

# Crudine Ridge Wind Farm

## Traffic Management Plan

25 June 2024



Final

**Revision Control**

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A	15/03/2024	Draft	Z Jokadar	C. Somerville	C. Somerville	TfNSW
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# 1 Introduction

## 1.1 Overview

Squadron Energy Pty Ltd (SQE) has updated the project Traffic Management Plan (TMP), on behalf of Crudine Ridge Wind Farm Pty Ltd (The Proponent), to reflect the operational phase of the Crudine Ridge Farm (CRWF, the Project).

The Crudine Ridge Wind Farm (CRWF) is about 45 kilometres south of Mudgee and 45 kilometres north of Bathurst, New South Wales (NSW) and is located in the Bathurst and Mid-Western Regional Council (MWRC) areas. The location of the site is shown in Figure 1. The Project consists of 37 wind turbine generators (WTGs), access roads, hardstands, internal electrical reticulation, operations and maintenance facility, a TransGrid operated substation, and approximately 15 km overhead transmission line.

Operation of the CRWF formally commenced on 20 December 2021. GE Renewable Energy Australia (GE) is contracted under a Full Services Agreement (FSA) by the Proponent to operate and maintain the WTGs. This includes the transport and replacement of large components, such as but not limited to the blades and nacelles. TransGrid own and manage the substation. Operation of the substation is undertaken remotely by TransGrid or locally from the control room in the substation as required. Any transportation requirements related to the operation and or maintenance of the substation, is also handled directly by TransGrid. As such this TMP does not cover traffic management for operation or maintenance activities at TransGrid's substation.

## 1.2 Purpose of the TMP

The purpose of this TMP is to define the traffic management measures that will be implemented for the operational phase of CRWF to minimise disruption and ensure the safety of road users and communities along the transport route. The FSA is responsible for arranging haulage of large components (e.g. blades, nacelle). The FSA and its subcontractor are responsible for preparing a journey specific TMP when large components are transported to the site. This TMP serves as an overarching management plan to ensure the subcontractor's TMP is using the approved haulage routes and is compliant with the requirements of the conditions of consent SSD-6697 MOD 3.

### 1.2.1 Background

The previous version of this TMP (v10) was prepared to manage traffic from pre-construction and construction activities pursuant to Conditions 28 to 34 of Schedule 3 of the NSW Development Consent - SSD-6697 MOD 3, which included traffic management requirements for road upgrades, and road-use restrictions for construction related traffic. The previous version of this TMP was approved by Department of planning Housing and Industry (DPHI) on the 13 August 2019.

Since the Project is now operational and all pre-construction road upgrades and construction related traffic have ceased, Conditions 28 to 30 of Schedule 3 are no longer applicable. Table 1 summaries how these conditions were met during construction and are now closed.

Consequently, the TMP has been revised to address specific traffic management measures for the operational phase of the Project, in accordance with Conditions 31 to 34 of Schedule 3 (see Table 2).



