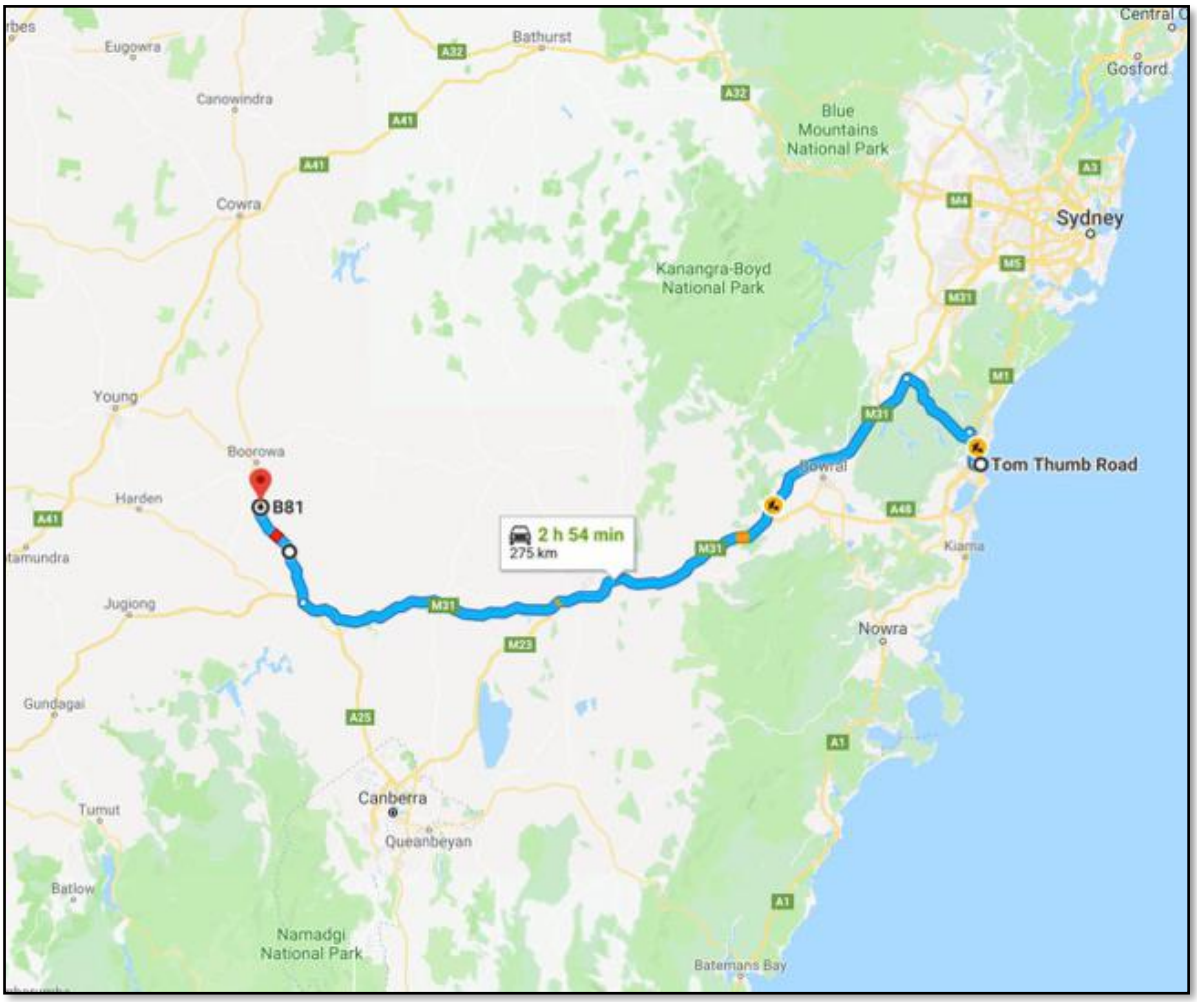
Preliminary OSOM Route Survey: Port of Newcastle to Bango Wind Farm Site

KEY	
CRITICAL	
CAUTION	
EMERGENCY PARKING	

KM index	Location	Section of road	Critical Measurement	Procedure	Notes
0.0	Mayfield	Mayfield #4 berth onto Selwyn Street GPS link: https://goo.gl/maps/afLwPYKuNdm	70.0 metres clearance	Right hand turn	No problems with this section of road.
0.4	Mayfield	Selwyn Street rail crossing GPS link: https://goo.gl/maps/AmohE54hKSz	9.0 Metres wide	Travel directly ahead	Loads to travel over the crossing in the center of the road. Approval required crossing this line, likely cross with caution.
1.3	Mayfield	Selwyn Street onto Industrial Drive via George Street GPS link: https://goo.gl/maps/gXeHvBtCp4D2	70.0 metres clearance	Right hand turn	No problems with this section of road.
5.5	Mayfield West	Industrial Drive onto Maitland Road GPS link: https://goo.gl/maps/Kn49dhWG2qG2	70.0 metres clearance	Right hand turn	No problems with this section of road.
17.4	Tarro	New England Highway onto John Renshaw Drive GPS link: https://goo.gl/maps/SRDr5JigkBp	100.0 metres clearance	Left hand merge	No problems with this section of road.
18.5	Beresfield	John Renshaw Drive onto the M1 GPS link: https://goo.gl/maps/A34ihxCjM5wfRDdq6	100.0 metres clearance	Left hand bend	No problems with this section of road.
113.0	Mt White	M1 Motorway under Mt White overpass GPS link: https://goo.gl/maps/K3fPPe4fNx63xB3j7	Left Lane: 5.2 mtrs Centre Lane: 5.3 mtrs Right Lane: 5.4 mtrs	Travel directly ahead	Loads that exceed 5.3 metres high are not to travel under this structure. Loads over 5.2 metres high are to travel under the bridge in the far right lane, and at a speed of no more than 5 km's per hour. Spotter to guide load through this section of road.
122.0	Hawkesbury River	M1 Motorway GPS link: https://goo.gl/maps/yDzjirEKLAbREE8B6	100.0 long x 6.0 wide	Merge to left	Large parking area
146.0	Wahroonga	M1 onto Pennant Hills Rd GPS link: https://goo.gl/maps/bskC8kD4CdW9xmwYA	75.0 metres clearance	Left hand turn	No problems with this section of road.

KM index	Location	Section of road	Critical Measurement	Procedure	Notes
147.0	Normanhurst	Pennant Hills Road under Pedestrian overpass GPS link: https://goo.gl/maps/nYbjkf5AJ9D2xvUt7	Left Lane: 5.15 mtrs Centre Lane: 5.2 mtrs Right Lane: 5.3 mtrs	Travel directly ahead	Loads that exceed 5.25 metres high are not to travel under this structure. Loads over 5.2 metres high are to travel under the bridge in the far right lane, and at a speed of no more than 5 km's per hour. Spotter to guide load through this section of road.
151.0	Beecroft	Pennant Hills Road under Pedestrian overpass GPS link: https://goo.gl/maps/sjnLQqYRudUSKgTQ8	Left Lane: 5.3 mtrs Centre Lane: 5.4 mtrs Right Lane: 5.5 mtrs	Travel directly ahead	Loads that exceed 5.3 metres high are not to travel under this structure. Loads over 5.2 metres high are to travel under the bridge in the centre lane, and at a speed of no more than 5 km's per hour. Spotter to guide load through this section of road.
154.0	West Pennant Hills	Pennant Hills Rd onto M2 Motorway GPS link: https://goo.gl/maps/cCsJwSt1NsRi5cSs6	75.0 metres clearance	Right hand turn	No problems with this section of road.
163.0	Winston Hills	M2 Motorway onto M7 Motorway GPS link: https://goo.gl/maps/PC96cBq2xqtW85vG7	75.0 metres clearance	Travel directly ahead	No problems with this section of road.
167.0	Kings Park	M7 Motorway GPS link: https://goo.gl/maps/T8WcbR9T84Zs7WpF7	100.0 long x 6.0 wide	Merge to left	Large parking area
201.0	Prestons	M7 Motorway onto M5 Motorway GPS link: https://goo.gl/maps/FA2mF7PxZkxrRDTR9	75.0 metres clearance	Travel directly ahead	No problems with this section of road.
229.0	Menangle	Hume Highway https://goo.gl/maps/KPMdLS1XuRWHrcyb6	200.0 long x 8.0 wide	Merge to left	Large parking area for towers and motors, no blades to enter this parking bay.
238.0	Wilton	Hume Highway under Farm access overpass GPS link: https://goo.gl/maps/2ZsVqYJ9j9gPTGqa9	Left Lane: 5.5 mtrs Centre Lane: 5.4 mtrs Right Lane: 5.3 mtrs	Travel directly ahead	Loads that exceed 5.3 metres high are not to travel under this structure. Loads over 5.2 metres high are to travel under the bridge in the left lane, and at a speed of no more than 5 km's per hour. Spotter to guide load through this section of road.
303.0	Sutton Forest	Hume Highway https://goo.gl/maps/uT1ubtSuawS2	150.0 long x 10.0 wide	Merge to left	Large parking area
352.0	Goulburn	Hume Highway https://goo.gl/maps/7HywRcjZiJy	180.0 long x 15.0 wide	Merge to left	Large parking area
380.0	Breadalbane	Hume Highway https://goo.gl/maps/UWjx3XndLejWG1UD9	140.0 long x 14.0 wide	Merge to left	Large parking area
448.0	Yass	Hume Highway onto Lachlan Valley Way https://goo.gl/maps/CPYiUizVUtS2	60.0 metres length clearance	Left hand turn	No problems with this section of road.
478.0	Bango	Lachlan Valley Way into Site access Road https://goo.gl/maps/AxAVFuzCBXS2	30.0 metres length clearance	Right hand turn	Loads are to travel around the corner from the correct side to the correct side. Site entrance to be made suitable for the swept path of the largest loads.

Preliminary Oversize / Over Mass Haul Route from Port Kembla to Bango Wind Farm Site



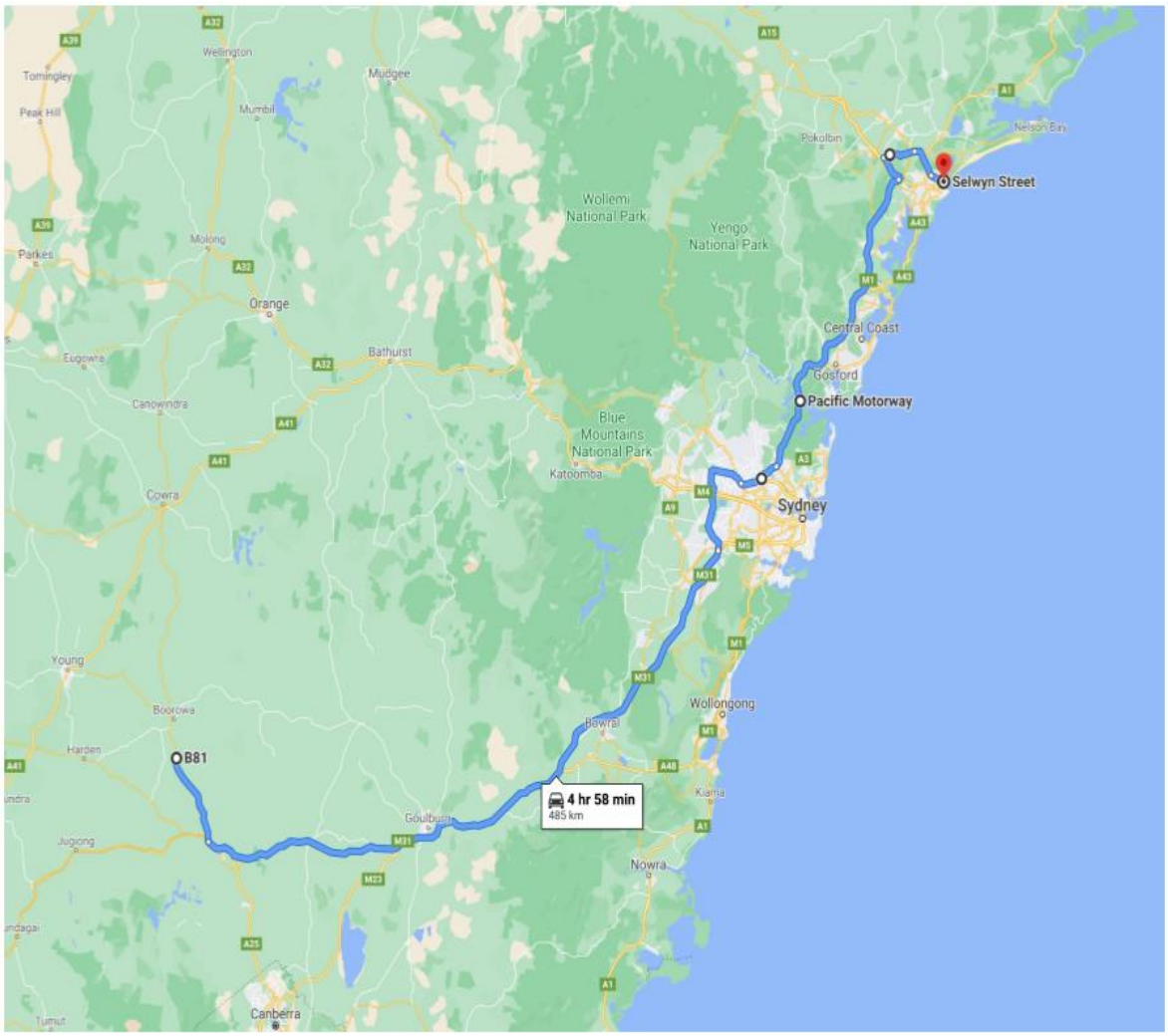
Preliminary OSOM Route Survey: Port Kembla to Bango Wind Farm Site

KEY	
CRITICAL	
CAUTION	
EMERGENCY PARKING	

KM index	Location	Section of road	Critical Measurement	Procedure	Notes
0.0	Port Kembla	Exit port onto Tom Thumb Road GPS link: https://goo.gl/maps/nXdxosvr1fQG6L2b9	Width: 5.5 metres	Travel directly ahead	No problems with this section of road
0.2	Port Kembla	Tom Thumb Road onto Springhill Road GPS link: https://goo.gl/maps/QB9L1BYNAUKJgoZ78	Length: 70.0 metres Width: 7.0 metres	Left hand turn	Load to turn from the incorrect side to the incorrect side of the road, before returning to the correct side of Springhill Road 100 metres to the west of the intersection. A spotter will need to watch the traffic signal on the inside and outside of the turn. **NOTE**: Load to stay on the incorrect side of Springhill Road through to Masters Road.
1.4	Port Kembla	Springhill Road onto Masters Road GPS link: https://goo.gl/maps/pNxY2pLLej1KW4uh6	Length: 70.0 metres Width: 7.0 metres	Right hand turn	The load will already be on the incorrect side of Springhill Road. Once at the slip lane the load is to travel across Masters Road and back onto the correct side via the centre median strip. **NOTE**: Load to return to the correct side of the road once onto Masters Road.
2.6	Figtree	Masters Road onto Princes Motorway GPS link: https://goo.gl/maps/i57nvCKoETt8FYrs9	Length: 90.0 metres Width: 6.0 metres	Right hand sweeping bend	No problems with this section of road
2.7	Figtree	Princes Motorway under The Avenue GPS link: https://goo.gl/maps/qAGCrHkbgnMdNvNg6	Height clearances: Left Lane: 5.44 mtrs Right Lane: 5.38 mtrs	Travel directly ahead	Loads that exceed 5.3 metres will not be able to use this section of road.

KM index	Location	Section of road	Critical Measurement	Procedure	Notes
2.7	Figtree	Princes Motorway under The Princes Highway GPS link: https://goo.gl/maps/2NDQZcUrWzd6cexF7	Height clearances: Left Lane: 5.15 mtrs Centre Lane: 5.2 mtrs Right Lane: 5.3 mtrs	Travel directly ahead	Loads that exceed 5.25 metres will not be able to use this section of road. Loads over 5.1 metres are to slow down to walking pace and travel under the bridge in the far-right lane.
6.4	Keiraville	Princes Motorway under Gipps Road GPS link: https://goo.gl/maps/VTqyHNfE25cpWXxs7	Height clearances: Left Lane: 5.36 mtrs Centre Lane: 5.27 mtrs Right Lane: 5.10 mtrs	Travel directly ahead	Loads that exceed 5.3 metres will not be able to use this section of road. Loads that exceed 5.0 metres in height are to travel under the bridge in the far left lane and take the exit onto Memorial Drive.
6.5	Keiraville	Princes Motorway under the University Bridge GPS link: https://goo.gl/maps/S9kYztURpguEk3EQ7	Height clearances: Left Lane: 4.95 mtrs Centre Lane: 5.1 mtrs Right Lane: 5.1 mtrs	Travel directly ahead	Loads that exceed 5.0 metres will not be able to use this section of road. Detour for loads up to 5.25 metres high via Memorial Drive and the Princes Highway, before returning onto Mt Ousley Road..
7.7	Mt Ousley	Princes Motorway onto Mt Ousley Road GPS link: https://goo.gl/maps/9LCLZVycbbaom8rv8	Width: 8.0 metres	Travel directly ahead	No problems with this section of road
13.0	Mount Ousley	Mount Ousley Road onto Picton-Wilton Road GPS link: https://goo.gl/maps/8m1Er1RF785No29z5	Length: 70.0 metres Width: 6.0 metres	Left hand turn	The load will turn from the correct side to the correct side of the road. The truck is to go as deep as possible into the corner, which will require the prime mover to travel over the median strip. Police and Pilots to provide traffic control, as per the specific procedure for this pinchpoint.
40.0	Wilton	Picton-Wilton Road onto the Hume Highway GPS link: https://goo.gl/maps/ZQKvS4wJ1ygWH3Ab7	Length: 70.0 metres Width: 7.0 metres	Left Hand Turn	The load will turn from the correct side to the correct side of the road and stay as far to the right side of the slip lane as possible. Police and Pilots to provide traffic control, as per the specific procedure for this pinchpoint. Spotter will need to keep an eye on the traffic signal while making this turn.
100.0	Sutton Forest	Hume Highway https://goo.gl/maps/uT1ubtSuawS2	150.0 long x 10.0 wide	Merge to left	Large parking area
149.0	Goulburn	Hume Highway https://goo.gl/maps/7HywRcjZiJv	180.0 long x 15.0 wide	Merge to left	Large parking area
178.0	Breadalbane	Hume Highway https://goo.gl/maps/UWjx3XndLejWG1UD9	140.0 long x 14.0 wide	Merge to left	Large parking area
245.0	Yass	Hume Highway onto Lachlan Valley Way https://goo.gl/maps/CPYiUizVUtS2	60.0 metres length clearance	Left hand turn	Load to turn from the far-left lanes onto the correct side of the Lachlan Valley Highway. Police and Pilots to provide traffic control, as per the specific procedure for this pinchpoint.
275.0	Bango	Lachlan Valley Way into Site access Road https://goo.gl/maps/AxAVFuzCBXS2	30.0 metres length clearance	Right hand turn	Loads are to travel around the corner from the correct side to the correct side. Giveway sign and bollards to be removed prior to load arriving at the corner. Police and Pilots to provide traffic control, as per the specific procedure for this pinchpoint.

Preliminary Oversize / Over Mass Haul Route from Bango Wind Farm Site to Port of Newcastle



Preliminary Oversize / Over Mass Haul Route from Bango Windfarm Site to Port of Newcastle

KEY	
CRITICAL	
CAUTION	
EMERGENCY PARKING	

KM index	Location	Section of road	Critical Measurement	Procedure	Notes
0.0	Bango	Site access Road onto Lachlan Valley Way. https://goo.gl/maps/AxAVFuzCBXS2	30.0 metres length clearance	Right hand turn	Loads are to travel around the corner from the incorrect side to the incorrect side. Spotter to guide the load through this pinchpoint.
30.0	Yass	Lachlan Valley Way onto Hume Highway https://goo.gl/maps/tWcH4UwftFBCEWUXA	60.0 metres length clearance	Left hand turn	Load to turn from the far-right side of the Lachlan Valley Highway onto the correct side of the Hume Highway. Spotter to guide the load through this pinchpoint.
44.0	Yass	Hume Highway https://goo.gl/maps/nccCpdEJBmi6x4eN8	220.0 long x 10.0 wide	Merge to left	Large parking area
99.0	Breadalbane	Hume Highway https://goo.gl/maps/sDbU3fGbDD8JthDT6	250.0 long x 20.0 wide	Merge to left	Large parking area
151.0	Marulan	Hume Highway https://goo.gl/maps/DcqnxUFB5Gkteqmz7	200.0 long x 20.0 wide	Merge to left	Large parking area
254.0	Menangle Park	Hume Highway https://goo.gl/maps/Qnv2Y37mJZ3Jp6877	140.0 long x 14.0 wide	Merge to left	Large parking area
272.0	Prestons	M5 Motorway onto M7 Motorway GPS link: https://goo.gl/maps/s3K3ngXgtuGFuGX5A	75.0 metres clearance	Travel directly ahead	No problems with this section of road.
311.0	Winston Hills	M7 Motorway onto M2 Motorway GPS link: https://goo.gl/maps/amq9N94eW9M63zBS6	75.0 metres clearance	Travel directly ahead	No problems with this section of road.
320.0	West Pennant Hills	M2 Motorway onto Pennant Hills Rd GPS link: https://goo.gl/maps/zuweLJoEEmo3z2T5A	75.0 metres clearance	Left hand turn	Blade loads are to turn from the correct side to the correct side of the road. Spotter to guide the load through this pinchpoint.
328.0	Wahroonga	Pennant Hills Rd onto M1 Motorway GPS link: https://goo.gl/maps/8cueFP5SW5GbwF3j7	75.0 metres clearance	Left hand turn	Blade loads are to turn from the correct side to the correct side of the road. Spotter to guide the load through this pinchpoint.

KM index	Location	Section of road	Critical Measurement	Procedure	Notes
352.0	Hawkesbury River	M1 Motorway GPS link: https://goo.gl/maps/LV6FpMjR3AKkEyyL6	150.0 long x 6.0 wide	Merge to left	Large parking area
445.0	Cameron Park	M1 Motorway onto Hunter Expressway GPS link: https://goo.gl/maps/9W1iuPQZ9aRcJnf2A	100.0 metres clearance	Left hand bend	No problems with this section of road.
455.0	Buchanan	Hunter Expressway onto John Renshaw Drive GPS link: https://goo.gl/maps/BC1icq3PWxmSxFs58	70.0 metres clearance	Right hand turn	Loads are to travel around the correct side of the roundabout. Spotter to guide the load through the pinchpoint.
467.0	Tarro	John Renshaw Drive onto the New England Highway GPS link: https://goo.gl/maps/6B8AW5QmAMApW2im9	100.0 metres clearance	Left hand merge	No problems with this section of road.
469.0	Tarro	New England Highway over rail bridge GPS link: https://goo.gl/maps/m3tJc4vFvQQfQL7B9	100.0 metres clearance	Left hand merge	No problems with this section of road.
471.0	Hexham	New England Highway onto Maitland Road GPS link: https://goo.gl/maps/Syr254ckFd6ZmwnZ9	100.0 metres clearance	Travel directly ahead	No problems with this section of road.
479.0	Mayfield West	Maitland Road onto Industrial Drive GPS link: https://goo.gl/maps/AtB4J131nmX6qD5z8	70.0 metres clearance	Left hand turn	The loads will travel around this corner on the correct side. Spotter to guide the load through this pinchpoint.
483.0	Mayfield	Industrial Drive onto Selwyn Street via George Street GPS link: https://goo.gl/maps/BTumAmSZKtRmhR98A	70.0 metres clearance	Left hand turn	Load to travel from the correct side to the incorrect side of Selwyn Street. Spotter to guide the load through this pinchpoint.
483.5	Mayfield	Selwyn Street rail crossing GPS link: https://goo.gl/maps/AmohE54hKSz	9.0 Metres wide	Travel directly ahead	Loads to travel over the crossing in the center of the road. Approval required crossing this line, likely cross with caution.
485.0	Mayfield	Mayfield #4 berth onto Selwyn Street GPS link: https://goo.gl/maps/afLwPYKuNdm	70.0 metres clearance	Right hand turn	Load to travel from the incorrect side to the incorrect side. Spotter to guide the load through this pinchpoint.