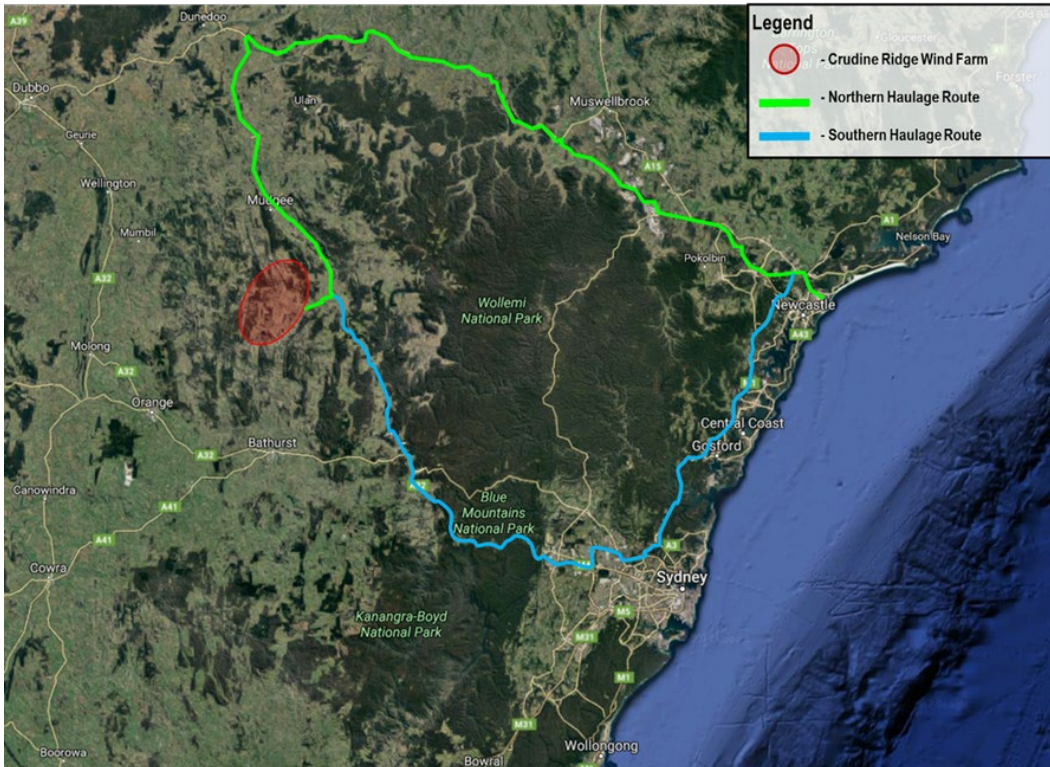


Figure 1 Site location

### 1.3 Conditions of Approval

Table 1 details construction phase compliance with Condition 28 to 30 of Schedule 3 from the NSW Development Consent - SSD-6697 MOD 3.

Table 1 Conditions of Consent – 28 to 30 of Schedule 3

CoC	Requirement	Comment
28	<p><b>Road Upgrades – Aarons Pass Road</b></p> <p>Prior to the commencement of construction (other than pre-construction minor works or the construction of the external overhead transmission line), the Applicant shall:</p> <ol style="list-style-type: none"> <li>Undertake the road upgrades and other traffic management measures (including the construction of passing bays) identified in Appendix 6 to the satisfaction of MWRC;</li> <li>Upgrade the existing intersection between Aarons Pass Road and the Castlereagh Highway to the satisfaction of the RMS, unless the RMS determines these upgrades are unnecessary; and</li> <li>Construct the new intersection between Aarons Pass Road and the northern site access road to the satisfaction of MWRC. The intersection design must include:                             <ul style="list-style-type: none"> <li>a widened shoulder prior to the intersection to assist turning vehicles; and/or</li> <li>a widened intersection to facilitate the flow of entering traffic off the road; and/or</li> <li>placing site entrance gates back from the road so that they do not create a hold point for entering vehicles prior to their egress from Aarons Pass Road.</li> </ul> </li> </ol>	<p>On 27/02/2020 CRWF received a practical completion letter from MWRC for Aarons Pass Road upgrade</p> <p>On 11/01/2018 CRWF received Email correspondence from TfNSW stating works at the intersection of Castlereagh Highway and APR are not required.</p> <p>Construction of the Project and ancillary facilities was completed in late 2021.</p> <p><b>These conditions are not applicable to operational traffic.</b></p>

CoC	Requirement	Comment
	<p>The Applicant may commence construction of the external overhead transmission line (as identified in Appendix 2), prior to completion of the Aarons Pass Road upgrades set out in this condition, provided that all heavy and over-dimensional vehicles associated with the construction of this transmission line:</p> <p>(a) access the site from Bombandi Road; and</p> <p>(b) do not use Aarons Pass Road before it has been upgraded in accordance with this condition.</p>	
29	<p><b>Road Upgrades – Bombandi Road</b></p> <p>Prior to the commencement of construction of the external transmission line (see the figures in Appendix 2) the Applicant shall:</p> <ol style="list-style-type: none"> <li>Undertake the road upgrades and other traffic management measures identified in Appendix 6 to the satisfaction of MWRC; and</li> <li>Upgrade the existing intersection between Bombandi Road and the Castlereagh Highway to the satisfaction of the RMS, unless the RMS determines these upgrades are unnecessary.</li> </ol>	<p>On 9/12/2019 CRWF received Email correspondence from MWRC confirming works have been completed to Councils satisfaction per requirement of Appendix 6.</p> <p>On 4/11/2019: CRWF received letter from TfNSW confirming the intersection upgrade of Bombandi Road is not required.</p> <p>Construction of the Project and ancillary facilities was completed in late 2021.  <b>These conditions are not applicable to operational traffic.</b></p> <p>Note: Bombandi Road is not used for the operation of the Project.</p>
30	<p><b>Road Maintenance</b></p> <p>The Applicant shall:</p> <ol style="list-style-type: none"> <li>Prepare a pre-dilapidation survey of the transport route prior to the commencement of any construction or decommissioning works other than pre-construction minor works;</li> <li>Prepare a post-dilapidation survey of the transport route within 1 month of the completion of construction or decommissioning works other than pre-construction minor works, or other timing as may be agreed by the applicable roads authority; and</li> <li>Rehabilitate and/or make good any project-related damage identified in the post-dilapidation survey within 2 months of the completion of survey, or other timing as may be agreed by the relevant roads authority,</li> </ol> <p>to the satisfaction of the relevant roads authority.</p> <p>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.</p> <p>If there is a dispute about the scope of any remedial works or the implementation of the works, then either party may refer the matter to the Secretary for resolution.</p>	<p>Pre and post dilapidation surveys and rehabilitation works were all completed during the pre-construction and construction phase of the project, to the satisfaction of the relevant road authority.</p> <p>Construction of the Project and ancillary facilities was completed in late 2021.  <b>These conditions are not applicable to operational traffic.</b></p>