Appendix 5 Transport Code of Conduct

(includes Drivers Code of Conduct)

Transport Code of Conduct

This Transport Code of Conduct will be applied to all traffic and transport construction activities associated with Bango Wind Farm project.

This Code applies to all employees and contractors accessing or making project related deliveries to the site, with emphasis placed on the transport of over-size/over-mass wind turbine components and delivery vehicles during the construction phase.

Objectives

The objectives of the code are:

- To ensure safe and effective transport to, around and from the site;
- Minimise disruption to traffic networks;
- Minimise disruption to rail operations; and
- Minimise disruption to neighbouring properties.

Haulage Routes and Timing of Transport

All large vehicles associated with the Project will follow the designated haulage routes and main roads near the Project area to minimise impact to local roadways and road users. A map of the primary haulage routes highlighting critical locations is attached to the Transport Code of Conduct.

Drivers to ensure that you use the appropriate haulage route for your vehicle type in accordance with project's consent conditions and Road Authority Permits. The OSOM routes may be further restricted and the route approved on the permit for the particular load / time and day from the road authority would prevail.

Timing of transport will be scheduled to minimise disruption to local traffic or result in safety risks. The timing of the deliveries must meet with the requirements of the OSOM permit, any OOH permits (where work to unload or load occurs immediately prior or after the delivery) and ROL (where a licence applies to the delivery).

Scheduling of deliveries, timing of transport, limiting the number of trips per day, and reducing traffic during school bus route / zone hours, i.e., 7.00 to 9.00 am and 3.00 to 4.30 pm;

In order to minimise development-related traffic on the public road network outside of standard construction hours:

- Scheduling of deliveries and movements to / from site in construction hours;
- Operating gate controls to log vehicle movements outside of hours and take action where necessary.

- Only implementing out of hour movements when necessary.

Behavioural Requirements

The operators of all vehicles associated with the Project would maintain a high level of conduct and respect for other road users. All operators will undergo an induction prior to undertaking any transport to site and regular toolbox meetings will be held maintain awareness of required controls.

Details of the traffic and access training and induction will focus on:

- objectives of the TMP;
- performance goals;
- mitigation measures required to be implemented;
- traffic and access monitoring and reporting requirements; and
- incident investigation and response.

Training is to be provided prior to start-up of any traffic and access related management tasks and updated if task, equipment or procedures are expected to, or have changed.

The following requirements would be exercised always:

- obey all the laws and regulations;
- not drive whilst under the influence of alcohol, drugs, nor any medication which may affect their ability to drive;
- be medically fit to drive at all times and must inform site co-ordinators if they have any medical condition which may affect their ability to drive;
- drive in a considerate manner at all times and respect the rights of others to use and share the road space;
- report all vehicle defects to their employer. Serious defects must be corrected immediately, or an alternative vehicle supplied;
- any vehicle accident resulting in injury/or damage to property must be reported to the police;
- report any near misses;
- only drive in the construction hours when conducting Project works (unless permission to conduct Project works has been provided and only in accordance with permits for travel from Road Authority);
- securely fasten and cover loads as appropriate; and
- keep their vehicle clean and in good mechanical condition to reduce the environmental impact.

The transport contractor is to develop and implement:

- safety initiatives for haulage through residential areas and/or school zones (incorporating the requirements in the TMP and code; and
- a maintenance program for the heavy transport vehicles that is consistent with these safety requirements.

Managing Fatigue

Fatigue management is a very important component of the haulage campaign, in particular Over Size / Over Mass haulage. The National Heavy Vehicle Regulator has set out guidelines for managing driver fatigue. Due to the nature of the Over Size / Over Mass haulage the appointed Haulage Contractor will develop a Fatigue Management system as described by the NHVR. The fatigue management system will cover the following items:

- **Scheduling and rostering** – scheduling of trips and rostering of drivers must incorporate fatigue management measures.
- **Readiness for duty** – drivers are in a fit state to safely perform required duties.
- **Fatigue knowledge and awareness** – all personnel involved in the management, operation, administration, participation and verification of the Fatigue Management System can demonstrate competency in fatigue knowledge relevant to their position on the causes, effects and management of fatigue and the operator's fatigue management system.
- **Responsibilities** – the authorisations, responsibilities and duties of all positions involved in the management, operation, administration, participation and verification of their operations under the Fatigue Management System are current, clearly defined and documented and carried out accordingly.
- **Internal review** – an internal review system is implemented to identify non-compliances and verify that the activities comply with the Fatigue Management System Standards and the operator's fatigue management system.
- **Records and documentation** – the operator will implement, authorise, maintain and review documented policies and procedures that ensure the effective management, performance and verification of the Fatigue Management System in accordance with the standards. Records that demonstrated the compliant operation of the Fatigue Management System are collected, stored and maintained to verify compliance.
- **Health** – drivers are to participate in a health management system to identify and manage fatigue risks.
- **Workplace conditions** – workplace environments and conditions must assist in the prevention of fatigue.
- **Management practices** – management practices are to minimise the risks relating to driver fatigue.
- **Operating limits** – operating limits will provide drivers and operators with the flexibility to effectively manage fatigue.

For drivers not covered by an approved Fatigue Management System then following fatigue minimisation strategies should be adopted for journeys over

two hours in duration:

- Schedule journeys carefully to avoid night driving and those times of day when falling asleep is most likely (2am – 6am);
- Ensure that the driver is well rested prior to commencing their journey;
- Plan when and where to take rests of at least ten minutes every two hours;
- Take into account road hazards and weather conditions;
- Adhere to the legal restrictions on driving times, distances, drug and alcohol consumption;
- Allow for unexpected delays;
- Know what to do in case of an emergency; and
- Notify supervisor upon arrival at the final destination.

Maintenance Requirements

The operators of all vehicles associated with the Project would maintain a high level of maintenance. The following requirements would be exercised at all times:

- ensure their vehicle complies with relevant State legislation in relation to roadworthiness and modifications;
- undergo regular vehicle checks and maintenance; and
- ensure their vehicles have correctly fitted mufflers to minimise noise disturbance.

Travelling Stock Reserves

Lachlan Valley Way and Tangmangaroo Road are Travelling Stock Routes. When used, the TSRs would be signposted. Drivers must be made aware of the potential to encounter livestock and adhere to safe driving practises at all times. Drivers must reduce their speed when encountering a stock warning sign.

Speed Limits

All personnel will adhere to site and public road vehicle speed limits. Along external routes, speed limits will be observed as signposted unless driving conditions or restrictions imposed on the personnel or vehicle to drive at a lower speed.

In situations where driver's visibility and traffic safety on public roads is affected by weather related conditions such as heavy rainfall or fog, construction vehicles should reduce their speed limit until visibility and traffic safety has improved.

All personnel will adhere to site and public road vehicle speed limits and drive to the road conditions. Along external routes, speed limits will be observed as signposted unless driving conditions or restrictions are imposed on the personnel or vehicle.

Internal traffic movements will be restricted to a maximum of 40km/hr on

site and 10km/h around personnel or as otherwise signposted. The speed limit within the Construction Compound is 10 km/hr. There would be a speed Limit of 15 km/hr on approach to the Lachlan Valley Way Site Entrance intersection.

Complaint Resolution and Disciplinary Procedure

All traffic related complaints will be managed in accordance with the Project complaints handling procedures described in the Environmental Management Strategy.

Complaints will be investigated and a report prepared on the circumstances of the complaints, risks arising and any non-compliance with project procedures.

Failure to comply with any procedures for safe transport may result in dismissal of specific operator(s) from the project.

Community Consultation for Peak Haulage Periods

Community consultation in relation to traffic and access will include on-going consultation with relevant stakeholders including, local landholders, emergency services, business owners, other major projects in the area and school bus companies.

Community engagement is to be undertaken in consultation with the Community Officer.

Liaison activities may include:

- notifications, prior to commencement of any significant works, to local residents, local newspapers, and on the project website; and
- notifications on a case by case basis as construction progresses, including via the project website, shop front, local councils, local residents, newsletters and the Community Consultative Committee.
- a dedicated telephone contacts list to enable any issues or concerns to be rapidly identified and addressed.

General

- Obey all laws and regulations
- Ensure that you have a copy of your Road Authority permits;
- Drive with head lights on during daylight hours for increased visibility;
- Always cover or tie down loads;
- Always give way to pedestrians and cyclists at designated crossings or where they have right of way;
- Do not queue across intersections;
- Wear seatbelts at all times;
- Obey the sign posted speed limits;
- Avoid compression braking near sensitive receivers and in built up areas;

- Avoid the use of sounding of horns and reversing alarms to minimise traffic generated noise.
- Take extra precaution during school periods;
- Obey school speed zones;
- Do not queue or idle on public roads or adjacent to sensitive receivers;
- Never drive between machines when they are being unloaded;
- Stick to the identified access tracks onsite; and
- Follow all on-site signage (directional and speed).
- Undertake appropriate induction training where required as part of your task
- Read and sign the toolbox when entering site

Biosecurity

All personnel must adhere to the site biosecurity plan and the provisions of the *Biosecurity Act 2015.*

- Vehicles must be certified weed and seed free prior to entering the site. At a minimum radiator airways, the underbody of track propelled machinery and the underbody of vehicle and tires must be cleaned before entry into a property, to minimise the risk of infectious material or weed seeds being carried in mud etc. which may become dislodged on the Site
- All vehicles must remain of formed roads unless express permission is sought from the Project Manager.
- If vehicles must traverse through areas of known weed infestation, then this can only occur when the weeds are not seeding.

Appendix 6 Consultation Emails

Rye Park Wind Farm

From: Kristy Old
Sent: Monday, 4 March 2019 12:21 PM
To: Stephanie Cook
Cc: Leanne Cross; Patric MIllar
Subject: RE: Bango and Rye Park Wind Farms - Traffic Management Plan

Thanks Steph,

I got your voicemail too. I guess the Hume will see a bit of OS & OM traffic, but at least that's the extent of the geographical overlap for OS, and hopefully in terms of timing we won't overlap at all.

Please keep us in the loop when your construction schedule firms up. I'll make sure we do the same.

Cheers,

Kristy

From: Stephanie Cook <stephanie.cook@tiltrenewables.com>
Sent: Monday, 4 March 2019 11:48 AM
To: Kristy Old <Kristin.Old@cwprenewables.com>
Cc: Leanne Cross <Leanne.Cross@cwprenewables.com>; Patric MIllar <Patric.Millar@cwprenewables.com>
Subject: RE: Bango and Rye Park Wind Farms - Traffic Management Plan

I Kristy,

Sorry for the delay in replying to this.

We currently have 2 key routes that we might use for construction. We have just entered an Early Works agreement so we are still fleshing out some of these details.

Please see marked up map attached for the two options.

Option 1 is the one highlighted yellow and has access from the south off Jerrawa Road, the road through the site and then site entrances via Flakney Creek Road and the north of the site, near Perks Road.

Option 2 is the one in red. Its via Borrowa, down Rye Park Road then has entrances at the top of the site and Flakney Creek. It then uses Jerrawa Road at the south as an access just for the components to the south of the site.

For construction timing, of course it is still reliant on us getting a PPA but for working purposes, mid 2020 for construction is a reasonable assumption.

Thanks,
Steph

From: Kristy Old <Kristin.Old@cwprenewables.com>
Sent: Tuesday, 26 February 2019 2:31 PM
To: Stephanie Cook <stephanie.cook@tiltrenewables.com>
Cc: Leanne Cross <Leanne.Cross@cwprenewables.com>; Patric MIllar <Patric.Millar@cwprenewables.com>
Subject: Bango and Rye Park Wind Farms - Traffic Management Plan

Hi Steph,

Thank you for confirming that you are the most appropriate contact at Tilt Renewables for consultation regarding Traffic Management at Bango Wind Farm.

Relating to the Bango Wind Farm Traffic Management plan, one of the conditions of the NSW Development Consent requires consultation with the applicant of the Rye Park Wind Farm to consider potential interactions between the two developments, with the aim of detailing measures to be implemented to minimise traffic safety impacts and disruptions to local roads users during the construction and decommissioning of the developments.

From previous experience it is the movement of wind turbine components which has the greatest potential to disrupt local traffic. Our approved oversize and over mass haulage route is along the Hume Highway bypassing Yass then onto the Lachlan Valley Way. We understand that this route is also one of the approved over-size and over-mass transport routes for Rye park Wind Farm. This will become a traffic management issue should our project construction period overlap – particularly the haulage of the oversize components.

Timing of these projects remains uncertain throughout the process, but the current Bango WF construction schedule predicts that the majority of oversize loads would be brought to site via the Hume and Lachlan Valley Way, from April 2020 and continuing over a period of about twelve months.

I understand that the timing of the Rye Park development remains uncertain, but we would like to understand the implications for traffic management as far as possible, so that we can include provisions within our Traffic Management Plan. I would appreciate it if you could provide your most likely construction timetable, and keep me updated as this changes.

If it looks as though our haulage of oversize components may occur concurrently, I request that we work together towards a mutually agreeable outcome that aims to minimise safety impacts and disruptions to the local community.

Please feel free to give me a call if you need any more information or wish to discuss. I look forward to your response.

Kind regards,
Kristy Old

CWP Renewables Pty Ltd
t 02 4013 4640 m 0416 932 549
P.O. Box 1708 / Level 6, Suite A, 41-45 Hunter Street, Newcastle NSW 2300
kristin.old@cwprenewables.com www.cwprenewables.com.au

Yass Valley Council

From: Nel, Tobie (GE Renewable Energy)
Sent: Thursday, 4 June 2020 10:29 AM
To: terry.cooper@yass.nsw.gov.au
Subject: RE: Bango Windfarm Transport Plan

Good morning Terry
Please see attached NHVR permit for your reference for the unit we would like to transport in the near future.
I called this morning and left a message, appreciate it if you can find a moment to review and provide feedback
Thank you
Kind Regards,

Tobie Nel
Projects Logistics Manager
Onshore Wind, GE Renewable Energy
T: +61 (0) 409 654 782
E: Tobie.Nel1@ge.com
Level 2, Building 8
572 Swan Street, Richmond VIC 3121
GE International Inc.

From: Nel, Tobie (GE Renewable Energy)
Sent: Wednesday, 3 June 2020 10:59 AM
To: 'terry.cooper@yass.nsw.gov.au' <terry.cooper@yass.nsw.gov.au>
Subject: RE: Bango Windfarm Transport Plan

Good morning Terry,
Hope you are well.
I was wondering if you have had the opportunity to review the below.
Appreciate your feedback
Kind Regards,

Tobie Nel
Projects Logistics Manager
OnShore Wind, GE Renewable Energy

T: +61 (0) 409 654 782
E: Tobie.Nel1@ge.com
Level 2, Building 8
572 Swan Street, Richmond VIC 3121
GE International Inc.

From: Nel, Tobie (GE Renewable Energy)
Sent: Friday, 8 May 2020 11:01 AM
To: terry.cooper@yass.nsw.gov.au
Subject: RE: Bango Windfarm Transport Plan

Good morning Terry,
Please find now attached the TMP version with tracked changes for your comment.
Kind Regards,
Tobie Nel
Projects Logistics Manager
OnShore Wind, GE Renewable Energy
T: +61 (0) 409 654 782
E: Tobie.Nel1@ge.com
Level 2, Building 8
572 Swan Street, Richmond VIC 3121
GE International Inc.

From: Nel, Tobie (GE Renewable Energy)
Sent: Friday, 8 May 2020 10:50 AM
To: terry.cooper@yass.nsw.gov.au
Subject: Bango Windfarm Transport Plan

Good morning Terry
I am assisting the revision of the Bango Windfarm TMP and writing to you to formally consult with the Yass Valley Council regarding these amendments.
There is now a requirement to bring three separate units though the Port of Newcastle to the Bango Windfarm Jobsite.
I have attached a Transport provider TMP for reference, and the Original CWP TMP will be amended accordingly to reflect these requirements.

The three units consist of, Machine Head, Hub and Drive train and will be transported in conjunction with the Heavy Haulage Permit process.

Please feel free to contact me for any additional information or clarification.

Kind Regards,

Tobie Nel

Projects Logistics Manager

OnShore Wind, GE Renewable Energy

T: +61 (0) 409 654 782

E: Tobie.Nel1@ge.com

Level 2, Building 8

572 Swan Street, Richmond VIC 3121

GE International Inc.

From: Patric MIllar
Sent: Monday, 11 March 2019 12:45 PM
To: 'Terry Cooper'
Subject: RE: Bango Wind Farm Traffic Management Plan DocId 294680

Thanks Terry

Patric Millar
Environmental Technical Advisor Construction

CWP Renewables
Ground Floor, Block E, 34 Thynne Street, Bruce, ACT 2617, Australia
M: +61 (0)406 640 593
W: www.cwprenewables.com | www.sapphirewindfarm.com.au

From: Terry Cooper <Terry.Cooper@yass.nsw.gov.au>
Sent: Monday, 11 March 2019 12:42 PM
To: Patric MIllar <Patric.Millar@cwprenewables.com>
Subject: Bango Wind Farm Traffic Management Plan DocId 294680

Good afternoon
Yass Valley Council has not further requirements for the TCP not cover by the Conditions of Consent except to the that the Traffic Management Plan must deal with all traffic movements to the site not just the oversized vehicles particularly other truck movements especially if using access other than Lachlan Valley Way

Terry Cooper | Engineering Services Manager | Yass Valley Council

D: +61 (0)2 6226 9274 | M: +61 (0)407 184 376 | P: +61 (0)2 6226 1477

E: Terry.Cooper@yass.nsw.gov.au | W: www.yassvalley.nsw.gov.au

From: Patric MIllar <Patric.Millar@cwprenewables.com>
Sent: Monday, 11 March 2019 12:13 PM
To: Terry Cooper <Terry.Cooper@yass.nsw.gov.au>
Cc: Kristy Old <Kristin.Old@cwprenewables.com>; Leanne Cross <Leanne.Cross@cwprenewables.com>
Subject: RE: Yass Valley Council input into Bango Wind Farm Traffic Management Plan

Hi Terry

I was wondering how you are going with this. We are keen to complete a draft of the Traffic Management Plan for the Bango Wind Farm so we can get it out for comment by the relevant agencies.

Patric Millar
Environmental Technical Advisor Construction

CWP Renewables
Ground Floor, Block E, 34 Thynne Street, Bruce, ACT 2617, Australia
M: +61 (0)406 640 593
W: www.cwprenewables.com | www.sapphirewindfarm.com.au

From: Patric MIllar
Sent: Monday, 18 February 2019 10:54 AM
To: terry.cooper@yass.nsw.gov.au
Cc: Kristy Old <Kristin.Old@cwprenewables.com>; Leanne Cross <Leanne.Cross@cwprenewables.com>
Subject: Yass Valley Council input into Bango Wind Farm Traffic Management Plan

Good Morning Terry

I am coordinating the preparation of the Traffic Management Plan (TMP) for the Bango Wind Farm. I am writing to you to formally consult with the Yass Valley Council regarding the contents of the TMP. I have outlined the requirements as detailed in the Conditions of Consent in the attached letter.

Please give me a ring if you need any additional information or require any clarification.

Regards
Patric
Patric Millar
Environmental Technical Advisor Construction

CWP Renewables
Ground Floor, Block E, 34 Thynne Street, Bruce, ACT 2617, Australia
M: +61 (0)406 640 593
W: www.cwprenewables.com | www.sapphirewindfarm.com.au

Hilltops Council

From: Nel, Tobie (GE Renewable Energy)
Sent: Thursday, 4 Jun, 10:28
To: iain.rice@hilltops.nsw.gov.au
Subject: RE: Bango Windfarm Transport Plan

Good morning Iain
Please see attached NHVR permit for your reference for the unit we would like to transport in the near future.
I called this morning and left a message, appreciate it if you can find a moment to review and provide feedback
Thank you
Kind Regards,
Tobie Nel
Projects Logistics Manager
OnShore Wind, GE Renewable Energy
T: +61 (0) 409 654 782
E: Tobie.Nel1@ge.com
Level 2, Building 8
572 Swan Street, Richmond VIC 3121
GE International Inc.

From: Nel, Tobie (GE Renewable Energy)
Sent: Wednesday, 3 June 2020 11:00 AM
To: 'iain.rice@hilltops.nsw.gov.au' <iain.rice@hilltops.nsw.gov.au>
Subject: RE: Bango Windfarm Transport Plan

Good morning Iain,
Hope you are well.
I was wondering if you have had the opportunity to review the below.
Appreciate your feedback
Kind Regards,
Tobie Nel
Projects Logistics Manager

OnShore Wind, GE Renewable Energy
T: +61 (0) 409 654 782
E: Tobie.Nel1@ge.com
Level 2, Building 8
572 Swan Street, Richmond VIC 3121
GE International Inc.

From: Nel, Tobie (GE Renewable Energy)
Sent: Friday, 8 May 2020 10:59 AM
To: iain.rice@hilltops.nsw.gov.au
Subject: RE: Bango Windfarm Transport Plan

Good morning Iain,
Please find now attached the TMP version with tracked changes for your comment.
Kind Regards,
Tobie Nel
Projects Logistics Manager
OnShore Wind, GE Renewable Energy
T: +61 (0) 409 654 782
E: Tobie.Nel1@ge.com
Level 2, Building 8
572 Swan Street, Richmond VIC 3121
GE International Inc.

From: Nel, Tobie (GE Renewable Energy)
Sent: Friday, 8 May 2020 10:44 AM
To: iain.rice@hilltops.nsw.gov.au; ken.fox@hilltops.nsw.gov.au
Subject: Bango Windfarm Transport Plan

Good morning Iain and Ken
I am assisting the revision of the Bango Windfarm TMP and writing to you to formally consult with the Hilltops Council regarding these amendments.
There is now a requirement to bring three separate units though the Port of Newcastle to the Bango Windfarm Jobsite.
I have attached a Transport provider TMP for reference, and the Original CWP TMP will be

amended accordingly to reflect these requirements.

The three units consist of, Machine Head, Hub and Drive train and will be transported in conjunction with the Heavy Haulage Permit process.

Please feel free to contact me for any additional information or clarification.

Kind Regards,

Tobie Nel

Projects Logistics Manager

OnShore Wind, GE Renewable Energy

T: +61 (0) 409 654 782

E: Tobie.Nel1@ge.com

Level 2, Building 8

572 Swan Street, Richmond VIC 3121

GE International Inc.

From: Iain Rice <iain.rice@hilltops.nsw.gov.au>
Sent: Friday, 17 May 2019 6:15 PM
To: Kristy Old <Kristin.Old@cwprenewables.com>
Cc: John Osland <John.Osland@hilltops.nsw.gov.au>
Subject: RE: Bango info

Hi Kristy,

I had been requested to look over the following and advise;

TMP comments

Have you included any documentation/ representation for Chain Of Responsibility (COR) for the transportation function of this development.
Section 6.3 Traffic Control – RMS Traffic Control at Worksites, please include 'Ver: 5.0 27/07/2018'
Section 7.4 Dilapidation Reporting - end of first paragraph ending in Consent 26, should it include 'and the Road Agreement'
Section 7.6 Construction Inspections and Monitoring - page 34, RMS Traffic Control at Worksites, please include 'Ver: 5.0 27/07/2018'
Section 7.13 References - RMS Traffic Control at Worksites, incorrect reference, please include 'Ver: 5.0 27/07/2018'

Appendix 5 Transport Code of Conduct and other sections if indicated
Note: Ensure the time periods for School Bus activities does cover sufficient periods AM and PM. In rural areas school buses, due to distances travelled, can be on the rural road network before 7:am and after 4:30pm.