Table 2 details how this TMP addresses Condition 31 to 34 of Schedule 3 from the NSW Development Consent - SSD-6697 MOD 3.

**Table 2 Conditions of Consent – 31 to 34 of Schedule 3**

CoC	Requirement	Section where this is addressed
31	<p><b>Unformed Crown Roads</b></p> <p>The Applicant shall ensure the future use of any unformed Crown road reserve is not compromised by the development.</p>	<p>No unformed crown roads are used by haulage vehicles during operation</p> <p>Roads used for operation are described in Section 2</p>
32	<p><b>Restriction on Transport Routes</b></p> <p>The Applicant shall ensure that all:</p> <p>a. Over-dimensional vehicle access to and from the site is via the northern route using Castlereagh Highway and Aarons Pass Road;</p>	Section 2.1
	<p>b. Over-dimensional vehicle access through Mudgee is via:</p> <ul style="list-style-type: none"> <li>Route 1 (using Castlereagh Highway, Market Street, Duoro Street and Horatio Street), for vehicles up to 50 metres length; or</li> <li>Route 2 (using Castlereagh Highway, Market Street, Cox Street, Short Street, Lawson Street, Mortimer Street, Burrundulla Avenue and Horatio Street), for vehicles more than 50 metres length;</li> </ul>	Section 2.1
	<p>c. Other heavy vehicle access to and from the site is via:</p> <ul style="list-style-type: none"> <li>The northern route using Castlereagh Highway and Aarons Pass Road; or</li> <li>The southern route using Hill End Road and the Ilford-Sofala Road or Sofala Road; or</li> <li>The minor access routes using Bombandi Road and/or Crudine Road,</li> </ul> <p>Unless the Secretary authority approves otherwise.</p>	Sections 2.1, 2.2
	<p>Notes:</p> <p>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.</p> <p>Identified over-dimensional vehicle access routes through Mudgee are shown in Appendix 7.</p>	Note only
33	<p><b>Traffic Management</b></p> <p>Prior to carrying out further work on the upgrades on Aarons Pass Road after the date of approval of Modification 1 or the commencement of the Bombandi Road upgrades, whichever occurs first, the Applicant must prepare a revised Traffic Management Plan for the development to the satisfaction of the Secretary. This plan must be prepared in consultation with RMS and the Councils, and include:</p>	TMPv10 prepared in consultation with relevant agencies and approved by the Secretary on 13 August 2019.
	<p>a. Details of all transport routes and traffic types to be used for the development-related traffic;</p>	Section 2
	<p>b. A protocol for undertaking dilapidation surveys to assess the:</p> <ul style="list-style-type: none"> <li>Existing condition of the transport route/s prior to construction or decommissioning works; and</li> <li>Condition of the transport route/s following construction or decommissioning works;</li> </ul>	Section 3
	<p>c. A protocol for the repair of any roads identified in the dilapidation surveys to have been damaged during construction or decommissioning works;</p>	Not applicable for operation
	<p>d. Details of the measures that would be implemented to minimise traffic safety issues and disruption to local users of the transport route/s</p>	Section 3 and 4

CoC	Requirement	Section where this is addressed
	during any road upgrades and construction or decommissioning works, including: <ul style="list-style-type: none"> <li>• Temporary traffic controls, including detours and signage;</li> <li>• Notifying the local community about project related traffic impacts;</li> <li>• Minimising potential for conflict with school buses and rail services, including avoiding heavy vehicle transport through Mudgee between the hours of 7 am and 10am and 2 pm and 4:30 pm Monday to Friday, as far as practicable;</li> <li>• Undertaking monitoring and maintenance on Aarons Pass Road;</li> <li>• Responding to any emergency repair or maintenance requirements; and</li> <li>• A traffic management system for managing over-dimensional vehicles; and</li> </ul>	Note: <i>'Undertaking monitoring and maintenance on Aarons Pass Road'</i> is not applicable for operation
	e. A driver's code of conduct that addresses: <ul style="list-style-type: none"> <li>• Travelling speeds;</li> <li>• Procedures to ensure that drivers adhere to the designated transport routes; and</li> <li>• Procedures to ensure that drivers implement safe driving practices, particularly if using local roads through Mudgee.</li> </ul>	<b>Appendix A</b>
	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.	Not applicable for operation
<b>34</b>	Following approval, the Applicant must implement the measures described in the Traffic Management Plan.	This TMP

Condition 32 of the Development Consent requires that over-dimensional vehicle access to and from the site is via the northern route using Castlereagh Highway and Aarons Pass Road, unless the applicable roads authority approves otherwise. The condition also states that 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.