Approved traffic route thru Boorowa comments (Pudman Street, Court Street, Brial Street, Long Street and Rugby Road)

These roads are B-Double RAV approved at GML and CML only, not HML. Due to the structural integrity of the road pavement HML not permitted.
Note: There is a roundabout constructed at the intersection of Marsden Street and Pudman Street. For Over-Sized (OS) vehicles advice is given that it may be required to undertake a preliminary investigation as to whether OS vehicles associated with the project can manoeuvre at this location.

Iain Rice

Development and Traffic Officer

Locked Bag 5	Mobile 0417 653 691
YOUNG NSW 2594	Phone 1300 HILLTOPS (1300 4455 8677)
iain.rice@hilltops.nsw.gov.au	Fax (02) 6384 2576

From: Patric MIllar
Sent: Monday, 11 March 2019 12:12 PM
To: 'Ken Fox'
Cc: Iain Rice; Kristy Old
Subject: RE: Hilltops Council input into Bango Wind Farm Traffic Management Plan

Afternoon Ken

I'm wondering how Council is going with this? We are keen to progress the Traffic Management Plan for the Bango Wind Farm Project.

Kindest regards
Patric

Patric Millar
Environmental Technical Advisor Construction

CWP Renewables
Ground Floor, Block E, 34 Thynne Street, Bruce, ACT 2617, Australia
M: +61 (0)406 640 593
W: www.cwprenewables.com | www.sapphirewindfarm.com.au

From: Ken Fox <ken.fox@hilltops.nsw.gov.au>
Sent: Monday, 18 February 2019 3:28 PM
To: Patric MIllar <Patric.Millar@cwprenewables.com>
Cc: Iain Rice <iain.rice@hilltops.nsw.gov.au>
Subject: RE: Hilltops Council input into Bango Wind Farm Traffic Management Plan

Hi Patric ,
Thanks for your email
I have referred your request to one of my staff to provide you with a list of any other Additional matters that need to be considered
Thanks
Best Regards
Ken Fox
Acting Manager Engineering Services

Locked Bag 5
YOUNG NSW 2594

Email ken.fox@hilltops.nsw.gov.au
Mobile 0448 565 463
Phone (02) 6384 2501
Fax (02) 6380 1299

From: Patric MIllar <Patric.Millar@cwprenewables.com>
Sent: Monday, 18 February 2019 11:18 AM
To: Ken Fox <ken.fox@hilltops.nsw.gov.au>
Subject: Hilltops Council input into Bango Wind Farm Traffic Management Plan

Morning Ken

I am coordinating the preparation of the Traffic Management Plan (TMP) for the Bango Wind Farm. I am writing to you to formally consult with the Hilltops Council regarding the contents of the TMP. I have outlined the requirements as detailed in the Conditions of Consent in the attached letter.

Please give me a ring if you need any additional information or require any clarification.

Kindest regards
Patric

Patric Millar
Environmental Technical Advisor Construction

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Transport for NSW (formerly Roads and Maritime Services)

Hi Tobie,

I note from our discussion last Monday that the intention is to transport 6 damaged components to Port of Newcastle as the return haulage route back to Port Kembla would present significant issues due to the pinch point entering the Port Kembla Site.

Based on the Bango to Newcastle route assessment prepared by Rex J Andrews (attached) there does not appear to be any road upgrade work required for the pinch points on the route so there is no additional information required in the Transport Management Plan (TMP) report in relation to this information. General conditions from existing overarching TMP (provided to meet conditions of development consent) appear to remain relevant and applicable so I am happy to accept the existing TMP document for the Bango to Newcastle Journey.

The most important thing will be to ensure that that all of the relevant OSOM vehicle permits, Traffic Control Plan approval and Road Occupancy Licences are obtained prior to transporting the components. I believe the existing development approval TMP document should be adequate provided these other approvals have been obtained.

Thanks

Regards

Chris Bamberry

A/Team Leader Development Services South Western

Regional and Outer Metropolitan

Transport for NSW

T 02 6923 6588

193-195 Morgan Street Wagga Wagga NSW 2650

From: Nel, Tobie (GE Renewable Energy) [mailto:Tobie.Nel1@ge.com]

Sent: Thursday, 28 January 2021 11:35 AM

To: Chris Bamberry <Chris.BAMBERRY@transport.nsw.gov.au>

Subject: Bango Windfarm Reverse Logistics - TMP

Importance: High

Good morning Chris,

Hope all is well with you.

I am assisting the revision of the Bango Windfarm TMP and writing to you to formally consult with TfNSW regarding these amendments.

Due to Damages onsite, we have a requirement to return 2sets (6ea Blades) from the Bango Windfarm Jobsite to Port of Newcastle.
I have attached a Transport provider TMP for review and endorsement and also the CWP TMP that will be amended accordingly to reflect these requirements once we have your approval
These 6 blades will be transported in conjunction with the Heavy Haulage Permit process.

Please feel free to contact me for any additional information or clarification.

Thank you

Kind Regards,

Tobie Nel

Projects Logistics Manager
Onshore Wind, GE Renewable Energy

T: +61 (0) 409 654 782
E: Tobie.Nel1@ge.com

Level 2, Building 8
572 Swan Street, Richmond VIC 3121
GE International Inc.

sender by reply email and then delete this message and any attachments. If you are not the intended recipient, you are hereby notified that any use, dissemination, copying, or storage of this message or its attachments is strictly prohibited.

From: Chris Bamberry <Chris.BAMBERRY@transport.nsw.gov.au>
Sent: Thursday, 2 July 2020 11:03 AM
To: Nel, Tobie (GE Renewable Energy) <Tobie.Nel1@ge.com>
Cc: Development South West <development.south.west@rms.nsw.gov.au>; Lee Shoemark <Lee.Shoemark@transport.nsw.gov.au>; Scott Brown <Scott.BROWN@transport.nsw.gov.au>
Subject: EXT: RE: Bango Windfarm Transport Plan

Hi Tobie,

Transport for NSW accepts the Traffic Management Plan (Word document, version attached).

Please note that this approval is for development consent purposes only and only applies to the overarching Transport Management Plan document required as a condition of the development consent by the Department of Planning Industry and Environment.

Please note that the approval does not extend to route specific Transport Management Plans prepared by transport contractors (such as the attached documents prepared by Rex J Andrews) which will need to be finalised in consultation with Traffic Operations and Road Access Management Staff prior to haulage of any OSOM components. I believe Scott Brown is the single point of contact for this exercise.

Additionally, any Traffic Control Plans required to facilitate OSOM vehicle movements will need to be submitted for approval to Traffic Operations and Road Access Management Staff prior to implementation.

Could you please forward a final version of the Traffic Management Plan for our file once the changes have been adopted. Also, please provide a copy of the finalised supporting documents

including the contractor plans and Traffic Control Plans once they become available.

Thanks

Regards

Chris Bamberry

Development Assessment Officer

South West Region | Regional & Freight

T 02 6923 6588

Every journey matters

193-195 Morgan Street Wagga Wagga NSW 2650

-

From: Chris Bamberry <Chris.BAMBERRY@transport.nsw.gov.au>

Sent: Tuesday, 9 June 2020 5:53 PM

To: Nel, Tobie (GE Renewable Energy) <Tobie.Nel1@ge.com>

Cc: Development South West <development.south.west@rms.nsw.gov.au>; Lee Shoemark <Lee.Shoemark@transport.nsw.gov.au>

Subject: EXT: RE: Bango Windfarm Transport Plan

Hi Tobie,

Transport for NSW has reviewed the draft Traffic Management Plan (TMP) provided and provide the following comments in response. Could you please address the comments by making the requested changes to the TMP or responding to the comments.

My understanding is that the document was previously approved by Transport for NSW in May 2019. Changes have been made to the Traffic Management Plan to accommodate transportation of 3 components from Newcastle. The previous report was based on all components being transported from Wollongong. Approval is required for the amended document as part of the planning process.

For clarity, could you please provide a summary of components to be moved from each port in the TMP (possibly in section 4.2).

Supporting information provided includes the Transport Management Plan prepared by Rex J Andrews dated 28 April 2020 which shows a schedule of the and OSOM movements for components to be transported from Newcastle. Please provide a summary of this information in the TMP and include the Rex J Andrews document as an appendix. Similar information will need to be provided for the components coming from Wollongong. The information will need to be provided

well in advance prior to components being transported in order to allow for internal consultation within Transport for NSW. This information should also be included as an appendix in the TMP when it becomes available.

If there is a need for Traffic Control Plans to facilitate the OSOM vehicle movements from either Newcastle or Wollongong these will also need to be provided as supporting documents as an appendix in the TMP as soon as they become available.

If you require any additional information or would like to further discuss this comments please give me a call.

Regards

Chris Bamberry

Development Assessment Officer

South West Region | Regional & Freight

T 02 6923 6588

193-195 Morgan Street Wagga Wagga NSW 2650

From: Nel, Tobie (GE Renewable Energy) [mailto:Tobie.Nel1@ge.com]

Sent: Friday, 8 May 2020 10:57 AM

To: Maurice Morgan <Maurice.MORGAN@transport.nsw.gov.au>; Chris Bamberry <Chris.BAMBERRY@transport.nsw.gov.au>

Cc: Development South West <development.south.west@rms.nsw.gov.au>

Subject: RE: Bango Windfarm Transport Plan

Good morning Maurice and Chris,

Please find now attached the TMP version with tracked changes for your comment.

Kind Regards,

Tobie Nel

Projects Logistics Manager

OnShore Wind, GE Renewable Energy

T: +61 (0) 409 654 782

E: Tobie.Nel1@ge.com

Level 2, Building 8

572 Swan Street, Richmond VIC 3121

GE International Inc.

From: Nel, Tobie (GE Renewable Energy)

Sent: Friday, 8 May 2020 10:48 AM

To: maurice.morgan@rms.nsw.gov.au; Chris.BAMBERRY@rms.nsw.gov.au

Cc: development.south.west@rms.nsw.gov.au

Subject: FW: Bango Windfarm Transport Plan

Good morning Maurice and Chris

I am assisting the revision of the Bango Windfarm TMP and writing to you to formally consult with the NSW RMS regarding these amendments.

There is now a requirement to bring three separate units though the Port of Newcastle to the Bango Windfarm Jobsite.

I have attached a Transport provider TMP for reference, and the Original CWP TMP will be amended accordingly to reflect these requirements.

The three units consist of, Machine Head, Hub and Drive train and will be transported in conjunction with the Heavy Haulage Permit process.

Please feel free to contact me for any additional information or clarification.

Kind Regards,

Tobie Nel

Projects Logistics Manager

OnShore Wind, GE Renewable Energy

T: +61 (0) 409 654 782

E: Tobie.Nel1@ge.com

Level 2, Building 8

572 Swan Street, Richmond VIC 3121

GE International Inc.

From: Patric MIllar <Patric.Millar@cwprenewables.com>
Sent: Friday, 10 May 2019 4:3 PM
From: BAMBERRY Chris D <Chris.BAMBERRY@rms.nsw.gov.au>
Subject: RE: Bango Wind Farm Draft Traffic Management Plan - SWT12/00141 updated Version

Hi Chris

Thanks for that.

Patric Millar
Environmental Technical Advisor Construction

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From: BAMBERRY Chris D <Chris.BAMBERRY@rms.nsw.gov.au>
Sent: Friday, 10 May 2019 2:35 PM
To: Patric MIllar <Patric.Millar@cwprenewables.com>
Subject: RE: Bango Wind Farm Draft Traffic Management Plan - SWT12/00141 updated Version

Patric,

I endorse the amended document (version attached) on behalf of the Roads and Maritime Services.