In early 2017, the proponent engaged with Roads and Maritime Services (RMS, now Transport for NSW) to evaluate the feasibility and potential impacts of an alternative southern transport route in order to reduce traffic pressure on townships along the northern route, including Gulgong and Mudgee. Extensive consultation was undertaken during this assessment to ensure that the route was feasible, including meetings and information exchange with the following entities:

- Mid-Western Regional Council
- Transport for NSW (TfNSW)
- Development Assessments team
- Special Permits Unit
- Great Western Highway design team
- Golden Highway design team
- Northconnex (Ward Group construction team)
- M2 Hills Motorway
- Country Regional Network / John Holland Rail Group

At the request of the Special Permits Unit, an unloaded dry run was undertaken under police escort in June 2017, to confirm that the route could be safely used to transport over-dimensional equipment from Newcastle to the site entrance. The dry run was successfully completed and the Special Permits Unit subsequently



provided endorsement for use of the route for the Project, subject to an adequate TMP and standard permitting procedures. A draft version of TMP ver 10 was provided to TfNSW Land Use Assessment Team for review in September 2017. TfNSW subsequently accepted the use of the southern and northern routes, subject to the terms of the special permits.

The approval of the TMPv1 by the Secretary on 15 December 2017 constitutes Secretary's Approval of the Southern Access Route that was previously approved by the TfNSW. This aligns it to the Conditions of Consent for SSD 6697 MOD 3.

Sections 2.1 and 2.2 of this plan identify the planned management measures for haulage that will be adopted on the northern and southern routes during any blade maintenance requirements of the Project.

## 1.4 Operation Activities and traffic

The wind farm operates from the Operation & Maintenance (O&M) facility. Approximately 6 to 10 operational / maintenance staff, based in the local area, service the CRWF and its wind turbines.

Except when major repairs are being undertaken, site maintenance activity is generally undertaken by light vehicles, standard 4WD vehicles and delivery trucks for spare parts. Bulldozers / graders are infrequently used for maintenance of access roads during the life of the Project. Where major repairs or replacement of major components (e.g. turbine blades, large plant from within the nacelle) are required, equipment such as large cranes and Oversize/Overmass (OSOM) vehicles are used.

Approximately 15 light vehicle trips (30 trips per day) will be experienced during operations primarily comprising journey to work and home trips, which would readily be absorbed into the spare capacity of the existing road network. Bulldozers / graders could be needed on an infrequent basis for maintenance of the access track during the life of the Project. This relatively minor traffic generation will have negligible traffic and road network impacts. The majority of these vehicles travelling to site, approximately 80%, are expected to travel via Castlereagh Highway from outside the local road network. The remaining vehicles are expected to travel from within the local road network and consist mainly of local residents working on the wind farm project. Aarons Pass Road provides access to a small number of rural properties with typical traffic volumes of 23 vehicles per day. The low number of operational vehicles are not likely to cause any delays. As such, no management measures are proposed for light vehicle traffic during operation.

Note: Bombandi Road is not used for operation of the Project and would not be used for Demolition.

The main operational traffic impacts are likely to occur during the haulage of replacement blades and large components which will require the use of OSOM vehicles. Table 3 details the number of OSOM vehicles that would be needed for a component that may require replacement. A major repair event will not necessarily require a full replacement of an entire turbine, but likely a blade and/or a large plant from within the nacelle.

As such, a major repair event from commencement to completion of the relevant works, would only generate between 3 to 9 OSOM vehicle trips (one way) along either of the haulage routes. Furthermore, such major repairs events are infrequent and would only be required under major malfunctions or major damage to components.

Additionally, over-mass loads will be carried on trailers, or combinations of trailers, with sufficient axle groups to ensure compliance with point load and overall load limits for the road surface. As such, over-mass vehicles will incur less loading stress on the road surface, especially when run under escort with limited speed, than normal heavy vehicle traffic.