Regards

Chris Bamberry
Development Assessment Officer
South West Region | Regional & Freight
T 02 6923 6588
www.rms.nsw.gov.au
Every journey matters
Roads and Maritime Services
193-195 Morgan Street Wagga Wagga NSW 2650

From: Patric MIllar [mailto:Patric.Millar@cwprenewables.com]
Sent: Friday, 10 May 2019 12:21 PM
To: BAMBERRY Chris D
Cc: Development South West; Leanne Cross; Kristy Old
Subject: RE: Bango Wind Farm Draft Traffic Management Plan - SWT12/00141 updated Version

Hi Chris

All done. Attached is updated Rev1a for your records. Can you please formally respond that it's good to go?

Cheers
Patric

Patric Millar
Environmental Technical Advisor Construction

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From: BAMBERRY Chris D <Chris.BAMBERRY@rms.nsw.gov.au>
Sent: Friday, 10 May 2019 11:56 AM
To: Patric MIllar <Patric.Millar@cwprenewables.com>
Cc: Development South West <development.south.west@rms.nsw.gov.au>
Subject: RE: Bango Wind Farm Draft Traffic Management Plan - SWT12/00141 updated Version

Patric,

Provided that the paragraph below is included, I endorse the document on behalf of the Roads and Maritime Services.

Regards

Chris Bamberry
Development Assessment Officer
South West Region | Regional & Freight
T 02 6923 6588
www.rms.nsw.gov.au
Every journey matters
Roads and Maritime Services
193-195 Morgan Street Wagga Wagga NSW 2650

From: Patric MIllar [mailto:Patric.Millar@cwprenewables.com]
Sent: Friday, 10 May 2019 11:48 AM
To: BAMBERRY Chris D
Cc: Kristy Old; Leanne Cross; naomi@trsconsulting.com.au
Subject: RE: Bango Wind Farm Draft Traffic Management Plan - SWT12/00141 updated Version

HI Chris

Thanks for your quick response. All our contractors use Journey Management Plans with their staff who live remotely from the site and operate under a work / home roster. If you're happy I'll include the following paragraph into the Transport Code of Conduct:

For drivers not covered by an approved Fatigue Management System then following fatigue minimisation strategies should be adopted for journeys over two hours in duration:

- Schedule journeys carefully to avoid night driving and those times of day when falling asleep is most likely (2am – 6am);
- Ensure that the driver is well rested prior to commencing their journey;
- Plan when and where to take rests of at least ten minutes every two hours;
- Take into account road hazards and weather conditions;
- Adhere to the legal restrictions on driving times, distances, drug and alcohol consumption;
- Allow for unexpected delays;
- Know what to do in case of an emergency; and
- Notify supervisor upon arrival at the final destination.

If you're happy with these words do you want to review the document again or are you happy to endorse it?

Cheers
Patric

Patric Millar
Environmental Technical Advisor Construction

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From: BAMBERRY Chris D <Chris.BAMBERRY@rms.nsw.gov.au>
Sent: Friday, 10 May 2019 11:05 AM
To: Patric MIllar <Patric.Millar@cwprenewables.com>
Cc: Development South West <development.south.west@rms.nsw.gov.au>
Subject: RE: Bango Wind Farm Draft Traffic Management Plan - SWT12/00141 updated Version

Hi Patric,

The only additional comment I have is that fatigue management should be encouraged amongst all drivers travelling to the site including light and heavy vehicles, not just OSOM vehicle drivers. For example construction workers should be encouraged to schedule breaks into their journey when travelling to and from the site, stop immediately if fatigued, avoid lengthy trips at the end of long shifts etc.

Other than this I would be happy to endorse the document on behalf of the RMS.

Regards

Chris Bamberry
Development Assessment Officer
South West Region | Regional & Freight
T 02 6923 6588
www.rms.nsw.gov.au
Every journey matters
Roads and Maritime Services
193-195 Morgan Street Wagga Wagga NSW 2650

From: Patric MIllar [mailto:Patric.Millar@cwprenewables.com]
Sent: Thursday, 9 May 2019 3:14 PM
To: BAMBERRY Chris D
Cc: Development South West; Leanne Cross; Kristy Old; Ed Mounsey
Subject: RE: Bango Wind Farm Draft Traffic Management Plan - SWT12/00141 updated Version

Afternoon Chris

Please find attached an updated version of the TMP for your review. We have taken on board your earlier comments and incorporated them into the attached version.

Section 3.1 correct road number
Section 5.2.2 updated to include preference for carpooling and shuttle buses
Section 6.1.1 has been updated to reflect that consultation with Council and RMS will occur prior to haulage of civil materials from outside the approved development envelope
Section 6.1.2 includes description of indicative OSOM haulage route
Appendix 4 has been updated with an indicative OSOM haulage route

Appendix 5 Transport Code of Conduct has been updated to include fatigue management.

Are you able to please review these change and respond by 17th May 2019?

Cheers
Patric

Patric Millar
Environmental Advisor Construction

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From: BAMBERRY Chris D <Chris.BAMBERRY@rms.nsw.gov.au>
Sent: Tuesday, 7 May 2019 12:01 PM
To: Patric MIllar <Patric.Millar@cwprenewables.com>
Cc: Development South West <development.south.west@rms.nsw.gov.au>
Subject: RE: Bango Wind Farm Draft Traffic Management Plan - SWT12/00141

Hi Patric,

Roads and Maritime Services has reviewed the Traffic Management Plan for the Bango Wind Farm, please refer to the comments provided below:

- Section 3.1 – Please correct the road number for the Lachlan valley way from MR81 to MR56.
- Consideration could be given to provision of shuttle buses for workers to nearby towns such as Yass and Boorowa during the peak construction period to help minimise the impact on local traffic.
- Section 6.1 – It might be beneficial to provide a map showing the designated heavy vehicle haulage routes.
- Section 6.1.2 – The OSOM vehicles that will be used for transporting components to the site for this project are likely to impact local traffic and cause inconvenience to the general public due to restricted travel speeds and lack of passing opportunities. The TMP should discuss how this will be managed to minimise the impact. Some measures to consider would be scheduling of OSOM deliveries outside of peak times and avoiding days where there may be significant community events, public consultation through VMS boards and media etc. If there are locations on the route where the OSOM vehicles are able to safely pull off to allow traffic to pass this should be given consideration.
- It should be noted in the TMP that additional consultation with Council and Roads and Maritime may be required in determining appropriate haulage routes for transport of civil materials such as gravel and concrete when the origin of these materials is known. For a project of this type the civil materials required could generate a significant proportion of the traffic.
- The sheets referred to in Appendix 4 appear to be missing. Please attach or embed them in the document.
- The Drivers Code of Conduct should include a section on fatigue management. As well as take a break every 2 hours drivers should be encouraged to stop immediately

and rest if feeling drowsy or fatigued. Drivers should also be encouraged to plan their journey with rest breaks, ensure adequate length breaks are taken, avoid lengthy journeys at the end of long shifts, etc.

If you would like to further discuss any of these comments or if you require any further information in regard to this matter please contact either myself on 6923 6588 or Maurice Morgan on 6923 6611.

Regards

Chris Bamberry
Development Assessment Officer
South West Region | Regional & Freight
T 02 6923 6588
www.rms.nsw.gov.au
Every journey matters
Roads and Maritime Services
193-195 Morgan Street Wagga Wagga NSW 2650

From: Patric MIllar [mailto:Patric.Millar@cwprenewables.com]
Sent: Friday, 3 May 2019 9:30 AM
To: MORGAN Maurice W
Cc: Leanne Cross; Kristy Old; Ed Mounsey
Subject: Bango Wind Farm Draft Traffic Management Plan

Good Morning Maurice

Please find attached the Draft Traffic Management Plan for the Bango Wind Farm for Council's review. The Plan was prepared pursuant to Condition 28 of Schedule 3 of Conditions of Consent for SSD 6686.

The Project is currently negotiating with a haulage contractor to deliver wind turbine components to the Site. They are currently preparing a haulage route plan which will details any road upgrades, modifications to roadside furniture and the like for the haulage route from the Port of Delivery to the Hume Highway. This haulage route plan will be incorporated into the Draft Traffic Management Plan. Any road upgrades identified in the haulage route plan would be covered by Traffic Control Plans and WAD if necessary.

The haulage route as defined in Condition 24 of Schedule 3 of SSD 6686 has not changed.

Can you please forward any comments to me by 17th May 2019? If you require any additional information or clarification, please contact me.

Kindest regards
Patric

Patric Millar
Environmental Technical Advisor Construction

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W: www.cwprenewables.com | www.sapphirewindfarm.com.au

Transport Roads & Maritime Services

From: MORGAN Maurice W <Maurice.MORGAN@rms.nsw.gov.au>
Sent: Tuesday, 2 April 2019 5:02 PM
To: Patric MIllar
Cc: Development South West; BAMBERRY Chris D
Subject: RE: RMS input into proposed use of Lachlan Valley Way from Boorowa to Bango Wind Farm

Patric

Further to our previous phone discussion please refer to below.

The Lachlan Valley Way is an approved route for B-Double heavy vehicles up to 26 metre in length. Please refer to the following link http://www.rms.nsw.gov.au/business-industry/heavy-vehicles/maps/restricted-access-vehicles-map/map/index.html

On this basis Roads and Maritime Services would not object to the movement of vehicles (up to 26 metre B-Doubles) along the Lachlan Valley Way subject to compliance with mass limits. Please note that any oversize/over mass vehicle require special permits. Refer to special_permits_unit@rta.nsw.gov.au

Access to the development site is proposed via the intersection of an unnamed road with the Lachlan Valley Way. This unnamed road appears to service adjoining farm holdings. This road is classed as a local road so please contact the Council regarding the status of this road. It is likely that this road would allow for access via general access vehicles being heavy articulated vehicles up to 19 metres in length unless otherwise authorised by the Council.

Roads and Maritime notes your query regarding Condition 24. On the basis of the above it appears that the condition could read as referring to “over dimensional and over-mass” however Roads and Maritime Services is not aware of the reasoning for the condition referring to “heavy vehicles”.

I hope this addresses your query.

Regards

Maurice Morgan
Manager Land Use
South West NSW| Regional and Freight Division
193 Morgan Street, Wagga Wagga NSW 2650
T: (02) 6923 6611 | maurice.morgan@rms.nsw.gov.au

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We work flexibly. If you receive an email from me outside of normal business hours, I'm not expecting you to read or reply until normal business hours.

From: Patric MIllar [mailto:Patric.Millar@cwprenewables.com]
Sent: Tuesday, 12 March 2019 2:35 PM
To: MORGAN Maurice W
Cc: Kristy Old; Leanne Cross; Ed Mounsey
Subject: RMS input into proposed use of Lachlan Valley Way from Boorowa to Bango Wind Farm

Afternoon Maurice

It was great to chat yesterday. As discussed here is our letter requesting RMS support in having the ability to access the Lachlan Valley Way from the north (i.e. Boorowa and beyond). Currently the Conditions of Consent contain a narrow definition of "heavy vehicle being: "a vehicle is a heavy vehicle if it has a GVM or ATM of more than 4.5t"
Access to the site for heavy and over size vehicles is detailed in Schedule 3 Condition which states:
The Applicant must ensure that all over-dimensional and heavy vehicle access to and from the site is via the Hume Highway and Lachlan Valley Way, as identified in the figures in APPENDIX8, unless the Secretary agrees otherwise
As a result of the definition of Heavy Vehicles our access to the Bango Wind Farm for anything larger than 8 tonnes is only from the south along the Lachlan Valley Way. We are seeking Secretary's Agreement to vary this and are writing to you to seek your concurrence before we formally approach the Secretary.
If you need any more information please give me a ring.
Cheers
Patric
Patric Millar
Environmental Technical Advisor Construction
CWP Renewables
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damage or other consequences which may arise from opening or using an attachment.
P Consider the environment. Please don't print this e-mail unless really necessary.

Boorowa to Kangiara Bus Route

From: Patric MIllar
Sent: Tuesday, 26 March 2019 7:50 AM
To: Taylorm8de Pty Ltd
Subject: RE: School Buses and Bango Wind Farm's Traffic Management Plan N1166 Boorowa to Kangiara

Thanks Rach

I thought that was the case. I'm working out when we need to keep our trucks carting wind turbine components off the Lachlan Valley Way so that they don't hold you up.

Cheers
Patric

Patric Millar
Environmental Technical Advisor Construction

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Ground Floor, Block E, 34 Thynne Street, Bruce, ACT 2617, Australia
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W: www.cwprenewables.com | www.sapphirewindfarm.com.au

From: Taylorm8de Pty Ltd <taylormade888@bigpond.com>
Sent: Tuesday, 26 March 2019 12:00 AM
To: Patric MIllar <Patric.Millar@cwprenewables.com>
Subject: Re: School Buses and Bango Wind Farm's Traffic Management Plan N1166 Boorowa to Kangiara

Hi Patric,
We leave Boorowa approximately 7:45am and arrive back at approx. 8:45am - in the afternoon we leave around 3:30pm and get back around 4:25pm
We stay on the Lachlan valley way from Boorowa to Kangiara and reverse.

Thank you
Rach :0)

On 19 Mar 2019, at 12:11 pm, Patric MIllar <Patric.Millar@cwprenewables.com> wrote:

Hi Rach

I've got a couple of quick questions:
What time do you leave Boorowa in the morning and what time do you get back of an afternoon?
Do you stay on the Lachlan Valley Way all the way from Kangiara to Boorowa?
Cheers
Patric

Patric Millar
Environmental Technical Advisor Construction

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Ground Floor, Block E, 34 Thynne Street, Bruce, ACT 2617, Australia
M: +61 (0)406 640 593
W: www.cwprenewables.com | www.sapphirewindfarm.com.au

From: Taylorm8de Pty Ltd <taylormade888@bigpond.com>
Sent: Thursday, 14 March 2019 3:12 PM
To: Patric MIllar <Patric.Millar@cwprenewables.com>
Subject: Re: School Buses and Bango Wind Farm's Traffic Management Plan N1166 Boorowa to Kangiara

Hi Patric,

Thank you for consulting with us in this matter.

Our school bus run reaches Kangiara turn around 8:10am and again at 3:50pm Monday to Friday during school terms.

We merge off the Barton Highway at the Kangiara turn off and park the bus in the clearway awaiting students, whose parents drive their cars to this point from Yass direction and also park their cars in this clearway.

We also meet with an adjoining bus that meets us in this clearway and we swap children in both the am and pm runs.

So for least amount of disruption to our school transport service we would need continued access to this clearway as a safe kerb to exchange students during a 10 minute window either side of above mentioned times (8-8:20am and 3:40-4:00pm)

Please let me know if you require any further information.

Kind regards
Rach Taylor
Taylorm8de Pty Ltd
T/a Taylorm8de Travel
Director

On 11 Mar 2019, at 12:14 pm, Patric MIllar <Patric.Millar@cwprenewables.com> wrote:

Hi Jamie

I was wondering how you are going with this. We are keen to complete a draft of the Traffic Management Plan for the Bango Wind Farm so we can get it out for comment by the relevant agencies.

Cheers
Patric

Patric Millar
Environmental Technical Advisor Construction

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From: Patric MIllar
Sent: Tuesday, 19 February 2019 1:47 PM
To: taylormade888@bigpond.com
Cc: Leanne Cross <Leanne.Cross@cwprenewables.com>; Kristy Old <Kristin.Old@cwprenewables.com>
Subject: School Buses and Bango Wind Farm's Traffic Management Plan N1166 Boorowa to Kangiara

Hi Jamie

It was great to chat earlier this afternoon about the Bango Wind Farm Traffic Management Plan. As I explained the development has been approved and we are currently putting together the Traffic Management Plan. One of the key aspects of the Traffic Management Plan is how we plan and manage our interactions with local traffic.

From previous experience it is the movement of wind turbine components which has the greatest potential to disrupt local traffic. Our approved oversize and over mass haulage route is along the Hume Highway bypassing Yass then onto the Lachlan Valley Way. We are also permitted to have light vehicles travelling along Tangmangaroo Road. I've attached a copy of the approved routes for your records.

The Lachlan Valley Way is the only approved access route we have for our oversize and over mass and heavy vehicles. As you operate the N1166 along the Lachlan Valley Way from Boorowa to Kangiara I am keen to minimise any impacts on you and the Route. As the registered operator of the N1166 Boorowa to Kangiara Bus Route are you able to provide me your timetable and any other details of the N1166 bus route so that we can work out suitable controls and conditions?

I will send you a copy of the Traffic Management Plan as it is developed to get your feedback on any conditions that would minimise impacts on your route, especially the morning run. I have attached a copy of the approved development access routes which shows the locally impacted roads for your information.

Please feel free to give me a ring if you need any more information.

Kindest regards
Patric Millar
Environmental Technical Advisor Construction
CWP Renewables
Ground Floor, Block E, 34 Thynne Street, Bruce, ACT 2617, Australia
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Yass to Kangiara Bus Route

From: Patric MIllar
Sent: Monday, 18 March 2019 3:08 PM
To: Kristy Old
Subject: FW: School Buses and Bango Wind Farm's Traffic Management Plan N1165 Yass to Kangiara

Patric Millar

Environmental Technical Advisor Construction

CWP Renewables
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From: Kylie Timmer <kylie.timmer@landmark.com.au>
Sent: Thursday, 14 March 2019 11:36 AM
To: Patric MIllar <Patric.Millar@cwprenewables.com>
Cc: 'Peter Timmer (peterjtimmer@yahoo.com)' <peterjtimmer@yahoo.com>
Subject: RE: School Buses and Bango Wind Farm's Traffic Management Plan N1165 Yass to Kangiara

Please find below the timetable for the Kangiara Bus during week days.

TIME	ADDRESS	TIME	ADDRESS
7.30am	Depot - 4 Hardwick Lane, Yass 2582	2.55pm	Depot - 4 Hardwick Lane, YASS 2582
7.50am	Walls Junction Road, Via Yass 2582	3.05pm	Berinba Primary School Church Street, Yass 2582
8.02am	'Kangiara' 2131 Lachlan Valley Way, Bowning 2582	3.15pm	Mount Carmel School Dutton Street, Yass 2582
8.05am	'Long Gully' Lachlan Valley Way, Yass 2582	3.20pm	Yass Public School Laidlaw Street, Yass 2582
8.07am	Kangiara Rd Intersection, Kangiara 2582	3.28pm	Yass High School Grampian Street, Yass 2582
8.14am	'Tangmangaroo' 1528 Lachlan Valley Way, Bowning 2582	3.32pm	1429 Yass Valley Way, Yass 2582
8.16am	'Baranbougie' 1330 Lachlan Valley Way, Bowning 2582	3.40pm	390 Lachlan Valley Way, Yass 2582
8.21am	'Willow Bridge' 748 Lachlan Valley Way, Bowning 2582	3.42pm	'Limestone Springs' 575 Lachlan Valley Way, Bowning 2582
8.24am	'Limestone Springs' 575 Lachlan Valley Way, Bowning 2582	3.44pm	'Willow Bridge' 748 Lachlan Valley Way, Bowning 2582
8.28am	390 Lachlan Valley Way, Yass 2582	3.48pm	'Baranbougie' 1330 Lachlan Valley Way, Bowning 2582
8.34am	1429 Yass Valley Way, Yass 2582	3.50pm	'Tangmangaroo' 1528 Lachlan Valley Way, Bowning 2582
8.40am	Yass High School Grampian Street, Yass 2582	4.00pm	Kangiara Road Intersection, Via Yass 2582

8.43am	Yass Public School Laidlaw Street, Yass 2582	4.02pm	'Long Gully' Lachlan Valley Way, Yass 2582
8.46am	Mount Carmel School Dutton Street, Yass 2582	4.04pm	'Kangiara' 2131 Lachlan Valley Way, Bowning 2582
8.50am	Berinba Primary School Church Street, Yass 2582	4.20pm	Walls Junction Road, Via Yass 2582
9.00am	Depot - 4 Hardwick Lane, YASS 2582	4.40pm	Depot - 4 Hardwick Lane, Yass 2582

Kylie Timmer

Remmit & Sons Pty Ltd
ABN: 36 609 426 502
8 Archer Close, Yass NSW 2582
T: 0413 339 377
E: kylie.timmer@landmark.com.au

From: Patric MIllar <Patric.Millar@cwprenewables.com>
Date: 11 March 2019 at 7:06:35 pm AEDT
To: Peter j Timmer <peterjtimmer@yahoo.com>
Subject: RE: School Buses and Bango Wind Farm's Traffic Management Plan N1165 Yass to Kangiara

Thanks Peter

Patric Millar

Environmental Technical Advisor Construction

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From: Peter j Timmer <peterjtimmer@yahoo.com>
Sent: Monday, 11 March 2019 6:43 PM
To: Patric MIllar <Patric.Millar@cwprenewables.com>
Cc: Leanne Cross <Leanne.Cross@cwprenewables.com>; Kristy Old <Kristin.Old@cwprenewables.com>
Subject: Re: School Buses and Bango Wind Farm's Traffic Management Plan N1165 Yass to Kangiara

Hi Pat

My apologies

Will have something to you within the next couple of days

Regards

Peter

Sent from my iPhone

On 11 Mar 2019, at 12:14 pm, Patric MIllar <Patric.Millar@cwprenewables.com> wrote:

Hi Peter

I was wondering how you are going with this. We are keen to complete a draft of the Traffic Management Plan for the Bango Wind Farm so we can get it out for comment by the relevant agencies.

Cheers

Patric

Patric Millar

Environmental Technical Advisor Construction

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From: Patric MIllar
Sent: Monday, 18 February 2019 3:41 PM
To: 'peterjtimmer@yahoo.com' <peterjtimmer@yahoo.com>
Cc: Leanne Cross <Leanne.Cross@cwprenewables.com>; Kristy Old <Kristin.Old@cwprenewables.com>
Subject: School Buses and Bango Wind Farm's Traffic Management Plan N1165 Yass to Kangiara

Hi Peter

It was great to chat earlier this afternoon about the Bango Wind Farm Traffic Management Plan. As I explained the development has been approved and we are currently putting together the Traffic Management Plan. One of the key aspects of the Traffic Management Plan is how we plan and manage our interactions with local traffic.

From previous experience it is the movement of wind turbine components which has the greatest potential to disrupt local traffic. Our approved oversize and over mass haulage route is along the Hume Highway bypassing Yass then onto the Lachlan Valley Way. We are also permitted to have light vehicles travelling along Tangmangaroo Road. I've attached a copy of the approved routes for your records.

According to Transport NSW the Route N1165 operates along the Lachlan Valley Way from Yass to Kangiara. The Lachlan Valley Way is the only approved access route we have for our oversize and over mass and heavy vehicles.

I am keen to minimise any impacts on you and the N1165 Route. As the registered operator of the N1165 Yass to Kangiara Bus Route are you able to provide me your timetable and any other details of the N1165 bus route so that we can work out suitable controls and conditions?

I will send you a copy of the Traffic Management Plan as it is developed to get your feedback on any conditions that would minimise impacts on your route, especially the morning run. I have attached a copy of the approved development which shows the locally impacted roads for your information.

Please feel free to give me a ring if you need any more information.