**Table 3: Typical Operational Vehicle numbers**

Component	Characteristics	Traffic Generation	Haulage route
<b>Nacelle</b>	Weight is up to 125 tonnes, one per wind turbine	For 1 turbine :1 OSOM vehicle	Northern
<b>Blade</b>	One blade: up to 63 m long, 1 blade per vehicle.	For 1 blade: 1 OSOM vehicle	Southern
<b>Hub</b>	Typical weight is approximately 40 tonnes, one per wind turbine in single load.	For 1 turbine: 1 low-loader vehicle	Northern or Southern
<b>Tower</b>	Typically three to 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.	For 1 wind turbine: up to 5 low-loader (OSOM) vehicles+ 1 semi-trailer truck	Northern or Southern
<b>Additional Materials</b>	Typically for each wind turbine, additional miscellaneous equipment to be delivered to the site would require approximately one container (semi-trailer) truck.	For 1 wind turbine: 1 semi-trailer truck	Northern or Southern
<b>Site Cranes</b>	Up to four cranes (2 main cranes and 2 tailing cranes). These would travel to the preferred site access point at the start of repairs and then leave at the end.	Traffic generation: 2 OSOM vehicles + 6 semi-trailers of support equipment.	Northern or Southern
<b>Staff vehicles and delivery trucks</b>	Sedans, vans, light vehicles, 4WD, and trucks	15 vehicle trips (or 30 trips per day)	Northern or Southern
<b>Access track maintenance</b>	<b>Bulldozers and or graders</b>	<b>1 vehicle trip</b>	<b>Northern or Southern</b>

Note: a trip is defined as a one way vehicular movement from one point to another excluding the return journey. Therefore, a trip per day is counted as two trips.

## 2 Existing road network

The Project can be reached via a Northern route including several local roads leading from the Castlereagh Highway between Mudgee and Ilford and a Southern route from the Great Western Highway between Bathurst and Crudine, see Figure 1.

Existing access roads can be classified into two broad categories:

- Classified Highways: Castlereagh Highway (SH 86), Hill End Road (MR 216) and the Great Western Highway (SH 32), which are maintained by TfNSW; and
- Local Roads: The direct access to the site is provided by local roads maintained by Mid-Western Regional or Bathurst Regional Councils.
  - North access: Windeyer Road, Pyramul Road and Aarons Pass Road.
  - South access: Turondale Road and Hill End Road.
  - Bombandi Road and Crudine Road for access to the external overhead electrical interconnection by TransGrid vehicles. No operational vehicles from the CRWF use Bombandi road.

## 2.1 Northern Haulage Route

The northern haulage route will be used for transport of wind turbine towers, nacelles and standard loads for the purposes of maintenance activities during operation of CRWF. Vehicles traversing the northern haulage route would be about 32 metres long, consisting of truck and trailer.

Pursuant to Condition 32 of Schedule 3, all over-dimensional vehicle access to and from the site is via the northern route will use Castlereagh Highway and Aarons Pass Road.

Condition 32 of Schedule 3 of State Approval SSD SSD-6697 MOD 3, states:

*The Applicant shall ensure that all:*

- a. *Over-dimensional vehicle access to and from the site is via the northern route using Castlereagh Highway and Aarons Pass Road;*
- b. *Over-dimensional vehicle access through Mudgee is via:*
  - *Route 1 (using Castlereagh Highway, Market Street, Douro Street and Horatio Street), for vehicles up to 50 metres length; or*
  - *Route 2 (using Castlereagh Highway, Market Street, Cox Street, Short Street, Lawson Street, Mortimer Street, Burrundulla Avenue and Horatio Street), for vehicles more than 50 metres length;*
- c. *Other heavy vehicle access to and from the site is via:*
  - *the northern route using Castlereagh Highway and Aarons Pass Road; or*
  - *the southern route using Hill End Road and the Ilford-Sofala Road or Sofala Road; or*
  - *the minor access routes using Bombandi Road and/or Crudine Road,*

*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.*
- *Identified over-dimensional vehicle access routes through Mudgee are shown in Appendix 7.*

### 2.1.1 Northern route description

The northern haulage route is about 420 km from the Port of Newcastle at Mayfield to the Project Site. It travels in a north-west direction from Newcastle before heading south along the Castlereagh Highway/B55, through Mudgee to Aarons Pass, from just east of the township of Dunedoo. The route utilises major roads and highways travelling from Newcastle through Jerrys Plains, Denman, Sandy Hollow, Merriwa, Birriwa, Gulgong, and Mudgee to Aarons Pass.

An alternative heavy vehicle route exists along New England Highway, Thomas Mitchell Drive and Denman Road, which would avoid the Golden Highway route through Jerrys Plains, particularly when upgrades to the Golden Highway are being undertaken. Use of the alternative route will be considered in consultation with TfNSW and identified in the Over Size or Over Mass (OSOM) Transport Management Plan prepared when applying for permits.

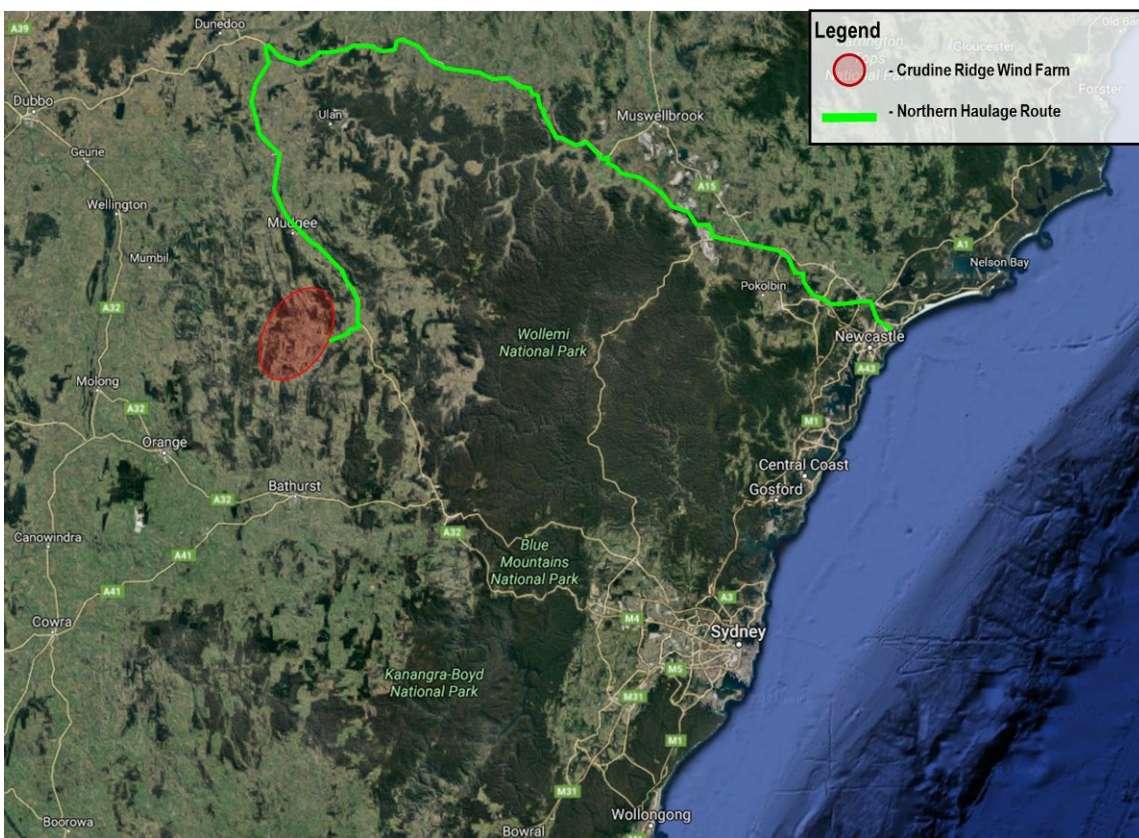
#### Roads on Northern Haulage Route

The following roads are to be utilised between Newcastle and Aarons Pass:

- Selwyn Street;
- George Street;
- Industrial Drive;
- Pacific Highway (Maitland Road);

- John Renshaw Drive;
- Hunter Expressway;
- New England Highway, west of Branxton;
- Golden Highway (Mitchell Line of Road);
- Golden Highway (Putty Road), east of Jerrys Plains Road;
- Golden Highway (From Jerrys Plains Road to Castlereagh Highway);
- Castlereagh Highway;
- Birriwa Rail crossing;
- Castlereagh Highway (Fisher Street and Medley Street);
- Castlereagh Highway, north of Mudgee;
- Castlereagh Highway (Market Street), Mudgee
- Castlereagh Highway (Douro Street), Mudgee
- Castlereagh Highway (Horatio Street), Mudgee
- Castlereagh Highway, south of Mudgee; and
- Aarons Pass Road

A map of the northern haulage route is shown below in Figure 2. Note that any alternative OSOM route via Thomas Mitchell Drive and Denman Road will be considered for use in consultation with TfNSW to consider updated parameters..



**Figure 2 Northern Haulage Route**

## 2.2 Southern Haulage Route

The southern haulage route will be used for transport of wind turbine blades for any blade replacement works required during the operation of CRWF. Vehicles traversing the southern haulage route would be about 75 metres long, including truck, trailer and blade overhang.