Kindest regards

Patric

Patric Millar

Environmental Technical Advisor Construction

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Appendix 7 Review Comments – June 2019

Traffic Management Plan
Reviewer: Paul Freeman paul.freeman@planning.nsw.gov.au
Date: 04/06/2019

Condition 24 schedule 3	**Satisfactory (Yes/No/Partial)**	**Comment**	**Action Required**	**Company Response**
24. The Applicant must ensure that all over-dimensional and heavy vehicle access to and from the site is via the Hume Highway and Lachlan Valley Way, as identified in the figures in APPENDIX 8, unless the Secretary agrees otherwise. *Notes:* *The Applicant is required to obtain relevant permits under the Heavy Vehicle National Law (NSW) for the use of over-dimensional vehicles on the road network.*	Yes	**Satisfied**: The haulage routes are discussed in Section 6.1.1 with vehicle movement plans and haulage routes for OSOM and heavy vehicles are included in Appendix 4. If construction materials are located to the north of the site access on the Lachlan Valley Way then an application would be made to the Secretary to allow heavy (not oversize) vehicles to access the site from the north from Boorowa and beyond. The application to the Secretary would be made in accordance with the provisions of Schedule 3 Condition 24. Any movement though Boorowa would adhere to the existing RMS Routes through town being Pudman Street, Court Street, Brial Street, Long Street and Rugby Road which are approved up to B-Double RAV at GML and CML. Permits for over-mass and over-size vehicles is discussed in Section 6.1.2. This section includes reference to RMS Permits, but not specifically to *Heavy Vehicle National Law (NSW).*	Include in Section 6.1.2 that relevant permits under the Heavy Vehicle National Law (NSW) for the use of over-dimensional vehicles on the road network will also be obtained.	Added into Section 6.1.2: Any permits under the Heavy Vehicle National Law (NSW) for the use of over-dimensional vehicles on the road network will also be obtained prior to the commencement of haulage of Over dimensional vehicles.
General comments:				
• Typos in Section 6.1.1				• Updated

Traffic Management Plan
Reviewer: Paul Freeman paul.freeman@planning.nsw.gov.au
Date: 04/06/2019

Condition 24 schedule 3	**Satisfactory (Yes/No/Partial)**	**Comment**	**Action Required**	**Company Response**
Schedule 3 condition 25	**Satisfactory (Yes/No/Partial)**	**Comment**	**Action Required**	
Road Upgrades 25. The Applicant must implement the road upgrades identified in APPENDIX 7 in accordance with the relevant timing requirements, to the satisfaction of the relevant roads authority. If there is a dispute about the road upgrades to be implemented, or the implementation of these upgrades, then either party may refer the matter to the Secretary for resolution.	Partial	**Not Satisfied:** Road upgrades identified in Appendix 7 are addressed in Section 6.2.2. Includes a note that works on Wargeila Road would not proceed as the access on Wargeila Road would not be used by Contractor. Section 6.2.3 Works on Tangmangaroo Road is draft/ incomplete. Dispute management in relation to road upgrades is not discussed.	Finalise Section 6.2.3. Include dispute management in relation to road upgrades.	Section 6.2.3 finalised Dispute resolution moved to 6.2.2: The staging of works will be planned to minimise the impacts on highway traffic and facilitate cost effective construction phase. In the event of a dispute in relation to road upgrades either parties may refer the matter to the Secretary for resolution. Advice may also be sought from the Engineers Australia on

Traffic Management Plan
Reviewer: Paul Freeman paul.freeman@planning.nsw.gov.au
Date: 04/06/2019

Condition 24 schedule 3	**Satisfactory (Yes/No/Partial)**	**Comment**	**Action Required**	**Company Response**
				mediating the dispute.
Schedule 3 condition 26	**Satisfactory (Yes/No/Partial)**	**Comment**	**Action Required**	**Company Response**
Road Maintenance 26. The Applicant must:				
(a) prepare a dilapidation survey in accordance with guidelines and standards established by Austroads of the designated vehicle route on Tangmangaroo Road, Wargeila Road and Yass Valley Way, as identified in the figures in APPENDIX 8: • prior to the commencement of any construction and/or decommissioning works, other than pre-construction minor works; • within 1 month of the completion of any construction and/or decommissioning works, other than pre-construction minor works;	Yes	**Satisfied**: Section 7.4 states that a suitably qualified person is to be engaged to prepare a pre-construction dilapidation report prior to the commencement of construction in accordance with the guidelines and standards established by Austroads and in accordance with Condition of Consent 26 and the Road Agreement. The extent of the dilapidation surveys for regular construction traffic is proposed within 300m of the construction access located on a State Road and along the length of Tangmangaroo Road between the State Road and Site Access. Transport Contractors will be responsible for undertaking the road inspection / assessment along haulage routes for oversize over mass (OSOM) truck routes. Other than referencing the condition the 1 month timeframe for the post-construction dilapidation report is not specified.	Consider including a map to show the extent of the dilapidation report. Include the 1 month timeframe for the preparation of the post-construction dilapidation report.	Section 7.4.1 timeframe Within one month of the completion of all construction activities, a report…

Traffic Management Plan
Reviewer: Paul Freeman paul.freeman@planning.nsw.gov.au
Date: 04/06/2019

Condition 24 schedule 3	**Satisfactory (Yes/No/Partial)**	**Comment**	**Action Required**	**Company Response**
		Ensure the Operational TMP includes decommissioning dilapidation survey/ reporting.		
(b) rehabilitate and/or make good any development-related damage: • identified during the carrying out of the relevant construction and/or decommissioning works if it could endanger road safety as soon as possible after the damage is identified, but within 7 days at the latest; and • identified during any dilapidation survey carried out following the completion of the relevant construction and/or decommissioning works within 2 months of the completion of the survey, unless the relevant roads authority agrees otherwise, to the satisfaction of the relevant roads authority. If the construction and/or decommissioning of the development is to be staged, the obligations in this condition apply to each stage of construction and/or decommissioning. If there is a dispute about the scope of any remedial works or the implementation of	Partial	**Not satisfied:** Sections 7.4 and 7.4.2 specify that 3-monthly inspections will be conducted to identify damage during construction. Any damage caused will be raised to the relevant Council representative to seek work permit approvals to allow for remediation works. Repair work undertaken before the post construction dilapidation report would be in accordance with restoration requirements found in Road Opening Permit/s. Photos will be taken and placed on record after repairs are undertaken. The Council and RMS representative/s would be invited to inspect works and provide signoff. The specified timeframes for undertaking repairs is not included. Ensure the Operational TMP includes decommissioning road repairs. Dispute management is not included.	Specify that during the construction repairs to damage resulting from construction traffic will be undertaken as soon as possible after the damage is identified, and within 7 days at the latest, Specify that repairs identified during the dilapidation survey carried out following the completion of the relevant construction works within 2 months of the completion of the survey, unless the relevant roads	7.4.2 Repairs and damage resulting from construction traffic will be undertaken as soon as possible after the damage is identified and within 7 days at the latest. Urgent repairs which threatened the safety of road users would be undertaken immediately in consultation with the RMS and Council. Section 7.4.2 Any repairs identified during the post construction dilapidation survey will be

Traffic Management Plan
Reviewer: Paul Freeman paul.freeman@planning.nsw.gov.au
Date: 04/06/2019

Condition 24 schedule 3	**Satisfactory (Yes/No/Partial)**	**Comment**	**Action Required**	**Company Response**
these works, then either party may refer the matter to the Secretary for resolution.			authority agrees otherwise. Include details of dispute management.	undertaken within 2 months of the completion of the survey, unless the relevant roads authority agrees otherwise. 7.4.1 Dispute Resolution In the event of a dispute between the proponent and Council or the RMS on repair techniques, designs and the like, the matter would be referred to the Secretary for resolution.
Schedule 3 condition 27	**Satisfactory (Yes/No/Partial)**	**Comment**	**Action Required**	
Unformed Crown Roads 27. The Applicant must ensure any unformed Crown road reserves affected by	Yes	**Satisfied**: this condition is addressed in Section 5.12.	Update correct cross reference in Table 1.1	Reference updated

Traffic Management Plan
Reviewer: Paul Freeman paul.freeman@planning.nsw.gov.au
Date: 04/06/2019

Condition 24 schedule 3	**Satisfactory (Yes/No/Partial)**	**Comment**	**Action Required**	**Company Response**
the development are maintained for future use, unless otherwise agreed with the NSW Department of Industry - Crown Lands and Water.				
Schedule 3 condition 28	**Satisfactory (Yes/No/Partial)**	**Comment**	**Action Required**	**Company Response**
Traffic Management Plan 28. Prior to the commencement of construction, the Applicant must prepare a Traffic Management Plan for the development in consultation with RMS and the Councils, and to the satisfaction of the Secretary. This plan must:				
(a) detail the measures that would be implemented to: • minimise the traffic safety impacts of the development and disruptions to local road users during the construction and decommissioning of the development, including: - consideration of potential interaction with Rye Park Wind Farm in consultation with the applicant of that project; - temporary traffic controls, including detours and signage;	Yes	**Satisfied**: • minimise the traffic safety impacts: - Rye Park Wind Farm mitigation measures are addressed in Section 5.14; - Traffic Control Plans Section 6.3 - Community communications Section 6.1 and Section 7.1 - Rail services Section 5.7 - Stock movements Section 5.8 - OSOM vehicle movements would generally occur outside of the permit hours and as such avoid any conflicts - School buses Section 5.6 - Minimise development-related traffic on the public road network outside of standard construction hours Section 6.1 Fleet management	In Section 5.7 clarify if adjustments to the overhead powerlines at the rail bridge overpass on the Lachlan Valley Way will impact rail services, and if it does, identify how this will be mitigated.	EPC Contractor has indicated that no upgrades are required,

Traffic Management Plan
Reviewer: Paul Freeman paul.freeman@planning.nsw.gov.au
Date: 04/06/2019

Condition 24 schedule 3	**Satisfactory (Yes/No/Partial)**	**Comment**	**Action Required**	**Company Response**
- notifying the local community about development-related traffic impacts; - minimising potential conflict between development-related traffic and: ▪ rail services; ▪ stock movements; and ▪ school buses, in consultation with local schools; - implement measures to minimise development-related traffic on the public road network outside of standard construction hours; - implement measures to minimise dirt tracked onto the public road network from development- related traffic; - ensuring loaded vehicles entering or leaving the site have their loads covered or contained; - providing sufficient parking on site for all development-related traffic;		- Covering of loads Section 7.10 and Appendix 5 - Parking Section 5.4 - Emergency repairs Section 7.2 - Over-dimensional vehicles Section 4.2 and Section 6.1		

Traffic Management Plan
Reviewer: Paul Freeman paul.freeman@planning.nsw.gov.au
Date: 04/06/2019

Condition 24 schedule 3	Satisfactory (Yes/No/Partial)	Comment	Action Required	Company Response
- responding to any emergency repair requirements or maintenance during construction and/or decommissioning; and - a traffic management system for managing over-dimensional vehicles; and • comply with the traffic conditions in this consent;				
(b) include a driver's code of conduct that addresses: • travelling speeds; • procedures to ensure that drivers to and from the development adhere to the designated over-dimensional and heavy vehicle routes; and • procedures to ensure that drivers to and from the development implement safe driving practices;	Yes	**Satisfied**: Section 6.1.4 and Appendix 5 includes speed limits, haulage routes and safe driving practices.	No further action required	
(c) include a detailed program to monitor and report on the effectiveness of these measures and the code of conduct. Following the Secretary's approval, the Applicant must implement the Traffic	Partially	**Not satisfied:** addressed in section 7.6 which includes site monitoring and inspections, and Section 7.11 review and improvement. Reporting on the effectiveness of the plan is not included.	Include details on reporting on the effectiveness of the plan and code of conduct.	The effectiveness of the traffic management plans and site implementation will be assessed against criteria

Traffic Management Plan
Reviewer: Paul Freeman paul.freeman@planning.nsw.gov.au
Date: 04/06/2019

Condition 24 schedule 3	**Satisfactory (Yes/No/Partial)**	**Comment**	**Action Required**	**Company Response**
Management Plan.				specified in section 7.6 and 7.11. This will be reported monthly by the EPC to the principle and during inspections, audit, incident management and compliance tracking. As appropriate, and in accordance with the EMS, review and update may be made to the project risk register, objectives and targets, the TMP per condition 4.3 of the approval.

Appendix 8 RJA Transport Management Plans