### 2.2.1 Southern route description

The southern haulage route is about 395 km from Newcastle Port to the Project Site. It travels in a north-west direction from Newcastle before heading south on the M1 Pacific Motorway towards Sydney from Beresfield. At the end of the M1, the route traverses Pennant Hills Road and travels west on the M2 Motorway, M7 Motorway, M4 Motorway and Great Western Highway to Lithgow before heading north-west to Aarons Pass on the Castlereagh Highway.

#### Roads on Southern Route

The following roads are to be used as part of the southern route Via Sydney and Blue Mountains:

- Selwyn Street
- George Street
- Industrial Drive
- Maitland Road
- John Renshaw Road
- M1/Pacific Highway
- Pennant Hills Road
- M2 Motorway
- M7 Motorway
- M4 Motorway
- Great Western Highway
- Castlereagh Highway
- Aarons Pass Road

A map of the southern haulage route is shown below in Figure 3



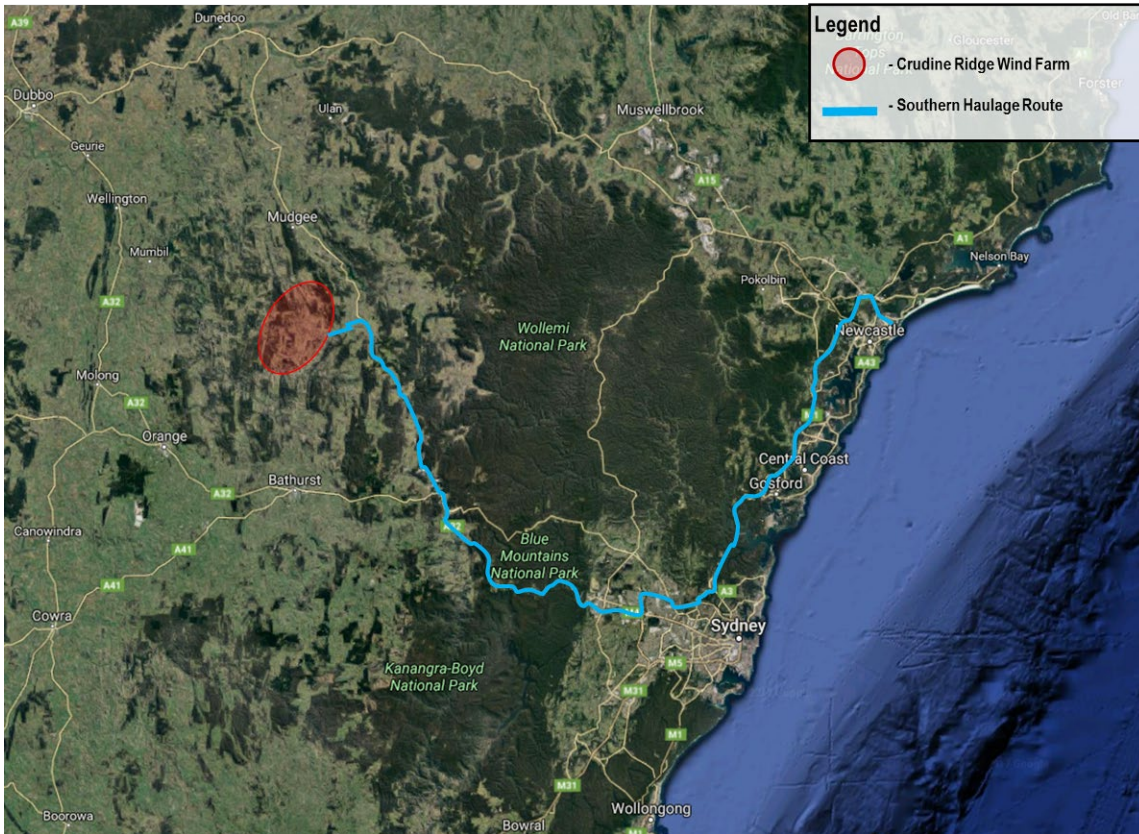


Figure 3 Southern Haulage Route

### 3 Operation traffic management measures

This section defines the management measures that will be implemented during the Project’s operational phase to manage potential traffic risks and impacts.

Table 4 Traffic management measures

Potential Risk	Management measure	Responsibility
Plans and permits	Prepare a Transport Management Plan and if required a Traffic Guidance Scheme (TGS) for blade transport or the transport of any plant or equipment that requires permits under the Heavy Vehicle National Law (NSW) for the use of over-dimensional vehicles on the road network..	FSA Sub contractor
	The FSA will engage a specialist haulage sub-contractor to prepare the Transport Management Plan when applying for permits to transport over-dimensional equipment, which may include specific TGS.	
	Prepare a dilapidation survey, if traffic numbers for maintenance activities exceed 30 trips per day and if requested by the relevant road authority. The scope and timing of the dilapidation survey would be determined during consultation with the relevant road authority.	FSA Sub contractor
	Obtain permits under the Heavy Vehicle National Law (NSW) from the relevant roads authority and implement the measures as required by the roads authority	Sub contractor
	The Transport Management Plan will include as a minimum the following traffic management measure:	Sub Contractor
	<ul style="list-style-type: none"> <li>Final route identification</li> </ul>	

Potential Risk	Management measure	Responsibility
	<ul style="list-style-type: none"> <li>• Timing of transport</li> <li>• Switching and detours</li> <li>• Escort and pilot vehicles</li> <li>• Variable message signage (if required by the relevant agency)</li> </ul>	
<b>Traffic disruption</b>	Each separate OSOM vehicle traversing the northern or southern haulage route will be accompanied by escorts and pilot vehicles as per the road authority requirements. It is expected that escort police vehicles will carry out the required TGSs at nominated sites.	Sub Contractor
	<p>Where required a TGS will be prepared by the FSA or specialist haulage sub-contractor in accordance with the <i>Transport for NSW Traffic control at work sites (TCAWS) Technical Manual Issue 6.1</i> .</p> <p>Police escort units may carry out the TGSs at the nominated sites.</p> <p>TGSs can be modified where necessary to suit specific conditions.</p>	Sub Contractor
<b>Congestion</b>	Provide optional detour routes where detour routes are available and practical	Sub Contractor
<b>Notifications</b>	<ul style="list-style-type: none"> <li>• Signage should only be displayed when the need exists (i.e. during operating hours) and removed or covered when the truck activity has ceased (i.e. operating hours).</li> <li>• Install variable message signs in the lead up to the traffic management taking place to provide warning and allow for motorists and companies to make alternative arrangements for travelling through affected areas.</li> <li>• The additional sign T2-25 will be introduced to highlight truck access ahead and to advise drivers of distance to entry.</li> </ul>	Sub Contractor
	<ul style="list-style-type: none"> <li>• Advise Emergency Services of haulage operations and potential delays.</li> </ul>	Sub Contractor
<b>Site access</b>	<ul style="list-style-type: none"> <li>• Verify the FSA and subcontractor have obtained all required permits.</li> <li>• Provide the Transport Code of Conduct to the FSA</li> <li>• Verify that all notifications and signage are in place prior to start of transport activities and throughout the transport program</li> <li>• Respond and manage community complaints and incidents that relate to traffic</li> <li>• Ensure subcontractors obtain site inductions and are aware of the Emergency response procedures and notification procedures</li> </ul>	Operations Manager

## 4 Communications and the Community

CRWF will be responsible for the dissemination of information to the community including affected residents, Council, drivers, businesses and the public. The EMS details the manner in which CRWF would communicate with the community.

### 4.1 Incident reporting

In the event of an incident involving the transportation of goods or other traffic related incident then reporting will follow Schedule 5 Section 6 of the Conditions of Consent relating to Incident Reporting.

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

- The contractor would coordinate with TfNSW (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 project 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, TfNSW 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.
- TGSs 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, TfNSW 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, TfNSW 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, TfNSW and TMC.
- Shall act in accordance with any instructions of the New South Wales Police Service, Emergency Services, TfNSW and TMC including to suspend any of the contractor's work and to re-open the lane or shoulder.

More information located in the Environmental Management Strategy (EMS).

# Appendix A Transport Code of Conduct

This Transport Code of Conduct includes a driver's code of conduct.

This Transport Code of Conduct will be applied to all traffic and transport activities associated with CRWF.

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.

## 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 in the TMP.

Drivers will ensure they use the appropriate haulage route for their 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 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 project-related traffic on the public road network outside of standard hours:

- Scheduling of deliveries and movements to / from site in operation 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 will 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 operation 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 vehicle clean and in good mechanical condition to reduce the environmental impact.

The transport contractor will 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.

### **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, 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.

### **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.

Liaison activities may include:

- Notifications, prior to commencement of OSOM haulage, to local residents, local newspapers, and on the project website; and
- 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
- If vehicles must traverse through areas of known weed infestation, then this can only occur when the weeds are not seeding

Squadron Energy is Australia's leading renewable energy company. Proudly Australian owned, our mission is to be a driving force in Australia's transition to a clean energy future by providing green power to our customers.

We develop, operate and own renewable energy assets in Australia, with 1.1 gigawatts (GW) of renewable energy in operation and a development pipeline of 20GW.

With proven experience and expertise across the project lifecycle, we work with local communities and our customers to lead the transition to Australia's clean energy future.

Squadron Energy acknowledges the Traditional Owners of Country throughout Australia. We pay our respects to Elders past, present, and emerging.

